University of Wales
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Group Presentation

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Module Name	Managing Business Information
Presentation Title	Information System
Group	2 (LCLM5004)
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Presentation overview

- Introduction to Information Systems
- Role and Importance of Information Systems
- Types of Information Systems
- Ethical Issues in Information Systems
  * Data Privacy & Confidentiality
  * Cybersecurity & Information Security
  * Ethical Use of Information Systems
- Information Systems in Real Organisations
- Case Study Analysis
  * Challenges
  * Solutions
  * Business Impact
- Conclusion and Recommendations

Introduction

We live in a world where businesses depend on information more than ever before. Whether it is serving customers, managing employees, or planning future strategies, organisations need reliable information to operate successfully. As a result, information systems have become a fundamental part of how modern businesses function and compete in today's environment.

This presentation examines the importance of information systems in modern organisations, explores selected information systems, and evaluates their contribution to business success.

Regina

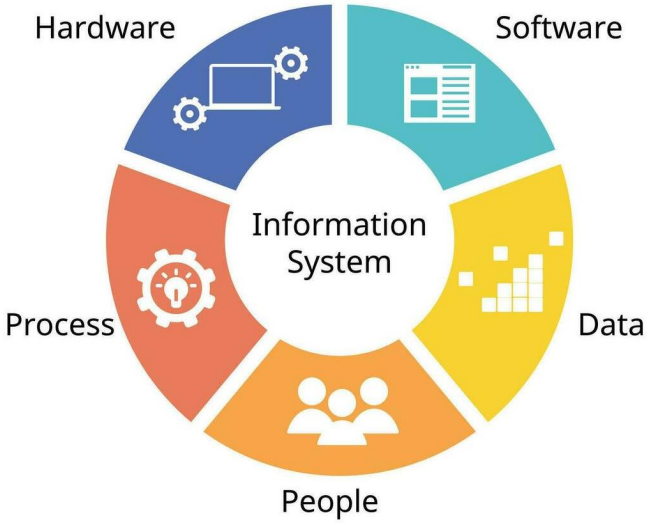
Source: Howard et al. (2017)

1. Introduce Different Information Systems

1.1 What is an Information System?

Information System (IS) is an integrated combination of people, technology, data and processes used to collect, process, store and distribute information to support business operations and decision-making **(Laudon & Laudon, 2022).**

- Collects business data
- Processes information efficiently
- Supports organisational activities
- Facilitates communication
- Supports decision-making
- Improves business performance



1.2 Role of Information Systems in Business Operations

Information Systems play a vital role in supporting business operations by improving efficiency, coordination and organisational decision-making **(Zohry et al., 2024).**

- Automates business processes
- Improves information flow
- Supports operational activities
- Enhances communication and collaboration
- Monitors organisational performance
- Supports strategic planning
- Enables faster and more accurate decision-making

1.3 Why are Information Systems Important?

Information Systems are essential for modern organisations because they improve efficiency, support decision-making and help businesses achieve a competitive advantage **(Tashtoush, 2021).**

Efficiency

- Automates routine tasks
- Reduces human errors
- Improves productivity
- Saves time

Decision-Making

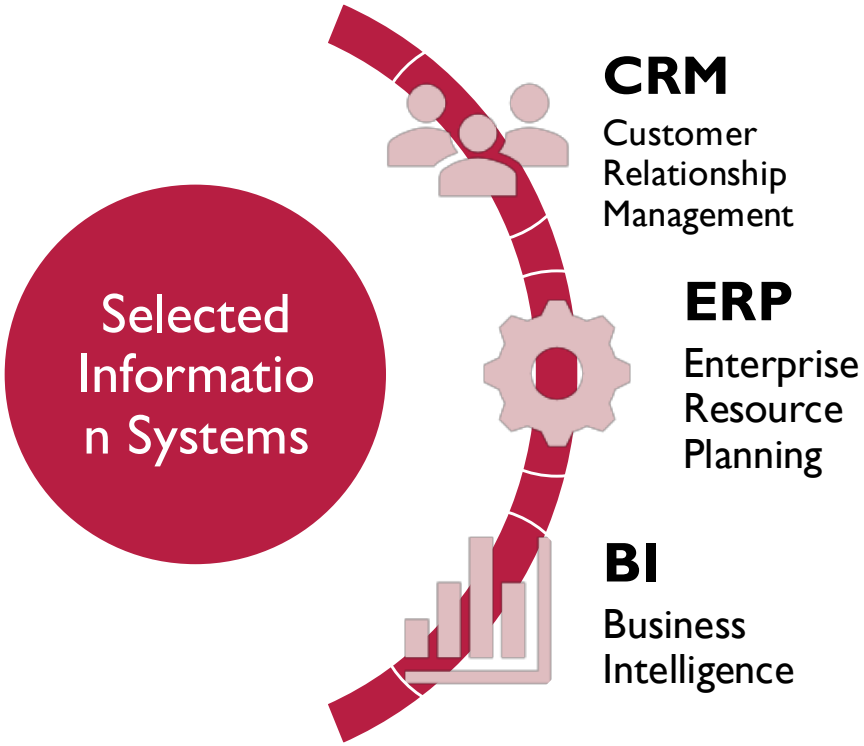
- Provides accurate and timely information
- Supports data-driven decisions
- Improves planning and

Competitive Advantage

- Responds quickly to market changes
- Enhances customer satisfaction
- Improves organisational performance

Overview of Information Systems

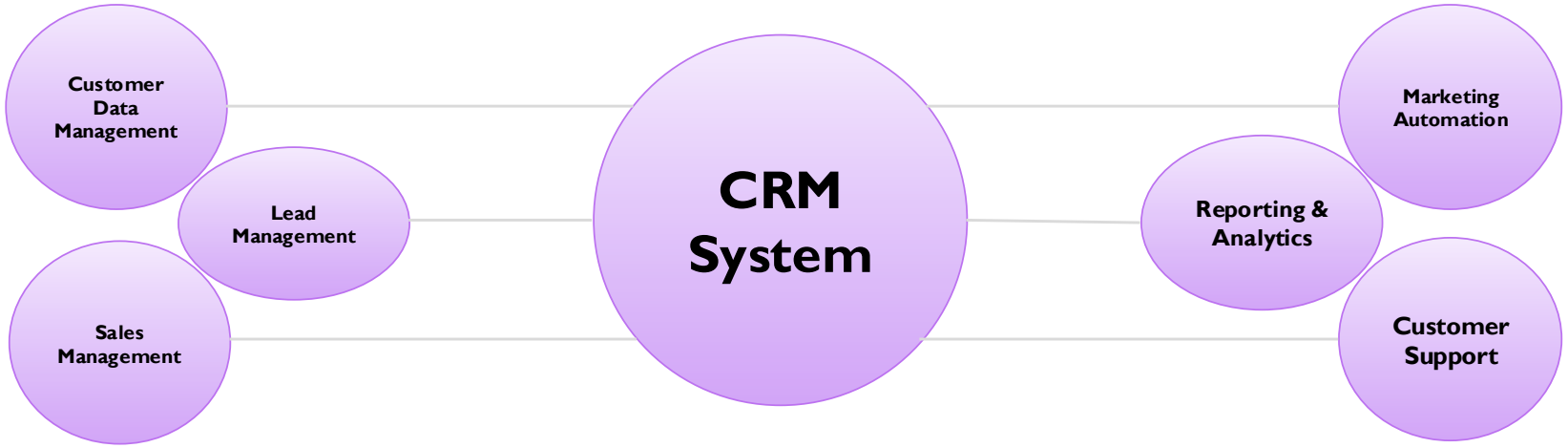
Different types of Information Systems support different business needs and organisational objectives. For this presentation, we have selected three key systems that are widely used in modern organisations.



2. ANALYSE AND SYSTEM COMPARISON

2.1 CUSTOMER RELATIONSHIP MANAGEMENT

Customer Relationship Management (CRM) systems are designed to manage customer interactions and improve customer satisfaction, retention, and business performance **(Nour, 2012).**



2.2 ENTERPRISE RESOURCE PLANNING (ERP)

Enterprise Resource Planning (ERP) is an integrated system that helps organisations manage and coordinate business processes across different departments, including finance, human resources, supply chain, and production **(Shaul & Tauber, 2013).**

2.3 BUSINESS INTELLIGENCE

Business Intelligence (BI) uses technologies and analytical tools to transform data into meaningful information that supports organisational decision-making **(Watson et al., 2007).**

- Collects data from multiple sources
- Analyses business performance
- Identifies trends and opportunities
- Supports decision-making

2.4 INFORMATION SYSTEM COMPARISON

INFORMATION SYSTEM	FUNCTION	Benefit	Limitation
BI	➢ Collects business data. ➢ Creates dashboards and reports. ➢ Analyses business performance. ➢ Identifies trends and patterns. ➢ Supports forecasting.	➢ Improves decision-making. ➢ Identifies business opportunities. ➢ Supports strategic planning. ➢ Provides real-time insights. ➢ Helps monitor performance	➢ Depends on high-quality data. ➢ Requires skilled users to interpret reports. ➢ Software can be expensive. ➢ Poor-quality data may result in incorrect decisions.
CRM	➢ Stores customer information. ➢ Tracks customer interactions. ➢ Manages sales opportunities. ➢ Supports marketing campaigns. ➢ Improves customer service.	➢ Improves customer satisfaction. ➢ Increases customer loyalty. ➢ Supports personalised marketing. ➢ Helps identify new sales opportunities. ➢ Increases revenue.	➢ Requires accurate customer data. ➢ Employees need training. ➢ Can be expensive for smaller businesses. ➢ Customer data must be protected under UK GDPR.

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2.4 INFORMATION SYSTEM COMPARISON

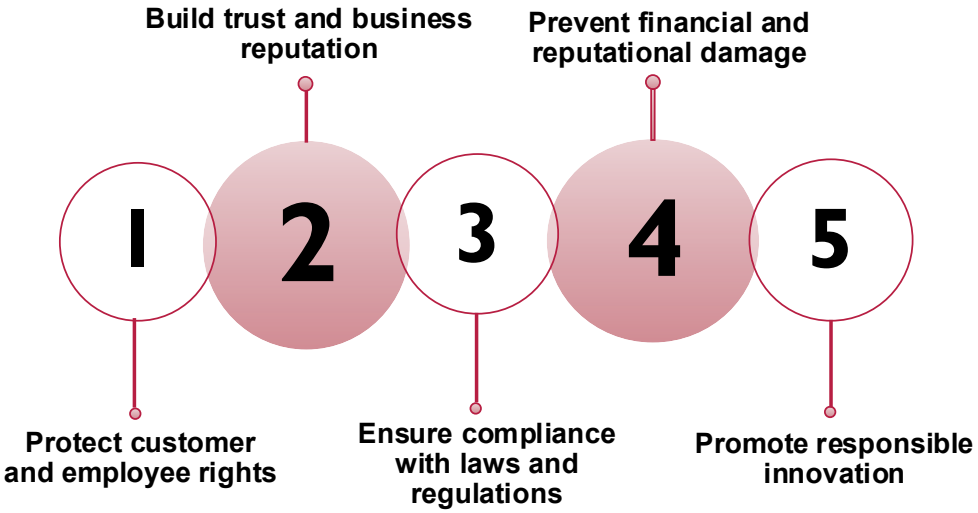
INFORMATION SYSTEM	FUNCTION	Benefit	Limitation
ERP	➢ Integrates finance, HR, inventory, purchasing, and sales. ➢ Provides real-time information across departments. ➢ Automates business processes. ➢ Standardises workflows.	➢ Improves operational efficiency by reducing duplicated work. ➢ Enhances communication between departments. ➢ Provides accurate information for management. ➢ Reduces operational costs. ➢ Supports business growth.	➢ High implementation and maintenance costs. ➢ Requires employee training. ➢ Can take several months to implement. ➢ Business operations may be disrupted during implementation.

3. Ethical Issues in Business Information Systems

3.1 What Are Ethical Issues?

Ethical issues in Business Information Systems involve the responsible use of information and technology while protecting privacy, security, and individual rights **(Zhang, 2011).**

Why Ethics Matter?



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3.3 Data Privacy and Confidentiality

Protecting Personal Information

Businesses collect large amounts of sensitive information, including:

- Customer names and addresses
- Financial and payment details
- Purchase history
- Employee records
- Medical or biometric data

Ethical Concerns

- Collecting excessive personal data
- Using data without informed consent
- Selling customer data to third parties
- Poor data management practices
- Loss of customer trust

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Arfaoui et al., (2020)

3.4 Cybersecurity and Information Security

Protecting Business Information

Cybersecurity and information security help organisations protect business data, systems, and networks from cyber threats and attacks **(Kunal et al., 2022).**

Common Threats

- Data breaches
- Ransomware attacks
- Phishing emails
- Identity theft
- Insider threats

Risk Mitigation

- Multi-factor authentication (MFA)
- Data encryption
- Regular software updates
- Employee cybersecurity training
- Backup and disaster recovery plans
- Continuous security monitoring

3.5 Ethical Use of Business Information Systems

Ethical Issue	Business Risk	Recommended Solution
Data Privacy	Loss of trust	GDPR compliance and informed consent
Cybersecurity	Data breaches	Encryption and employee training
AI Bias	Unfair decisions	Human oversight and algorithm audits
Employee Monitoring	Privacy concerns	Transparent monitoring policies
Data Governance	Regulatory penalties	Strong ethical leadership and regular compliance reviews

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Source: Adapted from Paradice et al. (2018)

4. Companies and Information Systems Used

Organisations adopt information systems according to their business needs and strategic objectives. ERP, CRM and BI systems support different functions across modern businesses **(Pearlson, Saunders & Galletta, 2020).**

Company	Main Information System	Supporting System	How the Company uses the Systems
Nestlé Good Food, Good Life	SAP ERP	TPS	✓ Integrates finance and procurement ✓ Manages inventory and production ✓ Records daily transactions through TPS
Coca-Cola	Salesforce CRM	TPS	✓ Manages customer relationships ✓ Supports personalised marketing ✓ Records sales and customer orders
TESCO Every little helps	Microsoft Power BI	TPS	✓ Analyses sales performance ✓ Tracks customer data and trends ✓ Records checkout transactions via TPS

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4.1 Real-World Case Study Analysis

Company	Challenge	Solution	Ethical Issue
Nestle ⇨	➢ Managing global operations ➢ Inventory ➢ Supply chains across many countries	➢ Implemented SAP ERP ➢ Integrate finance, procurement, inventory, and production ➢ TPS records daily transactions	➢ Protecting business data ➢ Maintaining cybersecurity ➢ Ensuring employees are trained to use the system securely
Coca-Cola ⇨	➢ Managing customer relationships ➢ Increasing customer loyalty	➢ Uses Salesforce CRM ➢ Manage customer information and personalised marketing ➢ TPS records customer purchases and sales transactions	➢ Protecting customer privacy ➢ Complying with GDPR ➢ Collecting and using customer data responsibly
Tesco ⇨	➢ Forecasting customer demand ➢ Reducing inventory waste	➢ Uses Microsoft Power BI ➢ Analyse sales trends and support forecasting ➢ TPS records every checkout transaction	➢ Ensuring data accuracy ➢ Protecting customer information ➢ Reducing bias in data analytics and AI-supported decisions

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4.2 Business Impact Of Information Systems

Impact on Business Performance

Nestlé

- Reduced operational costs
- Improved inventory management
- Enhanced supply chain efficiency
- Faster decision-making through ERP and TPS data

Coca-Cola

- Increased customer satisfaction
- Improved customer retention
- Enhanced personalised marketing
- Boosted sales performance using CRM and TPS

Tesco

- Improved demand forecasting
- Reduced inventory waste
- Increased operational efficiency
- Faster strategic decision-making through Power BI and TPS

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Conclusion

Information systems help organisations improve efficiency, support decision-making, and achieve business goals. The cases of Nestlé, Coca-Cola, and Tesco show how ERP, CRM, and BI systems create business value. However, organisations must ensure data security, privacy, and ethical use of information.

Recommendation

- ✓ Organisations should select the information system that best aligns with their business objectives and operational requirements. ERP is suitable for managing business processes, CRM supports customer relationship management, while BI helps organisations analyse data and make informed decisions.
- ✓ Implement strong cybersecurity and data protection measures.
- ✓ Provide regular employee training to ensure effective system use.
- ✓ Ensure the ethical and responsible handling of business and customer data.

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Thank You So Much