

# Consumer Innovativeness Towards The Usage Of Artificial Intelligence Applications In Kollam District Of Kerala

Sudheesh. B<sup>1</sup>, Dr.J Prabakaran<sup>2</sup>, Dr. J Rajan<sup>3</sup>

<sup>1</sup>part time research scholar, Annamalai University

<sup>2</sup>Research Guide, Annamalai University

<sup>3</sup>Co-guide

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**Abstract:** This article is an attempt to understand the concept of “Consumer Innovativeness” in the realm of the application of artificial intelligence. Consumer innovativeness is the personality trait of a consumer where the adoption of new ideas products or services more quickly and frequently than others. It is a proactive interest towards newness and innovation.

Artificial intelligence is a rapidly emerging technology application platform and conquering all walks of human activities. Hence the aim of the study is to assess how far the application of AI influences the consumer behavior towards consumer innovativeness. It has been undertaken in the form of an empirical study in the “hundred percentages” digital literate state of Kerala particularly in Kollam district.

Rogers and Shoemaker (1971, p.27) define innovativeness as “the degree to which an individual is relatively earlier in adopting new ideas than the average member of his social system”.

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## INTRODUCTION

Consumer innovativeness can be narrated as “the tendency to buy new product in a particular product category soon after they appear in the market and relatively earlier than most other consumers in the market segment” (Foxall, Gold smith & Brown, 1999 p.41).

Technological innovations always help the customers to become more innovative.

Now people become more receptive and adaptable to new technology and supportive gadgets using AI tools. People are forced to adapt to new technologies that make their work easier and comfortable.

This article narrates consumer preference towards various AI tools and the diffusion of AI technology and its impact on consumers.

Nowadays AI applications are also influencing consumer innovativeness their tastes and preferences.

Examples are

- Financial apps can predict the fluctuations in the share market and the predictable trends.
- AI based Fitness applications can detect the metabolism of human body and level of fitness of an individual.

consumers can obtain better solutions if they have an innovative mindset. This article analyses the influence of AI application and its extent of diffusion in Kerala.

The extent of technology diffusion and penetration is not in quick manner. Those people who are innovative will definitely accept a new technology soon. Early adopters also accept a technology followed by early majority, late majority. But laggards are more suspicious to accept technological change. A generative AI application named “Deep seek” developed in China by new startup company directly competed against US based companies such as Open AI, NVidia and Meta.

The US based company OPEN AI developed their generative AI application, Chat GPT with their high skilled manpower, R&D. Liang Wenfeng, and his Chinese startup company made deep seek at low cost proportion compared to US based companies including Open AI.

Applications are developed for performing specific applications or utility programmes. The AI applications include mobile apps, Desktop apps and Web applications.

AI platforms and application use machine learning. The applications are developed to use big data and use data analytics to develop algorithms for data analysis and determine specific patterns so as to predict trends. AI applications can perform complex and repetitive task diligently. Intelligent automation helps AI driven applications to perform complex tasks better and make decisions just like a rational human being. This intelligent automation uses big data analytics to detect specific patterns so as to take decisions in a better

way.AI can minimize errors, improve accuracy and reduce human effort thus reducing the manpower need. Thus it can minimize cost.

Customized personalization is another feature of AI integrated applications. The application uses the details of the customer's data, browsing details its specific pattern and customize the offering through personalization. Thus it can customize their offerings by assessing the taste and preference, and provide innovative solutions to customers Thus this can influence the innovative mindset of the customers. So accuracy of data is very important to provide personalization and innovative solutions.

Deep learning uses artificial neural networks for analyzing big data and uses complex algorithms and make decisions. This is used in chatbots and Natural Language Processing applications of AI.

Virtual assistant Alexa, Siri and Google assistant can detect and recognize human voice. Natural Language Processing(NLP) can detect sentence construction pattern. Face recognition applications can recognize face by identifying specific patterns of human face.

Translation applications can translate various languages. Generative AI applications use Large Language Model(LLM) machine learning which enable it understand various languages.

Chat GPT, Google Gemini and Copilot of Microsoft are generative AI applications.

Reinforcement Learning help AI driven applications to improve day by day.

Expert systems can be used for obtaining innovative solutions in the field of financial planning, health care and Safety oriented operations.

Now people use technology for innovative practical solutions to their purchase related problems. Customers need technology supportive devices and AI tools can act as a complimentor to support their innovative mindset. According to Adam Brandenburger and Barry Nalebuff, the effect of complementors are relevant in a competitive environment.

#### **OBJECTIVES OF THE STUDY**

- To assess the consumer innovative mindset towards AI applications in Kollam district of Kerala.
- To assess the purchase motives behind the usage of AI applications.

#### **SCOPE OF THE STUDY**

- The study is confined to the users of AI applications.
- Occasional users are not included in the survey as it is not practically visible.

#### **METHODOLOGY**

120 customers are selected using simple Random Sampling from the technology savvy customers from colleges and offices in Kollam district.

#### **DATA ANALYSIS AND INTERPRETATION**

##### **1, AGE OF THE RESPONDENTS**

sl no	age	frequency	percentage	cumulative percentage
1	15-25	38	31.67	31.67
2	26-36	58	48.33	80
3	37 and above	24	20	100
	total	120	100	

(58%)of respondents are youngsters of 26-36 age group and 38% of respondents are in the category of 15-25 age group.25% of respondents are in the age group of 37 and above. This shows young generation (including students and job holders) are the major customers of AI tools in Kollam district. This is because young generations are more technology savvy

##### **2, PREFERENCE OF RESPONDENTS TOWARDS AI PLATFORMS**

		motives behind the use of AI apps			
age	save time and effort	solution to solve an issue	innovative mind set	any other	total
15-25	24(35.82)	11(24.44)	3(6)	nil	38
26-36	25(37.31)	30(66.67)	1(20)	2(66.67)	58
37 and above	18(26.87)	4(8.89)	1(20)	1(33.33)	24
total	67(100) (55.83)	45(100) (37.5)	5(100) (4.17)	3(100) (2.5)	120 (100)

Majority of respondents (27.5%) prefer chat GPT application. Perplexity AI is preferred by 22.5% of respondents. Google Gemini is preferred by 13.33% of respondents. 14.77% of respondents prefer deep seek. 18.33% of respondents prefer co-pilot. Majority of respondents are more comfortable with ChatGPT than other generative applications.

### 3, PERCEPTION OF RESPONDENTS TOWARDS THE QUALITY OF AI PLATFORMS

quality perception	frequency	percentage	cumulative percentage
high	27	22.5	22.5
average	40	33.33	55.83
good	42	35	90.83
Very good	6	5	95.83
excellent	5	4.17	100
total	120	100	

35% respondents perceive that the AI platforms are having good quality. 33.33% of respondents believe that the quality of AI applications are average. 22.5% of the respondents say that AI applications have high quality. 5% of respondents say that quality of AI applications are very good. 4.17% of respondents perceive that the AI applications are excellent.

Majority of the respondents are comfortable with the quality of the Generative AI applications.

### 4, MOTIVES BEHIND THE USAGE OF AI PLATFORMS

sl no	age	Chat GPT	Perplexity AI	GOOGLE GEMINI	Deepseek	Copilot	others	Total
1	15-25	12(36.36)	7(25.93)	4(25)	9(52.94)	6(27.27)	NIL	38
2	26-36	16(48.5)	14(51.86)	8(50)	6(35.29)	12(54.55)	2(40)	58
3	37 and above	5(15.5)	6(22.22)	4(25)	2(11.76)	4(18.18)	3(60)	24
	total	33(27.5)	27(22.5)	16(13.33)	17(14.77)	22(18.33)	5(4.17)	120(100)

55.83% respondents use AI applications for saving their time and effort. 37.5% of customers say that their motive behind the usage of AI tools is due to practical solutions to solve an issue. 4.17% of people use AI tools because of their innovative mindset. Artificial intelligent tools are comfortable and time saving. AI tools can give valuable solution to the queries of customers. Nowadays customers are asking suggestions for their purchase related issues to the AI applications.

## 5, REASONS FOR THE PREFERENCE BEHIND THE USAGE OF AI PLATFORMS

reason for preference	frequency	percentage	cumulative percentage
Ease	68	56.67	56.67
performance	12	10	66.67
compatibility	38	31.67	98.33
others	2	1.67	100
	120	100	

56.67% of respondents prefer AI applications because of the ease of using the application. 31.67% of respondents say that they prefer the application if it is compatible with the current system. 10% of respondents give priority to performance. Ease of using the application is the reason behind the purchase preference of majority of respondents

Hence ease and compatibility are the major reasons behind the usage of AI tools. This is because the new AI technology can be integrated with the current applications and systems to get better results

## 6, FACTORS BEHIND THE DECISION TO PURCHASE AI PLATFORMS

43.33% of respondents are price conscious and 16.67% of respondents are making their purchase decisions because of their ability to pay for the product. 10% of people are innovative mind set is the purchase motive. The affordable price level, ability to pay for the product, willingness to pay for the product, inner motive and the innovative mind-set act as the influence factor behind the purchase decision.

## FINDINGS

Young generation (including students and job holders) are the major customers of AI tools in Kollam district. This is because young generations are more technology savvy.

Majority of respondents are more comfortable with ChatGPT than other generative applications.

Majority of the respondents are comfortable with the quality of the Generative AI applications.

Artificial intelligent tools are comfortable and time saving.

AI tools can give valuable solution to the queries of customers. customers are asking suggestions for their purchase related issues to the AI applications.

Ease of using the application is the reason behind the purchase preference of majority of respondents

Ease and compatibility are the major reasons behind the usage of AI tools. This is because the new AI technology can be integrated with the current applications and systems to get better results

Affordable price level, ability to pay for the product, willingness to pay for the product, inner motive and the innovative mind-set act as the influence factor behind the purchase decision.

## CONCLUSION

Customers prefer latest AI technology and supportive AI tools for obtaining practical solutions to their problems. Hence this paradigm shift can be conducive for the diffusion and penetration of AI technology and AI tools in future.

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