



BUSINESS TRANSFORMATION VIA ARTIFICIAL INTELLIGENCE –THE PATH OF NEW AGE BUSINESS

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ABSTRACT:

In today's era, the role of technology is intruded in each and every life of a human. The upgradation of technology yields us the comfort and efficient way in performing the task which is desires. At present many sectors started to find the efficient way of accomplishing the task in the desired time. So technological aspect has been handled by the industries to sustain itself in the sector for a long run perspective. So, the competitive environment forces to sustain a new technology into the business, for retaining the customers who were loyal to the company. Even a small sector having the heavy competition between the companies, that were present inside the sector itself. Artificial intelligence is a program, that helps to obtain the result in a efficient way. Many companies started to adopt the new space, which consist of AI to tackle the in-efficiencies, that are within the businesses. The first industrial revolution, developed the transportation which guided the business to transport the goods from one place to other. The second industrial revolution, leads to a new improvement in the field of electrical areas. The third industrial revolution starts to upgrade it's manual thing into computerized thing. The fourth industrial revolution, starts to focus on the areas of internet-of-things, cyber based areas and cloud computing. At present the globe has shifted from the fourth to fifth industrial revolution, which consist of involving AI into the businesses for fulfilling the customers expectations as soon as possible. The role of industries into the human life is important for the development of a country. So, the industrial revolution will peak the economical development within the country.

1.1 INTRODUCTION

At present, the globe has enriching in various fields for human satisfaction. The satisfaction leads to the advancement of human life, which are diversified into various sectors. So, all the sector comprises of various industries which are diversified and divided according to the need. Whenever the industry want to sustain its place in the long run, the primary thing that need to focus are the customer's expectations and how it is solved. When company adopts to the trend, it is surviving in the market and demand for the company also not decreased in the perspective of the consumers. The gradual increase from supplier-centric to customer-centric leads to the way for new innovation in the industrial era. From the starting of industrial 1.0, till the industrial 5.0 the customer is focused in a deep. So the computrised revolution in a industtial era is a game changer. The computer among the consumer, made the industry to expand easily among them. Life needs are diversified, which are efficiently utislised by the present intrustrial model. Different approaches are handled by the industrial in wider strategies. All the expectations are examined by industries through various forms. The time to accomplish the designated task to find the human expectations, are diversified process and takes time to fulfill it. So to use the time in efficient manner, different apps and softwares have been designed. At present, AI is intruding into the industrial area. Which will be a efficient approach in different aspects of industrial region. We can discuss briefly about AI in industry 5.0.

1.2 OBJECTIVE OF THE STUDY

1. To find the Level of adaptability on the aspects of key technologies of Industry 5.0
2. To understand the relation between the Business factors and preference on the outlook / usage of AI tools
3. To analyze the Level of opinion about the purpose of AI tools relating to usage of AI tools

1.3 SCOPE OF THE STUDY

At present, our life is completely dependent upon the industries for various reasons. So, this study would be helpful for us to know the scope of industry 5.0 with AI in the industrial region. When a industry is being developed, the economy will be indirectly benefited. So this study will yield us the futuristic view of industries using AI. Now many areas started to adopt the futuristic technology like AI and Machine learning into their businesses to expand its operation and retain the customers into the business. So we have adopted this topic to enrich our knowledge in the designated field which have been chosen.

1.4 RESEARCH METHODOLOGY

The study gathered data for analysis from secondary data published in various magazines and newspaper articulated time to time. The sample size is 19, whose business operations are in India.

1.5 HISTORY OF INDUSTRIAL DEVELOPMENT

Industry have been originated due to the diversified needs of the person. In the past, the industry is not diversified according to the customer's need. The supplier control the industry according to his need. The industry started to expand because of the customer's expectation towards the business. In initial stages, customer approached the industry's with their diversified needs. But due to the development and competition, the peak stage of supplier centricity started to decline. So, supplier started to research the customer's behaviour and produced the goods according to the demand and forecasted supply. So the customer centricity gradually increased within different sectors. So the industrial development initiated the phase from the movement of customer towards industry to industry started to move towards the customers. So, the phase consists of using different technological things in different phase of industrial developments. So, all the initial phases of industrial development bind the industry into a new evolution. When a customer started to use the internet-oriented things in his life, the process for the industry to sustain the customer is easily achievable because of the internet that has been used by industries towards the customers. The Artificial intelligence influence our life in a convenient approach. So, by using AI in the industries will help the industry to easily adopt to the new environment with multiple dimensional approach towards the customer

1.6 ANALYSIS AND DISCUSSION

Whenever any new technology has been introduced, it makes our life in a convenient way. So the industry started to expand and enumerate the needs of the customer by using the technology which are up-to-dated. The technological thing might be started initially the customer started to come towards industry to fulfill their expectations but now industry started to use AI, VR and AR to bring the physical product into a virtual environment. So, the usage of AI in industry, is to refurbish the industry into next level.

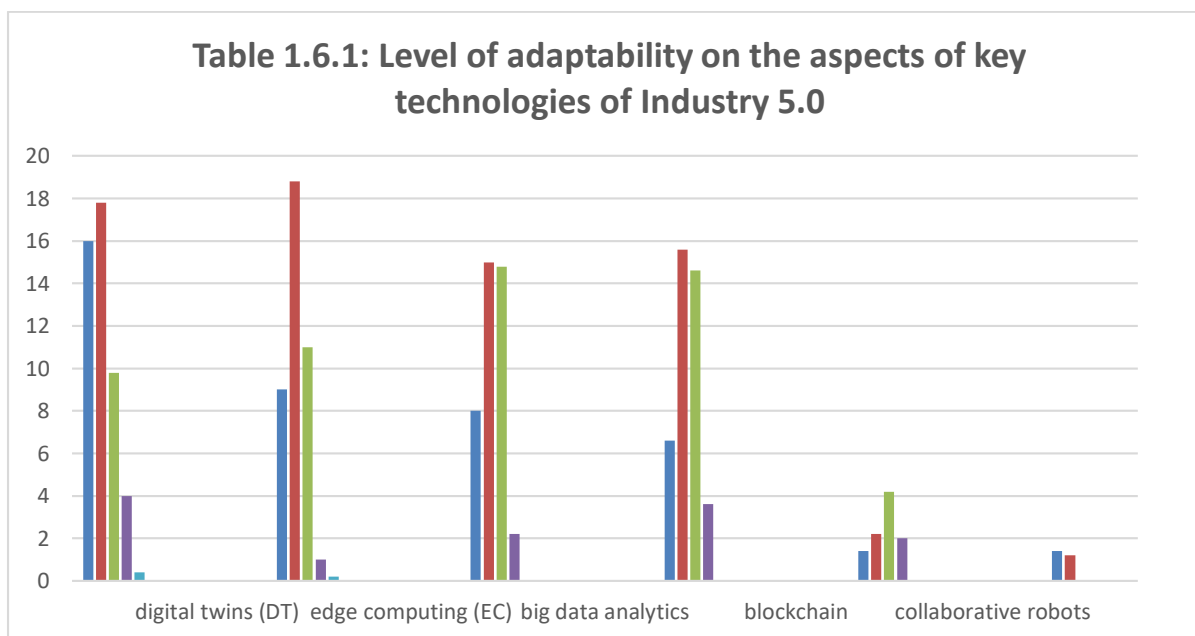
1.6.1: Level of adaptability on the aspects of key technologies of Industry 5.0

Table 1.6.1: Level of adaptability on the aspects of key technologies of Industry 5.0

Aspects	Level of Adaptability				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Internet of every things (IoE)	(16)	(17.8)	(9.8)	(4)	(0.4)
digital twins (DT)	(9)	(18.8)	(11)	(1)	(0.2)
edge computing (EC)	(8)	(15)	(14.8)	(2.2)	-
big data analytics	(6.6)	(15.6)	(14.6)	(3.6)	-

blockchain	(1.4)	(2.2)	(4.2)	(2)	-
collaborative robots	(1.4)	(1.2)			

It is found from the Table 1.6.1, (18.8 %) of the businesses adopt to digital twins (DT), (17..8)% of the business houses agree with Internet of things IOE, and (16%) of the respondents strongly agree and 78(15.6%) strongly agree with big data analytics and 21(4.2%) adopt for block chain technologies in advancement path of Industry 5.0



1.6.2 Business factors and preference on the outlook / usage of AI tools

The purpose of AI in various level of industries are Automation, Smart Decision Making, Enhanced Customer Experience, Medical Advances, Research and Data Analysis, Solving Complex Problems, Business Continuity, Managing Repetitive Tasks, Minimizing Errors, Increased Business Efficiency. So, these were some advanced things that are been expected in the industries after AI involvement in industries

Table 1.6.2: Results of Kruskal Wallis Test – Business factors and preference on the outlook / usage of AI tools

AI Tools	Preference on the outlook/usage of AI tools				
	Nature of business	Sales volume	ROI	Customer base	Others
collaborative robots	4.468	5.486	3.336	5.299	2.5
digital twins (DT)	11.53*	0.096	3.416	3.477	1.376
big data analytics	18.397*	2.134	8.912*	4.315	3.01
edge computing (EC)	6.375	0.541	2.578	3.994	1.605

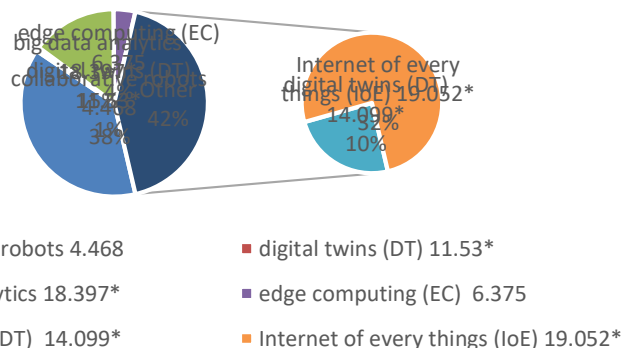
digital twins (DT)	14.099*	1.493	4.955	8.471	3.092
Internet of every things (IoE)	19.052*	4.662	4.711	7.465	1.308

Note: *- Significant (p value ≤ 0.05)

It is found from the Table 1.6.2, that the hypothesis is rejected (Significant) in all five cases and in other cases the hypothesis is accepted (Not Significant).

It is concluded that there exists significant difference between the business factors like nature of business, sales volume, ROI and Customer base and also there exists significant difference in the priority of the corporates in respect of Internet of things and usage of Business analytics based on Nature of their business.

Table 1.6.2: Results of Kruskal Wallis Test – Business factors and preference on the outlook / usage of AI tools Preference on the outlook/usage of AI tools Sales volume



1.6.3 Level of opinion on the attitudes relating to purpose of AI Tools

The Table 1.6.3 describes the distribution of Level of opinion about the purpose of AI Tools like Smart Decision Making, Enhanced Customer Experience, Automation, Increased Business Efficiency, Solving Complex Problems, Business Continuity, Managing Repetitive Tasks, Minimizing Errors and Research and Data Analysis relating to usage of AI tools. The level of opinion is classified as very high, high, moderate, low and very low.

Table 1.6.3: Level of opinion about the purpose of AI tools relating to usage of AI tools

Attitudes	Importance Level				
	Very high	High	Moderate	Low	Very Low
Smart Decision Making	(30.2)	(44.2)	(23.6)	(2.2)	(0.2)
Enhanced Customer Experience	(21.6)	(57.6)	(23.4)	(1.8)	-
Automation	(29.4)	(41.6)	(26.6)	(2.8)	-

Increased Business Efficiency	(19.8)	(44.8)	(29.6)	(6.0)	(0.2)
Solving Complex Problems	(23.6)	(42.6)	(28.4)	(4.4)	(1.0)
Business Continuity	(28.4)	(43.4)	(23.6)	(3.4)	(1.6)
Managing Repetitive Tasks	(38.4)	(38.8)	(19.0)	(3.4)	(0.4)
Minimizing Errors	(26.6)	(42.4)	(26.2)	(4.6)	(0.2)
Research and Data Analysis	(14.6)	(36.4)	(39.0)	(8.4)	(1.6)

Note: Values given in the bracket are percentage

It is found from the Table 1.6.3 that (57.6 %) have a perception of usage of AI tools would enhance the customer experience, (44.8%) have a perception of usage of AI tools increases business efficiency, (44.2%) have a perception of usage of AI tools leads to smart decision making and (43.4%) have a perception of usage of AI tools leads to Business continuity.

It is concluded that the majority (57.6 %) of the corporates adopts for AI tools for the purpose of enhancing customer experience.

1.7 CONCLUSION

So, the technological thing binds our life into a new dimensional. The dimension would make our life into a convenient way. The chatGPT was a best example for usage of AI in our day to day life. So, the AI in the industry will give the efficient way of establishing the task that are desired by the industry. So the supply can be easily compensated to the desires demand. The industrial revolution 5.0 can be a big upgrade in the industrial areas. The computerised scope will became wider and helps the areas that are needed to be concentrated. So the AI are the futuristic view regarding the computerised thing. Hence, we would like to conclude our paper by giving our perception regarding futuristic industries will be automated with the usage of AI in various sectors

1.8 REFERENCES

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