MAA OMWATI INSTITUTE OF MANAGEMENT AND TECHNOLOGY

Subject: E-commerce and Application

Course: MBA 3rd semester

E-COMMERCE AND APPLICATIONS
Course Code: 25IMSI203DS11

L-T-P
3-1-0

External Marks: 70
Internal Marks: 30
Time: 3 Hours

Course Objectives

To understand the technological, strategic, and operational aspects of e-commerce and intranet applications across retail, manufacturing, banking, and corporate functions.

Course Outcomes

After doing this course, students should be able to:

1. Understand the concept of E-Commerce & describe the opportunities & challenges offered by E-Commerce
2. Able to handle electronic payment technology and requirements for internet based payments
3. Understand the categories of E-Commerce and understand the different applications of E-commerce
4. Understand and identify security issues of E-Commerce
5. Understand the concept of WEB Based Business understand the M-Commerce applications

UNIT- I

Technology and Infrastructure for E-Commerce: Framework of E-commerce; Network Infrastructure for E-Commerce – Market Forces Influencing I-way, Network Access Equipment, Public Policy Issues Shaping the I-way; EDI - Applications in Business, Legal, Security and Privacy Issues of EDI; Components of EDI Standards, ASC X12 and EDIFACT.

UNIT-II

E-Commerce and Retailing: Changing Retail Industry Dynamics, Mercantile Models from the Consumer"s Perspective, Management Challenges in Online Retailing.

Intranets and Customer Asset Management: Basics of Customer Asset Management, Online Sales Force, Online Customer Service and Support, Technology and Marketing Strategy.

UNIT-III

Intranets and Manufacturing: Integrated Logistics, Agile Manufacturing, Emerging Business Requirements, Manufacturing Information Systems, Intranet-based Manufacturing, and Logistics Management. E-Commerce and Online Publishing: Why Online Publishing, Online Publishing approaches, Advertising and Online Publishing. E-Commerce and Banking: Changing Dynamics in the Banking Industry, Home Banking Implementation Approaches, and Management Issues in Online Banking.

UNIT-IV

Intranets and Corporate Finance: An Introduction, Financial Systems, Financial Intranets, Software Modules in Financial Information Systems, Human Resource Management Systems, Size/Structure of Financial Software Market.

Lab: Each student is required to develop at least one application of e-commerce.

Recommended Readings:

1. Kalakota and Whinston, Electronic Commerce: A Manager"s Guide, Pearson Education.
2. Greenstien and Vasarhelyi, Electronic Commerce: Security, Risk Management and Control, Tata McGraw Hill.
3. Dave Chaffey, E-Business and E- Commerce Management, Strategy, Implementation and Practice, Pearson Education.

Instructions for External Examiner: The question paper shall be divided in two sections. Section A shall comprise of seven short answer type questions from whole of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally. Section B shall comprise 8 questions

UNIT I: Technology and Infrastructure for E-Commerce

Framework of E-Commerce

E-commerce requires a structured framework that integrates technology, services, and business models. It provides the foundation for conducting business electronically.
The three main components are:
- Infrastructure: Includes hardware, software, and telecommunication networks essential for smooth operations.
- Services: Comprises payment gateways, security protocols, and databases for handling customer and business data.
- Business Models: Defines how businesses interact, such as B2B (Business to Business), B2C (Business to Consumer), C2C (Consumer to Consumer), and G2C (Government to Citizen).

Network Infrastructure for E-Commerce

The network backbone includes internet connectivity, LAN (Local Area Network), WAN (Wide Area Network), VPN (Virtual Private Network),
intranets for internal communication, servers, middleware for integration, and APIs for system interaction.

Market Forces Influencing the I-Way

Market forces shaping e-commerce include:
- Consumer Demand: Increasing expectations for speed, convenience, and personalization.
- Technological Innovation: Advancements in AI, IoT, cloud computing, and 5G.
- Competitive Pressures: Global competition and price wars.
- Regulation: Government rules on privacy, security, and taxation.
- Globalization: Businesses competing and collaborating across borders.

Network Access Equipment

Devices and equipment required include routers, switches, modems, gateways, firewalls, and end-user devices such as computers, smartphones, and tablets.

Public Policy Issues

Key concerns for e-commerce are net neutrality, cybersecurity, privacy of consumer data, intellectual property rights, taxation rules, and international trade regulations.

Electronic Data Interchange (EDI)

EDI allows computer-to-computer exchange of documents between businesses.
Applications include sending invoices, purchase orders, and shipping notices, thereby reducing paperwork and errors.

Legal, Security, Privacy Issues of EDI

Legal frameworks provide recognition to electronic contracts.
Security involves encryption and authentication.
Privacy concerns revolve around protection of sensitive business data and compliance with international standards.

EDI Standards

Standards define structured document formats for EDI.
Examples include ASC X12 used mainly in North America and EDIFACT, a global standard adopted worldwide.

Summary

UNIT I focuses on the foundational framework, network infrastructure, market forces, policy issues, and electronic data interchange for e-commerce.

UNIT II: E-Commerce and Retailing

Changing Retail Dynamics

Retail is shifting towards digital platforms with the rise of e-commerce.
Omnichannel strategies combine physical and online experiences.
AI tools and Direct-to-Consumer (D2C) brands are reshaping customer engagement and personalization.

Mercantile Models

The process of online retail involves:
- Pre-purchase: Information search and product selection.
- Purchase: Online payment and transaction confirmation.
- Post-purchase: Delivery, customer feedback, and support.
Business models include B2C, B2B, and C2C.

Challenges in Online Retailing

Common challenges are logistics, high return rates, cybersecurity threats, intense competition, and building customer trust in digital platforms.

Intranets & Customer Asset Management

CRM systems help in managing customer relationships, enabling personalized marketing, and analyzing customer data to improve retention and sales.

Online Sales Force

Sales teams now rely on digital catalogs, CRM tools, and marketing automation platforms to enhance productivity and customer engagement.

Online Customer Service

Digital services such as chatbots, FAQs, AI-based assistants, and 24/7 online support improve customer experience and satisfaction.

Intranet in Marketing Strategy

Intranets allow teams to share marketing campaigns, analyze customer insights, and coordinate efforts across departments efficiently.

Summary

UNIT II covers the transformation in retailing, mercantile models, retail challenges, CRM systems, online sales and customer service, and intranet-enabled strategies.

UNIT III: Intranets, Manufacturing & Banking

Integrated Logistics

Real-time tracking systems, optimized inventory management, and reduced supply chain costs are key benefits of integrating logistics with e-commerce.

Agile Manufacturing

Agile manufacturing emphasizes flexibility, quick adaptation, customization, and technology-driven production processes.

Emerging Business Requirements

Modern businesses require IT integration, lean production methods, sustainable practices, and collaborative networks to remain competitive.

Manufacturing Information Systems

MIS tools include ERP (Enterprise Resource Planning), MES (Manufacturing Execution Systems), SCM (Supply Chain Management), and CAD/CAM systems for design and production.

Intranet-Based Manufacturing

Intranets facilitate supplier coordination, sharing of design documents, and logistics management within organizations.

E-Commerce & Online Publishing

Digital publishing models include subscriptions, freemium services, and pay-per-download systems, enabling content monetization.

E-Commerce & Banking

Banking services have embraced e-commerce through online and mobile banking, digital wallets, and blockchain-based transactions.

Summary

UNIT III focuses on logistics, agile manufacturing, MIS, intranet applications, publishing, and the role of e-commerce in banking.

UNIT IV: Intranets & Corporate Finance

Financial Systems & Intranets

1. Financial Systems & Intranets

Financial systems refer to the software and processes used to manage an organization's money, transactions, reporting, and compliance. An intranet is a private, secure network that only employees of an organization can access.

In the context of financial systems, intranets are used for:
- Secure communication: Sensitive financial data can be shared without exposure to external threats.
- Real-time data sharing: Finance teams in different branches can access up-to-date records.
- Collaboration: Accountants, auditors, and financial managers can work together on planning and analysis.
- Centralized storage: Policies, reports, and compliance documents are stored in one secure place.

This ensures transparency, confidentiality, and faster decision-making.

2. Financial Intranets

These are intranet systems designed specifically for financial functions. They act as digital hubs for finance teams.

Applications include:
- Budgeting: Teams can create, share, and update annual or departmental budgets.
- Forecasting: Predicting future revenues, expenses, and cash flows using shared data.
- Collaboration tools: Teams can jointly analyze financial statements, manage risk, and ensure compliance.
- Knowledge sharing: Policies, tax regulations, and audit guidelines are accessible to employees.

Result: More accurate planning, reduced manual errors, and improved financial control.

3. Software Modules in Financial Systems

Financial systems are often modular, meaning they consist of different functional units (modules):

- Accounts Payable (AP): Manages money the company owes suppliers (invoice processing, vendor payments).
- Accounts Receivable (AR): Manages money owed to the company by customers (billing, collections).
- General Ledger (GL): Central record of all financial transactions (trial balances, financial statements).
- Payroll System: Handles employee salaries, deductions, taxes, and ensures compliance.

These modules work together for complete financial management.

4. Human Resource Management Systems (HRMS)

An HRMS is a digital system that automates and manages HR activities.

Key functions:
- Recruitment: Job postings, applicant tracking, and hiring.
- Payroll Processing: Salary calculation, tax deduction, and benefits.
- Performance Evaluation: Employee appraisal systems and KPI tracking.
- Training & Development: Learning modules for skill-building.
- Employee Self-Service: Employees can view payslips, apply for leave, or update personal info.

Benefits: Reduced paperwork, faster HR operations, better compliance, and improved employee satisfaction.

5. Financial Software Market

This market is rapidly evolving with traditional and modern solutions:

- ERP Systems: Integrates finance with operations, supply chain, HR (e.g., SAP, Oracle NetSuite).
- Cloud-Based Finance Solutions: Accessible online, lower cost, scalable (e.g., QuickBooks Online, Zoho Books).
- FinTsech Startups: Innovative solutions in payments, digital wallets, AI-based accounting, blockchain (e.g., PayPal, Stripe).

The market is growing due to digital transformation, cloud adoption, AI integration, and compliance needs.

Summary:

Financial Systems & Intranets

Financial systems use intranets for secure communication, real-time data sharing, and collaboration within financial departments.

Financial Intranets

Applications include budgeting, forecasting, and collaboration across finance teams, ensuring efficiency and accuracy in planning.

Software Modules

Key software modules in financial systems are Accounts Payable, Accounts Receivable, General Ledger, and Payroll systems.

HRMS

Human Resource Management Systems (HRMS) support recruitment, payroll processing, performance evaluation, and training modules.

Financial Software Market

The financial software market includes ERP systems, cloud-based finance solutions, and FinTech startups revolutionizing financial management.