

GHANA COMMUNICATION TECHNOLOGY UNIVERSITY



FACULTY OF COMPUTING AND INFORMATION SYSTEMS

DEPARTMENT OF INFORMATION SYSTEMS

Mid-Semester Group Assignment

Program: BSc in Information Technology

Course: Information Systems

Submission Format: Group Assignment (8–10 students per group)

Word Count: 3,500 words

Due: 2 weeks

Assignment Title

Strategic Use of Information Systems and Emerging Technologies for Competitive Advantage

Assignment Brief

In this assignment, your group will explore the application of Information Systems (IS) and emerging technologies in a real or hypothetical company. Your analysis should demonstrate how the company leverages IS to gain and sustain a competitive advantage in its industry.

Instructions

1. Group Composition

- Each group must consist of 8 to 10 students.
- All group members must contribute equally to the research, writing, and presentation (if applicable).

2. Word Count

- Your final submission should be approximately 3,500 words, excluding references, table of contents, appendices, and cover page.

Assignment Structure

Your report should be organized as follows:

A. Executive Summary (250–300 words)

- Provide a concise overview of the company, key findings, and conclusions.

B. Company Profile (400–500 words)

- Choose a real or hypothetical company (clearly state which).
- Include:
 - Name of the company
 - Year of establishment
 - Industry and market served
 - Size and scale (e.g., national, global)
 - Vision, Mission, and Strategic Objectives

C. Overview of Information Systems (500–600 words)

- Define Information Systems in the context of business.
- Outline different types of IS used in organizations:
 - Transaction Processing Systems (TPS)
 - Management Information Systems (MIS)
 - Decision Support Systems (DSS)
 - Enterprise Resource Planning (ERP)
 - Customer Relationship Management (CRM)
 - Supply Chain Management (SCM)

D. Application of IS in the Selected Company (800–1,000 words)

- Identify and describe the Information Systems used by the company.
- Explain how these systems support:
 - Internal operations
 - Decision-making
 - Customer service
 - Supply chain efficiency

- Business intelligence and analytics

E. Use of Emerging Technologies (700–800 words)

- Discuss emerging technologies relevant to the company, such as:
 - Artificial Intelligence (AI)
 - Internet of Things (IoT)
 - Blockchain
 - Cloud Computing
 - Big Data Analytics
 - Augmented Reality (AR) / Virtual Reality (VR)
- Explain how the company has adopted or plans to adopt these technologies.
- Evaluate the impact of these technologies on productivity, customer engagement, and innovation.

F. Competitive Advantage through IS (600–800 words)

- Analyze how the use of IS and emerging technologies gives the company a competitive edge.
- Use Porter's Five Forces, Value Chain Analysis, or other strategic models where appropriate.
- Provide real-world or hypothetical scenarios showing how IS helps the company outperform competitors.

G. Challenges and Recommendations (300–500 words)

- Identify challenges or risks associated with IS adoption:
 - Data privacy and security
 - Change management
 - Technical complexity
- Provide recommendations to address these challenges and improve IS usage.

Deliverables

- Typed report in Word
- Font: Times New Roman, Size: 12, Spacing: 1.5

- Include cover page with:
 - Assignment title
 - Course code and name
 - Group number
 - Names and student IDs of all group members
- Include a reference list in Harvard style format

Note:

- Choose a company where you can easily find information or logically create systems if hypothetical.
- Assign roles within the group for research, writing, editing, and finalizing the report.
- Use diagrams or flowcharts where relevant to enhance understanding.
- Refer to recent case studies or industry examples.

Group Presentation

Title Slide

- **Title:** Strategic Use of Information Systems in [Company Name]
- **Course:** BSc Information Technology
- **Group Members' Names & ID Numbers**
- **Date**

Slide 1: Executive Summary

- Overview of the company
- Objectives of the assignment
- Key takeaways: IS usage, emerging technologies, competitive advantage

Slide 2: Company Background

- Name, industry, founding year
- Vision & mission statements

- Key strategic goals
- Brief on market presence (local/global)

Slide 3: What Are Information Systems?

- Definition
- Importance in modern businesses
- Examples: TPS, MIS, DSS, ERP, CRM, SCM (icons or short bullets)

Slide 4: Information Systems in [Company Name]

- Specific systems used (e.g., SAP, Salesforce, Oracle)
- How they support:
 - Operations
 - Decision-making
 - Customer experience(Include a simple diagram or screenshot)

Slide 5: Emerging Technologies in Use

- AI, IoT, Cloud, Big Data, etc.
- How the company is using or planning to use them
- Examples: Chatbots, predictive analytics, smart devices

Slide 6: Strategic Benefits & Competitive Advantage

- Use **Porter's Five Forces** or **Value Chain** diagram
- How IS creates an edge in:
 - Cost efficiency
 - Innovation
 - Market responsiveness

Slide 7: Challenges Faced

- Cybersecurity risks
- Resistance to change
- High implementation costs
- Data privacy concerns

Slide 8: Recommendations

- Invest in training & change management
- Partner with cloud vendors
- Strengthen cybersecurity frameworks
- Regular IS audits

Slide 9: Conclusion

- Summary of key findings
- Final note on the strategic value of IS for sustainable growth

- End -