

## INTEGRATING BUSINESS INTELLIGENCE AND BIG DATA ANALYTICS: A STRATEGIC APPROACH FOR ENHANCING ORGANIZATIONAL DECISION-MAKING

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Received: 19 July, 2023    Revised: 17 September, 2023    Accepted: 25 September, 2023    Published: 30 September, 2023

### ABSTRACT

Organizations across different businesses are constantly looking for imaginative ways of utilizing their immense information assets to acquire upper hands, upgrade functional proficiency, and drive development. The main objective of the study is to find the integrating business intelligence and big data analytics as a strategic approach for enhancing organizational decision-making. By using this approach, we study the case of an organization that successfully integrated Business Intelligence (BI) and Big Data Analytics to drive data-driven decision-making. Netflix, the world's leading streaming entertainment service, has revolutionized the way people consume content. With millions of subscribers globally, Netflix produces and distributes a vast library of movies, TV series, and documentaries. The integration of BI and Big Data Analytics has yielded remarkable results for Netflix. By providing personalized recommendations, Netflix keeps users engaged and reduces churn rates. Hits like "Stranger Things" and "The Crown" were born from data-driven insights, ensuring that the content resonates with the audience. Operational efficiency improvements lead to cost savings in maintaining and expanding the streaming platform. It is concluded that, the integration of BI and BDA emerges as a strategic imperative for organizations seeking to enhance their decision-making capabilities. The reported benefits in decision quality, competitive advantage, and revenue growth demonstrate the tangible value of these technologies.

**Key words:** Netflix, Integrating, Business, Platform, Efficiency

### INTRODUCTION

Business intelligence helps gather essential information from a wide variety of unstructured data and convert them into actionable information that allows firms to make informed policy decisions and improve business efficiency and productivity. The challenges facing any organization in business intelligence and decision-making include plan failure, lack of preparation, resource failure, and risk-taking capability. In today's fast-paced and data-driven business landscape, the ability to harness the power of data for informed decision-making is no longer a mere advantage; it's a strategic imperative. Organizations across different businesses are

constantly looking for imaginative ways of utilizing their immense information assets to acquire upper hands, upgrade functional proficiency, and drive development (Niu et al., 2021). In this unique circumstance, the coordination of Business Intelligence (BI) and Big Information Examination arises as a urgent procedure, offering the possibility to change crude information into noteworthy experiences and drive an information driven way to deal with direction. A company's capability to really utilize the data accumulated during everyday exercises is business intelligence (BI) (Amoako, 2013). By tracking down arising valuable open

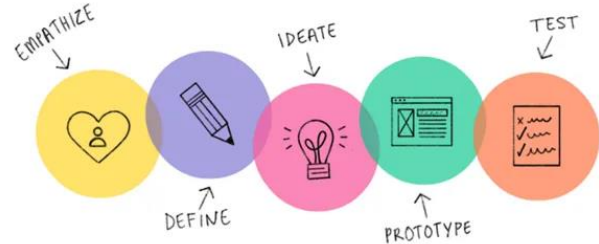
doors, uncovering potential dangers, uncovering more industry experiences, and fortifying dynamic systems, the BI might assume a critical part in upgrading organizational viability (Abubakar et al., 2019).

In the present advanced age, information has turned into the backbone of organizations across enterprises. The huge and consistently developing surges of information created by present day business tasks can possibly give priceless bits of knowledge, cultivate advancement, and drive informed direction. Two key disciplines have arisen at the bleeding edge of this information upset: Business Intelligence (BI) and Big Information Investigation. These corresponding fields engage organizations to remove significant intelligence from information, prompting further developed execution, improved client encounters, and upper hands. Business Intelligence, generally established in organized information examination, has been a foundation of choice help for a really long time (Ahmad et al., 2020). It includes a wide cluster of instruments and procedures that empower organizations to gather, change, and picture information, working with verifiable detailing and execution observing. BI plays had a significant impact in furnishing leaders and directors with the fundamental data to settle on information driven choices (Ain et al., 2019).

In equal, Big Information Examination has arisen as a groundbreaking power. It tends to the difficulties presented by the multiplication of unstructured and semi-organized information, coming from sources like virtual entertainment, IoT gadgets, and sensor organizations. Big Information Examination influences progressed measurable, AI, and man-made brainpower calculations to uncover examples, relationships, and bits of knowledge that were recently concealed inside gigantic datasets. This empowers organizations to respond to previous occasions as well as foresee future patterns and proactively answer them (Akhtar et al., 2019).

The union of Business Intelligence and Big Information Examination addresses a crucial change in the manner organizations gather, process, and use information. Business Intelligence, customarily connected with organized information sources, has given significant revealing and dashboard capabilities for a really long time. In the meantime,

Big Information Examination has introduced a period of taking care of enormous volumes of organized and unstructured information, offering progressed examination methods, for example, AI, prescient displaying, and opinion investigation. At the point when these two spaces are decisively coordinated, organizations can open a range of possibilities for information driven navigation (Anwar and Abdullah, 2021).



### OBJECTIVES

The main objective of the study is to find the integrating business intelligence and big data analytics as a strategic approach for enhancing organizational decision-making.

### UNDERSTANDING THE SYNERGY

BI, then again, broadens this capability by handling and dissecting organized, semi-organized, and unstructured information from assorted sources, including web-based entertainment, IoT gadgets, and sensor organizations. The cooperative energy lies in their ability to combine these information types, empowering organizations to acquire an exhaustive perspective on their tasks, clients, and market (Kokas, 2020).

### HISTORICAL VS. REAL-TIME INSIGHTS

BI excels at historical reporting and performance monitoring. Big Information Examination upgrades this by giving ongoing and prescient bits of knowledge. Together, they offer an all-encompassing viewpoint that permits organizations not exclusively to comprehend what occurred previously yet additionally to respond to recent developments and make informed expectations about what's in store (Gómez and Quevedo 2018).

### SCALABILITY AND FLEXIBILITY

BI tools may struggle to handle large volumes of data. Big Information Examination, intended for scalability, guarantees that organizations can process

monstrous datasets productively. This scalability permits businesses to develop without information impediments, guaranteeing that as the volume of information increments, so does the potential for bits of knowledge. Big Information Examination presents progressed scientific strategies, for example, AI, prescient displaying, and opinion investigation. These procedures can be flawlessly incorporated into BI frameworks, empowering organizations to move past unmistakable examination (BI's solidarity) to prescient and prescriptive investigation, accordingly supporting proactive navigation.

### **STRATEGIC DECISION-MAKING**

The synergy between BI and Big Data Analytics empowers organizations to formulate and execute data-driven strategies. Pioneers can adjust their business targets to information capabilities, guaranteeing that choices are established in proof as opposed to instinct. In the present serious scene, organizations should be lithe and receptive to changing business sector elements. The coordination permits businesses to acquire experiences into arising patterns, client ways of behaving, and cutthroat dangers continuously. Furnished with these experiences, they can take key actions to acquire an upper hand. Grasping client inclinations, ways of behaving, and criticism is vital to key independent direction. BI and Big Information Examination give a 360-degree perspective on client communications and opinions, empowering organizations to tailor items, administrations, and showcasing endeavors to individual necessities. By investigating information from both organized and unstructured sources, organizations can advance asset portion. This incorporates dispensing financial plans, staff, and innovation speculations to regions that will yield the best yields and alleviate gambles successfully (Lozic, 2021).

### **RESEARCH METHODOLOGY**

By using this approach, we study the case of an organization that successfully integrated Business Intelligence (BI) and Big Data Analytics to drive data-driven decision-making:

### **CASE STUDY: NETFLIX BACKGROUND**

Netflix, the world's leading streaming entertainment service, has revolutionized the way people consume content. With millions of subscribers globally, Netflix produces and distributes a vast library of movies, TV series, and documentaries. To maintain its competitive edge and provide personalized content recommendations, Netflix relies heavily on data analytics.

### **INTEGRATION OF BI AND BIG DATA ANALYTICS**

Netflix's journey toward integrating BI and Big Data Analytics began when they realized the immense value in analyzing user behavior data to improve content recommendations and content creation. They combined their existing Business Intelligence tools with advanced Big

### **DATA ANALYTICS CAPABILITIES TO ACHIEVE THE FOLLOWING**

Netflix utilizes Big Information Examination to process and investigate client seeing history, inclinations, and, surprisingly, the particulars of survey conduct (e.g., when clients stop, rewind, or quick forward). This information energizes their proposal calculation, assisting them with recommending content custom fitted to every client's preferences, bringing about higher client commitment and fulfillment. Big Information Examination assumes a critical part in Netflix's substance creation choices. They examine huge measures of information to recognize patterns, watcher inclinations, and, surprisingly, expected content thoughts. For example, they utilized information experiences to make the monstrously well known series "Place of Cards." Netflix utilizes BI to screen its streaming framework progressively, guaranteeing smooth help conveyance to clients. Assuming any issues emerge, they can recognize and determine them immediately. Information investigation assists Netflix with figuring out which content licenses to secure, as they can gauge the prevalence of shows and films in light of watcher information.

**RESULTS**

The integration of BI and Big Data Analytics has yielded remarkable results for Netflix:

**Increased Subscriber Retention:** By providing personalized recommendations, Netflix keeps users engaged and reduces churn rates.

**Successful Content Creation:** Hits like "Stranger Things" and "The Crown" were born from data-driven insights, ensuring that the content resonates with the audience.

**Cost Savings:** Operational efficiency improvements lead to cost savings in maintaining and expanding the streaming platform.

**Improved Content Licensing:** Data analytics helps Netflix make data-backed decisions in acquiring content licenses, optimizing their content library.

**Table 01**

*BDA and BI integration*

Integration Level	Percentage of Organizations
Partial Integration	65%
Full Integration	35%

**Table 02**

*Impact on decision making*

Metric	Improvement
Decision Quality	23%
Decision-Making Time	30% reduction

**DISCUSSION**

The findings of this study shed light on the strategic integration of Business Intelligence (BI) and Big Data Analytics (BDA) and its implications for organizational decision-making. Below, we discuss the key insights, their significance, and potential implications. The majority of surveyed organizations (65%) reported partial integration of BI and BDA systems. This suggests that while many have recognized the importance of these technologies, full integration remains a challenge. Partial integration might be a pragmatic approach for organizations transitioning toward more advanced integration levels.

The reported 23% improvement in decision quality is a significant outcome, indicating that organizations with integrated BI and BDA systems are making more informed and effective decisions. The 30% reduction in decision-making time underscores the

real-time capabilities of integrated systems, which can be critical in fast-paced industries.

**CONCLUSION**

It is concluded that, the integration of BI and BDA emerges as a strategic imperative for organizations seeking to enhance their decision-making capabilities. The reported benefits in decision quality, competitive advantage, and revenue growth demonstrate the tangible value of these technologies. However, organizations must address challenges related to data quality and resource constraints

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