

A study of artificial intelligence in M-commerce

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ABSTRACT

The use of technology is increasing rapidly in today's life. No area of the life is untouched of advanced technology. With the development of science and technology; new things and innovations are taking place. Retail sector is also witnessing several changes. It is not confined to the brick and mortar shops where different consumer goods are sold. Now in retail e-commerce platforms are serving well and catering to the customers. Needs of customers are fulfilled at their fingertips at their location. Location of shop in market is now not significant with augmentation of e-commerce practices in India. Numerous e-commerce websites are working well and they are also using artificial intelligence to provide best services. 4G internet services are available across the nation to a large number of population who are using smart phones. They have started using e-commerce through their mobile handset quite comfortably. They are no longer dependent on personal computers or desktops for their online purchasing. Their smart phones are very advanced and have multiple features that facilitate and smooth and quick e-commerce transactions. To what extent the artificial intelligence is contributing in M-commerce; has been studied in this research. Two major areas covered under this study are personalized customer services and the voice search facility enhanced by artificial intelligence (AI) in M-commerce.

Key words: artificial intelligence, M-commerce, personalized customer services, voice search

I. INTRODUCTION:

As far as the m-commerce is concerned artificial intelligence is the use of machine learning and analog system to understand the complexities of consumer behaviour and the trend of transactions. Several activities of customers or users are monitored by e-commerce websites. They have a close watch on the searching and surfing

activities of their prospective clients and offer the services accordingly. This is called personalized customer services in which different pop ups are scheduled as per the taste, trend and liking of the mobile users; tempting them to patronize the showcased product or services. It is quite sophisticated and indirect manner of promoting and advertising the product which really develop awareness, curiosity and desire among the viewers turning them into the customers. With the uses of artificial intelligence it is quite possible to personalize the services. It is far ahead of general customization and can produce splendid results.

There is also voice searching options being provided by the M-commerce. Language is no longer a bar, one can you speak in any language and the software of mobile will understand it and provide the results accordingly. It is not necessary to type the text for searching. Voice searching is interesting and comfortable for the customers making their interaction very smooth and effortless. All this is possible because of the development of artificial intelligence.

1. Related literature:

With the use of artificial intelligence big and large volume of data can be analyzed from in few moments and the consumption patterns of buyers can be understood that can be very handy for providing services in e-commerce. Google and Microsoft are using artificial intelligence to provide better services similarly e-commerce sites can also use this tool to watch the browsing and purchase history of the prospects (Shyna Kakkur and Vishal Monga, 2017).¹

The success of e-commerce relies on quick and prompt services. For that purpose they need to maintain good supply chain so that the goods can be delivered in quick time. The inventory needs to be managed very skillfully so the business can be done with minimum working capital requirements. Sales can be maintained and

accelerated in all these areas with the use of artificial intelligence as it helps to understand market trend and the seasonal swings; the efficiency of local suppliers is analyzed very quickly and things are automated to deliver the services efficiently (S. N. Gawali, 2019).²

Thirupathi Rao Application of artificial intelligence in today's business can be very useful in healthcare, pharmacy, hotel, banking, insurance airlines and e-commerce. Face recognition and palm recognition are helpful artificial intelligence tools to understand the customer behaviour and his psychology (N. Thirupathi Rao and Debnath Bhattacharyya, 2019).³

To provide the better services and fulfilling expectation of customers it is necessary to follow the artificial intelligence to cater what the customer is searching/ interested/ expecting. The use of artificial intelligence will enable how to market the products in efficient manner and stand ahead of competitors with the profitability (Najib et al. 2019).⁴

Mapping and analysis of customer's interests and preferences help in recommending appropriate products and offerings to these customers separately, which helps the m-commerce platforms to provide personalized services. By personalization algorithms, e-commerce retailers have enhanced their sales conversion rates.⁵

3. Research objectives:

1. To study the contribution of artificial intelligence in personalized customer services for M-commerce.

2. To study the contribution of artificial intelligence in voice search services for M-commerce.

4. Research hypothesis:

H1. There is no significant contribution of artificial intelligence in personalized customer services for M-commerce.

H2. There is no significant contribution of artificial intelligence in voice search services for M-commerce.

5. Research methodology:

In this research an effort has been made to understand the significance of contribution of artificial intelligence in different m-commerce services. For that purpose the opinion of 6-6 officials and executives of Amazon, Flipkart, Ebay, Snapdeal and Jabong was collected related to the artificial intelligence. Thus in all, the opinion of 30 executives were analyzed in detail.

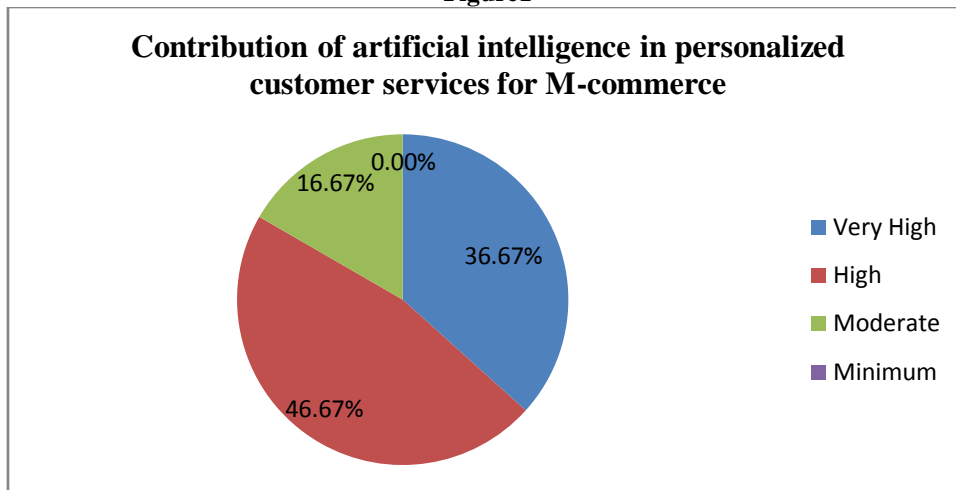
6. Research analysis:

The collected information reveal that 83.33% executives felt that AI is contributing high or very high to provide personalized services to the customers in M-commerce while 16.67% executives consider that artificial intelligence contribute moderately. E and nauvin had an opinion that it is not contributing in providing personalized services to the customers which clearly indicates that the importance of AI. The average score for the contribution of AI in providing personalized services is 3.2 i.e. 80% which is really phenomenal.

Table 1: Contribution of artificial intelligence in personalized customer services for M-commerce

| Level of Contribution | No. of Executives | Weight | Score |
|-----------------------|-------------------|--------|-------|
| Very High | 11 | 4 | 44 |
| High | 14 | 3 | 42 |
| Moderate | 5 | 2 | 10 |
| Minimum | 0 | 1 | 0 |
| Total | 30 | | 96 |

Figure1



To understand whether this contribution is significant T test was done at a level of 60%. The calculated T value is 3.20 which is more than its table value (1.96) and the significance value of P is 0.00 which is again less than 0.05; both confirms

that the contribution of AI in providing personalized services to customers is really significant so the first hypothesis is absolutely rejected.

Table 2: Test of significance of AI in personalized customer services for M-commerce

| Test value = 60 | | | | | |
|-----------------|------|----------------|----|------|------|
| N | Mean | Std. Deviation | df | t | Sig. |
| 30 | 3.20 | 0.71 | 29 | 4.35 | 0.00 |

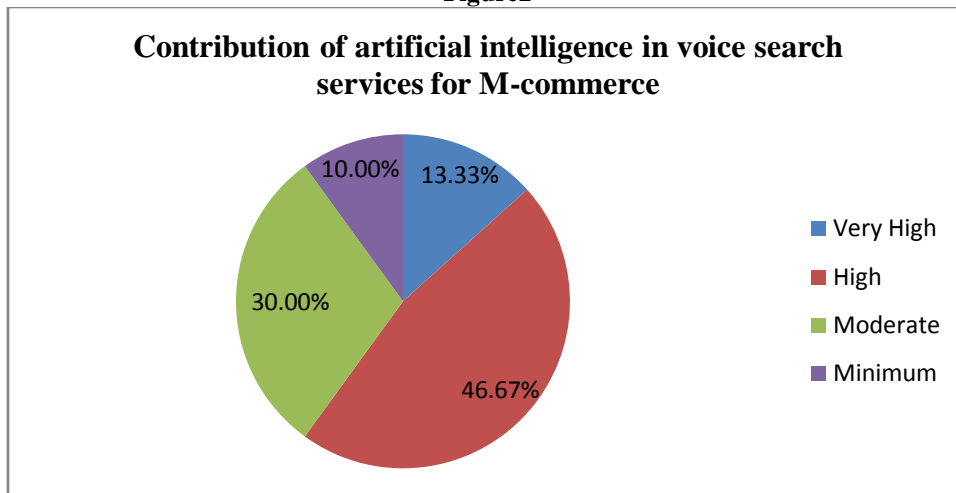
Further the collected data reveal that 60% executives felt that AI is contributing high or very high to provide voice search services to the customers in M-commerce while 30% executives consider that artificial intelligence contribute moderately and people seldom use voice search technique. 10% executives consider that artificial

intelligence contributes minimally and as people rarely use voice search option. It clearly indicates the mixed importance of AI. The average score for the contribution of AI in providing voice search services is 2.63 i.e. 65.83% which is reasonably good.

Table 3: Contribution of artificial intelligence in voice search services for M-commerce

| Level of Contribution | No. of Executives | Weight | Score |
|-----------------------|-------------------|--------|-------|
| Very High | 4 | 4 | 16 |
| High | 14 | 3 | 42 |
| Moderate | 9 | 2 | 18 |
| Minimum | 3 | 1 | 3 |
| Total | 30 | | 79 |

Figure2



To understand whether this contribution is significant T test was done at a level of 60%. The calculated T value is 2.63 which is more than its table value (1.96) and the significance value of P is

0.00 which is again less than 0.05; both confirms that the contribution of AI in providing voice search services to customers is really significant so the second hypothesis is also rejected.

Table 4: Test of significance of AI in voice search services for M-commerce

| Test value = 60 | | | | | |
|-----------------|------|----------------|----|------|------|
| N | Mean | Std. Deviation | df | t | Sig. |
| 30 | 2.63 | 0.85 | 29 | 3.69 | 0.00 |

II. CONCLUSION AND SUGGESTION:

It can be understood that artificial intelligence is not a luxury or choice. In fact AI is essential for providing best quality services to the customers. It is the need of hour and to analyze the big data; one need to adopt artificial intelligence very quickly and use advanced techniques to provide personalized customer services. Besides that people are now using voice search technique which is possible only with AI. So it needs to be improved in m-commerce. Though personalized services are more important and AI can contribute a lot by providing competitive edge. It can turn desire into need quickly and the need can be turned into a demand which can ultimately be satisfied by providing services through m-commerce. It is possible with meticulous and skillful use of artificial intelligence. The company, who so ever use it and pay attention and have thrust on it, will certainly flourish and achieve success in their business.

REFERENCES:

[1]. Shyna Kakkar and Vishal Monga (2017) A study on artificial intelligence in E-commerce, International Journal of

Advances in Engineering & Scientific Research, Vol.4 (4), pp 62-68.

- [2]. S. N. Gawali (2019) Artificial Intelligence in E-Commerce, International Journal of Management and Economics, Vol.1 (28) pp.15-17.
- [3]. N. Thirupathi Rao, Debnath Bhattacharyya (2019) Applications of Artificial Intelligence and ML in Business, International Journal of Innovative Technology and Exploring Engineering, Vol.8 (7) pp. 2734-2738.
- [4]. Najib, M., Sumarwan, U. and Nurlaela, S., 2019. Determinants of online journey and its influence on online customer satisfaction associated with online customer loyalty. International Journal of Electronic Marketing and Retailing, Vol.10(3), pp.230.
- [5]. Xia Song, Shiqi Yang, Ziqing Huang and Tao Huang (2019) The Application of Artificial Intelligence in Electronic Commerce, IOP Conf. Series: Journal of Physics, pp. 1-6.