

BUSINESS INFORMATION SYSTEMS



Module: LCLM5004 – Managing Business Information

Programme: BA (Hons) Leadership and Management Skills for the Workplace

Assignment: Group Presentation on Different Information Systems

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WHAT ARE BUSINESS INFORMATION SYSTEMS?



Business Information Systems (BIS) are tools which help companies grow, govern information and sustain business goals.

BIS can take many different forms. For example, individuals can work collectively as a team to organise and deal with different types of information. Alternatively, these tasks can also be done by computer software or hardware **(Bocij, Greasley and Hickie, 2019)**.

Most people interact with BIS in their daily lives. Email marketing promotions or mobile texts are a part of Customer Relationship Management (CRM), which aims to increase sales **(Semerádová and Weinlich, 2020)**.





WHY BUSINESS INFORMATION SYSTEMS ARE IMPORTANT?

Business information systems generally support organizations with developing more variable and deep-rooted digital strategies **(Wynn, 2022)**

Analytics generated by BIS can provide company associates with recent information which allows them to make strategic plans and spot data trends that lead to informed strategic decisions **(Hassan, 2019)**

BIS play a vital role in the optimisation of logistics and enhancing supply chain performance. In-depth real-time data allows smoother supplier activity tracking and inventory management. **(Jamil, Soares & Pessoa, 2017)**



DIFFERENT TYPES OF BUSINESS SYSTEMS



Customer Relationship Management (CRM)

Supports companies with controlling customers analytics and data to enhance relationships and satisfaction (Eid, 2012).



Management Information Systems (MIS)

The use of technology to organize, store and report Information that influences decision-making This information system was developed to support managers with their understanding of strategic planning and control (Markus, 2011)

Enterprise Resource Planning (ERP)

ERP systems support businesses with fundamental functions which aim to provide structural management. ERP also takes factors such as production, human resources and inventory into a collective simplifying decision making (Steyn, 2024)



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ANALYSIS AND COMPARISON OF SYSTEMS IN BOOKING.COM

Booking.com uses many Business Information Systems (BIS) to help the company work better every day. These systems make it easy to manage bookings, payments, and customer data (**Bocij, Greasley and Hickie, 2019**).

The main systems are:

- Transaction Processing System (TPS) – controls online bookings and payments (Krishnamurthy and Murthy, 1991).
- Management Information System (MIS) – gives reports for managers (Laudon and Laudon, 2019).
- Decision Support System (DSS) – helps managers plan prices and future demand (Goeran Fick and Sprague, 1980).
- Customer Relationship Management (CRM) – keeps communication with customers (Zendesk, 2025).

These systems help Booking.com stay fast, organised, and successful.

🔍 <https://www.booking.com>



Systems Used at

System	What It Does	Example at Booking.com	Source
TPS – Transaction Processing System	Manages bookings, cancellations, and payments	Online hotel booking and payment system	(Krishnamurthy and Murthy, 1991)
MIS – Management Information System	Makes reports for managers	Daily report of room sales and revenue	(Laudon and Laudon, 2019)
DSS – Decision Support System	Helps plan and make decisions	Dynamic prices and demand forecasting	(Goeran Fick and Sprague, 1980)
CRM – Customer Relationship Management	Manages customer data and loyalty	Loyalty program and personalised offers	(Zendesk, 2025)

All these systems share data to make work faster and more accurate (Wynn, 2022).
(Table created by Jiménez de Rivas, 2025)

COMPARING THE SYSTEMS



Similarities:

- All systems use data to help Booking.com work better (Bocij et al., 2019).
- They save time and help give faster service to customers (Wynn, 2022)

Differences:

- TPS (Transaction Processing System):
Used for daily work like when a customer books or cancels a hotel room (Krishnamurthy and Murthy, 1991).
- MIS (Management Information System):
Makes daily and monthly reports for managers about how many rooms were booked (Laudon and Laudon, 2019).
- DSS (Decision Support System):
Helps managers plan prices depending on busy seasons or low demand (Goeran Fick and Sprague, 1980).
- CRM (Customer Relationship Management):
Keeps good contact with customers, for example by sending emails with offers or discounts (Eid, 2012).



BENEFITS AND CHALLENGES

Main Benefits:

- Faster bookings and payments make work easier.
- Managers can use reports to make better decisions.
- Customers are happier because they get offers and quick answers.
- All departments can share the same information and work together.

Example:

When a customer books a hotel, the system saves the booking, updates reports, helps plan prices, and sends a thank you message.

Main Challenges:

- Systems and software are expensive to buy and keep.
- Workers need time and training to use them well.
- Booking.com must protect customer data and follow GDPR rules.
- Sometimes technology can make mistakes or unfair choices.

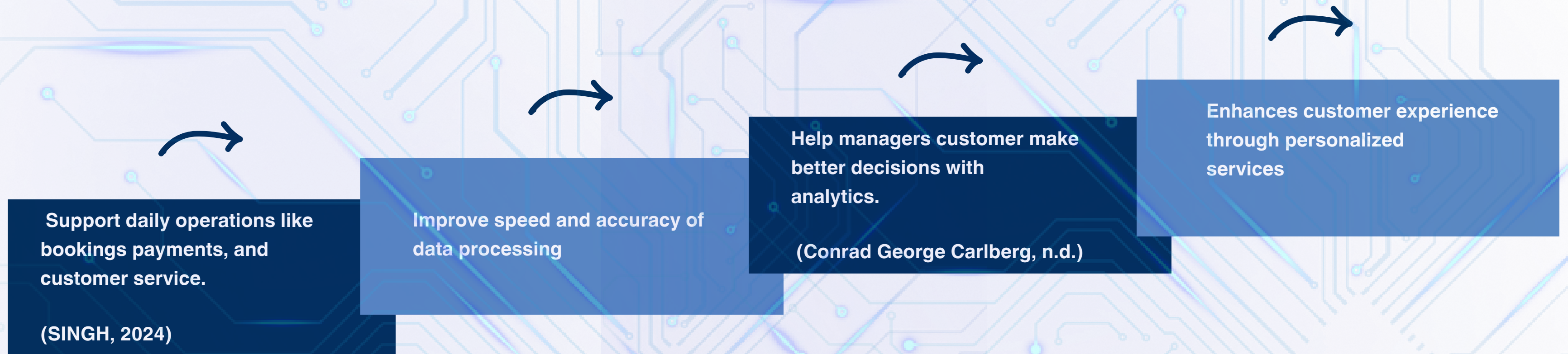
Example:

In general, these systems help Booking.com grow and work faster, but the company must spend money, train people, and protect data to stay successful.



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ROLE OF INFORMATION SYSTEM



Transaction Processing System (TPS): manage bookings , cancelations, and payments. (Krishnamurthy and Murthy, 1991)

Management Information System (MIS): generate reports on sales, occupancy, and revenue

Decision Support Systems (DSS): analyse trends, forecast demand, and optimize pricing. (Goeran Fick and Sprague, 1980)

Customer Relationship Management (CRM): manage customer data, loyalty, and targeted marketing (Dr. Manjula A Soudatti, n.d.)

TYPES OF INFORMATION SYSTEMS

Booking.com



Comparison of Information Systems

System	Purpose	Example at Booking.com
TPS (Transaction Processing System)	Automates transactions	Online booking and payments (Elizabeth Powell Crowe, 2015)
MIS (Management Information System)	Summarises data for managers	Daily occupancy and revenue reports
DSS (Decision Support System)	Supports decision-making	Dynamic pricing and demand forecasting
CRM (Customer Relationship Management)	Manages customer relationships	Personalised offers and loyalty programmes





Benefits of Modernising Systems:

- Faster processing of bookings and payments
- Improved accuracy and reduced errors
- Better communication between departments and partners
- Enhanced customer experience with personalised recommendations
- Stronger insights for strategic decision making

Recommendations & Ethical Considerations

- Implement advanced CRM for improved customers engagement
- Integrate MIS and DSS for real time analytics and pricing decision
- Use cloud- based system for scalability and efficiency
- Train employees to effectively use systems

ETHICAL CONSIDERATIONS:

- (GDPR Compliance) Protect customer and partner personal data. Legarski, Sramek and Clement, 2024)
- Ensure transparency in pricing and fees
- Avoid bias in search results and recommendations
- Treat all partners (hotels, hosts) fairly and equally
- Maintain integrity, professionalism, and follow company policies



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Challenges:

Booking.com managed a very high volume of customer inquiries, with data spread across multiple platforms.

(Booking.com, 2025).

**CRM Solution:**

Introduced a centralised CRM system to unify customer profiles and automate follow-up communications.

Outcomes:

Response times improved, leading to higher customer satisfaction and loyalty.

Ethical Issues:

Privacy risks were mitigated through GDPR compliance and secure data handling.

Booking.com

CASE STUDY



Challenges:

Complex interactions between hosts and guests required effective support management.

CRM Solution:

Implemented a Zendesk-based CRM system with AI-assisted workflow routing to manage inquiries efficiently.

Outcomes:

Reduced resolution times and improved transparency in communications.

Ethical Issues:

Potential bias in automated decisions was mitigated by escalation to human support for sensitive cases.



CASE STUDY



Challenges:

Customer data was fragmented across multiple brands, limiting effective personalisation.

CRM Solution:

Developed a unified loyalty programme ("One Key") leveraging first-party data and predictive analytics.

Outcomes:

Enhanced customer retention and improved targeted marketing strategies.

Ethical Issues:

Targeted advertising risks were managed with clear opt-out options and transparent data practices.



CASE STUDY



KEY TAKEAWAYS

01

CRM enables

Personalization,
efficiency and higher
retention.



02

Central challenge:

Balancing personalization
with privacy.



03

Strong governance and human oversight

Reduce ethical risks.



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Conclusion

Business Information Systems are very important for companies like Booking.com.

- They help the business work faster, make better decisions, and give good service to customers. Each system – TPS, MIS, DSS, and CRM – has a different role, but all work together to make the company successful.

These systems save time, improve communication, and help managers plan for the future.

Even if technology can be expensive and needs training, it helps Booking.com stay strong and competitive in the digital world.

(Group conclusion: Ventsislavov, Sonia, Fabiola, and Amanda – 2025)



THANK YOU!

