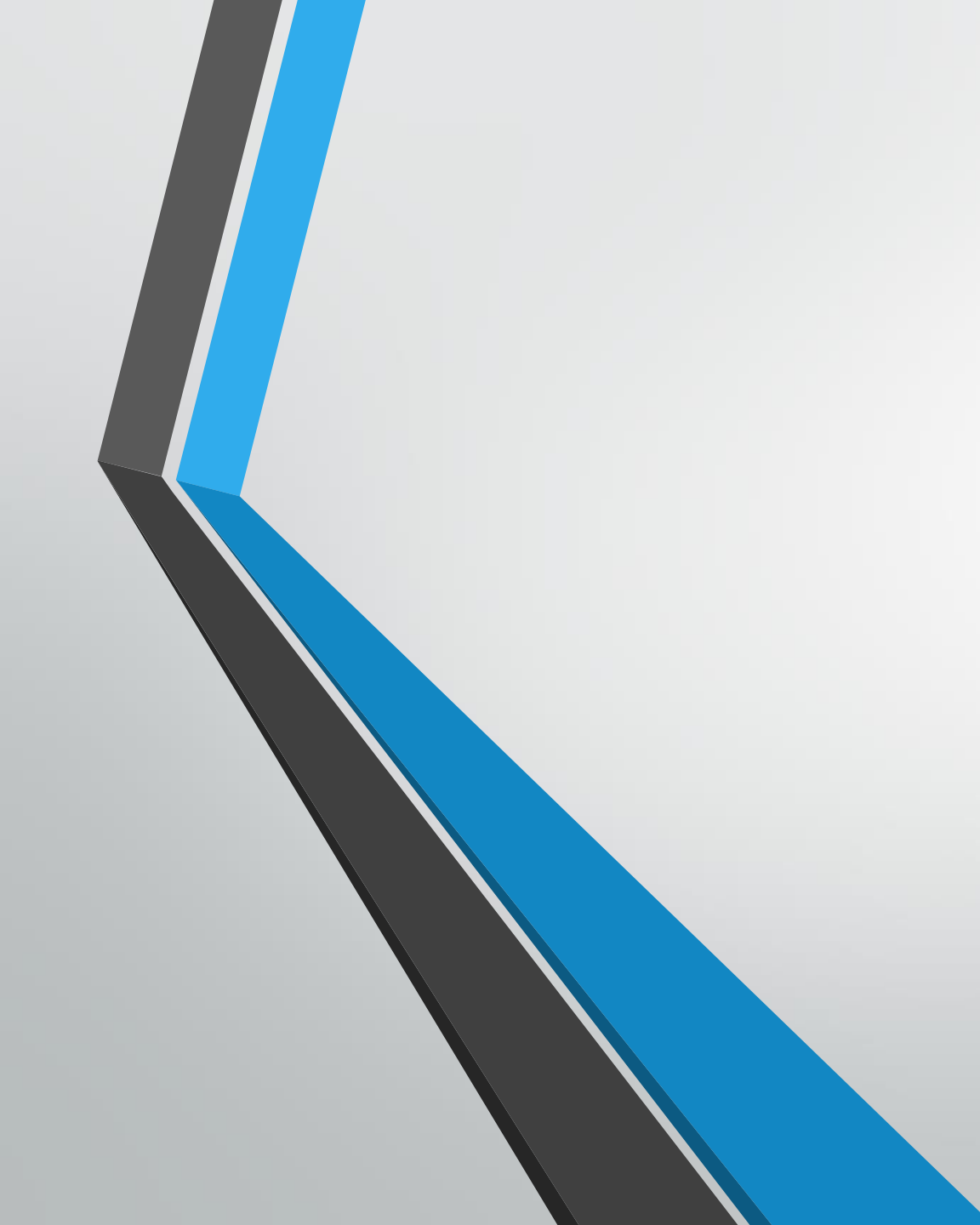




Managing Business Information LCLM 5004

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Introducing: Information Systems

Whether you are a small or large business, using information systems (IS) is an absolute necessity in connecting yourself with a better, and more efficient logistic network.

An information system is an integrated set of components that collects, stores, processes, and outputs information to support an organization's activities and decisions (Pace University, 2026).

From production to sales a high quality IS can take into account all data and provide a productive and profitable pathway to not only business survival in a digital age, but also overall success and creation of value.

Database Management Systems (DBMS), Enterprise Resource Planning (ERP), and Supply Chain Management (SCM) systems all help improve business efficiency and a productive flow of movement between different components of the business such as data, human resources, and the supply chain.



Database Management Systems

- DBMS (Database Management System) is a software system that manages, stores, and retrieves data efficiently in a structured format. DBMS acts as a bridge between a central database and multiple clients, including apps and users (GeeksforGeeks, 2016)
- For a growing business wanting to modernise its information systems, data is the first and foremost step. Collecting, storing, processing data is essential for business decisions, analysing the market and customer preferences.
- Having an updated and well-working database system reduces inconsistencies and errors, as well as enhances efficiency.
- It is also the foundation on which other information systems can run on, making it a needed system for any business.
- However, a limitation is that it takes time to implement into the business, making survival during the implementation period risky.

Enterprise Resource Planning System

According to Syracuse University (2025) an ERP system is a single, integrated software program that runs on a shared database. This design allows different departments—such as finance, HR, supply chain, customer service, and operations—to access the same up-to-date information, share it across teams, collaborate more effectively, and reduce delays.

An ERP will impact the businesses administration across departments and increase organisational efficiency.

Once in use, this system will be faster at notifying departments on changes to resources and inventory updates, making business processes quicker and more efficient. As well as a better view of supply chain management and organisational performance.

For a growing business, this system will be costly to implement as, software licencing, hardware, installation, and employee training costs will be high, yet once installed can be very valuable for a business.

Supply Chain Management Systems

- Supply chain management (SCM) is the management of the flow of goods and services. Supply chain (SC) includes the movement and storage of raw materials, work-in-process inventory, and the transportation of goods from point of origin to point of consumption (Zhang and Li, 2020).
- A system that coordinates and enhances the flow of materials, information and keep track of logistics, helps improves operational costs by reducing supply and warehouse errors.
- It is worth having as a business because it will greatly improve inventory management, thus improving the production process, with on-time and correct materials needed.
- However, this system is dependant on correct data inputs and can cause issues in the supply chain if data is incorrect, this means it will have to be paired with DBMS to ensure smooth cooperation between accurate data inputs and supply chain operations.
- Implementing two or more Information Systems (IS) can be costly for a growing business.



Ethical Considerations



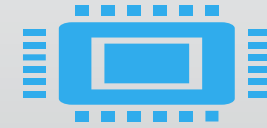
Data Privacy

Businesses today are faced with several ethical challenges. Critical decisions have to be made to ensure we are protecting personal freedoms and using data appropriately (Watters, 2024).

When using an information system that collects data, such as DBMS, data privacy issues become a focus.

Data privacy, also called "information privacy," is the principle that a person should have control over their personal data, including the ability to decide how organizations collect, store and use their data (Kosinski and Forrest, 2023).

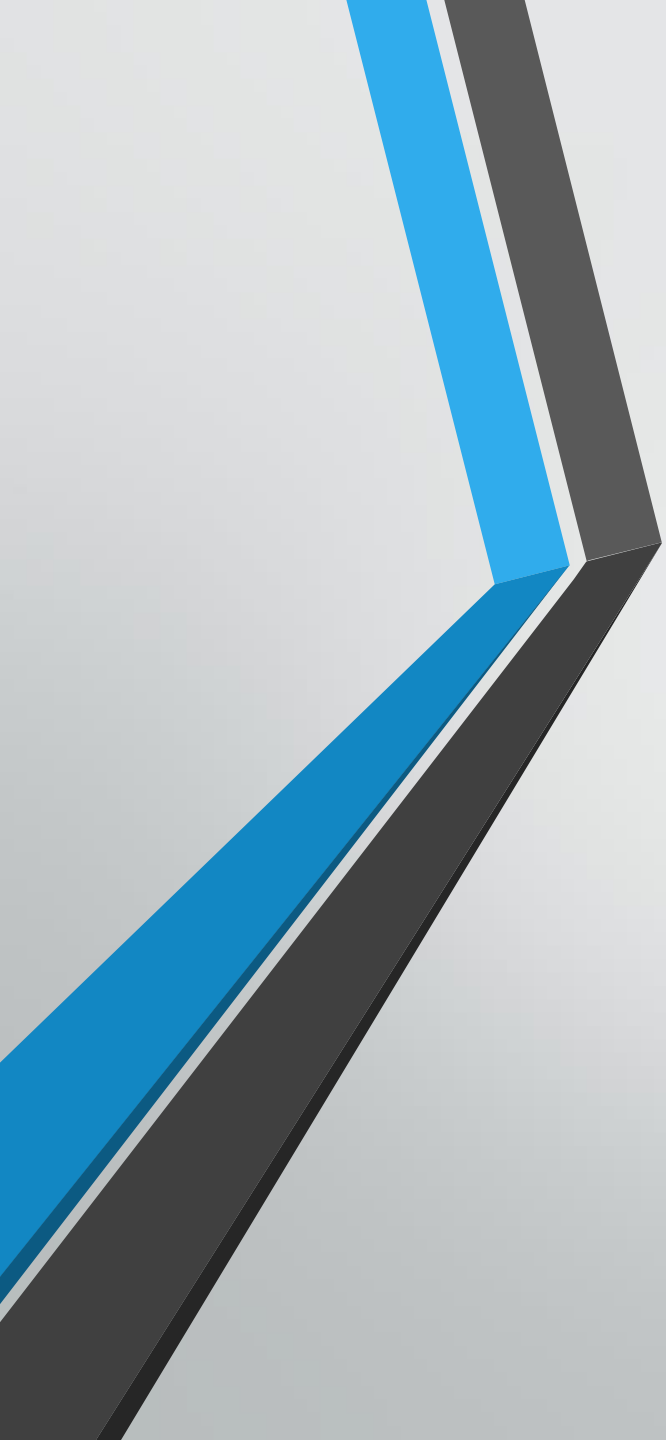
Unauthorised data collection is illegal and only public and necessary data with consent can be gathered.



Security Concerns

Any business Information System needs to have the necessary software to protect against data breaches, phishing of employees and disruptions to business operations such as cyberattacks.

Using a strong Multi-Factor Authentication (MFA) software and regularly updated and maintained servers can help against this.



AI decision-making concerns

- Many businesses now use AI in their operations in order to cut costs and help with decisions.
- However, low quality AI will make mistakes and recommend destructive, rather than constructive, feedback and decision-making. Human oversight is necessary to ensure high quality AI usage.

Employee monitoring concerns

- Using Information Systems to track employee performance and activity may help improve productivity, but can raise issues such as a stressful work environment, invasion of privacy, and collection of un-needed personal information. C
- Clear communication on what data is being monitored and avoiding excessive intrusion can help mitigate these risks.
- There should be responsible use of Information Systems to avoid ethical concerns and issues withing the business and its operation.

Case Study: Cadbury

- Facing rapid growth, Cadbury struggled to meet production and distribution demands efficiently. The solution came with SAP ERP, which enabled Cadbury to resolve these concerns. The implementation extended multi-node resource management across Cadbury's supply chain and overhauled its warehouse and distribution processes end-to-end. This allowed Cadbury to reduce overall operating costs, while its newly engaged supply chain produced significantly better production efficiencies throughout its manufacturing chain (Erpfocus.com, 2026).
- Information system is one of the important aspects in decision making by business people Nisrina, S. J. (2024).
- This use of Information Systems (IS) in a business shows that even established businesses such as Cadbury need IS and greatly improves their business operations, cuts costs and develops a better supply line.

Conclusion

- In conclusion, Information Systems are very important for modern businesses and their operations. DBMS, ERP, and SCM can help a growing business achieve improved efficiency, smarter decision-making and having long-term competitive advantage. However, these systems come at costs and risks that need to be mitigated and taken into consideration to protect the business.

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