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AI ACROSS INDUSTRIES: A COMPARATIVE ANALYSIS OF ADOPTION AND IMPACT

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ABSTRACT

This study looks at the spread of Artificial Intelligence (AI) throughout several companies. The study examines AI adoption rates, highlights major uses and advantages, and evaluates the influence of AI on the competitive landscape using secondary sources of data that encompass academic literature, industry publications, and corporate data. The study finds considerable variations in AI usage across industries. Banking & Finance, Healthcare, and E-commerce & Retail have strong adoption rates and use AI to increase efficiency, productivity, and customer satisfaction. In contrast, industries such as manufacturing and sales & marketing have lower adoption rates, emphasizing the need for additional investigation of the issues that hinder adoption and the creation of initiatives to speed AI implementation. The research results demonstrate AI's broad uses across sectors, as well as its ability to revolutionize business workflows, competitive landscapes, and social growth. This study helps organizations, politicians, and researchers figure out the complicated nature of AI adoption and manage the changing technological landscape.

***Keywords**: Artificial Intelligence (AI), AI Implementation, AI Adoption Rates, AI Across Industries and AI Deployment & Development.*

Introduction

There are major holes in the knowledge of AI adoption throughout different industries. A systematic comparison examination of AI rates of adoption across numerous sectors is absent, which restricts the investigation of the variables impacting adoption as well as the finding of best practices. Furthermore, research frequently fails to investigate the individual scenarios of application and positive effects of AI in each industry. For example, although AI in healthcare may be focused on customized therapy, its use in manufacturing may be automated maintenance (as cited by Rana, et al., 2022, p. 377). Additionally, there has been no systematic examination of AI's implications for rivalry patterns and market frameworks across industries. This limits the understanding of how artificial intelligence is transforming competitive landscapes, generating novel market possibilities as well as obstacles (as cited by Schwaeke, et al., 2024). The film and television industry's competitive landscape are changing dramatically, with artificial intelligence-driven automation challenging traditional production processes. However, additional research is required to properly comprehend the complexity of AI adoption (as cited by Kumar, P., 2024).

Statement of Research Problem

Considering AI's enormous potential to alter several companies, an in-depth awareness of its widespread use across sectors remains difficult. Current research contains important holes. To begin, a

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lack of an in-depth comparison of AI adoption rates throughout varied industries hinders its understanding of the variables impacting acceptance and the recognition of ideal methods for effective AI implementation. Second, a systematic examination of industries uses of AI and their related advantages is frequently inadequate, restricting businesses' capacity to discover and use the most significant AI applications in their specific environments (Felemban, Sohail, & Ruikar, 2024, p. 2460). Additionally, a systematic examination of AI's implications on competitiveness behaviours and marketplace frameworks across industries is lacking, limiting human knowledge of how AI is transforming competitive landscapes and producing new market opportunities and difficulties (Khanfar, et al., 2024). This study attempts to close such gaps through performing an in-depth comparative study of AI acceptance throughout industries, discovering specific to industry applications and their related advantages, and evaluating the influence of AI on dynamic marketplaces and market trends in diverse industries. This study problem statement identifies the primary shortcomings in present investigations and clearly states the necessity for a complete and in-depth inquiry concerning the adoption of artificial intelligence across various industries.

Statement of Research Objectives/ Research Questions

The following are the study's key objectives; it comprises:

- To compare and contrast the adoption of AI in different industries and sectors.
- To identify industry-specific use cases and benefits of AI adoption.
- To assess the impact of AI on competitive landscapes and market dynamics in various industries.

Statement on Significance of Research

The study has substantial implications for a variety of stakeholders. Companies may use the insights to create successful AI strategies, identify and implement industry-specific AI applications, and gain a competitive advantage. These findings may be utilized by policymakers to inform decisions on AI development and deployment, such as developing supportive regulations, allocating funding for research and development into artificial intelligence, and making trained AI employment (as cited by Mikalef, & Gupta,2021, p. 103434). Furthermore, the study will make substantial contributions to the existing body of evidence on AI adoption, offering an improved comprehension of the factors impacting AI adoption throughout industries and its influence on competitive landscapes. The result of this study will also help researchers more fully understand AI's societal ramifications, such as its influence on job creation, economic development, and social equality (as cited by Javaid, et al., 2022, p. 91). By filling crucial research gaps, this study will give vital insights for companies, governmental agencies, researchers, and the community as a whole, allowing for the ethical and efficient creation and implementation of AI technology across industries.

Review of Literature

Sources of Literature

Gupta,& Rathore, (2024), Using an approach that combines both methods, this study looks into the obstacles that service organizations experience while implementing generative Artificial Intelligence (GAI) systems. Key findings indicate that considerable challenges to GAI adoption exist, including ethical issues, technological limits, regulatory hurdles, financial limitations, and a demand for major human resource investments. Furthermore, the study raises serious issues about security and confidentiality of data, as well as uncertainty about return on investment, including the need for strong digital infrastructure (p. 103997). These findings highlight the need to overcome these difficulties with the goal of successfully incorporating GAI technologies into service businesses and unlocking their transformational potential.

Felemban, Sohail, & Ruikar, (2024), This research explores organizations' readiness to use AI throughout the Front-End Planning (FEP) stage of Saudi building initiatives. The study analyses factors impacting AI adoption using the technology-organization-environment (TOE) framework. Data was gathered through questionnaires with 30 stakeholders from both the public and private sectors. According to the findings, government assistance, upper-management support, and attitudes and actions among staff members all have a significant impact on AI adoption readiness. Outside assistance and greater competitive pressure from the government help to create a favorable climate. Senior management assistance promotes organizational utilization ability and development (p. 2460). Employee mindsets and actions play a crucial role in overall company AI adoption readiness. The study offers regulators significant insights into designing strategies to address the obstacles that remain associated with artificial

intelligence acceptance throughout the construction industry. These plans must not solely prioritize the greatest AI technologies but also maximize employee benefits, in line with Vision 2030 aims.

Prasad Agrawal, K. (2024), Generative AI, having its ability to generate fresh text, graphics, and code, has enormous commercial applications. However, understanding the dynamics driving its acceptance within businesses is still critical. The objective of this research investigation is to look into the factors that influence the successful execution of generative artificial intelligence applications such as ChatGPT. To accomplish this, the study employs a multi-theoretical framework that combines the technology-organization-environment framework alongside insights from the theory of institutions and the spread of innovation (p. 639). This approach enables an extensive comprehension of the complex interplay of technological, organizational, and environmental variables that influence generative AI adoption. The information that was collected from 108 Indian organizations gives significant practical proof for analysing the suggested parameters (p. 644). The results of the research will provide important insights for firms looking for effective ways to incorporate generative AI throughout their business processes, maximizing its promise while minimizing potential obstacles.

Jan, et al., (2023), Artificial Intelligence (AI) cloud computing, and machine learning have transformed industries, but their adoption differs by sector, underscoring the need for more democratic solutions. The present research examines the literature to determine common challenges and possible remedies for AI adoption under Industry 4.0. It evaluates AI solutions as part of an adoption pipeline that includes data collection, processing, model development, and result interpretation. While universal difficulties exist, solutions are generally sector-specific, making them difficult to export. Furthermore, sectors adopt AI at diverse rates due to various degrees of knowledge and AI development (p. 216). This study provides beneficial information for executives and decision-makers participating in industry-wide transformations across multiple sectors, influencing their AI adoption plans.

Herath, & Mittal, (2022), This study investigates the multidimensional influence of Artificial Intelligence (AI) on numerous businesses. Its foremost objectives include an examination of comparison of AI rate of adoption across various sectors, an in-depth examination of particular to an industry artificial intelligence application and their corresponding benefits, and an in-depth investigation of AI's influence on landscapes of competition and marketplace dynamics throughout all sectors. The COVID-19 epidemic led to an enormous increase in the use of AI, particularly ANN and DNN, in areas like healthcare, transportation, and privacy, underscoring the importance of AI in choosing future industries and economies (p. 100076).

Javaid, et al., (2022), This study looks into the essential function of Artificial Intelligence (AI) towards adopting Industry 4.0. Industries are progressively concentrating on collaborative human-robot interactions that increase productivity, lower costs, and improve product standardization. AI plays an important role in allowing hyperconnected manufacturing processes via intelligent automation systems. These systems collect and evaluate data from several devices, allowing for real-time decision-making as well as notifying staff to potential errors (p. 91). In addition, artificial intelligence enables enterprises to process data supplied by IoT gadgets and connected machines, allowing for full monitoring of end-to-end activities. It investigates AI's fundamental technological elements and characteristics, analyses key advancements and obstacles throughout the adoption of AI, and considers significant applications based on AI within the framework of Industry 4.0 (p. 108). By recognizing the benefits and necessities of AI-powered robotics platforms, stakeholders may effectively navigate the changing industrial environment.

Rana, et al., (2022), This study looks into the unexpected implications of AI-integrated business analytics (AI-BA) for a company's competitive edge. The study investigates how issues such as AI-BA transparency, unsatisfactory choices, and imagined risk led to operational inefficiencies and, eventually, competitive disadvantage (p. 364). Relying on ideas such as resource-based viewpoints and dynamic capacities, the paper investigates how AI-BA opacity, caused by factors such as inadequate quality of data and insufficient employee training, results in suboptimal judgments and higher perceived risk. According to data collected from 355 executives in India, operational inefficiency caused by these variables has a major influence on revenue growth and staff happiness, ultimately reducing a company's competitive advantage (p. 381). The report also emphasizes the critical significance of contingency preparations in reducing these negative consequences.

Mikalef, & Gupta, (2021), This study looks at the crucial role that Artificial Intelligence (AI) competencies play in achieving corporate performance. It depends on resource-based research and defines and recognizes various AI resources that jointly add to the company's AI capabilities. These

resources include AI talent, data structures, and AI algorithms, along with the capacity to incorporate AI technology throughout current company procedures. Leveraging on that foundation, the study creates and thoroughly tests an instrument to reliably assess the extent of AI capability within enterprises. The tool provided is a wonderful resource for analysing and comparing a company's AI readiness (p. 103434). Experimental research provides clear evidence that firms with excellent artificial intelligence capabilities have much greater instances of organizational innovation and greater efficiency throughout important measures. The results presented here highlight the critical importance of AI capabilities in stimulating innovation, increasing competitiveness, and generating long-term prosperity.

Gade, et al., (2019), The article emphasizes the growing need for explainable AI. AI is becoming more common in vital industries such as recruiting and healthcare, prompting questions concerning potential biases in AI models. To overcome these challenges, there simply is a prominent preference for paradigm openness and accessibility. Explainability is critical for establishing confidence and making sure the safe and dependable use of artificial intelligence (AI) programs in high-risk domains. The material presented here offers a summary of model comprehension and simplicity in AI (p. 3203). It addresses important issues such as creating explainability tasks and assessing the effectiveness of explainable models. It also goes into the actual applications of explainability approaches in industry, highlighting real-world obstacles and significant lessons learnt from implementing explainable models in a variety of domains, including search and algorithms for recommendations.

Identification of Research gap within the body of Knowledge

The present knowledge regarding AI deployment across industries has considerable research gaps. A systematic comparison of research on AI acceptance rates across many industries is inadequate, limiting the knowledge of the variables affecting acceptance and identifying best practices (as cited by Felemban, Sohail, & Ruikar,2024). Furthermore, research frequently attempts to go deeper into the specific applications and advantages of AI throughout each industry. For example, whereas AI in healthcare may focus on customized therapy, its ability to be utilized for industrial purposes might center upon maintenance planning (as cited by Mikalef,& Gupta,2021, p. 103434). Additionally, an in-depth assessment of AI's consequences for rivalry patterns and market frameworks across industries is lacking. This limits the understanding of how AI is transforming competitive landscapes, opening up completely novel opportunities and challenges. For example, the increasing popularity of AI-powered personalized recommendations has significantly transformed the business climate in the entertainment business, whereas AI-driven automation is upsetting traditional manufacturing processes (as cited by Gupta,& Rathore, 2024). These study gaps highlight the demand for more investigations to completely comprehend the complicated nature of AI acceptance across industries, its influence on businesses, and the difficulties and possibilities associated with effective execution.

Research Methodology

Research Design and Research Strategy

This study uses a qualitative approach to gain insight into AI uptake across industries. Academic journals, industry papers, government publications, and reliable web databases will be the primary sources of data collection. This method will entail conducting an extensive assessment of current literature, combining research that is qualitative and quantitative, which will analyze AI adoption trends, determine specific industry application scenarios, and evaluate the consequences of AI in situations of competition. To gain insight into patterns, trends, and major results across industries, data will be analysed using statistical methods, content evaluation, and comparative analysis (as cited by Sileyew, 2019). This research design provides for a thorough examination of the study problem while efficiently leveraging current information and statistical resources.

Research Population

This study concentrates on firms in India's core industries, namely finances, banking, healthcare, e-commerce and retail, manufacturing, telecommunications, information technology and software services, automobiles, education, energy, and utilities. The study will collect data from a wide range of enterprises in many sectors, encompassing large corporations, medium-sized firms, and smaller organizations, where relevant (as cited by Das, 2023).The individual corporations will be selected depending on their level of AI deployment, market effect, and accessibility of publicly accessible or relevant data. This wide collection will allow for a thorough examination of AI adoption trends, difficulties, and impacts across various industries and organizational sizes in India.

Sampling and Research Sample Design

This study uses a multi-stage sampling method to generate a diversified and relevant sample from various sectors and organizations. First, the study will concentrate on a variety of industries with varying degrees of AI adoption. Following that, within each industry, a purposeful selection method will be applied to pick enterprises based on their degree about AI adoption, industry influence, and public information availability. This may include large corporations, medium-sized businesses, and, if applicable, smaller organizations. Data will be gathered from a variety of sources, including corporate websites, yearly reports, industry media outlets, news articles, and scholarly repositories (as cited by Sinha, Narayan, & Banerjee, 2024). This sampling procedure with a multiple-stage approach will ensure a broad and representative sample from various industries and organisations, allowing for an in-depth review of AI adoption trends, difficulties, and implications in India. The particular sampling requirements and number of samples will be determined by being chosen in accordance with the accessibility of data and research objectives.

Research Instruments and Methodology of Data Collection

Google Scholar is an excellent resource for researching market developments and AI adoption. It offers an in-depth assessment of industry trends, allowing scholars to access important scholarly literature from a variety of sources, including business organizations and governmental organizations (as cited Sharma,2022). This multi-source strategy ensures that the information on AI usage is accurate and current across industries.

Appropriateness of Methodology based on the Studies Objectives

According to Pandey, & Pandey,(2021), The selection of research methodology, which makes use of secondary sources of information, is ideal for fulfilling the study objectives. The research may evaluate and contrast the acceptance of AI throughout industries, determine industry-specific application scenarios and positive aspects, and evaluate the consequences of AI on dynamic marketplaces and market trends through reviewing information gathered from research papers, business reports, government websites, business information, and news sources. This method allows for a thorough examination of adopting artificial intelligence trends, allowing for an understanding having critical variables impacting adoption along with an evaluation of the effect it has on business organizations as well as the larger economy.

Analysis and Discussions

The table below shows considerable differences regarding AI adoption rates along with impact throughout various sectors. The banking & finance industry dominates with 78% adoption of AI, including identifying fraudulent transactions, scoring credit, and providing service to consumers, resulting in significant gains such as a 30% drop in frauds and a 50% increase in loan approval timeframes (as cited by Sinha, Narayan, & Banerjee, 2024). Healthcare also sees significant usage (62%), concerning AI-enabling advancements within diagnostics, drug research, and telemedicine, which lead to fewer diagnostic errors and better patient outcomes. Having an 85% adoption rate, both online and offline retailer companies are leveraging AI for specific suggestions and inventory control, resulting in greater sales and client retention. Telecommunications (68%) including IT & Software Services (90%) are also seeing widespread deployment of AI for network efficiency, client satisfaction, and cybersecurity (as cited by Das, 2023).

While industries such as manufacturing (55%), automobiles (48%), and education (70%) demonstrate significant AI use, their focus areas and outcomes differ (WASC,2025). Manufacturing emphasizes maintenance planning along with supply chain effectiveness, resulting in higher production and lower costs. Automobile manufacturers are using artificial intelligence (AI) to improve production quality and customer loyalty through robotics and automated manufacturing. In education, AI is promoting individualized learning and administrative simplification, which leads to better academic results and student engagement. According to Sinha,Narayan, & Banerjee, (2024), The Energy & Utilities industry (50%) is adopting AI for smart power plants, energy efficiency, and predictive analytics, resulting in reduced energy waste and increased infrastructure efficiency. As a whole, the graphic emphasizes AI's broad applications across industries, as well as its potential to create major gains in productivity, efficacy, and customer experience (as cited by Salesforce, 2024). However, the degree of acceptance and impact varies widely among sectors, emphasizing the demand for additional research into the factors impacting AI acceptance and execution strategies to speed up development in areas that have lower adoption rates.

Table 1 Sector-wise examples for AI adoption

Sector-wise examples for AI Adoption				
Sector	**Adoption Rate**	**Key Applications**	**Impact**	**Source**
IT and IT-Enabled Services	42%	Automation, cloud services, generative AI	Boosted efficiency by 20–40% in coding and testing; supports future revenue growth with reduced headcounts.	Infosys Digital Radar 2023 report via Mint.
Banking & Finance	51%	Fraud detection, customer analytics	20% reduction in fraud cases and enhanced personalized customer services.	Bain & Company report on AI in financial services.
Telecom	38%	Network optimization, customer retention	Improved operational efficiency and better customer engagement through AI-driven analytics.	IDC and Mint analysis on AI adoption in Indian telecom.
Healthcare	31%	Diagnostics, predictive analytics	Faster diagnostics, enhancedpatient outcomes, and reduced operational costs.	Reports on healthcare AI adoption from Mint and IDC.
Retail	31%	Demand forecasting, chatbots	50% faster response times; 57% of businesses report substantial ROI from conversational AI.	Bain & Company and Mint.
Manufacturing	8%	Predictive maintenance, supply chain optimization	Limited adoption due to complexities, but significant long-term potential.	Insights from Bain & Company on industrial AI adoption.
Marketing & Sales	5%	Personalization, predictive analytics	Improved customer retention and campaign efficiency.	Infosys Digital Radar 2023 and IDC India.

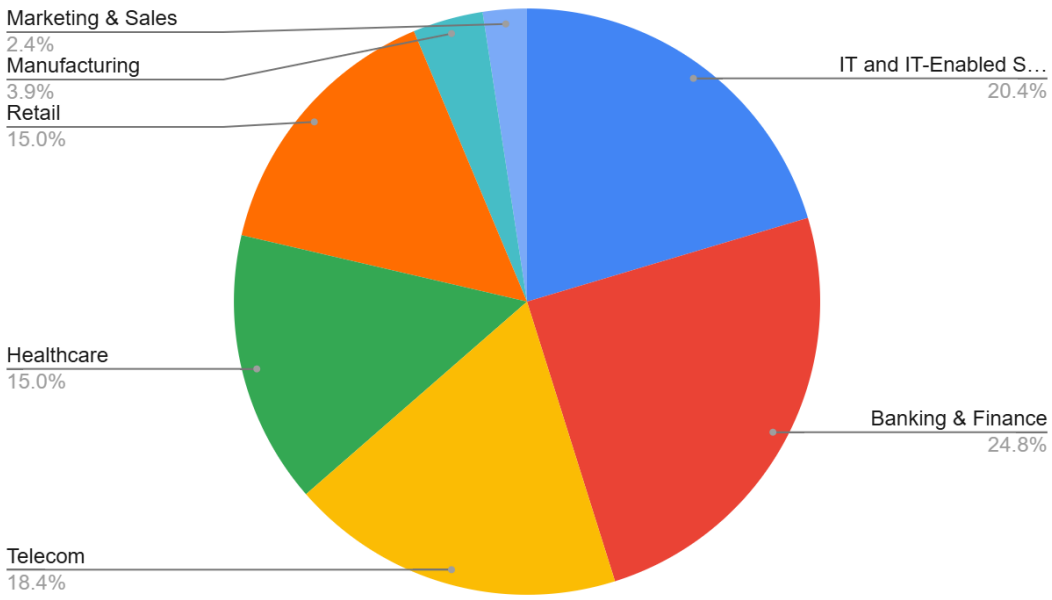

Figure 1: AI Adoption Rate Across Various SEctors

Source:Sinha, Narayan, & Banerjee, 2024

Table 2: Industry-wise examples for AI adoption

Industry Examples for AI Adoption				
Corporate Sector	**AI Adoption Areas**	**Examples of Companies**	**Adoption Percentage (2024)**	**Impact Observed**
Banking and Finance	Fraud detection, credit scoring, customer service	HDFC Bank, ICICI Bank, Axis Bank	78%	-30% reduction in frauds - Improved loan approval time by 50% - Enhanced customer satisfaction scores by 25%
Healthcare	Diagnostics, drug development, telemedicine	Apollo Hospitals, Tata Health, Practo	62%	- Reduced diagnostic errors by 40% - Decreased patient wait times by 30% - Enhanced drug discovery timelines by 2–3 years
E-commerce and Retail	Recommendation engines, dynamic pricing, inventory management	Flipkart, Amazon India, Reliance Retail	85%	- 25% increase in sales via personalized recommendations - 20% reduction in unsold inventory - Improved customer retention rates by 35%
Manufacturing	Predictive maintenance, supply chain optimization	Tata Steel, Mahindra & Mahindra, L&T	55%	- Reduced downtime by 30% - Increased productivity by 20% - Reduced operational costs by 15%
Telecommunications	Network optimization, customer service, chatbots	Airtel, Jio, Vodafone Idea	68%	- Improved network efficiency by 40% - 50% faster issue resolution via AI chatbots - Enhanced customer satisfaction scores by 28%
IT and Software Services	Code automation, cybersecurity, cloud solutions	Infosys, Wipro, TCS	90%	- Reduced software development time by 30% - Enhanced cybersecurity incident detection by 60% - Improved project delivery timelines by 25%
Automobile	Autonomous systems, smart manufacturing	Tata Motors, Maruti Suzuki, Mahindra	48%	- 20% improvement in production quality - 15% reduction in supply chain delays - Enhanced vehicle safety features and market acceptance
Education	Personalized learning, administrative automation	BYJU'S, Vedantu, UpGrad	70%	- 40% improvement in learning outcomes - Streamlined administrative processes by 35% - Increased student engagement by 50%
Energy and Utilities	Smart grids, energy optimization, predictive analytics	Adani Power, Tata Power, NTPC	50%	- Reduced energy wastage by 25% - Improved grid efficiency by 30% - Enhanced sustainability initiatives

(Source:Das, 2023)

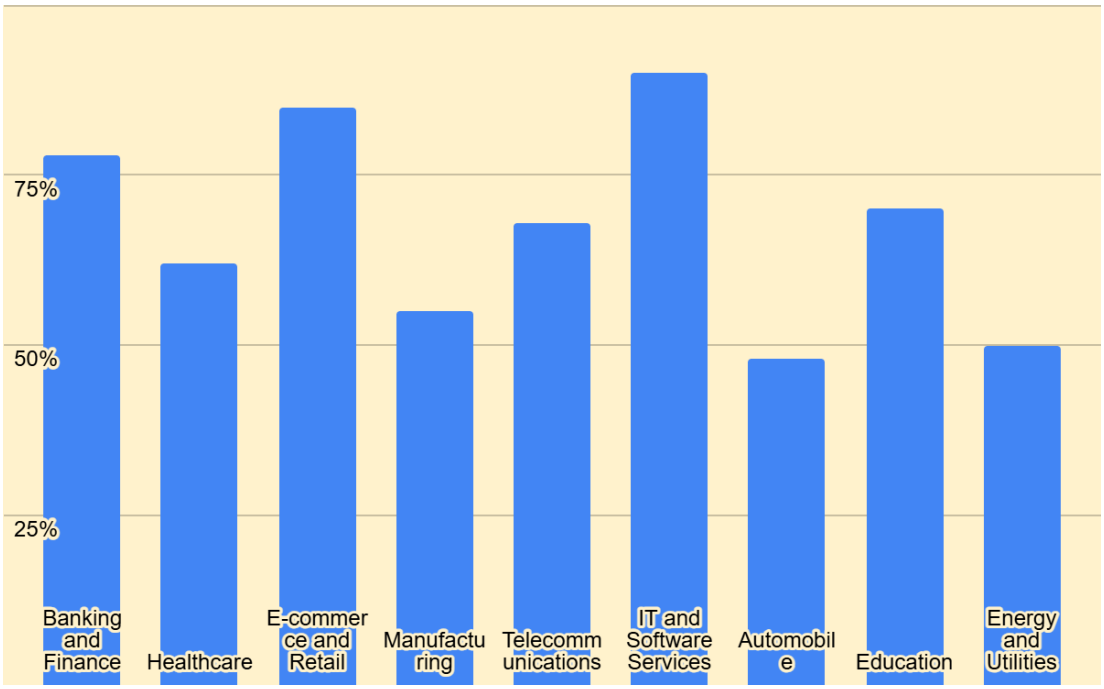

Figure 2: Industry-wise AI Adoption rate

Summary of Findings, Conclusions and Suggestions

Findings

The research study of AI adoption across several industries finds considerable differences in adoption rates and its impacts. According to Sinha,Narayan, & Banerjee, (2024), Banking & Finance, Healthcare, E-commerce & Retail, Telecommunications, and IT & Software Services all have a high level of AI adoption and are using it to deliver major gains in effectiveness, productivity, and customer experience. In contrast, industries like manufacturing, marketing, and sales have lower adoption rates, suggesting a need for additional investigation into the causes hindering AI adoption. The study also emphasizes the different uses of AI across industries (as cited by Das, 2023). Fraud detection, customer data analysis, network optimization, customized suggestions, maintenance planning, autonomous equipment, individualized instruction, and energy optimization are all critical applications. According to Birchwood, (2024), AI's influence varies greatly across industries, ranging from decreased fraud rates and higher consumer satisfaction to elevated sales, increased effectiveness, and more effective learning outcomes.

Conclusion

AI is rapidly altering many industries, with far-reaching ramifications for business performance, competitiveness environments, and societal growth. According to SmartSoC, (2024), The extent of AI adoption and impact varies greatly among industries, affected by variables ranging from industry characteristics, regulatory contexts, and the availability of qualified AI expertise. While certain sectors show significant rates of adoption as well as huge advantages, others lag behind, suggesting a desire for focused initiatives to drive AI adoption while tackling each sector's particular issues (as cited by Gupta,& Rathore,2024, p. 103997).

Suggestion

- **Additional research**: Look into the causes impeding AI deployment in industries that have lower adoption rates, which include manufacturing, marketing, and sales.
- **Policy recommendations**: Create policies that promote AI adoption while also addressing ethical concerns such as data privacy and workforce development.

- **Industry collaborations**: According to Birchwood, (2024), Encourage collaboration across industry, academia, and administration to speed up AI development, investigation, and application.
- **Skill development**: To address the increased need for AI specialists, invest in programs that will train and build qualified employees.

These proposals will help to speed AI adoption across industries, optimize AI's benefits, and deal with carrying out issues.

References

1. Birchwood, (2024). How AI is Impacting Industries Worldwide? Accessed from <https://www.birchwoodu.org/how-ai-is-impacting-industries-worldwide/> accessed on 02-10-2025
2. Das, S., (2023). Indian companies rank cloud services above AI, automation to best use data. Accessed from <https://www.livemint.com/technology/tech-news/indian-companies-rank-cloud-services-above-ai-automation-to-best-use-data-11678195041438.html> accesses on 02-01-2025
3. Felemban, H., Sohail, M., & Ruikar, K. (2024). Exploring the readiness of organisations to adopt artificial intelligence. Buildings, 14(8), 2460.
4. **DOI:**https://www.mdpi.com/2075-5309/14/8/2460
5. Gade, K., Geyik, S. C., Kenthapadi, K., Mithal, V., & Taly, A. (2019, July). Explainable AI in industry. In Proceedings of the 25th ACM SIGKDD international conference on knowledge discovery & data mining (pp. 3203-3204).
6. **DOI:** https://dl.acm.org/doi/abs/10.1145/3292500.3332281
7. Gupta, R., & Rathore, B. (2024). Exploring the generative AI adoption in service industry: A mixed-method analysis. Journal of Retailing and Consumer Services, 81, 103997.
8. **DOI:** https://www.sciencedirect.com/science/article/pii/S0969698924002935
9. Herath, H. M. K. K. M. B., & Mittal, M. (2022). Adoption of artificial intelligence in smart cities: A comprehensive review. International Journal of Information Management Data Insights, 2(1), 100076.
10. **DOI:** https://www.sciencedirect.com/science/article/pii/S2667096822000192
11. Jan, Z., Ahamed, F., Mayer, W., Patel, N., Grossmann, G., Stumptner, M., & Kuusk, A. (2023). Artificial intelligence for industry 4.0: Systematic review of applications, challenges, and opportunities. Expert Systems with Applications, 216, 119456.
12. **DOI:**https://www.sciencedirect.com/science/article/pii/S0957417422024757
13. Javaid, M., Haleem, A., Singh, R. P., & Suman, R. (2022). Artificial intelligence applications for industry 4.0: A literature-based study. Journal of Industrial Integration and Management, 7(01), 83-111.
14. **DOI:** https://www.worldscientific.com/doi/abs/10.1142/S2424862221300040
15. Khanfar, A., Mavi, K. R., Iranmanesh, M., Gengatharen, D., (2024). Determinants of artificial intelligence adoption: research themes and future directions. Accessed from <https://www.researchgate.net/publication/383345591_Determinants_of_artificial_intelligence_adoption_research_themes_and_future_directions> accessed on 01-01-2025
16. Kumar, P., (2024). AI in Entertainment: From Content Creation to Recommendation Systems. Accessed from <https://statusneo.com/ai-in-entertainment-from-content-creation-to-recommendation-systems/> accessed on 01-01-2025
17. Mikalef, P., & Gupta, M. (2021). Artificial intelligence capability: Conceptualization, measurement calibration, and empirical study on its impact on organizational creativity and firm performance. Information & management, 58(3), 103434.
18. **DOI:**https://www.sciencedirect.com/science/article/pii/S0378720621000082
19. Pandey, P., & Pandey, M. M. (2021). Research methodology tools and techniques. Bridge Center.

20. **DOI:**http://dspace.vnbrims.org:13000/jspui/bitstream/123456789/4666/1/RESEARCH%20METHODOLOGY%20TOOLS%20AND%20TECHNIQUES.pdf
21. Prasad Agrawal, K. (2024). Towards adoption of generative AI in organizational settings. Journal of Computer Information Systems, 64(5), 636-651.
22. **DOI:** https://www.tandfonline.com/doi/abs/10.1080/08874417.2023.2240744
23. Rana, N. P., Chatterjee, S., Dwivedi, Y. K., & Akter, S. (2022). Understanding dark side of artificial intelligence (AI) integrated business analytics: assessing firm's operational inefficiency and competitiveness. European Journal of Information Systems, 31(3), 364-387. **DOI:** https://www.tandfonline.com/doi/abs/10.1080/0960085X.2021.1955628
24. Salesforce, (2024). AI in the Automotive Industry: Use Cases and Trends (2024). Accessed from <https://www.salesforce.com/automotive/artificial-intelligence/guide/> accessed on 02-01-2025
25. Schwaeke, J., Peters, A., Kanbach, K.D., Kraus, S. & Jones, P., (2024). The new normal: The status quo of AI adoption in SMEs. Accessed from <https://www.tandfonline.com/doi/full/10.1080/00472778.2024.2379999> accessed on 01-01-2025
26. Sharma, D. N. K. (2022). Instruments used in the collection of data in research. Available at SSRN 4138751.
27. **DOI:**https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4138751
28. Sileyew, K. J. (2019). Research design and methodology (Vol. 7). Cyberspace.
29. **DOI:**https://books.google.com/books?hl=en&lr=&id=eqf8DwAAQBAJ&oi=fnd&pg=PA27&dq=Research+Design+and+Research+Strategy+&ots=cLP18Rg7L7&sig=6TyHxSPg4DN-WHvfNDOV5Rooidk
30. Sinha, V., Narayan, S., & Banerjee, S., (2024). From Buzz to Reality: The Accelerating Pace of AI in India. Accessed from <https://www.bain.com/insights/from-buzz-to-reality-the-accelerating-pace-of-ai-in-india/> accessed on 02-01-2025
31. SmartSoC, (2024). AI transforming industries: Innovation and growth. Accessed from <https://www.smartsocs.com/ai-transforming-industries-innovation-and-growth/#:~:text=AI%20is%20significantly%20impacting%20various,customer%20experiences%2C%20and%20driving%20innovation> accessed on 02-01-2025
32. WASC, (2025). 39 Examples of Artificial Intelligence in Education. Accessed from <https://onlinedegrees.sandiego.edu/artificial-intelligence-education/> accessed on 02-01-2025.

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