

Role of Artificial Intelligence in Business Decision Making

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Abstract:

Artificial Intelligence is a big deal these days. It is changing the way businesses make decisions. Many companies are using AI to improve operations, make customers happier, save money, and stay ahead of the competition. This study looks at how Artificial Intelligence helps businesses make decisions. It checks out how Artificial Intelligence supports picture decisions, everyday decisions and everything in between.

The study aims to identify the benefits and drawbacks of using Artificial Intelligence in business. It also wants to know what it means for managers. To do this, the study used information from journals, reports, books and online sources. What it found is that Artificial Intelligence helps businesses make decisions based on facts, making them more accurate, reducing mistakes, and helping predict what might happen.

However, there are still some problems. People are worried about keeping data private, the lack of human insight, and the cost of getting started with Artificial Intelligence. The study says that Artificial Intelligence is becoming part of how businesses make decisions, but companies need to ensure they use it fairly and responsibly.

Keywords: Artificial Intelligence, Business Decision Making, Machine Learning, Data Analytics, Automation, Business Intelligence.

Introduction:

Artificial Intelligence helps companies make decisions and plan for the future. Today, companies have a lot of data. It is hard to make sense of it all. Artificial Intelligence helps turn this data into information, enabling companies to make faster, better decisions. Business decision-making is choosing what to do to achieve your company's goals. You have to make decisions at levels like when you plan for the future or when you do every day work. In the past, managers made decisions based on their experience. What happened before? Now things are more complicated, and companies are using Artificial Intelligence to support their decision-making.

Artificial Intelligence has uses, such as machine learning, natural language processing and predictive analytics. Companies use Artificial Intelligence to understand customer needs, improve supply chains, prevent fraud, and automate repetitive tasks. Artificial Intelligence also helps managers by providing timely information, identifying patterns, predicting future events, and suggesting actions.

Many industries (banking, healthcare, and retail) are using Artificial Intelligence. Companies like Amazon, Google, Microsoft, and Tesla are using Artificial Intelligence to make customers happier. In India, companies are also using Artificial Intelligence to stay competitive.

Using Artificial Intelligence is not without problems. There are concerns about what's right and wrong, keeping data private, and the cost of implementing Artificial Intelligence. Some people are also worried that Artificial Intelligence will take their jobs. Sometimes, Artificial Intelligence does not have the same judgment and emotional intelligence as humans.

This study examines how Artificial Intelligence is used in business decision-making, the benefits and challenges, and its impact on company performance.

Objectives of the Study

To look at how Artificial Intelligence is used in business decision-making.

To find out the benefits of using Artificial Intelligence to make decisions in companies.

To understand the challenges of using Artificial Intelligence in business operations.

Research Questions

How does Artificial Intelligence affect business decision-making?

What are the benefits of using AI in companies?

What challenges do companies face when they use Artificial Intelligence?

Literature Review:

A literature review is a review of what others have found about a topic. Many people have studied how Artificial Intelligence affects how businesses operate and make decisions. Review of Previous Studies:

Davenport and Ronanki (2018)

Davenport and Ronanki said that Artificial Intelligence is mainly used to automate tasks, interact with customers, and analyse data. They found that businesses that used Artificial Intelligence worked more efficiently and made better decisions.

Brynjolfsson and McAfee (2017)

Brynjolfsson and McAfee think that Artificial Intelligence is changing industries by making them more productive and innovative. They believe that Artificial Intelligence helps businesses make data-driven decisions and become more competitive.

Russell and Norvig (2020)

Russell and Norvig said that Artificial Intelligence is a system that can make decisions and solve problems. Their research showed that machine learning and expert systems are important for helping managers make decisions.

Gupta (2021)

Sharma and Gupta looked at how Indian businesses use Artificial Intelligence. Found that it improved customer service, marketing and management. However, they also found that it was hard to find people with the skills and that it was expensive.

Kaplan and Haenlein (2019)

Kaplan and Haenlein talked about how Artificial Intelligence is used in business analytics and strategy. They concluded that Artificial Intelligence helps businesses predict what will happen and respond quickly to market changes.

Jarek and Mazurek (2019)

Jarek and Mazurek looked at the drawbacks of using Artificial Intelligence. They found that Artificial Intelligence makes businesses work better.

Research Gap

Most studies have looked at how Artificial Intelligence works and how it helps businesses. Not many studies have looked at the big picture of how Artificial Intelligence affects decision-making in businesses, including both the good and the bad. This study examines how companies use intelligence to make business decisions. The study aims to understand how artificial intelligence is used to inform business decisions. It examines how artificial intelligence helps people make business decisions.

Research Methodology:

The way we conduct research is a step-by-step process we use to carry out the study.

Research Design

This study is about looking at things and analysing them. It wants to see how Artificial Intelligence is used in business decision-making and what effect it has on a company's performance.

Sources of Data

This study uses information that we already have from:

- Research journals
- Books
- Company reports
- Government publications
- Websites and online databases
- Articles about Artificial Intelligence and business management

Sampling Technique

We deliberately selected the studies and articles we thought were relevant to Artificial Intelligence and business decision-making.

Data Collection Method

We got our information from:

- Academic journals
- Industry reports
- Online scholarly articles
- Business case studies

Tools for Analysis

We reviewed the information we collected and used methods to analyse it.

Scope of the Study

This study examines how Artificial Intelligence is used in business decision-making across industries.

Significance of the Study

This study helps people in various ways. It helps:

- Managers understand what role Artificial Intelligence plays in planning for the future.
- Companies figure out if using Artificial Intelligence is an idea and what the risks are.
- Researchers learn about trends in Artificial Intelligence and business management.

Data Analysis and Findings:

The data show that Artificial Intelligence is crucial to businesses when making decisions.

1. Looking at Data and Predicting What Happens Next

Artificial Intelligence systems can look at a lot of data, both organised and unorganised, really fast and get it right. Businesses use this to predict what people will want, what customers like, and what will happen in the market.

What we found: Artificial Intelligence makes predictions more accurate. Helps businesses make decisions based on facts.

2. Automating Routine Jobs

Artificial Intelligence can perform tasks such as entering data, helping customers manage inventory, and generating reports.

What we found: Automating these tasks reduces costs. Makes businesses run more smoothly.

3. Managing Customer Relationships

Artificial Intelligence-powered chatbots and systems that recommend things help businesses give customers personalised service and make them happier.

What we found: Artificial Intelligence helps customers get more involved and strengthens business relationships.

4. Making Financial Decisions

Financial companies use Artificial Intelligence to detect fraud, assess risks, verify creditworthiness, and analyse investments.

What we found: Artificial Intelligence reduces risks and makes decisions more accurate.

5. Managing Human Resources

Artificial Intelligence helps with hiring, analysing employee performance, and planning the workforce.

What we found: Artificial Intelligence makes human resource tasks easier. Helps manage talent better.

6. Managing Supply Chains and Inventory

Artificial Intelligence helps businesses improve their supply chains by predicting consumer demand and managing inventory.

What we found: Artificial Intelligence reduces waste. Makes businesses run more productively.

Challenges We Found

1. It Costs a Lot to Get Started

Small and medium businesses often struggle to afford Artificial Intelligence technology.

2. Concerns About Data Privacy and Security

We are concerned about data privacy and security because Artificial Intelligence requires a lot of data to function properly. This makes it hard to keep data safe.

3. Not Enough Workers

Many businesses lack enough workers who understand Artificial Intelligence and data analysis. They often lack employees with the skills to work with AI.

4. Ethical Problems

If algorithms are biased or not transparent, they can lead to biased decisions.

5. Depending Much on Technology

If businesses rely too much on Artificial Intelligence, it might reduce the role of humans and critical thinking in the business.

What We Found Overall

Artificial Intelligence makes businesses run efficiently and makes better decisions.
Artificial Intelligence helps businesses make more accurate decisions.
Artificial Intelligence makes customers happier. Businesses are more productive.
There are still concerns about ethics, money and technology.

Conclusion:

Artificial Intelligence is changing how businesses work. It helps make decisions faster, more accurately, and of higher quality. AI does this by analysing large amounts of data, identifying patterns, predicting future events, and helping businesses run smoothly. The study finds that Artificial Intelligence is really important for businesses. It helps them work efficiently, makes customers happier, manages finances better, and plans strategies more effectively. Using Artificial Intelligence has benefits. These include getting more done on time, automating tasks, predicting future events, and staying ahead of competitors. However, there are problems. These problems include the cost of implementing AI, ethical concerns, a shortage of skilled workers, and data privacy issues. To succeed, businesses should find a balance. They should use Artificial Intelligence. Still have people overseeing it and make sure it is used ethically. Businesses should train their employees to invest in cybersecurity and create AI policies. In the future, Artificial Intelligence will likely become more important for managing businesses and making decisions. The businesses that use Artificial Intelligence well will probably come up with new ideas, work more efficiently, and last longer.

Limitations and Future Scope:

Limitations of the Study

- This study only uses existing data.
- We couldn't access reports on how companies implement AI.
- We didn't collect data directly from managers or organisations.
- Since technology changes fast, our findings might not stay relevant for long.

Future Scope of the Study

- Future studies could involve collecting data through surveys and interviews.
- Researchers could compare how different industries and countries use AI.
- Studies could look at how AI affects jobs and company culture over a period.
- Future research should explore the rules and laws that govern AI.
- Some studies might focus on how medium-sized businesses adopt AI.

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