



A STUDY ON USERS PERCEPTION TOWARDS ARTIFICIAL INTELLIGENCE IN VARIOUS MOBILE APPLICATIONS

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ABSTRACT:

This study investigates on users' perceptions of artificial intelligence (AI) in a various of mobile applications, with the goal of understanding how AI integration affects user experiences and preferences. A mixed-methods approach that included quantitative surveys and qualitative interviews was used to obtain insights on consumers' attitudes, benefits, concerns, and degrees of satisfaction with AI-driven features. The findings show that users have a generally positive attitude toward AI integration, with benefits such as increased efficiency, customization, and convenience. However, concerns about privacy, data security, and over-reliance on AI were also raised. Furthermore, demographic disparities in perception underline the significance of personalized methods to AI integration. Prioritizing openness, refining algorithms, providing user control options, following ethical norms, and encouraging a user-centric approach to development are all suggestions for maximizing AI features. Overall, this study contributes to a deeper understanding of user perspectives on AI in mobile applications, providing valuable insights for developers to enhance user satisfaction and trust in AI technologies.

KEYWORDS:

Artificial intelligence, Mobile applications, Users Perception, Users Experience, Data Security, Privacy, Efficiency, AI Trends, AI Algorithm, Chat Bots, AI-driven Technology

INTRODUCTION OF THE STUDY:

The study focuses on understanding the role of artificial intelligence in enhancing user interactions with mobile applications and how it influences user satisfaction and engagement. In order to ascertain their impact on user views and adoption intentions, the research also investigates the particular characteristics of AI, such as intelligence and anthropomorphism, in mobile apps.

The objectives of the study include investigating the role of AI in mobile applications, understanding the impact of AI on user experience and adoption, and providing insights into how AI technology can be leveraged to improve user satisfaction, efficiency, personalized services and overall user experience. The study examines user attitudes regarding AI-powered mobile applications to uncover the characteristics that influence users' comfort, trust, and adoption of these apps. In order to ascertain their impact on user perceptions and adoption intentions, it will also look at the particular AI features such as intelligence and anthropomorphism—in mobile applications. In order to determine the variables that affect users' comfort, trust, and adoption of AI-powered mobile applications, the study will also look into user attitudes toward these apps. This study, researchers aim to understand how users perceive AI technology in various mobile applications and offer developers and designers to optimize AI features for improved user engagement and satisfaction.

STATEMENT OF THE PROBLEM:

The investigation of AI has become pervasive promising for various mobile applications. The rise of Artificial Intelligence has revolutionized the world of marketing, making it possible to personalized advertisement and recommended. Machine learning algorithm can analyse vast amount of customer's data, including browsing behaviour, purchasing history, social media interactions and demographic information. AI in mobile applications may face challenges related to limited processing, constrained memory and varying network condition collecting and using user's data for AI raises privacy concern. Users may be hesitant or unfamiliar with AI –Powered features. Effective on boarding and education are essential to ensure users understand and embrace AI – driven functionally. This study seeks to provide valuable insight into the practical implication of AI in various mobile applications.

OBJECTIVES OF THE STUDY:

- To know the artificial intelligence towards various mobile applications.
- To examine users adoption and resistance towards AI.
- To identify factors influencing users acceptance of AI in various mobile applications.

REVIEW OF LITERATURE:

- **Naga Siva Kumar Gunda¹, Siddharth Hariharan Gautam² and Sushanta K. Mithra (2019),**”ARTIFICIAL INTELLIGENCE BASED MOBILE APPLICATION FOR WATER QUALITY MONITORING” Merging trends in Artificial Intelligence (AI) have provided wide scopes to make better predictions in a variety of fields, including the medical imaging and diagnosis, environmental data (air pollution and water contaminants), weather forecasting, pest and livestock management in agriculture, disaster prediction and relief, remote sensing, geophysical feature detection etc. To identify non-uniform cancer cells from high resolution micro scope images of tissues. The tools used are primary tools. 150 questionnaires in all were collected. The user of the MWK technology can use E-Water app straightaway without worrying about the colour interpretation or any parameterized input. This automated interpretation of E. coli and non-E. Coli images allow the water quality technicians to use this innovative app without extensive knowledge/ training about optimization or mathematical tools. Journal of electrochemical society.(**Volume No-166, Issue No-9, Page No-3031-3035**)
- **. Dayan Wang, Gang Song (2023),**”THE STUDY ON ARTIFICIAL INTELLIGENCE IN SPORTS MEDICINE” Artificial intelligence (AI) is the study of brain-like intelligence through the utilization of technologies such as big data, deep learning algorithms, and cloud computing. It involves the use of machines to address problems that can be solved by the human brain. To Analysis of sports prediction and gambling artificial intelligence and machine learning. The tools used are primary and secondary tools. 120 questionnaires were collected. These barriers and costs restrict the involvement and benefits for the general population. The prospects of AI in the field of sports medicine are exciting. In the future, through continuous research and application, AI will provide athletes and medical professionals with more precise and personalized training and rehabilitation programs, offering greater possibilities for medical. Journal of Clinical and Medical Images.(**Volume No-3, Issue No-2, Page no-1-4**)
- **DR. R. Deepa , DR. P. Nanda Kumar, C.K. Indhra Kumar,(2021)**”ARTIFICIAL INTELLIGENCE IN IOT AND QC: FUTURE COMPUTING” The extension of Internet connectivity into tangible things and everyday utility items is known as the Internet of Things. IOT is a platform that offers the possibility of connecting commonplace objects that are equipped with sensors, software, and electronics to the internet so they can communicate and gather data. Smart phones, tablets, hybrid computers, augmented and virtual reality headsets, and mobile applications tailored for industry experts are examples of connected gadgets. Inclusive of financial development for sizable segments of the populace shut out of official financial services. The fundamental computational components of QC are quantum gates. 150 questionnaires in all were gathered. These ten technological developments are expected to be

the most disruptive, having broad implications for businesses and policymakers. Journal of Xidian university(Volume No- 15 Issue No-4, Page No-338-344)

- Mahabab Basha, (2023)** “IMPACT OF ARTIFICIAL INTELLIGENCE IN MARKETING” Artificial Intelligence Marketing is a strategy for maximizing the use of technology and market data in order to improve the customer experience. By analyzing large amounts of data, AI can bridge the gap between data science and implementation, which previously been an impossible task. Marketing encompasses all techniques that can have a large influence on people at a certain time, in a specific location, and through a specific channel. To analyze Pre and post AI marketing strategy. The tools used were primary tools. 130 questionnaires were collected. Respondents also felt that having data in place is critical since it is the most significant aspect of AI; consequently, data is also the largest hurdle, according to them. The research has made a good contribution to the existing literature by filling in the gaps in the literature by focusing on the influence of AI in marketing from the perspective of a marketing professional. East Asian Journal of Multidisciplinary Research.(Volume No- 2, Issue No- 3, PAGE No- 993- 1004)
- Sushant Kumar Vishnoi , Teena Bagga, Aarushi Sharma AND Saadat Nasir Wani, (2018),**”ARTIFICIAL INTELLIGENCE ENABLED MARKETING SOLUTIONS” Artificial Intelligence & automation are poised to reshape the marketing function. Intelligent work processes management, intelligent information management, intelligent system and technology integration and intelligence human resource management when used in complete synchrony with machines will boost organizations goals and environment. To analyse Recent Innovations & Real World Applications. The tools used were secondary tools. 120 questionnaires were collected. The century old consequences based reactive technologies are being transformed to innovation powered proactive business models. The AI-Marketing fusion certainly is growing in stature and functionality as the new paradigm for successful business organizations. Indian Journal of Economics & Business.(Volume No- 17, Issue No: 4, Page No: 167-177)

RESEARCH METHODOLOGY:

SOURCE OF DATA	Primary data and secondary data
AREA OF THE STUDY	Coimbatore city
SAMPLE SIZE	120
SAMPLING TECHNIQUES	Simple Random Sampling

STATISTICAL TOOLS:

- Percentage Analysis.
- Rank Correlation.
- CHI SQUARE Test.

ANALYSIS AND INTERPRETATION:**PERCENTAGE ANALYSIS:****GENDER**

S.NO	Particulars	No. of Responses	Percentage
1	Male	102	85%
2	Female	18	15%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 85% represents Male, 15% represents Female.

AGE:

S.NO	Particulars	No. of Responses	Percentage
1	18-25	60	50%
2	26-35	32	27.5%
3	36-45	18	14.5%
4	46& above	10	8%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 50% represents 18-25, 27.5% represents 26-35, 14.5% represents 36-45, 8% represents 46 and above.

OCCUPATION:

S.NO	Particulars	No. of Responses	Percentage
1	Student	55	45.2%
2	Self employed	24	19.4%
3	Employed	32	27.4%
4	Un-employed	9	8%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 45.2% represents Student, 19.4% represents Self Employed, 27.4%, represents Employed, 8% represents Unemployed.

EDUCATIONAL QUALIFICATION:

S.NO	Particulars	No. of Responses	Percentage
1	HSC	17	14.5%
2	Diploma	21	17.7%
3	UG	70	58.1%
4	PG	12	9.7%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 14.5% represents HSC, 17.7% represents Diploma, 58.1%, represents UG, 9.7% represents PG.

MARTIAL STATUS:

S.NO	Particulars	No. of Responses	Percentage
1	Married	48	40.3%
2	Un Married	72	59.7%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 40.3% represents Married, 59.7% represents Un Married.

APPLICATION THAT YOU USE MOSTLY

S.NO	Particulars	No. of Responses	Percentage
1	Chat GPT	29	24.2%
2	Google assistant	43	35.5%
3	Snap Chat	29	24.2%
4	Google Maps	19	16.1%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 24.2% represents Chat Gpt, 35.5% represents Google assistant, 24.2% represents Snap Chat, 16.1% represents Google Maps.

INITIAL IMPRESSION ABOUT THE APPLICATION

S.NO	Particulars	No. of Responses	Percentage
1	Poor	8	6.5%
2	Fair	47	38.7%
3	Good	48	40.3%
4	Excellent	17	14.5%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 6.5% represents Poor, 38.7% represents Fair, 40.3%, represents Good, 14.5% represents excellent.

OFTEN DO YOU USE APPLICATION

S.NO	Particulars	No. of Responses	Percentage
1	Less than the week	15	12.9%
2	A week to the month	69	56.5%
3	A month to the year	15	12.9%
4	Above year	21	17.7%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 12.9% represents Less than week, 56.5% represents A Week to the month, 14.5%, represents A month to the Year, 17.7% represents Above year.

THE APPLICATION IS USED FOR

S.NO	Particulars	No. of Responses	Percentage
1	Education	33	27.9%
2	Personal use	53	44.3%
3	Business	26	21.3%
4	Health care	8	6.6%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 27.9% represents Education, 44.3% represents Personal use, 21.3%, represents Business, 6.6% represents Health Care.

CREATING AN APP THAT MEETS YOUR SPECIFIC NEEDS

S.NO	Particulars	No. of Responses	Percentage
1	Not at all	10	8.1%
2	Slightly	48	40.3%
3	Moderately	50	41.9%
4	Extremely	12	9.7%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 8.1% represents Not at all, 40.3% represents Slightly, 41.9%, represents Moderately, 9.7% Extremely.

NAVIGATING THE OVERALL EXPERIENCE WITH AI-POWERED FEATURES IN MOBILE APPLICATIONS

S.NO	Particulars	No. of Responses	Percentage
1	Positive	97	80.6%
2	Negative	23	19.4%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows navigating the User Experience with AI-Powered Features in Mobile Applications 80.6% represents Positive, 19.4% represents Negative.

UNVEILING THE ADVANTAGES OF ARTIFICIAL INTELLIGENCE IN MOBILE APPLICATIONS

S.NO	Particulars	No. of Responses	Percentage
1	Improved users experience	39	32.8%
2	Enhanced Personalization	69	57.4%
3	Time saving features	12	9.8%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 32.8% represents Improved users experience, 57.4% represents Enhanced personalization, 9.8%, represents Time saving features.

THE ACCEPTANCE OF AI IN MOBILE APPLICATIONS

S.NO	Particulars	No. of Responses	Percentage
1	Cultural Background	25	21%
2	Exposure of AI	76	62.9%
3	Perceived Risks	19	16.1%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 21% represent cultural back ground, 62.9% represents exposure of AI, and 16.1% represents Perceived risks.

EXPLORING THE ROLE OF AI IN MOBILE APPLICATIONS

S.NO	Particulars	No. of Responses	Percentage
1	Privacy issues	18	14.8%
2	Data security issues	39	32.8%
3	Lack of transparency in AI	53	44.3%
4	Potential Job Displacement	10	8.1%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 14.8% represents Privacy issues, 32.8% represents Data security issues, 44.3% represents lack of transparency in AI, 8.1%, represents Potential job displacement.

THE EVOLUTION OF ARTIFICIAL INTELLIGENCE INTEGRATION IN MOBILE APPLICATIONS

S.NO	Particulars	No. of Responses	Percentage
1	It will become more Prevalent and advanced	31	25.8%
2	It will remain at similar level	72	59.7%
3	It will become less common	17	14.5%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 25.8% represents It will become more prevalent and advanced, 59.7% represents It will remain at similar level, 14.5%, represents It will become less common.

ANALYZE THE CURRENT LANDSCAPE OF AI IN MOBILE APPLICATIONS

S.NO	Particulars	No. of Responses	Percentage
1	Limited	47	38.7%
2	Moderate	52	43.5%
3	Advanced	21	17.7%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 38.7% represents limited, 43.5 represents moderate, 17.7% represents that advanced

RATING OF THE APP

S.NO	Particulars	No. of Responses	Percentage
1	1	6	5%
2	2	21	17.7%
3	3	37	30.5%
4	4	41	33.9%
	5	15	12.9%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows 5% represents 1 rating, 17.7% represents 2 rating, 30.5%, represents that 3 rating, 33.9% represents 4 rating, 12.9% represents 5 rating.

EXPLORING THE CONCEPT OF AI

S.NO	Particulars	No. of Responses	Percentage
1	Very familiar	26	21.3%
2	Somewhat familiar	73	60.7%
3	Not familiar at all	21	18%
	Total	120	100%

Source: Primary Data

INTERPRETATION:

The table shows that 21.3% represents that very familiar, 60.7% represents that somewhat familiar, 18% represents that not familiar at all.

RANK CORRELATION:

FACTOR	RANK	1	2	3	4	5	TOTAL	RANK SCORE	RANK
		SCORE	1	4	5	2			
VIRTUAL ASSISTANT	NO.OF RESPONDENTS	64	26	10	7	13	120		
	SCORE	64	104	50	14	39	271	2.3	5
PERSONALIZED RECOMMENDATIONS	NO.OF RESPONDENTS	13	27	26	34	20	120		
	SCORE	13	108	130	68	60	379	3.14	2
CHATBOTS FOR CUSTOMERS SUPPORTS	NO.OF RESPONDENTS	7	12	27	31	43	120		
	SCORE	7	48	135	62	129	381	3.17	1
VOICE RECOGNITION	NO.OF RESPONDENTS	13	40	17	37	13	120		

	SCORE	13	160	85	74	39	371	3.09	4
IMAGE RECOGNITION	NO.OF RESPONDENTS	24	18	30	14	34	120		
	SCORE	24	72	150	28	102	376	3.13	3

INTERPRETATION:

Respondents that, "Virtual assistant" ranks lower than other variables on average, as evidenced by its 2.3 average rank score. "Voice Recognition" got a rather low average rank score of 3.09. "Image Recognition" has an average rank score of 3.13. "Personalized Recommendations" received a 2nd higher average rank score of 3.14. "Chat Bots for customer's supports" earned a highest average rank score of 3.17.

CHI SQUARE TEST:

There is significant relationship between Age and Experience with AI-Powered features:

Chi-Square Test Result	Chi-Square statistic	Degree of freedom	Significance level	Critical Chi-Square Value	Conclusion
Value	9.524	3	0.05	7.185	Significant

INTERPRETATION:

The Chi-Square test results demonstrate a clear and statistically significant connection between Age and Experience with AI-Powered features. This suggests that age of the persons influenced their Experience with AI-Powered features.

FINDINGS:

FINDINGS IN PERCENTAGE ANALYSIS:

- Majority 85% of the respondents are Male
- Majority 50% of the respondents are between the age group of 18-25
- Majority 45.2% of the respondents are Students
- Majority 58.1% of the respondents are Under Graduate educational qualification.
- Majority 59.7% of the respondents are Unmarried People
- Majority 35.5% of the respondents are mostly using Google Assistant.
- Majority 40.3% of the respondents are Good Impression about the application.
- Majority 56.5% of the respondents are used the application from A Week to the Month
- Majority 44.3% of the respondents are used the application Personal Use
- Majority 41.9% of the respondents are Moderately App Meet your needs
- Majority 80.6% of the respondents are described overall experience as positive
- Majority 57.4% of the respondents are enhanced Personalisation
- Majority 62.9% of the respondents are Exposure of AI which acceptance the AI technology
- Majority 44.3% of the respondents are Lack of transparency in AI of the regarding AI concern
- Majority 59.7% of the respondents are It will remain constant for similar level which evolve in future.
- Majority 43.5% of the respondents are Moderate in current level of understanding
- Majority 33.9% of the respondents are given 4 for application
- Majority 60.7% of the respondents are given somewhere what familiar with concept of AI

FINDINGS FOR CHI SQUARE TEST:

- The calculated Chi- Square Statistic is 9.524
- The Significance level is 0.05
- The Critical Chi-Square Value is 7.185

SUGGESTIONS:

Developers should prioritize transparency and user education around AI algorithms and data use. Giving specific explanations of how AI-powered services work and how user data is utilized can help to build confidence and alleviate concerns about privacy and security. AI algorithms must be continuously improved and refined to maintain accuracy and relevance in personalized recommendations and other AI-powered features. Regular updates and feedback techniques may help AI recommendations adapt to users' changing tastes and requirements. Developers should provide users more control and customization options over AI functionality. Providing options for adjusting the amount of AI assistance or the types of recommendations received can help consumers personalize their experiences and feel more in control of their interactions with

AI-powered mobile apps. By applying these suggestions, developers can optimize the integration of AI in mobile applications, enhance user satisfaction, and foster trust in AI technologies, ultimately driving positive user experiences and long-term engagement.

CONCLUSION:

In Conclusion, The study on user perceptions of artificial intelligence (AI) in various mobile applications provides significant insights into how AI integration affects user experiences and preferences. Overall, people have a good attitude toward AI-powered services, recognizing the benefits such as efficiency, customisation, and convenience. The importance of AI in improving mobile app functionality and user engagement. Virtual assistants, personalized recommendations, and customer service chat bots are among the most popular AI features among consumers, demonstrating their effectiveness in streamlining tasks and providing tailored experiences. the study identifies demographic differences in perception, with younger users demonstrating higher acceptance and trust in AI compared to older demographics.

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