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FACTORS INFLUENCING AN AI IMPLEMENTATION STRATEGY IN BUSINESS

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Introduction

From a bird's eye view, AI provides a computer program the ability to think and learn on its own. It is a simulation of human intelligence (hence, artificial) into machines to do things that we normally rely on humans. This technological marvel extends beyond mere automation, incorporating a broad spectrum of AI skills - abilities that enable machines to understand, reason, learn, and interact in a human-like manner.

Artificial intelligence enables machines to learn from experience, adapt to new information, and perform tasks that typically require human intelligence. Many contemporary AI applications, such as autonomous vehicles, smart home devices, and language translation tools, heavily depend on deep learning and natural language processing. By leveraging these technologies, computers can be trained to perform specific tasks by analyzing vast amounts of data and identifying patterns within that data.

Over the past few years, businesses have seen a sudden change in the way they work. Earlier, the tasks that were handled by human resources have now shifted to machines, leading to better results and minimal errors. A number of times, entrepreneurs hesitate to adopt AI solutions due to fear and lack of AI knowledge. At the same time, AI in business strategy is the need of the hour. Whether the goal is to fasten everyday tasks, connect with more customers, or gain better returns on investments, implementing AI is a perfect solution.

Sampling Design

The researcher has taken 60 respondents from the study area. Convenient sampling technique was adopted for data collection.

Objective of the Study

The purpose of this research study is to know the factors influencing an AI implementation strategy in business.

Scope of the Study

The present study is aim to measure the businessmen perception at Virudhunagar. The suggestions on based on the views of the businessmen residing at Virudhunagar is taken into account

Considering Factors before Implementing Artificial Intelligence

To successfully implement AI in one's business, start by defining clear objectives aligned with one's strategic goals. Identify specific challenges facing AI, such as improving customer experiences or improving supply chain management. Next, assess the quality and availability of one's data, as AI relies on robust data. Ensure one's data is accurate, relevant and comprehensive. If necessary, invest in data cleaning and preprocessing to improve its quality.

Choose appropriate AI models that match one's objectives and data type. Train these models using the data we produce and seamlessly integrate them into one's existing systems and workflows. Prioritize ethical considerations to ensure fairness, transparency and an unbiased AI system. Thoroughly test and validate one's AI models, and train one's staff to use AI tools effectively. Plan for scaling and ongoing monitoring while complying with data privacy regulations. Continuously measure ROI and the impact of AI on one's business objectives and make necessary adjustments.

Consider partnering with AI experts or service providers to streamline the implementation process. With a well-structured plan, AI can transform one's business operations, decision-making and customer experiences, driving growth and innovation.

The table reveals that nearly 18.33% of the respondents said that understanding artificial intelligence is the key factor before implementing it; 13.33% of respondents consider defining the role of AI; 8.33% of respondents are considering evaluating an AI implementation initiative; 21.67% of respondents consider protecting personal data; 28.34% of the respondents felt that recognizing the risks, the remaining 10.00% of the respondents said that preparing employees before implementing artificial intelligence is an important factor.

TABLE 1
Considering Factors before Implementing Artificial Intelligence

Factors	No of respondents	Percentage
Understand the objective	11	18.33
Define AI's role	8	13.33
Assess AI implementation initiative	5	8.33
Protect personal data	13	21.67
Recognize the risks	17	28.34
Prepare the workforce	6	10.00
Total	60	100.00

Source: Primary Data

The table above illustrates that most of the respondents (28.34%) consider identifying risks as the most important factor before implementing artificial intelligence.

Nature of business and Considering Factors before Implementing Artificial Intelligence

Ho: There is no significant association between Nature of business and Considering Factors before Implementing Artificial Intelligence.

H1: There is a significant association between Nature of business and Considering Factors before Implementing Artificial Intelligence.

In order to find the relationship between Nature of business and Considering Factors before Implementing Artificial Intelligence., a Chi-square test was employed and the result of the test is shown in the following table.

TABLE 2
Nature of business and Considering Factors before Implementing Artificial Intelligence

Factor	Calculated Chi-Square value	Table value	Digress of freedom	Remarks

Nature of business	of	7.28	5.991	2	Significant at 5% level
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The Chi-square test reveals that the calculated chi-square value (7.28) is greater than the table value (5.99) and the result is significant at 5% level. Hence, the hypothesis “Nature of business and Considering Factors before Implementing Artificial Intelligence.” holds good. From the analysis, it can be inferred that there is a close relationship between Nature of business and Considering Factors before Implementing Artificial Intelligence..

The Positive Impact Business Owners Expect from AI

Artificial intelligence in business uses data from company and external sources to gain insights and create new business processes by building AI models. These models aim to reduce routine work and complex, time-consuming tasks, and help organizations make strategic changes in the way they do business for greater efficiency, improved decision-making, and better business outcomes.

A common phrase we hear around AI is that artificial intelligence is only as good as the data base that shapes it. Therefore, a well-built AI for business plan should also have a good data management framework. This ensures that the data and AI models are not only accurate and deliver high-quality results, but also ensure that the data is used in a secure and ethical way.

The table reveals that nearly 11.67% of respondents expect to improve customer relationships after implementing artificial intelligence; 8.33% of respondents expect to increase productivity after implementing artificial intelligence; 5.00% of respondents expect an increase in Sales after implementing artificial intelligence; 6.67% of respondents expect to save costs after implementing artificial intelligence; 13.33% of respondents expect to reduce response time after implementing artificial intelligence; 15.00% of respondents expect to reduce the risk of errors; 23.33% of the respondents said it improves decision-making, while the remaining 16.67% respondents expect to streamline work processes after implementing artificial intelligence.

TABLE 3
The Positive Impact Business Owners Expect from Artificial Intelligence

Factors	No of respondents	Percentage
Improve customer relationships	7	11.67
Increase productivity	5	8.33
Increase sales	3	5.00
Save costs	4	6.67
Reduce response times	8	13.33
Reduce the risk of errors	9	15.00
Enhance decision-making	14	23.33
Streamline job processes	10	16.67
Total	60	100.00

Source: Primary Data

The table above illustrates that the majority of respondents (23.33%) expect improvement in decision making after implementation of artificial intelligence.

Nature of Business and The Positive Impact Business Owners Expect from Artificial Intelligence

Ho: There is no significant association between Nature of Business and The Positive Impact Business Owners Expect from Artificial Intelligence

H1: There is significant association Nature of Business and The Positive Impact Business Owners Expect from Artificial Intelligence

In order to find the relationship between Nature of Business and The Positive Impact Business Owners Expect from Artificial Intelligence, a Chi-square test was employed and the result of the test is shown in the following Table

TABLE 4
Nature of Business and The Positive Impact Business Owners Expect from Artificial Intelligence

Factor	Calculated Chi-Square value	Table value	Digress of freedom	Remarks
Nature of Business	42.68	5.99	2	Significant at 5% level

The Chi-square test reveals that the calculated chi-square value is greater than the table value and the result is significant at 5% level. Hence, the hypothesis “Association between the Nature of Business and The Positive Impact Business Owners Expect from Artificial Intelligence” holds good, thus there is a close relationship between Nature of Business and The Positive Impact Business Owners Expect from Artificial Intelligence.

Negative Implications of AI in Business

However, businesses that move too fast to integrate AI without understanding its limitations risk facing serious consequences. Many businesses are looking to AI as a solution to their operational challenges. But implementation can be expensive, existing solutions fall short of expectations and the end result can actually hinder organizational performance. Just as well-used technology can propel one's business forward, misused AI can drive one's business into the ground.

TABLE 5
Negative Implications of AI in Business

Reasons	Total score	Garrett mean Score	Rank
unauthorized distribution of confidential data	9297	53.13	I
potential loss of copyright and intellectual property	9264	52.94	II
the creation of false information	8216	50.38	III
High implementation cost	7623	43.56	IV

In choosing the reason for innovativeness, the important Negative implication is “unauthorized distribution of confidential data”, its total score and mean score are 9297 and 53.13 respectively in the Garrett ranking. The second most important negative implication is “potential loss of copyright and intellectual property”, with the total score of 9264 and the mean score of 52.94. “the creation of false information” ranked III with the total score of 8216 with a mean score of 50.38. The IV rank being “High implementation costs” with Garrett score of 7623 and the mean score of 43.56.

Conclusion

The phrase “AI is the future” is often heard. Implementing AI technologies in business is a critical decision that requires thorough preparation and strategic planning. By

answering these questions on how to implement AI in business, organizations can gain a clear understanding of their readiness to adopt AI and have a strong strategy for successful AI implementation.

This proactive approach can mitigate uncertainties, build confidence, and pave the way for AI-transformative changes. one's Business. Adoption of artificial intelligence and automation One's company will help us Stay ahead of the competition and the game. Through careful planning and informed decision making, we can use the power of AI to achieve one's Drive business goals and future growth.

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