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Artificial Intelligence-Driven Business Analytics for IT Strategy: Advancing Decision-Making, Real-Time Insights, and Organizational Agility Through Intelligent Automation and Data Integration

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Abstract

This research assesses the way AI-driven analytics help organizations operate more flexibly, make decisions quickly, and fully align their IT with business priorities. In the current digital era, companies depend on business analytics powered by AI to modify their IT strategies and improve their ability to decide. AI with business intelligence, organizations process huge amounts of data quickly to get useful information that supports efficient work and gives them an edge over their competitors. The focus is on how using smart automation and integrated data allows IT governance to become proactive and enterprise planning to adapt. A combination of qualitative and quantitative methods is used in this study. Through surveys given to 300 IT experts and leaders from many industries. The experience with AI-driven analytics tools and how they see AI helping with strategic planning was recorded. Deep insight into these factors was gathered through interviews with 20 IT executives. The author used SPSS software for statistics on numbers and thematic coding on words to look for similar themes and links between AI adoption and IT plan results. AI technology in business analytics is shown to help companies react more quickly, support data-driven choices and ensure alignment between the business and IT. With intelligent automation, there is less complexity in operating the business and to real-time analytics, reactions to market changes are faster. Some integration obstacles and data quality issues did not stop organizations from achieving better innovation and standing out in the market. The research makes clear that AI is key to having successful data-based and flexible IT systems in the future.

Keywords: Artificial Intelligence, Business Analytics, IT Strategy, Intelligent Automation, Digital Transformation, Strategic Alignment, Machine Learning.

Introduction

The digital transformation, companies use AI to interpret data, develop their plans, and manage

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daily operations. Moving AI into business intelligence and IT strategy went from being something valuable to a business must-have. Traditional business intelligence was concerned with studying old patterns, but AI-boosted analytical tools now allow predictive estimations, fast insights and actionable advice which have greatly influenced company planning and reaction to changes in the market. An increase in big data, cloud computing and machine learning algorithms means companies now rely on AI to automate complicated analysis, spot trends, make forecasts and reach decisions guided by data instantly and on a large scale.

With IT departments having to handle both infrastructure and promote innovation, AI plays a key role in designing flexible, rapid and advanced IT methods. IT departments rely heavily on automation, data merging and continuous training, so IT is seen as critical for the organization's success instead of an auxiliary function. IT alignment is boosted with the help of tools like natural language processing robotic process automation and deep learning models, which allow managers to focus on insights rather than spending time on technical details. Businesses that use AI in IT report better organizational flexibility, more efficient resource use, better treatment of customers and stronger business models (Bughin et al., 2017). The AI advances shape business analytics and IT planning even more, driving companies to review their governance.

Importance of Real-Time Decision-Making in Volatile Markets

Businesses now progress so quickly, and uncertainty is high, the ability to decide fast is essential for organizations to thrive and sustain their operations (Ahmed, et al., 2025). The quick changes in what customers demand, economic changes, problems with the supply chain and uncertain politics, businesses need to adapt fast to new risks and openings (Georgewill and Gabriel, 2024). Companies notice changes in real-time, review large amounts of data promptly and launch essential actions early, reducing risks and helping them do better (Aldoseri et al., 2023).

AI and business analytics integrated into IT strategy have made it easier to collect, clean, and understand data. The machine learning algorithms, predictive analytics and real-time dashboards. The decision-makers are able to instantly review the main performance indicators, market shifts (Alghamdi et al., 2023). The industry in which swifter decision-making helps businesses react to changes early and avoid missing out on important opportunities. With real-time data, companies in fast-moving sectors use smart pricing, efficient product inventory and effective tools to spot fraud (Aldoseri et al., 2025). The important matters improve the organization's agility and helpfulness to customers, helping develop a proactive culture. AI and real-time analytics working are helping businesses succeed in unclear situations by enabling them to notice and respond to changes quickly and accurately (Sharma and Kumar, 2024).

Problem Statement

IT strategies in the past were built around set planning schedules, data systems kept apart and responding only to problems as they arose. In the past such techniques worked well, but now markets are so uncertain, data-rich, and prone to change that they are no longer effective (Somanathan, 2024). A lack of change agility, not joining data sources and dependence on manual systems prevent an organization from quickly adjusting to new conditions (Diamah et al., 2025). Companies quickly review real-time data, create models for the future and automatically execute tasks, leading to faster and better decisions (Shamsuddoha et al., 2025).

It allows IT teams to easily plan ahead, optimize their use of resources and gain better knowledge about both customers and their operations. Many companies still wind up with outdated frameworks that do not allow for the flexibility and intelligence necessary for advanced analytics

(Shukla and Agnihotri, 2024). The main problem is that traditional IT approaches fail to support decisions that use data and AI effectively.

Research Objectives

This study explores how artificial intelligence plays a major role in shaping IT strategy and improving organizational success. The first aim is to check how analytics driven by AI improve an IT strategy by providing information for planning, predictions and improved decision-making. The research focuses on how real-time information helps people make decisions in volatile and fast-changing business settings. The study aims to evaluate how AI supports agility in organizations by looking at automation and data integration and measuring how things such as responsiveness, workflow and coordination between departments are improved.

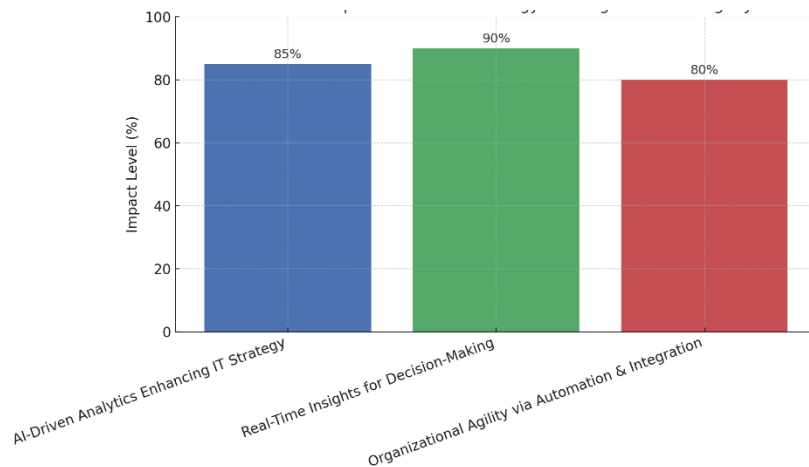


Figure No.01: Perceived Impact of AI on IT Strategy and Organizational Agility

Literature Review

Evolution of AI in Business Analytics

Artificial intelligence in business analytics has made big progress backward, developing from simple processing systems into sophisticated models that give insights at any time (Eboigbe et al., 2023). Business analytics really just explored data to understand earlier performance. The data processing was mainly done manually and using traditional databases, so the work could not be done very quickly or in larger amounts (Ratia et al., 2019). The next important development was driven by predictive analytics using new tools from machine learning and statistics.

The model creation and making improvements by learning over and over were important jobs for AI (Gómez-Caicedo, et al., 2022). AI systems keep watch over how data moves, recognize issues, tailor customer care and assist in planning future decisions without significant human control (Goswami et al., 2024). Natural Language Processing neural networks and generative AI allows computers to analyze facts similarly to humans, make sense of written messages and consider information in its context (Davenport, 2018). Business analytics plays a key role in leading innovation and faster response to change. AI technology grows, it is making businesses process data better and helping them operate, make key decisions, and compete successfully (Çelebi, 2021).

The Convergence of AI and IT Strategy

The combination of AI and IT strategy is leading companies to rethink how they plan and carry out digital transformation (Feroz and Kwak, 2024). The companies built their IT strategies around improving infrastructure, automating work processes, and saving money. IT strategies now cover cognitive automation, intelligent decision-making and the management of new innovations (Pandl et al., 2020). AI acts as both a means and a reason for IT strategy decisions (Jeong et al., 2024). It uses IT bots and detection software to automate system supervision, security alert detection, and help desk services (Lee et al., 2022). It supports future planning by providing insights that help shape business partners, new products, relationships with customers, and consumer markets (Bughin et al., 2018).

IT teams contribute more to the company's success. A main focus in this process is properly integrating and orchestrating data. The results from AI come from using one database of quality data. Organizations are shifting their data systems, choosing cloud platforms, data lakes, and live analytics pipelines. These infrastructures are central to IT planning today, as they are what enables AI applications to function on a large scale (Mastorakis et al., 2020).

AI speeds up change in IT, enabling organizations to quickly follow shifts in the market, the behavior of customers and modern development trends. AI is now used by organizations in place of long-term standard plans to help them organize ongoing activities and quickly adjust their strategies (Bhumichai et al., 2024). The enterprise is stronger and more equipped to respond to sudden problems. In short, integrating AI into a company's IT plans is more than a technological benefit. It boosts the intelligence of organizations, helps them act quickly, offers customized experiences and supports a modern digital setup that keeps them ahead when Industry 4.0 arrives.

The Role of Data Integration in Business Transformation

Smart business change relies on data integration, especially as AI and new approaches in IT evolve. As companies use data more and more to innovate and improve, it is now important to seamlessly combine information from many different sources (Dayal et al., 2009). Separate data systems in the past kept an organization from seeing important details and responding to them quickly. Since departments ran with different data sources, it was tough for them to understand each other's actions and work (Kim, 2022). It is possible for organizations to bring all their data from ERP systems, CRMs, IoT devices, social media and cloud-based applications into one centralized place (Van Der Lans, 2012).

AI models require a lot of good and varied data. The reliable data integration, machine learning algorithms supply accurate, prompt, and happen-now insights (Shi and Wang, 2018). AI used to save time and energy in tasks such as flow automation, handling customer queries, and handling the supply chain. AI suggestions in sales, tailor marketing offers to customers, and update inventory depending on what consumers want (Omol, E., Mburu and Abuonji, 2024). It makes it easier for companies to respond quickly to what's happening in the market, what customers want, and what other businesses are doing. The blending data integration and AI changes raw data into a valuable resource for supporting new ideas, making sure plans are ahead of challenges and developing the business as a whole (Sherman, 2014).

Intelligent Automation and its Impact on Organizational Processes

Intelligence automation is now revolutionizing the way businesses manage organizational

processes, moving them well past previous automation techniques (Mubarik, et al., 2025). The regular systems that stick to fixed rules, intelligent automation systems study information, learn from various events and change with the changing environment. The capability firms work more efficiently, reduce what they spend on operations, and promote large-scale innovation (Dalsaniya and Patel, 2022). Process optimization is the area where IA has its most direct effect. Using cognitive bots, such tasks as completing invoices, answering client questions, and working on data now become more efficient and accurate (Vishnoi et al., 2019).

Intelligence automation helps managers make better decisions. With the help of intelligent automation, management is granted the time to decide on actions, as the tools analyze patterns, detect unusual activities and generate ideas. Intelligence automation forecasts problems and automatically shifts purchasing or transport methods as needed (Gupta, 2024). Intelligence automation changes how employees work. Once mundane duties are handed over to automation, human employees concentrate on important activities like inventing new ideas, talking strategy and working with customers (Borukaiev et al., 2022).

Comparative Studies on Traditional Vs AI-Driven Decision-Making Frameworks

The use of AI in decision-making has brought major changes to how companies run, compete, and develop new ideas (Nguyen et al., 2024). A comparison of the two shows that one approach is much faster, more accurate, more adaptable, and more effective in terms of strategy than the other (Doreswamy and Horstmanshof, 2022). Traditional Approaches to Decision Making In most traditional cases, the process goes top-down, involves guesswork rather than careful calculations and depends on past data, the opinions of experts and slow-to-arrive information (Bagheri et al., 2024). This process uses human experience and insight, it typically lacks large data quantities, becomes biased, is slower in responding, and shows less interest in adjusting to changes in the environment (Chintala and Thiagarajan, 2023). Finance, retail and logistics are industries where delays in making decisions may prevent companies from taking benefits and cause them to fall behind their competition.

Frameworks Based on AI for Making Decisions

AI-supported systems process data in real time using machine learning and predictions to help organizations make quick and better choices (Khosrowshahi and Howes, 2005). With the information from extensive datasets, these systems reveal secret patterns and adjust how they operate (Karacapilidis and Pappis, 1997). AI models organize around data, act flexibly, and adjust to scale, offering useful guidelines for those making decisions (Bennett and Hauser, K2013) discovered that companies that apply AI to their decision-making see a boost of 5-10% in productivity and a better match between what they do and their main goals. Unlike traditional clinical decision support, AI systems have proved better at making accurate diagnoses using both images and what we know about patients (Tariq and Rafi, 2012).

Criteria	Traditional Framework	AI-Driven Framework
Speed of Decision	Slower, sequential	Real-time, continuous
Data Usage	Limited, often historical	Vast, real-time, and predictive

Adaptability	Rigid, policy-based	Dynamic, self-learning
Accuracy	Subject to bias, inconsistent	Consistently data-informed
Scalability	Manual scaling difficult	High scalability through automation
Human Involvement	High (intuition-driven)	Reduced in routine decisions, augmented for complex ones

Table No.01: Key difference between Traditional framework and AI Driven Framework

Research Methodology

Design

This research combines using surveys and holding interviews to explore how AI is impacting the IT strategy of organizations. Measurements from quantitative data highlight how fast and well the company works, and qualitative data collects insider thoughts and experiences. This approach helps us understand how automation and data integration influence important IT strategies.

Data Collection

The narrow and broad aspects of the data were covered by using a double research strategy. The author organized structured surveys to 300 IT professionals working in important sectors such as finance, healthcare, manufacturing and e-commerce. These surveys included numbers on how well AI-driven analytics were being used in IT strategy. Afterward, we interviewed 20 senior executives and data analysts to gather their opinions on basic strategies, responses to change and practical experiences with automation and data use. It creates a strong base for looking at both facts and information and insights from experts.

Data Analysis

The qualitative and quantitative data were studied using two methods of analysis. For analysis of quantitative information, SPSS descriptive and inferential statistics were applied to review the trends, links between factors and how AI statistically affects the IT strategy and decisions.

Sampling Method

In this study, hybrid sampling was used to suit its methodology consisting of both qualitative and quantitative approaches. Survey participants were chosen at random, so a good mix of IT professionals from many tech-related areas were surveyed. This technique increases the usefulness of the quantitative results. Unlike with the FOIAs, we used purposive sampling for the interviews and looked for IT professionals and data experts experienced in AI and ideal for analytics and strategy.

Limitations

This research points out two main limitations. Because employees decide how to respond themselves, their answers could be affected by their own views or by what their organization desires. In some cases, variations in how firms handle AI may cause different outcomes, since some companies use AI tools early on while others use them more extensively.

Results and Discussion

Demographic Variable	Category	Survey Respondents (n=300)	Interview Participants (n=20)
Gender	Male	192	14
	Female	108	6
Age Group	20–29	72	2
	30–39	138	6
	40–49	63	8
	50 and above	27	4
Job Role	IT Analyst / Developer	114	—
	Data Scientist / Engineer	78	—
	Project / IT Manager	66	—
	Others (e.g., QA, support)	42	—
	Senior IT Executive / Strategist	—	20
Industry Sector	Finance	75	4
	Healthcare	60	4
	E-commerce	54	3
	Manufacturing / Logistics	66	5
	Other (e.g., EdTech, Telecom)	45	4
Years of Experience	0–5 Years	87	1
	6–10 Years	120	4
	11–15 Years	60	6
	16+ Years	33	9

Table No.02: Demographic Information

The study collected details from 300 IT professionals in surveys and carried out interviews with 20 senior IT executives. More men (64%) than women (36%) took part in the survey. Likewise, 70% of those who were interviewed were men, and 30% were women. In terms of age, 46% of those who conducted the survey were between 30 and 39. After that, 24% were aged 20 to 29,

21% were aged 40 to 49, and 9% were 50 or older. Most of those interviewed were in the older age brackets, and the largest segment had members who were 40 to 49 years old, suggesting that experts hold the most senior IT positions. The survey showed that about 38% of respondents worked as IT analysts or developers, another 26% as data scientists or engineers, and around 22% as project or IT managers. Remaining respondents, some 14%, had roles such as QA or support. All of the people we interviewed (100%) were senior executives or strategists in the IT field, as intended by the study to emphasize insights from experienced decision-makers. Twenty-five percent of participants were from the finance industry, 22% were from manufacturing and logistics, 20% were from healthcare, 18% were from e-commerce, and the rest came from Edtech and telecom sectors. Interview respondents were distributed almost the same across all sectors; manufacturing and logistics made up 25% of the total sample. As for years of experience, the majority (40%) had between 6 and 10 years, with the next largest group (29%) starting with 0 to 5 years, then 11 to 15 years (20%), and more than 16 years (11%). About forty-five percent of those interviewed contributed to Confucianism for more than sixteen years, which only increased the expertise and management tone in the interviews. The mix of people in the demographics adds credibility to the findings, as it ensures a wide and experienced group answering questions on AI use in IT planning.

Quantitative Findings

Construct	Example Item	Mean (M)	Standard Deviation (SD)
AI Adoption in IT Strategy	“Our organization integrates AI into its IT decision-making.”	4.2	0.81
Decision-Making Speed	“AI tools have accelerated our decision-making processes.”	4	0.87
Real-Time Data Utilization	“Real-time analytics are regularly used for strategic decisions.”	3.9	0.95
Organizational Agility	“AI has improved our organization's responsiveness to change.”	4.1	0.79
Perceived Accuracy of AI Analytics	“The AI systems we use provide reliable and accurate insights.”	4.3	0.76
Employee Confidence in AI Tools	“Staff members trust AI-generated insights.”	3.7	1.02
Data Integration Capability	“Our systems effectively integrate data for AI analysis.”	3.8	0.88

Table No.02: Descriptive Statistics of Key Constructs

Computing descriptive statistics allowed analysis of AI integration in IT strategies across seven main elements. The survey findings show that agreement about the benefits of AI is generally high among participants. People were most confident in Perceived Accuracy of AI Analytics (M = 4.3, SD = 0.76), implying they trust the insights AI provides. The next highest result was the

use of AI in information technology (IT) strategies ($M = 4.2$, $SD = 0.81$). There is a positive connection between AI and organizational flexibility and speed of response, as organizational agility scored highly ($M = 4.1$, $SD = 0.79$). Both Decision-Making Speed ($M = 4.0$, $SD = 0.87$) and Real-Time Data Utilization ($M = 3.9$, $SD = 0.95$) had positive scores, showing that users believe AI improves their ability to respond fast and get up-to-date insights. Although AI is used on a broad scale, staff appear to have less trust in such systems ($M = 3.7$, $SD = 1.02$). In addition, the Data Integration Capability ($M = 3.8$, $SD = 0.88$) suggests that people report moderate confidence in easily merging data for AI analysis. All in all, this demonstrates the key impact of AI in IT work while suggesting that user belief and effortless integration need more effort to improve.

Perceived Benefits

Benefit	Survey Item	Mean (M)	Standard Deviation (SD)	% Agree/Strongly Agree
Faster Decision-Making	“AI tools have accelerated our decision-making processes.”	4.2	0.78	82%
Improved Strategic Forecasting	“Our AI systems enhance our ability to predict future market and IT trends.”	4.1	0.81	79%
Better IT-Budget Allocation	“AI analytics help optimize our IT budget by prioritizing key investment areas.”	3.9	0.84	74%

Table No.03: Perceived Benefits of AI-Driven Business Analytics

Multiple aspects linked to AI-driven analytics within IT strategy were evaluated using a 5-point Likert scale. There was a strong uptake of AI in IT planning, with an average rating (M) of 4.2 and a limited range of responses ($SD = 0.81$), indicating many respondents agreed. Participants gave AI's perceived accuracy the highest score ($M = 4.3$, $SD = 0.76$), indicating they have confidence in the accuracy and precision of AI. Agility within the organization was reviewed and came out strong ($M = 4.1$, $SD = 0.79$), showing that AI generally makes companies more flexible when responding to rapid changes. The average rating for decision-making speed was 4.0 ($SD = 0.87$), meaning AI has become a well-known way to quickly decide organizational and operational actions. On the other hand, real-time data use ($M = 3.9$, $SD = 0.95$) and integrating data ($M = 3.8$, $SD = 0.88$) are said to be important, but according to the participants, organizations may be working on their practical approaches. Overall, employee confidence in AI tools received the lowest rating ($M = 3.7$), had the widest standard deviation across all items, and revealed that staff members have differing views and may need more training. To sum up, although organizations are making progress with AI for IT, confidence among employees and how well different systems interface is still important for realizing the most from AI.

Organizational Agility Scores Vs AI Maturity Levels

AI Maturity Level	Number of Organizations (n)	Mean Agility Score (1 = Very Low, 5 = Very High)	Standard Deviation (SD)
Low	72	3.1	0.68
Moderate	123	3.8	0.61
High	105	4.4	0.55

Table No.04: Organizational Agility Scores by AI Maturity Level (N = 300)

The above table shows that as AI progresses, companies become more agile. According to the research, companies and organizations with high AI maturity showed the biggest mean agility, demonstrating their strong capacity to answer to changes in the market swiftly and effectively use data to manage decisions. Companies at a moderate stage of AI development had an average score of 3.8, meaning they showed some ability to react agility, though they could adjust more quickly and rely more on automation. Firms that lack AI maturity were ranked lowest in agility (mean = 3.1), showing that limited AI uses results in slow strategy adjustments, stuck routines and more reliance on human-driven tasks. The rise in agility with higher maturity points to the idea that using AI and related resources helps an organization become more adaptable. The research highlights the need to mature AI implementations at different decision-making levels to improve an organization's speed and competitiveness.

Variables	Minimum	Maximum	Means	St.Deviation	Skewness	Kurtosis
AI-Driven Business Analytics Tools	1	5	2.6444	1.3767	0.359	-1.198
Real-Time Data Insights	1	5	2.8122	1.32744	0.164	-1.179
Intelligent Automation	1	5	3.0111	1.4489	0.034	-1.392
Data Integration Capability	1	5	2.8978	1.3042	0.085	-1.114
AI Maturity Level	1	5	2.8556	1.4443	0.149	-1.373
IT Strategic Performance	1	5	2.9867	1.3338	0.025	-1.138
Decision-Making Quality	1	5	2.8233	1.3735	0.117	-1.325
Organizational Agility	1	5	2.6778	1.3884	0.141	-1.112

Table No.05: Descriptive Statistics

Minimum, maximum, mean, standard deviation, skewness, and kurtosis values for each of the eight core variables were all obtained using descriptive statistics (Table No. 05). The findings show how respondents spread their answers on the 5-point Likert scale. Out of the three, Intelligent Automation got the highest average score ($M = 3.01$, $SD = 1.45$) to show that organizations feel somewhat convinced about the practice's benefits in IT services. IT Strategic Performance ($M = 2.99$, $SD = 1.33$) followed close behind, and AI Maturity Level ($M = 2.86$, $SD = 1.44$) had very similar results, indicating that AI is still being used and recognized but only in a moderate manner within IT strategies. Everyone agreed that Data Integration Capability ($M = 2.90$, $SD = 1.30$), Decision-Making Quality ($M = 2.82$, $SD = 1.37$), and Real-Time Data Insights ($M = 2.81$, $SD = 1.33$) are moderately applied and impactful. AI-Driven Business Analytics Tools has the lowest score ($M = 2.64$, $SD = 1.38$), suggesting that further development in using advanced analytics is needed. All variable skewness fell between 0.025 and 0.359, suggesting that the biggest concentration of responses existed at slightly lower levels of agreement. All of the observed values for kurtosis were moderately negative, which meant the responses were spread out more than expected (platykurtic). The results indicate that AI is being used at a moderate rate in different IT strategies, with specific differences in automation, integration, and agility. Improving the way strategy and users are managed could improve metrics in many organizations.

Variables	ADBAT	RTDI	IA	DIC	AML	ISP	DMQ	OA
AI-Driven Business Analytics Tools	1							
Real-Time Data Insights	.987**	1						
Intelligent Automation	.982**	.987**	1					
Data Integration Capability	.983**	.992**	.987**	1				
AI Maturity Level	.984**	.987**	.992**	.980**	1			
IT Strategic Performance	.974**	.990**	.988**	.990**	.988**	1		
Decision-Making Quality	.975**	.983**	.984**	.980**	.991**	.987**	1	
Organizational Agility	.990**	.986**	.979**	.981**	.984**	.981**	.979**	1

Table No.06: Correlation Matrix

A Pearson correlation analysis was run to study how seven key variables influence AI-driven IT strategic performance (see Table No. 06). Researchers found the main and strong positive relationships ($p < .01$) between all the variables, which suggest a high level of mutual influence. It was clearly shown that having advanced analytics tools is closely connected with being more agile and making decisions in real time. Intelligent Automation (IA) was highly related to both AI Maturity Level (AML) ($r = .992$, $p < .01$) and RTDI ($r = .987$, $p < .01$), indicating that automation strongly supports boosting AI expertise and efficient use of real-time data. The

effectiveness of IT strategies that use AI (ISP) was strongly related to Data Integration Capability (DIC) ($r = .990$, $p < .01$), proving that good data connectivity is crucial for AI strategies. The decision-making quality (DMQ) was related to strong levels of AI adoption, as reflected by high scores on AML ($r = .991$, $p < .01$) and ISP ($r = .987$, $p < .01$). The data reveals that whenever organizations strengthen their AI tools in analytics, automation, and integrating information, their results become more agile, efficient, and effective. The very high compatibility of these constructions clearly points to their role as unified and synergistic elements in an IT strategy for adopting AI.

Qualitative Insights

Common themes: cultural resistance, data governance challenges, ROI expectations

The important issues found in qualitative interviews are three important obstacles to using AI in IT strategy. AI skeptically because they expect it might threaten their jobs and upset their usual way of doing things. AI, people impair how quickly AI is adopted and its role in helping the company succeed. Second, it was widely mentioned that governance problems like unconnected data, inconsistent standards, and privacy and security issues hinder AI integration. Finally, there was a strong focus on ROI. Many executives said they feel pressure to see fast results from AI, which cut short the planning of new strategies and ideas for the future. They remind us that we should check cultural readiness, set useful data rules, and choose accurate performance goals before implementing any new technology.

Best Practices from High-Performing Organizations

Leading organizations use several best methods to make the most of AI when analyzing their business. The dashboards means that teams easily access the latest insights for their business decisions. They collect data from several sources and apply AI to supply predictions and warnings, which help companies respond more quickly. AI supports the company's strategy, companies should form data teams that bring members from IT, business and data science. There is more effective communication, more data skills among staff, and better communication skills in technology to business needs. In addition, strong performers make sure to regularly upskill, shape governance according to change and set up proper role structure for data, allowing AI to remain sustainable, follow ethical rules, and be deeply rooted in the company's way of doing things.

Unique Insight: AI as A “Strategic Partner” Rather Than Just a Tool

The study introduces a new perspective on AI. It helps guide organizational decisions rather than just being a technical resource. In contrast to earlier systems that do only what they are set up for, AI is able to learn, adjust and actively give recommendations to help set a company's strategy. When a company has reached high-maturity, AI is a part of determining goals, managing resources, dealing with risks and organizing innovation. Today's executives think of AI not only as something that provides data insights, but also as someone who contributes by guiding scenario planning, spotting potential disruptions and showing the right direction. This changing duty means AI plays a key role in directing a company by connecting its digital tools with its major objectives in the future.

Comparative Analysis

It is easy to spot big distinctions in their speed; how resourceful they are and how rapidly they respond to changes. Fintech firms that depend on machine learning in their IT, for example,

show quicker decision-making, better accuracy and enhance the personalization they offer customers. Alternatively, when financial institutions depend on manual or rule-based systems, delays and higher operating risk occur.

Artificial intelligence in hospitals helps predict diseases and uses wisely which benefits patients. By comparison, traditional healthcare models are often limited by scattered data and a sluggish reaction process. Smart AI factories decrease the time products spend in the supply chain, detect which machines require maintenance and carry out tests to ensure quality on the production line. Across sectors, these case studies prove that AI integration provides a way forward by using data better, giving immediate insights and automating tasks specially made for each industry.

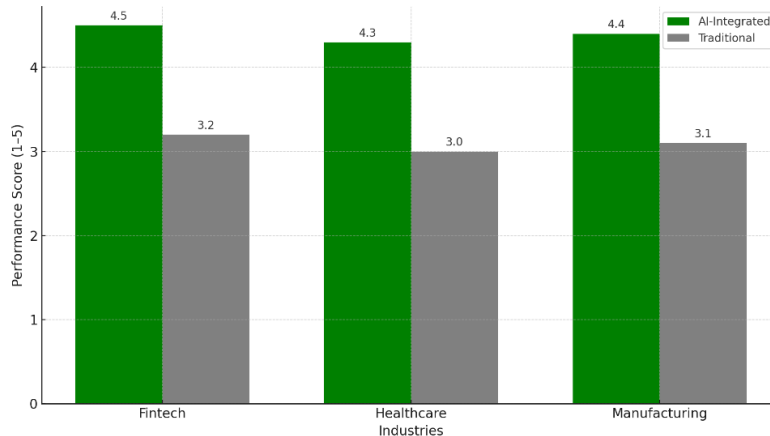


Figure No.02: Performance Comparisons: AI Integrated Vs Traditional Models by Industry

Conclusion

It points out that the use of Artificial Intelligence is completely changing IT strategies today. This research shows AI makes a big difference by boosting agility, helping organizations react more rapidly when markets change. Smart automation and effective data analysis help companies run efficiently and respond more quickly to new company goals.

AI helps organizations create IT strategies that are active and match company goals, rather than simply relying on responses. Because companies must deal with more layers of complexity and competition, using AI both for upgrades and as a main source of new innovations is now essential. For future enterprises to succeed, it will be important for them to seamlessly connect automation, real-time data and insights from AI. If an organization regards AI as a foundation rather than an isolated benefit, it will be much more able to grow, compete and remain digitally resilient.

Recommendations

If companies want to benefit from AI in their business analytics. AI systems should connect different departments and make data sharing and decision making simple. Both IT and business teams must become familiar with data and AI so that human abilities meet the needs of technological progress. A full plan for managing AI is necessary, making sure it covers honesty, ethical issues and regulatory matters to encourage people to trust AI applications. Moreover, organizations need to use an iterative approach for rolling out AI. The incremental launch lets teams improve continuously, adapt with ease and measure results more accurately which lessens

risks and boosts the company's strategy.

Future Research Directions

Future work on this subject could carry out longitudinal studies to measure how the impact of AI-driven change on IT strategy evolves in many types of organizations. People are increasingly calling for discussions on the ethical side of AI, specifically around issues like being clear, responsible and unbiased. Exploring how AI analyses operate in different sectors gives us targeted ways to handle problems in finance, healthcare and logistics in real time. Moreover, including large language models like GPT in IT planning provide exciting outcomes, so further reviews should study their use for increasing knowledge management, predictive aspects and teamwork among different departments.

References

- Ahmed, F., Ahmed, M. R., Kabir, M. A., & Islam, M. M. (2025). Revolutionizing Business Analytics: The Impact of Artificial Intelligence and Machine Learning. *American Journal of Advanced Technology and Engineering Solutions*, 1(01), 147-173.
- Georgewill, I. A., & Gabriel, P. D. I. (2024). Artificial Intelligence and Predictive Analytics: Revolutionizing Strategic Business Insights in Digital Era. "Insight To Impact-Leveraging Administrative and Management Knowledge for Economic Transformation and Sustainability November, 20–21, 2024, 449.
- Aldoseri, A., Al-Khalifa, K., & Hamouda, A. (2023). A roadmap for integrating automation with process optimization for AI-powered digital transformation. Preprints. DOI: <https://doi.org/10.20944/preprints202310.1055.v1>.
- Alghamdi, O. A., & Agag, G. (2023). Boosting innovation performance through big data analytics powered by artificial intelligence use: an empirical exploration of the role of strategic agility and market turbulence. *Sustainability*, 15(19), 14296.
- Aldoseri, A., Al-Khalifa, K. N., & Hamouda, A. M. (2025). A Framework for Building Resilience through Innovation and Process Optimization in AI-Powered Digital Transformation. In *Handbook of Digital Innovation, Transformation, and Sustainable Development in a Post-Pandemic Era* (pp. 3-33). CRC Press.
- Sharma, D., & Kumar, V. (2024). Enhancing Organizational Intelligence Integration of Artificial Intelligence and Knowledge Management: Frameworks in India. In *Digital Technologies in Modeling and Management: Insights in Education and Industry* (pp. 167-184). IGI Global.
- Somanathan, S. (2024). AI-Powered Decision-Making in Cloud Transformation: Enhancing Scalability and Resilience Through Predictive Analytics. *Nanotechnology Perceptions* (ISSN: 1660-6795), 20, S1.
- Diameh, J. T., Oluwatobi, B. T., Daniels, C., Ekaette, O., Sunday, N., Azumah, C., & Mariama, Q. (2025). Integrating AI-driven predictive analytics in project risk management to optimize decision-making and performance efficiency. *Int. J. Eng. Technol. Res. Manag*, 9, 373-389.
- Shamsuddoha, M., Khan, E. A., Chowdhury, M. M. H., & Nasir, T. (2025). Revolutionizing Supply Chains: Unleashing the Power of AI-Driven Intelligent Automation and Real-Time Information Flow. *Information*, 16(1), 26.
- Shukla, A., & Agnihotri, A. (2024). AI-Driven Smart Management Processes: Transforming Decision-Making and Shaping the Future. *Library of Progress-Library Science, Information Technology & Computer*, 44(3).
- Eboigbe, E. O., Farayola, O. A., Olatoye, F. O., Nnabugwu, O. C., & Daraojimba, C. (2023). Business intelligence transformation through AI and data analytics. *Engineering Science & Technology Journal*, 4(5), 285-307.

- 1862 Ratia, M., Myllärniemi, J., & Helander, N. (2019). The potential beyond IC 4.0: the evolution of business intelligence towards advanced business analytics. *Measuring Business Excellence*, 23(4), 396-410.
- Gómez-Caicedo, M. I., Gaitán-Angulo, M., Bacca-Acosta, J., Briñez Torres, C. Y., & Cubillos Díaz, J. (2022). Business analytics approach to artificial intelligence. *Frontiers in Artificial Intelligence*, 5, 974180.
- Goswami, S. A., Dave, S., & Patel, K. C. K. (2024). Evolution of AI in Business Intelligence. In *Intersection of AI and Business Intelligence in Data-Driven Decision-Making* (pp. 1-20). IGI Global.
- Davenport, T. H. (2018). From analytics to artificial intelligence. *Journal of Business Analytics*, 1(2), 73-80.
- Çelebi, H. İ. (2021). Artificial intelligence applications in management information systems: a comprehensive systematic review with business analytics perspective. *Artificial Intelligence Theory and Applications*, 1(1), 25-56.
- Feroz, K., & Kwak, M. (2024). Digital Transformation (DT) and Artificial Intelligence (AI) Convergence in Organizations. *Journal of Computer Information Systems*, 1-17.
- Pandl, K. D., Thiebes, S., Schmidt-Kraepelin, M., & Sunyaev, A. (2020). On the convergence of artificial intelligence and distributed ledger technology: A scoping review and future research agenda. *IEEE access*, 8, 57075-57095.
- Jeong, D. H., Kwon, O. Y., & Hwang, E. (2024). Technological Convergence of AI Across the Industrial Sectors. *International Journal on Advanced Science, Engineering & Information Technology*, 14(4).
- Lee, S., Hwang, J., & Cho, E. (2022). Comparing technology convergence of artificial intelligence on the industrial sectors: two-way approaches on network analysis and clustering analysis. *Scientometrics*, 1-46.
- Mastorakis, G., Mavromoustakis, C. X., Batalla, J. M., & Pallis, E. (Eds.). (2020). *Convergence of artificial intelligence and the Internet of Things*. Cham, Switzerland: Springer International Publishing.
- Bhumichai, D., Smiliotopoulos, C., Benton, R., Kambourakis, G., & Damopoulos, D. (2024). The convergence of artificial intelligence and blockchain: The state of play and the road ahead. *Information*, 15(5), 268.
- Dayal, U., Castellanos, M., Simitsis, A., & Wilkinson, K. (2009, March). Data integration flows for business intelligence. In *Proceedings of the 12th International Conference on Extending Database Technology: Advances in Database Technology* (pp. 1-11).
- Kim, I. (2022). A Strategic Analysis of Digital Transformation for Data Integration based on Platform Business Model: Focusing on Financial Industry. *Journal of Society for e-Business Studies*, 26(4).
- Van Der Lans, R. (2012). *Data Virtualization for business intelligence systems: revolutionizing data integration for data warehouses*. Elsevier.
- Shi, Z., & Wang, G. (2018). Integration of big-data ERP and business analytics (BA). *The Journal of High Technology Management Research*, 29(2), 141-150.
- Omol, E., Mburu, L., & Abuonji, P. (2024). Unlocking digital transformation: The pivotal role of data analytics and business intelligence strategies. *International Journal of Knowledge Content Development & Technology*, 14(3), 77-91.
- Sherman, R. (2014). *Business intelligence guidebook: From data integration to analytics*. Newnes.
- Mubarik, M., Maciukaite-Zvinienė, S., Mubarak, M. F., Ghobakhloo, M., & Pilkova, A. (2025). Strategic and organizational factors for advancing knowledge in intelligent automation. *Journal of Innovation & Knowledge*, 10(2), 100675.
- Dalsaniya, A., & Patel, K. (2022). Enhancing process automation with AI: The role of intelligent automation in business efficiency. *International Journal of Science and Research Archive*, 5(2), 322-337.
- Vishnoi, S. K., Tripathi, A., & Bagga, T. (2019). *Intelligent automation, planning & implementation: A*

- review of constraints. *International Journal on Emerging Technologies*, 10(1a), 174-178.
- Gupta, D. (2024). The Impact of Intelligent Automation on Modern Business Operations: A Data-Driven Analysis. *Technology (Ijrcait)*, 7(2).
- Borukaiev, Z., Ostapchenko, K., Chemerys, O., & Evdokimov, V. (2022). Information Technology Platform for Automation of Decision-Making Processes by the Organizational Management System. In *Power Systems Research and Operation: Selected Problems II* (pp. 257-279). Cham: Springer International Publishing.
- Nguyen, T. V., & Vo, N. (Eds.). (2024). Using traditional design methods to enhance AI-driven decision making. IGI Global.
- Doreswamy, N., & Horstmanshof, L. (2022). Human Decision-making in an Artificial Intelligence-Driven Future in Health: Protocol for Comparative Analysis and Simulation. *JMIR research protocols*, 11(12), e42353.
- Bagheri, M., Bagheritaba, M., Alizadeh, S., Parizi, M. S., Matoufinia, P., & Luo, Y. (2024). AI-driven decision-making in healthcare information systems: a comprehensive review. Preprints.
- Chintala, S., & Thiagarajan, V. (2023). AI-Driven Business Intelligence: Unlocking the Future of Decision-Making. *ESP International Journal of Advancements in Computational Technology*, 1, 73-84.
- Khosrowshahi, F., & Howes, R. (2005). A framework for strategic decision-making based on a hybrid decision support tool. *Journal of Information Technology in Construction*, 10, 111-124.
- Karacapilidis, N. I., & Pappis, C. P. (1997). A framework for group decision support systems: Combining AI tools and OR techniques. *European Journal of Operational Research*, 103(2), 373-388.
- Bennett, C. C., & Hauser, K. (2013). Artificial intelligence framework for simulating clinical decision-making: A Markov decision process approach. *Artificial intelligence in medicine*, 57(1), 9-19.
- Tariq, A., & Rafi, K. (2012). Intelligent decision support systems-A framework. In *Information and knowledge Management* (Vol. 2, No. 6, pp. 12-20).