

MANAGING BUSINESS INFORMATION

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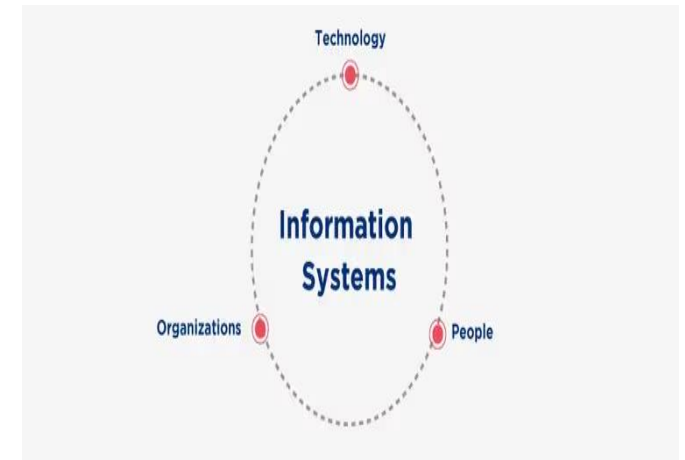
Lecture : Ade Adegbite

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Introduction

- ▶ An academically grounded evaluation of modern information systems is discussed in this presentation where, three distinct platforms are assessed for their ethical implications, and real-world corporate case studies also are evaluated.
- ▶ A definitive roadmap is introduced to enhance the business's operational efficiency, tactical decision-making, and competitive marketplace advantage is provided.



Introduction to Information Systems

- ▶ ***Socio-Technical System Perspectives:*** This integrated framework links software, employees and organisational structure to turn raw transactions into business value (Thomas, 2024).
- ▶ ***Operational Efficiency Drivers:*** Automating Main workflows prevents redundant measures, decreases the manual human processing mistakes and reduces the corporate overhead expenses.
- ▶ ***Strategic Competitive Advantage:*** Integration of unique digital platforms builds market differentiation, which helps the company to outpace aggressive industry competitors.



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- ▶ ***Data-based Decision Infrastructures:*** Unified databases create a single version of operational truth, decreasing uncertain managerial estimation during market shifts.
- ▶ ***Global Market Expansion:*** scalable web-based platforms allow the local businesses to link with the international consumers and manage cross-border supply chains (Hanif and Chowdhury, 2025).
- ▶ ***Long-Term Enterprise Scaling:*** Agile and modular information infrastructures scale naturally along with the growing sales volumes while reducing the risk of disruptive technical failures.



System 1 – Transaction Processing Systems

- ▶ **Main Operational Foundations:** Transaction Processing System gather daily and routine business events such as processing retail sales, logging payroll and tracking inventory (Mamar, *et al.* 2026).
- ▶ **High-Volume Real-Time Processing:** These foundational tools help in managing thousands of quick and overlapping data entries per second without causing any database lag.
- ▶ **Data Integrity and Accuracy:** Strict automated verification restrictions block the corrupted entries, which keeps foundational corporate database perfectly clean and highly reliable.



System 2- Management Information Systems

- ▶ **Middle management reporting:** This Information system condenses transactional databases into structured weekly summaries which helps managers with performance tracking (Chowdhury, 2023).
- ▶ **Structured Data summarisation:** To highlight departmental budget overruns, these tools arrange raw operational data into templated and predictable matrix.
- ▶ **Tactical control performance:** To reallocate resources and achieve short-term business goals smoothly, these routine evaluations are used by mid-level leaders.



System 3- Decision Support Systems

- ▶ **Unstructured problem resolution:** This IS supports senior executives by providing fluid and unpredictable market dilemmas that cannot be solved by standard automated rules (Chen, *et al.*, 2023).
- ▶ **Advanced analytical modelling:** To build interactive and predictive business projections, these digital tools combine internal statistics with external; economic indicators.
- ▶ **Executive scenario simulation:** responsive digital dashboards are leveraged by corporate leaders to evaluate “what-if” models.



Comparative analysis of systems

- ▶ **Functional tier alignment:** enterprise software divides into separate layers, matching operational clerk duties, tactical manager reviews and executive decisions (Weiss, and Patt, 2022).
- ▶ **Analytical capabilities contrast:** future markets are shaped by corporate systems which range from basic, repetitive to advanced mathematical engines.
- ▶ **Business benefit differentiation:** diverse operational benefits such as stable processing baselines are secured by organisations.



DSS
(Decision Support
Systems)



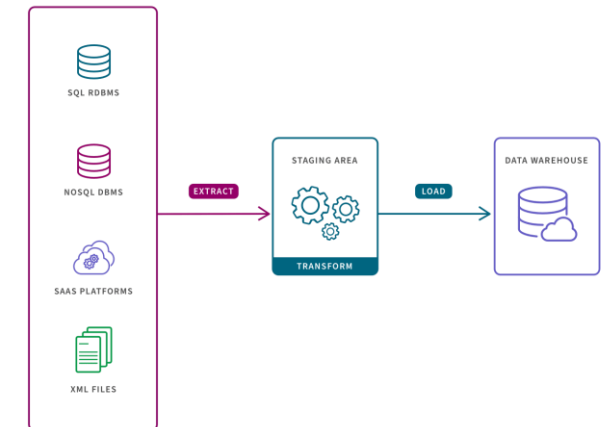
MIS
(Management Information
Systems)



TPS
(Transaction Processing
Systems)

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- ▶ **System architectural dependencies:** to deliver accurate forecasts, strategic decision tools remain completely reliant on clean data (Rainy, *et al.*, 2023).
- ▶ **Data flow synergy:** information siloes are eliminated and corporate communications are accelerated by unifying all software tiers into shared database.
- ▶ **Resource allocations costs:** significant initial investment is required to develop completed integrated networks but ignore underlying expense.



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System	Limitation
TPS	Known for high dependence on precise and reliable transaction data
DSS	It could be costly and varies around high-quality data as well as analytical expertise
MIS	Mostly encourage structured decisions and might offer limited insight especially for complex problems

Ethical consideration and Risk mitigation in Information Systems

- ▶ **Data privacy violations:** corporate vulnerabilities are increased to major data breaches and heavy regulatory non-compliance fines because of massive consumer profiles gathered (Noah, *et al.*, 2024).
- ▶ **Employee monitoring dilemmas:** Staff morale is damaged and stress levels are increased in workplace due to tracking of workers.
- ▶ **Algorithmic bias identification:** human prejudice can be replicated with automated screening if historical training datasets contain deeply flawed societal patterns.

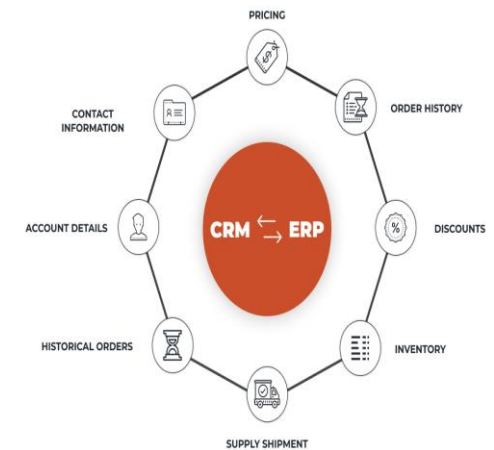


Real world case studies

Case	Challenge	Solution/System	Impact	Lessons learned
Netflix	Forecasting viewer demand	predictive analytics	Better content decisions	Analytics encourage strategy
Zara	Fluctuating customer demand	CRM or analytics	Rapid customer or inventory decisions	Data enhances responsiveness
Nestlé	Fragmented operations	Integration of ERP system	Better coordination as well as efficiency	ERP encourage process integration

Strategic recommendations for leadership

- ▶ **Phase 1: Foundations (Months 1-6):** To stabilise customer growth metrics and clean foundational customer data repositories by deploying cloud based CRM.
- ▶ **Phase 2: Core integration (Months 6-18):** roll out of modular ERP platform for connecting accounting, supply chain and operations.
- ▶ **Phase 3: Intelligence (Months 18+):** to drive predictive executive strategy, BI is layered over integrated environment.



Conclusion

- In conclusion, structured transactional workflows must be integrated with advanced management reporting and decision-modelling platforms are required for modernising the enterprise architecture. Organisation will be able to secure scalable, highly responsible and enduring data driven market advantage by addressing cybersecurity threats, enforcing strict ethical algorithms and training its workforce proactively.

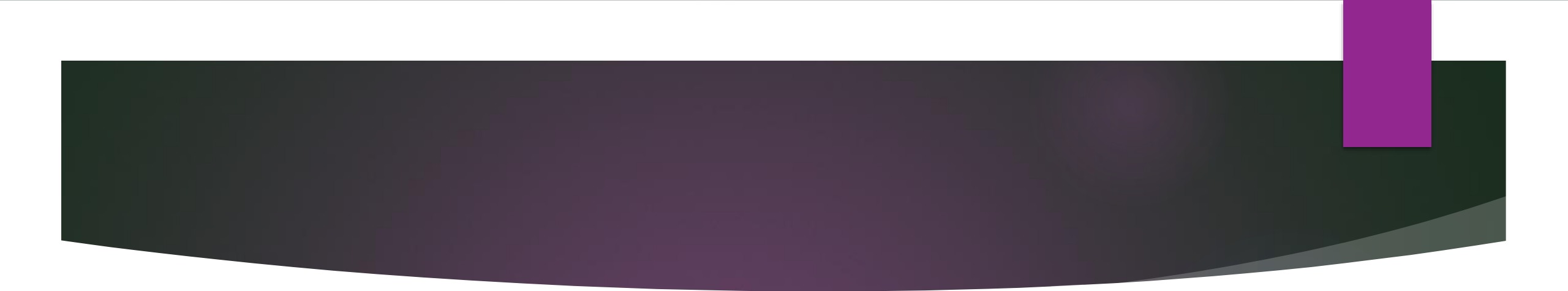


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Contribution Log

Members	Contribution of Members
Student 1	Investigated Information Systems as well as prepared TPS section
Student 2	Studied MIS and DSS along with that contributed to the comparative analysis
Student 3	Investigated the ethical considerations such as data privacy, security, algorithmic bias and more
Student 4	Studied real-world case studies and contributed in strategic recommendations



*Thank
you!*