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## An Empirical Study On Impact Of Digital Tools For Decision Making In Management

**Rekha M**

**Research scholar**

**Assistant Professor**

**Department of Commerce**

**New Baldwin International Degree College**

**Bangalore- 43**

### Abstract

Technology is seen as an advancement to reduce the burden. Digitalization is the trend of the era. Day to day work in every area of work is not only enabling the working crowd to perform their work easier but also making results more accurate and reliable unlike the traditional process. This process has been taken over by the present digitalization where many software applications are in use to make the process faster and more efficient in contrast to traditional decision making which involve long process and many panels of discussion to come up with the best decision. Digitization leverages technologies and digital tools to enhance or redefine business processes and models.

As technology continues to shape the workplace, employers are adopting strategic approaches to ensure the effective integration of new tools to make decisions more effective without much affecting the finance of the business. Through an analysis of current trends this article provides insight into how various digital tools are contributing to strategic decision-making process of the management. how it can contribute to more inclusive and sustainable job creation. The aim of this article is to figure out how digital tools are playing a pivotal role in decision making process of the management in recent years and has brought a tremendous change in the Business scenarios.

**Keywords: Digitalization, Decision making, Digital tools, Management**

### Introduction

Today's world is posed with increased pressure where businesses are forced to take informed decisions that drive growth and success with minimal costs. Every day, both personally and on business, there is a need for a choice among possible solutions by making simple or complex decisions. The selection results may have a short-term impact, but can also be long-term and far-reaching nature, depending on whether the decision was successfully or unsuccessfully made in an appropriate time. The decision-making process involves several interrelated steps, a choice among the available options is an essential part of the process

that precedes forecasting solutions to the problem and the results of the final selection to do this, they need access to accurate and timely data, and the ability to analyse it effectively.

Digital technology has revolutionised the way businesses operate, and can be a powerful tool for making better business decisions. Digital tools are software's or various online resources which helps to perform complex tasks with more ease. It is the strategy or process of utilizing digital technologies, resulting in deeper changes that can alter the core of business models. Ultimately, these changes lead to opportunities for increased efficiency and revenue. Digitalization is when an organization's data is processed through various digital tools which can lead to fundamental change in business models and social change.

**Digitalization in business helps to improve the efficiency of its operations, making automation possible.** There are fewer human errors and operational costs are reduced, due to the decreased need for human resources. Digitalization is playing a crucial role in modern management by enhancing efficiency, transparency, and collaboration, ultimately leading to better decision-making and improved business outcomes. Digitalization is becoming more and more important every year and is becoming mainstream in the field of management. A single drawing has the power to express what a hundred words cannot. Usage of digital tools is helping the managers communicate with their employees more effectively. Additionally, digitalization can help reduce the amount of paperwork and other administrative tasks that managers have to deal with on a daily basis. Ultimately, digitalization can help make management more efficient and effective. Digital technologies have reconfigured the whole business landscape, transitioning from traditional analogue to digital. Data isn't stored anymore on any storage devices but on the cloud, thus ensuring there are no errors.

## Methodology

To explore the role of digital tools in management decision making, this article employs a secondary data approach where existing literature, research articles were reviewed and analysed to explore. Data were sourced from academic journals ,government reports and other databases. The aim is to provide a comprehensive understanding of how technology is reshaping the administration work.

## Need for digital tools in Decision making process of managements

One of the key benefits of using digital technology to make better business decisions is the ability to gather and analyse large amounts of data quickly and accurately. Digital tools can collect and process data from a variety of sources, including customer interactions, sales data, and social media feedback. This data can then be used to gain insights into customer behaviour, identify trends, and predict future outcomes.

- Digital thinking tools extend our natural capabilities
- Digital thinking tools to find information
- Digital thinking tools to analyse existing data
- Digital thinking tools to reason about information and project for the future

**Usage of digital tools in the management of business has led to following benefits to business houses.**

### 1. Increased transparency and communication

Digitalization increase transparency and make communication easy within the organization. This is because sharing information and connecting with others becomes an easy peezy task. Online collaboration tools can help team members stay connected and share updates on projects. Additionally, social media has become the fastest means to share news and announcements with employees.

## 2. Improved decision-making

Digitalization can also improve decision-making within an organization. Various digital tools can provide access to data and analytics that can be used to make informed decisions. For example, data from online customer can be used to improve customer service on an ad-hoc basis. These qualitative and quantitative data collected serves as greater data serves managements to take critical decisions.

## 3. Increased productivity

Digitalization can also help increase productivity within an organization. There are many digital tools that can help you automate different tasks and internal processes. For example, online project management tools can help team members stay organized and track progress on projects. Additionally, time tracking software can be used to monitor employee productivity, which can enable many useful insights.

## 4. Enhanced collaboration

Digitalization can also help enhance collaboration within an organization. You have to make sure you provide a way for team members to connect and work together. For example, online collaboration tools can help team members share files and ideas. Additionally, social media can be used to connect employees with common interests.

## 5. Greater efficiency

Digitalization can also help increase efficiency within an organization, because specialized digital tools can automate tasks and processes. For example, online order tracking can help reduce the time it takes to process orders. Additionally, automated billing can help reduce the amount of time it takes to process payments.

## What digital tools do businesses use in decision-making?

There was a time when companies found it too difficult to understand excel sheets. Preparation of reports based on available data was a critical task for the workers and time consuming. Decision making using these reports was a tiring task for the managing line of workers which could have led to take wrong decisions due to inadequacy of data. Thankfully, that all changed with the proliferation of artificial intelligence (AI), machine learning (ML), and other tools.

## Some of the most popular decision-making tools and its impact on decision making of the management.

Gartner suggests that companies that enrol AI and machine learning in their decision-making processes showcase a 37% reduction in errors. AI, unlike humans, is uniquely assured to tackle big data.

Artificial intelligence can constantly search information from various data sets and predict the market trends and internal performance based on the variables. The same combined with ML ,its efficiency can continuously improve. This information can then be used to make better decisions, automate processes, streamline workflows, improve efficiency, and reduce costs.

Examples: IBM Watson, Google Cloud AI, Microsoft Azure AI, etc.

## Smart sensors:

Connecting our real world with the digital, smart sensors are devices that can be positioned strategically (on equipment, on the production floor, etc.) to monitor the machinery's and employees' performance. These sensors then feed data directly into the company's internal systems to aid decision-making in regard to the business' various aspects, including preventive maintenance, production-floor layout, shipping, etc.

## Business Intelligence Tools (BI):

According to Data Prot, 97% of data companies collect remains unused. BI tools can mitigate this waste of resources by collecting, storing, analysing, and interpreting data from various sources. BI tools often leverage smart sensors and AI aspects to cultivate precise and actionable insights.

Examples: SAS, SAP Business Objects, Oracle Business Intelligence, etc.

## Decisions Support Systems:

DSS can target nearly all aspects of DSS can target company, including marketing, product development, pricing, and more. Businesses use these solutions with additional information and analysis to aid their

Examples: IBM Cognos, Microsoft DSS, Oracle Essbase, etc.

## Data visualization tools:

Excel is difficult to comprehend information. These tools help businesses make decisions by giving data a form that's easy to understand and identify trends, patterns and outliers.

Examples: Tableau, Qlik Sense, Power BI, etc.

## Project management tools:

These tools help businesses to plan, execute, and track projects. Project management tools can help businesses to stay on track, avoid delays, and meet deadlines.

Examples: Asana, Trello, Basecamp, etc.

## Collaboration tools:

As discussed in the previous section, strategy isn't just theory and planning. It's also execution, and that's where these tools come in. They help businesses facilitate effective information sharing, communication, and collaboration. This application majorly helps for remote and field work based businesses who constantly need to be in touch with the central office for daily tasks

Examples: Slack, Microsoft Teams, Google Workspace, etc.

## Customer Relationship Management tools:

Primarily designed to help companies manage customer relationships, CRM tools play a vital role in tracking interactions, identifying sales opportunities, and providing better service which has become the need of every business today to survive in the market.

Examples: Resco CRM, Salesforce, Microsoft Dynamics 365, etc.

## Enterprise Resource Planning Tools:

ERP tools allow businesses to manage their resources efficiently across finances, HR, supply chains, operations, etc. They can help improve efficiency, reduce costs, and make better cost-effective decisions.

Examples: SAP, Oracle, Microsoft Dynamics AX, etc.

## Decisions taken using Digital tools v/s traditional decision making.

- Digitalization significantly elevates management efficiency and strategic decision-making capabilities. The integration of digital tools with traditional management techniques results are more informed, efficient, and strategic business decisions.
- Management decisions using digital tools offer advantages like enhanced data analysis, faster processing, and improved collaboration, while traditional methods rely on established processes and may lack the speed and flexibility of digital approaches.
- Traditional methods rely on established processes and procedures whose applicability can vary from one company to another while digital tools follow a standard procedure to analyse data and decide on the same.
- Traditional decision making can have prejudiced decisions and can have place for managerial politics in contrary to technology-based decisions which doesn't give place to any kind of qualitative aspects and generates on facts and figures-based reports-based reports which can enable the management to make true strategic decisions.
- Open collaborations and communications are lessened which may be time consuming, cost addition, influential while digital approach enables management take timely actions which helps to enhance profits and mitigate losses.
- Traditional approaches have limited data analysis and can be based on random sampling data which may not be very much reliable compared to digital approach which has scope for comprehensive data analysis.

## Challenges for Decision making using Digital tools

- Skilled Manpower gaps
- Regular Technology upgradation
- Security Breach concerns
- Budget constraints

- Changing Customer needs across the Globe
- Resistance for adoption
- Fear of Human replacement by digital tools
- Ethical considerations

## Conclusion

The study's comprehensive analysis explains the impact of digital tools' crucial role in modern management and strategic decision-making. Integrating digital technologies with traditional management methodologies has markedly enhanced operational efficiency and elevated the quality of decision-making in various business contexts. This integration is pivotal in areas requiring rapid and accurate decision-making capabilities, as evidenced by the successful application of AI and ML and various advanced tools to generate critical decisions.

However, the impact of digitalization is not uniform across all industries. This gap needs a tailored approach to a digital strategy depending on the intensity of requirements & challenges. So, adoption of continuous learning and training in digital skills, especially to bridge any existing digital skills gaps has become the need of the day for sustainable business. The integration of digitalization into management practices marks a significant development in the business world, offering remarkable opportunities for enhancing efficiency and strategic decision-making.

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