

## **Roadmap for Business & Commerce Platform Development**

### **Phase 1: MVP (Core Functionalities) - 2 to 3 Months**

#### **1. User Authentication & Access Control**

- OTP Login (Firebase Authentication / Twilio for SMS OTP)
- Role-based Authentication (Admin, Vendor, Customer, Employee, etc.)

#### **2. Product & Service Listing**

- Vendors can add/edit products/services
- Customers can browse, filter, and search products/services
- Categories & Subcategories for structured listings

#### **3. Order Management & Payments**

- Add to Cart & Checkout
- Payment Gateway Integration (Stripe/Razorpay/PayPal)
- Order tracking & history

#### **4. Vendor Dashboard**

- Sales analytics & performance tracking
- Order management (view, accept, cancel orders)
- Product inventory management

#### **5. Customer Dashboard**

- View order history
- Manage wishlist & favorites
- Search & Filter products/services

#### **6. WhatsApp & Email Notifications (Basic)**

- Order confirmation & status updates via WhatsApp
- Email receipts & alerts (using SendGrid/AWS SES)

#### **7. Admin Panel (Basic)**

- Manage users (Vendors, Customers)
- Approve/reject business registrations
- View analytics

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## **Phase 2: Advanced Vendor & Customer Features - 2 Months**

### **8. Advanced Search & Filters**

- Search by keywords, category, price range, etc.
- AI-powered camera search (Google Vision API or OpenCV)
- Voice search (Google Speech API)

### **9. WhatsApp & SMS Notifications (Advanced)**

- Personalized reminders for customers (like Zomato)
- WhatsApp message templates for promotions & offers
- Twilio SMS integration for important updates

### **10. Business IMDB (Ranking System)**

- Vendors get ranked based on sales, ratings, and activity
- Business verification & badges

### **11. Vendor Inventory Management & Budget Control**

- Track stock levels
- Set budgets for advertising & promotions

### **12. Reviews & Ratings System**

- Customers can rate vendors & products
- Review moderation system for admins

### **13. Event Management & Bookings**

- Vendors can list and manage events (business expos, product launches)
- Customers can book slots for appointments & events

### **14. Employee Panel**

- Manage region-specific vendors & customers
  - Handle on-ground support
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## **Phase 3: Expansion & Monetization - 3 Months**

### **15. Live Product Selling**

- Vendors can stream live sales events (Agora API/WebRTC)
- Customers can buy in real time

### **16. Business Group Creation**

- Vendors can create groups for networking
- Customers can follow businesses for updates

### **17. Vendor & Customer Referral Programs**

- Referral codes for discounts & commissions
- Direct Business Registration Commissions

### **18. Auctions & Expiring Materials Sale**

- Vendors can list auctions for limited-time deals
- Customers can bid on products/services

### **19. Ads & Sponsored Listings**

- Vendors can pay to promote products
- Sponsored listings appear higher in search results

### **20. B2B Commission & Partnerships**

- Vendors can collaborate for bulk orders
  - Commission model for B2B deals
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## **Phase 4: AI, Insights & Scalability - 3+ Months**

### **21. AI-Powered Customer Support**

- Chatbot integration (OpenAI API / Rasa)
- Automated order tracking responses

### **22. Service Tracking**

- Live tracking of services & deliveries
- Customer ETA notifications

## **23. Advanced Customer Insights & Analytics**

- Personalized recommendations (AI-driven)
- Festival season insights & business trends

## **24. ARP Tele-calling Panel**

- Manage incoming leads & customer queries
  - Integrated CRM for lead management
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# **Technology Stack**

## **Frontend (React)**

- React.js + Redux
- Tailwind CSS / Material UI
- WebRTC (For Live Selling)

## **Backend (Node.js + Express + MongoDB/MySQL)**

- Node.js with Express.js
- MongoDB / MySQL for database
- Redis (Caching for performance)

## **Authentication**

- Firebase Auth (OTP login)
- JWT (User authentication & role management)

## **Messaging & Notifications**

- Twilio (WhatsApp & SMS)
- SendGrid / AWS SES (Emails)
- Firebase Cloud Messaging (Push Notifications)

## **Payments**

- Razorpay / Stripe / PayPal

## Search & AI

- ElasticSearch / Algolia
- OpenAI (Chatbot)
- Google Vision API (Image Search)

## Hosting & Deployment

- **Frontend:** Vercel / AWS Amplify
- **Backend:** AWS EC2 / DigitalOcean
- **Database:** AWS RDS (for MySQL) or MongoDB Atlas
- **File Storage:** AWS S3