UGBS 609: Management Information Systems

Business Information Systems in Your Career

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Course Text


- Chapters: 1, 2, 3, 7, 8, 9, 10, 12

- Class website: www.vivafrica.net
STUDENT LEARNING OBJECTIVES

• How are information systems transforming business and what is their relationship to globalization?

• Why are information systems so essential for running and managing a business today?

• What exactly is an information system? How does it work? What are its people, organization, and technology components?
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The Editor of The Spectator, Mr. Merari Alomele, is dead.

WHAT A SHOCK
Globalization Challenges and Opportunities: A Flattened World

- Internet and global communications have greatly reduced economic and cultural advantages of developed countries.
  - Drastic reduction of costs of operating and transacting on global scale
  - Competition for jobs, markets, resources, ideas
  - Dependence on imports and exports
  - Requires new understandings of skills, markets, opportunities
Business Drivers of Information Systems

- Businesses invest in IT to achieve six important business objectives.
  1. Operational excellence
  2. New products, services, and business models
  3. Customer and supplier intimacy
  4. Improved decision making
  5. Competitive advantage
  6. Survival
Operational Excellence:

- Improved efficiency results in higher profits.
- Information systems and technologies help improve efficiency and productivity.
  - Example: University Application Process
    - Automating Manual Processes
    - Applying Online
New Products, Services, and Business Models:

• Information systems and technologies enable firms to create new products, services, and business models.
  • **Business model:** how a company produces, delivers, and sells its products and services

• **Example: Music industry**
  • Drastic changes in business models in recent years
  • Apple: Successful innovations—iPod, iPhone, and so on
Music Industry and Internet
Customer and Supplier Intimacy:

- Customers who are served well become repeat customers who purchase more.
- Close relationships with suppliers result in lower costs.
  - Cliq from Expresso and Fidelity Bank use facebook to extend customer service
Auntie Muni (Best Waakye Joint in Ghana)

Public Figure · Labone, Accra

Write something...

Auntie Muni (Best Waakye Joint in Ghana) shared Kobbi Blaq's album: THE WAAKYE EXPERIENCE YOU MISSED.

THE WAAKYE EXPERIENCE YOU MISSED
By: Kobbi Blaq
Photos: 120

Auntie Muni (Best Waakye Joint in Ghana)
GET READY GHANA FOR YOUR MOST ANTICIPATED OUTDOOR EVENT VODAFONE AND STAR BEER PRESENTS TO YOU THE FACEBOOK WAAKYE PARTY JOIN US ON SUNDAY 18TH DEC 2011 AT THE AVIATION SOCIAL CENTRE COME MEET, GREET AND WITNESS THE OFFICIAL LAUNCH OF THE NEW VODAFONE FACEBOOK PHONE. MARK YOUR CALENDERS SYNC YOUR WATCHES PING!!! BROADCAST TWEET UPDATE...JUST DO ALL YOU GOTTA DO......! IT'S THE 18TH OF DEC AT THE AVIATION SOCIAL CENTRE

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December 12, 2011 at 12:15pm · 🔁
Improved Decision Making:

- If managers rely on forecasts, best guesses, and luck, they will misallocate employees, services, and inventory.
- Real-time data improves ability of managers to make decisions.
  - Market Women and Mobile Phones
Competitive Advantage:

• Often results from achieving previous business objectives

• Advantages over competitors:
  • Charging less for superior products, better performance, and better response to suppliers and customers
  • Amazon and Traditional Book Sellers
  • Apple and Quality Consumer Enchanting Products
Survival:

- Businesses may need to invest in information systems out of necessity; simply the cost of doing business.
  - Keeping up with competitors
    - Introduction of ATMs in Banking Industry
What is an information system?
An **information system** (IS) is an arrangement of people, processes, and information technology that interact to collect, process, store, and provide as output the information needed to support an organization.

**From the business perspective, an information system** provides a solution to problem, a challenge, an opportunity for an organization and its consists of a combination management, organization and technology.
• **Information system:**
  – Set of interrelated components
  – Collect, process, store, and distribute information
  – Support decision making, coordination, and control

• **Information vs. data**
  – Data are streams of raw facts
  – Information is data shaped into meaningful form
What Is an Information System?

- **Information technology**: the hardware and software a business uses to achieve objectives.
- **Information system**: interrelated components that manage information to:
  - Support decision making and control.
  - Help with analysis, visualization, and product creation.
- **Data**: streams of raw facts.
- **Information**: data shaped into meaningful, useful form.
Raw data from a supermarket checkout counter can be processed and organized to produce meaningful information, such as the total unit sales of dish detergent or the total sales revenue from dish detergent for a specific store or sales territory.

**Figure 1-1**
What Is an Information System?

• Activities in an information system that produce information:
  • Input
  • Processing
  • Output
  • Feedback

• Sharp distinction between computer and computer program versus information system
Functions of an Information System

An information system contains information about an organization and its surrounding environment. Three basic activities—input, processing, and output—produce the information organizations need. Feedback is output returned to appropriate people or activities in the organization to evaluate and refine the input. Environmental actors, such as customers, suppliers, competitors, stockholders, and regulatory agencies, interact with the organization and its information systems.

Figure 1-2
The Role of People and Organizations

- Information systems literacy
  - Includes behavioral and technical approach
- Computer literacy
  - Focuses mostly on knowledge of IT
- Management information systems (MIS)
  - Focuses on broader information systems literacy
  - Issues surrounding development, use, impact of information systems used by managers and employees
Using information systems effectively requires an understanding of the organization, management, and information technology shaping the systems. An information system creates value for the firm as an organizational and management solution to challenges posed by the environment.
Dimensions of Information Systems

• Organizations
  • Coordinate work through structured hierarchy and business processes.
    • Business processes: related tasks and behaviors for accomplishing work
      • Examples: fulfilling an order, hiring an employee
      • May be informal or include formal rules
  • Culture embedded in information systems
Dimensions of Information Systems

- People
  - Information systems require skilled people to build, maintain, and use them.
  - Employee attitudes affect ability to use systems productively.
- Role of managers
  - Perceive business challenges.
  - Set organizational strategy.
  - Allocate human and financial resources.
  - Creative work: new products, services.
Dimensions of Information Systems

• Technology
  • IT Infrastructure: Foundation or platform that information systems built on
    • Computer hardware
    • Computer software
    • Data management technology
    • Networking and telecommunications technology
      • Internet and Web, extranets, intranets
      • Voice, video communications
Information Systems and Your Career

How Information Systems Will Affect Business Careers

- Accounting
- Finance
- Marketing
- Human Resources
- Production
Evaluating how IS are used

INFORMATION SYSTEMS AND ORGANIZATIONS
A Model of the Problem-Solving Process

• Problem solving: four-step process

1. Problem identification
2. Solution design
3. Choice
4. Implementation

How to understand how IT/IS will be applied to organizations throughout this course!!
A Model of the Problem-Solving Process

1. Problem identification includes:
   - Agreement that problem exists
   - Definition of problem
   - Causes of problem
   - What can be done given resources of firm
A Model of the Problem-Solving Process

- Typical organizational problems
  - Outdated business processes
  - Unsupportive culture and attitudes
  - Political in-fighting (job and process design)
- Typical people problems
- Typical technology problems
A Model of the Problem-Solving Process

2. Solution design
   • Often many possible solutions
   • Consider as many as possible to understand range of solutions

3. Choice: Factors include
   • Cost
   • Feasibility given resources and skills
   • Length of time needed to implement solution
4. Implementation

- Building or purchasing solution
- Testing solution, employee training
- Change management
- Measurement of outcomes
- Feedback, evaluation of solution

- Problem solving is a continuous process, not a single event
  - Sometimes chosen solution doesn’t work or needs adjustment
Problem Solving Is a Continuous Four-Step Process

During implementation and thereafter, the outcome must be continually measured and the information about how well the solution is working is fed back to the problem solvers. In this way, the identification of the problem can change over time, solutions can be changed, and new choices made, all based on experience.

Figure 1-4
The Connection Between Business Objectives, Problems, and Solutions

• When firms cannot achieve business objectives these objectives become challenges.

• Information systems often present solutions, partially or fully, to these challenges.
Question

Considering the context of a developing country like Ghana, is the internet a strategic choice for every firm or otherwise, **should every firm do business online?**