

BL-25-4 Business Fundamentals

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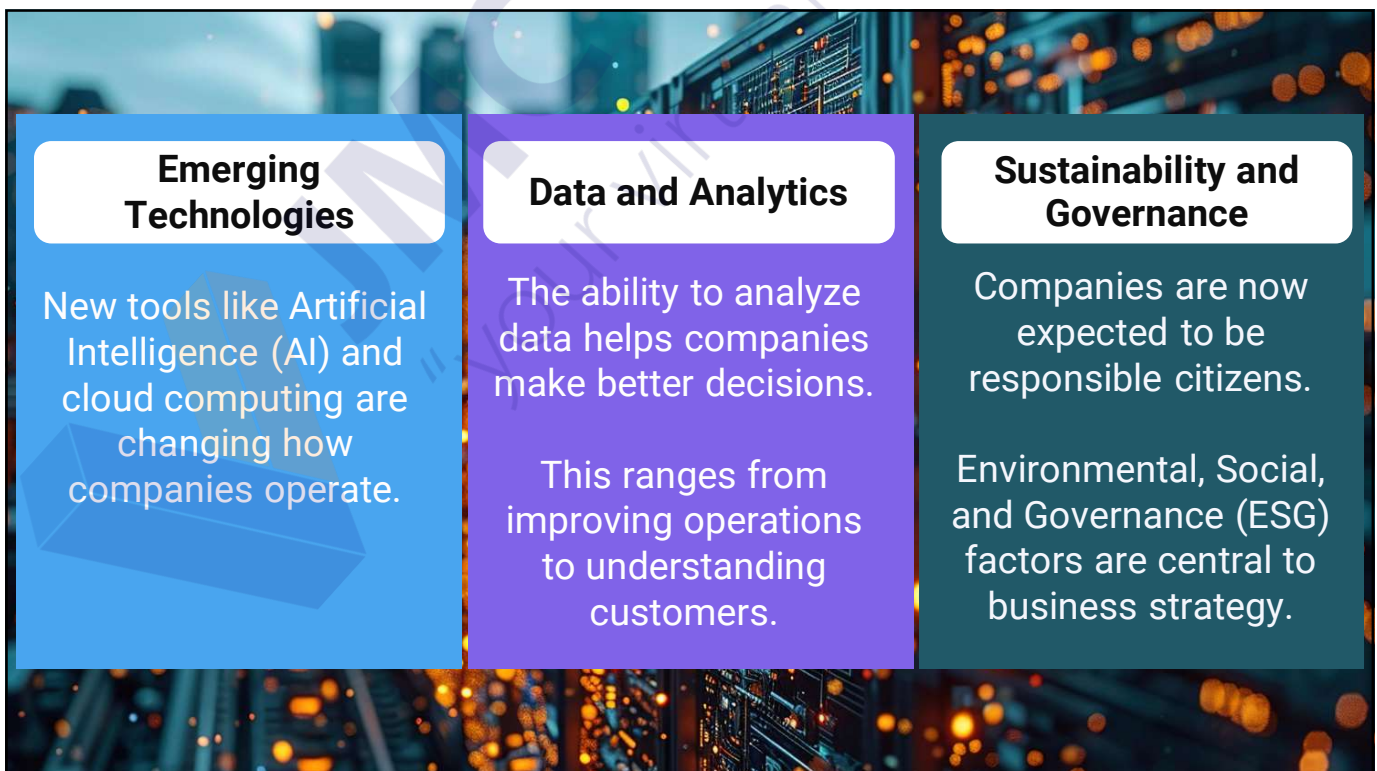
1.2 Modern Business Developments.

1.2.1 Emerging Technology Trends and Business Transformation.

1.2.2 Data Analytics Impact on Business Decision-Making.

1.2.3 Sustainability and Governance Significance in Modern Business.







Intelligent Automation and Decision-Making

This includes
Artificial
Intelligence (AI),
Machine Learning
(ML), and Robotics.

These tools help
automate tasks and
provide insights for
better decisions.



AI & ML



Study Pack:

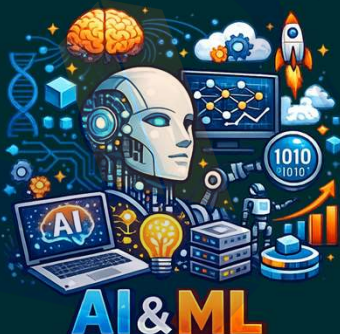
AI and ML are at the heart of business transformation.

They can analyze huge amounts of data to find patterns and predict trends.

Businesses need to use "advanced data analytics and AI-driven compliance tools" to manage new reporting standards.

However, there is a "skill gap," with 65% of professionals needing more training in this area.

AI



Additional Information:

AI has many functions, including,

- Learning
- Understanding
- Reasoning
- Interacting, with people or other machines to collaboratively perform tasks or interacting with the environment.

There are many areas which uses of AI;

- Manufacturers to invent new metal alloys for 3D printing.
- Pharmaceutical companies are using AI to discover new lifesaving drugs.

ML



Additional Information:

ML allows systems to recognize patterns, make predictions, and make decisions based on data.

Some key functions of ML include:

- Learning from data to improve accuracy.
- Predicting outcomes or trends.
- Recognizing patterns in large datasets.
- Making decisions automatically based on insights.

Automation and Robotics



Study Pack:

Automation uses technology to perform tasks previously done by humans.

This can range from simple software automation (RPA) to physical robots in factories.

The main benefits are increased efficiency, cost savings, and higher quality.

Automation and Robotics



Additional Information:

Uses machines, robots, and software to perform tasks automatically, reducing the need for human intervention.

Some key functions of automation and robotics include:

- Performing repetitive tasks efficiently
- Improving precision and consistency in operations
- Working in hazardous or difficult environments
- Collaborating with humans in workplaces to enhance productivity

Pervasive Connectivity and Data Infrastructure

This includes the Internet of Things (IoT) and Cloud Computing.

These technologies allow for massive data collection and scalable computing power.



Cloud Computing



Study Pack:

Cloud computing offers scalable and cost-effective computing resources over the internet.

This allows businesses to use advanced software without buying expensive hardware.

It is especially useful for SMEs, who can use “flexible, cloud-based platforms” for key tasks like tax and ESG reporting

Cloud Computing



Additional Information:

Allows people and businesses to use computing resources like servers, storage, databases, and software over the internet instead of relying on local computers.

Some key features of cloud computing include:

- On-demand access to computing resources.
- Scalability, so resources can grow or shrink as needed.
- Cost efficiency, because you pay only for what you use.
- Accessibility, allowing users to work from anywhere with an internet connection.

Internet of the Things



Study Pack:

The IoT is a network of physical devices with sensors that collect and share data in real-time.

For businesses, IoT can improve supply chain management and operational efficiency.

It provides the "big data" that powers modern analytics.

Internet of the Things



Additional Information:

Technology that connects everyday devices like appliances, cars, wearable gadgets, and sensors to the internet so they can send, receive, and share data.

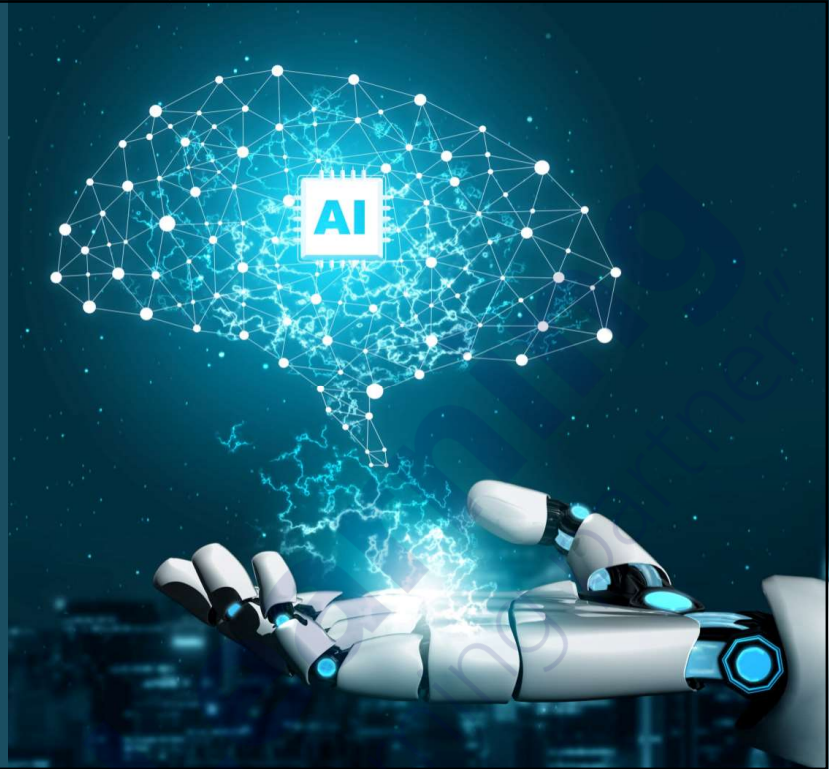
Some key functions of IoT include:

- Monitoring devices and environments in real-time
- Automation of routine tasks
- Data collection for better insights and decision-making
- Remote control of devices from anywhere

Digital Trust and Security

This includes
Blockchain and
Cybersecurity.

These tools ensure
that digital
operations are
secure and
trustworthy.



Block Chain & Crypto Currency



Study Pack:

Blockchain:

A secure, decentralized digital ledger. It can be used for secure supply chains, smart contracts, and transparent financial reporting.

Why This Matters:

Blockchain can increase trust in business transactions. For example, it can be used to track a product from the farm to the store, ensuring it is authentic and ethically sourced.

Cryptocurrency:

A digital form of payment and a new type of financial asset. It brings both innovation and regulatory challenges.

Cyber Security



Study Pack:

As businesses become more digital, protecting their data and systems is vital.

Cybersecurity includes the tools and practices used to prevent attacks and unauthorized access.

It is essential for business continuity and maintaining trust.

Cyber Security



Additional Information:

Field of technology focused on protecting computers, networks, and data from unauthorized access, attacks, or damage..

Some key functions of cybersecurity include:

- Protecting data from hackers and cyber threats
- Detecting and responding to security breaches
- Preventing fraud and identity theft
- Ensuring safe communication over networks

Technology Category	Business Applications	Key Benefits	Transformation Effects
Cloud Computing	Scalable infrastructure, Software-as-a-Service (SaaS), remote collaboration, data storage	Cost efficiency, flexibility, accessibility, business continuity	Facilitates business agility and rapid innovation
Artificial Intelligence (AI) & Machine Learning (ML)	Predictive analytics, intelligent automation, decision support, compliance monitoring	Enhanced decision-making, process optimization, improved accuracy	Enables data-driven strategy and proactive risk management
Internet of Things (IoT)	Real-time monitoring, supply chain visibility, predictive maintenance, operational data collection	Increased efficiency, improved logistics, reduced downtime	Creates digital visibility across physical operations

Technology Category	Business Applications	Key Benefits	Transformation Effects
Cybersecurity	Threat protection, data security, identity management, business continuity.	Risk mitigation, regulatory compliance, stakeholder trust.	Essential foundation for all digital operations.
Blockchain & Cryptocurrency	Secure transaction ledgers, smart contracts, supply chain traceability, digital payments.	Enhanced security, transparency, decentralization.	Enables new trust-based business models.
Automation & Robotics	Robotic Process Automation (RPA), manufacturing automation, quality control.	Increased efficiency, cost savings, improved quality.	Frees human capital for strategic activities.



Data Analytics

The process of examining data to find patterns and support decisions.

- Collecting data from different sources
- Organizing and cleaning data
- Analyzing data to find patterns and insights
- Making decisions based on the results

Business Intelligence

The framework for delivering insights from data to decision-makers.

- Collecting data from business systems
- Analyzing data to understand performance
- Creating reports and dashboards
- Supporting decision-making with insights

Four ways DA and BI applies across a company

01. Financial Analytics - Improves performance measurement and risk assessment.

Uses financial data to measure business performance, forecast revenue, control expenses, and assess financial risks to support better financial decisions.

02. Operational Analytics - Drives efficiency and process improvements.

Analyzes operational data to improve efficiency, reduce waste, streamline processes, and enhance overall productivity in day-to-day business activities.

Four ways DA and BI applies across a company

03. Customer Analytics - Helps understand customer behaviour for better marketing.

Examines customer data to understand buying behavior, preferences, and trends, helping businesses improve marketing strategies and customer satisfaction.

04. Supply Chain Analytics - Optimises logistics and manages risks

Uses data to manage inventory, optimize logistics, improve supplier performance, and reduce risks across the supply chain.



1.2.3

Sustainability and Governance Significance in Modern Business

Sustainability

Sustainability is a company's commitment to operating in a way that protects the environment, supports social well-being, and ensures long-term economic success.

It focuses on meeting present needs without harming future generations.

Governance

Governance is the system of rules, policies, and processes that guide how a company is directed and controlled.

It ensures transparency, accountability, ethical decision-making, and protection of stakeholder interests.

This shift is driven by new rules and demands from society. In Sri Lanka, the new SLFRS S1 and S2 standards are a key example.

[1] CA Sri Lanka, "Sri Lanka Financial Reporting Standards (SLFRS) S1 and S2," 2024.

[2] World Bank, "Global trends in ESG performance," 2025.

