

Examining the Influence of Interactive Artificial Intelligence Platforms on Individuals' Daily Decision-Making

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Abstract:

This study aims to investigate the impact of interactive artificial intelligence platforms on the quality of daily decisions among individuals, focusing on the role of trust in these platforms as a mediating variable. The study used the descriptive-analytical approach, and data were collected from a sample of (100) university students from various disciplines. The study relied on a questionnaire that included three main axes: level of use, trust in the platform, and quality of daily decisions.

The results of the statistical analysis revealed a high level of use of interactive platforms among sample members, and a strong, statistically significant relationship between use and trust, and between trust and decision quality. The results also showed that the impact of platforms does not vary based on demographic characteristics, reinforcing the notion of a comprehensive impact.

The study concluded that interactive AI platforms are an effective tool in supporting individuals' daily decisions, provided they are used consciously and in a balanced manner. It recommended enhancing users' digital awareness and incorporating educational content on AI into university programs.

Keywords: Interactive AI, Everyday Decisions, Trust, Usage, Decision Quality.

1. Introduction:

Interactive AI platforms are one of the pioneering technological developments capturing the attention of individuals and societies in the modern era. These platforms go beyond traditional AI applications, offering advanced tools that contribute to improving users' daily decisions. By analyzing big data and leveraging advanced algorithms, these platforms provide personalized and accurate recommendations tailored to individuals' needs, enhancing their ability to make effective decisions in a variety of fields (Jorzik et al., 2024). Individuals'

journey to interacting with these platforms typically begins with an assessment of their needs and interests. Thanks to machine learning technology, these systems are able to analyze user behavior and process information in real time. Consequently, individuals gain access to scientifically based information, enhancing their ability to think critically and reducing reliance on random practices or inaccurate information. This transformation extends beyond marketing and purchasing decisions to vital areas such as financial planning, time management, and even public health (Collins et al, 2021).

As the use of these platforms increases, their role in shaping individuals' daily lives becomes more prominent. These tools help reduce the stress of decision-making anxiety by providing services based on intelligent analytics. However, we must be

aware of the risks of overreliance on this technology, as it can erode human decision-making skills. Amid this contradictory reality, society must deeply understand the potential consequences of employing these platforms, in order to balance the benefits with the challenges associated with the excessive use of artificial intelligence. The importance of this study lies in understanding the impact of interactive artificial intelligence on individuals and society as a whole, by exploring the delicate relationship between technology and human decisions (Shanmugasundaram & Tamilarasu, 2023).

2. The Importance of Research

The importance of this research lies in the impact of interactive AI platforms on individuals' daily decisions in light of the rapid transformations taking place in modern societies. These platforms are pivotal tools that reshape decision-making, contributing to the development of an integrated framework and a deeper understanding of the data that influence user behavior. This research fills a vital knowledge gap regarding how individuals benefit from these applications and their potential impact on social interactions, economic decisions, and lifestyle choices.

Furthermore, the research contributes to developing a comprehensive understanding of the role of AI in social and economic systems, providing a solid foundation for policymakers. For example, through a deeper understanding of how these platforms influence individual behavior, educational and cultural strategies can be developed to enhance the ability to handle digital information intelligently and consciously. The research aligns with global technological transformations and cultural changes and highlights the importance of critical thinking when using these platforms, which contributes to informed decision-making based on reliable data, thus enhancing the overall quality of daily life experiences.

3. The Research Problem

With the rapid acceleration of technology, interactive AI platforms have become an integral part of people's daily lives, providing decision support tools and helping users choose the

best possible alternatives. However, it remains unclear how these platforms impact the quality of decisions individuals make, especially given the varying levels of trust and reliance on AI from one individual to another.

Hence, the study problem stems from the following main question:

How does the use of interactive AI platforms impact the quality of people's daily decisions, and what role does trust in these platforms play in this relationship?

4. Artificial Intelligence

Artificial intelligence (AI) refers to a group of systems and programs capable of simulating human intelligence, including learning, understanding, and analysis. AI is classified into several types, the most important of which are narrow AI and strong AI. Narrow AI refers to systems designed to perform specific tasks, such as facial recognition or natural language processing, without the ability to understand or learn beyond those tasks. In contrast, general AI seeks to achieve a level of understanding and knowledge similar to that of humans, enabling critical thinking and creativity.

AI levels are divided into three main types: interactive AI, memory-based AI, and perceptive AI. Interactive AI focuses on the ability to interact directly with the environment by analyzing incoming data and making immediate decisions. Memory-based AI, on the other hand, enables learning from past experiences to improve the machine's ability to predict and react more effectively. Finally, perceptive AI encompasses the ability to understand complex contexts, allowing systems to assess users' emotions and intentions in their daily interactions.

These types of artificial intelligence are developing rapidly, significantly impacting many areas of daily life, from healthcare to education and even commerce. With continued technological advancements, these systems have become crucial in data governance and information analysis, changing the way people make decisions. By understanding the different classifications and types of artificial intelligence, it becomes

possible to grasp its profound impact on a wide range of everyday life decisions, which calls for continuous reflection on the ethics and practices associated with its use (Al Kuwaiti et al., 2023).

5. Interactive AI platforms

Interactive AI platforms are modern tools that allow individuals to interact directly with intelligent systems and receive immediate responses based on data analysis. These platforms include intelligent chatbots, personal assistant applications, and social platforms that use machine learning algorithms to understand user preferences and behaviors. These systems can have a significant impact on everyday decision-making, as they analyze massive amounts of data to provide accurate recommendations, making it easier for users to access necessary information quickly and efficiently (Jasim et al., 2022).

Interactive AI platforms are capable of learning from past interactions and adapting their responses based on the user's unique needs. This dynamism makes it possible to deliver personalized experiences that go far beyond traditional methods of information sharing. For example, personal assistant applications can anticipate specific appointments or suggest solutions to specific problems based on history and context. As a result, individuals are able to make informed decisions, enhancing the effectiveness of personal operations and increasing productivity.

However, the use of interactive platforms also raises some challenges, such as privacy and security. While these systems enable a high level of personalization, they also require the collection of extensive data on individual behavior. These practices can sometimes lead to concerns about how this data is used and whether it might unexpectedly influence users' decisions. Furthermore, heavy reliance on these platforms can reduce individuals' critical thinking, as reliance on artificial intelligence becomes a substitute for self-decision-making. Therefore, it is essential to strike a balance between the benefits of these platforms and the need to preserve personal

decision-making autonomy, which calls for a careful examination of the advantages and disadvantages of these new technologies (Quach et al., 2022).

6. Daily Decisions

Daily decisions are a pivotal part of individuals' lives, representing the set of choices they continually make to achieve their goals and improve their quality of life. By definition, a daily decision can be viewed as a mental process that involves evaluating available information, reviewing available alternatives, and then selecting the optimal option to address a given situation. These decisions, no matter how simple or complex, are an integral part of the ongoing interaction between the individual and their environment (Karem et al., 2022).

The importance of these decisions includes their direct impact on daily life, affecting multiple aspects, from personal organization to social relationships. When individuals make informed decisions, they tend to improve their planning and organizational skills, which increases their effectiveness in achieving goals. For example, choosing the ideal time to study or setting priorities at work can lead to higher levels of achievement and productivity. Additionally, daily decisions also impact an individual's mental health; the inability to make critical decisions or handle pressure can lead to feelings of stress and anxiety (Raewf et al., 2021).

In the modern era, interactive AI platforms have become tools that significantly contribute to supporting daily decision-making. These platforms provide accurate, data-driven information and analysis, helping individuals make well-founded decisions. By interacting with users' preferences and preferences, these tools open up new horizons for individuals' thinking, presenting them with alternatives they had not previously considered. Ultimately, the importance of everyday decisions demonstrates the importance of understanding the psychological and social dimensions of this vital feature and how to use available tools to enhance the ability to make intelligent and effective choices, thereby enhancing the human experience as a whole.

7. Literature Review and Hypothesis Development

7.1 Literature Review

Several studies have sought to explore the relationship between the use of artificial intelligence and decision-making quality. Duan (2019) in his study "AI and Decision-Making: The Rise of Interactive Platforms" indicated that the use of interactive AI platforms helped improve decision accuracy by up to 25%, concluding that users became more confident in their decisions when they based their decisions on the outputs of these platforms.

Zhai et al., (2024) conducted a study on university students in South Korea and concluded that overreliance on AI can weaken users' analytical mental abilities, and that the impact of AI depends on the user's level of information literacy.

Tawfeeq et al., (2023) conducted an Arab study focusing on the Iraqi academic environment. The results showed a direct relationship between the rate of use of artificial intelligence and the level of confidence in decisions, but emphasized the need to achieve a balance between reliance on technology and self-reliance.

Chong et al. (2022) study, conducted in China, targeted users of interactive AI applications in e-commerce environments. Researchers found that the use of AI-based recommendation tools enhanced users' sense of competence in making purchase decisions. The results also showed that AI-powered decisions were more consistent with users' actual preferences.

Ergazakis et al., (2008) This study examined the relationship between reliance on intelligent decision support systems and decision-making speed in the business environment. It found a strong positive relationship between the use of artificial intelligence tools and increased speed and efficiency of managerial decisions, especially in situations that require rapid response.

Davis (1989) examined the relationship between users' perceptions of the usefulness of intelligent platforms and their tendency to use them in everyday decisions. The results indicated that users who perceive the direct practical usefulness

of AI tend to rely on it more than others and prefer to receive recommendations from automated systems rather than humans in routine situations.

7.2 Hypothesis Development

Based on the literature review that addressed the impact of artificial intelligence on decision-making, the following hypotheses were constructed:

H1: Perceived usefulness of interactive AI platforms positively affects students' daily decisions.

H2: usefulness of interactive AI platforms positively affects Trust in AI.

H3: Trust in interactive AI platforms positively affects students' daily decisions.

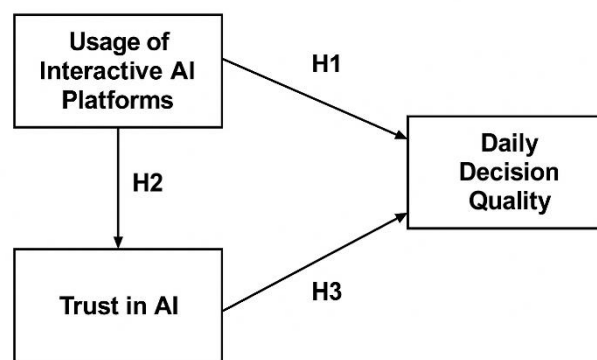


Figure 1. Hypothetical diagram

8. Methodology

The current study relied on a descriptive-analytical approach, as it is the most appropriate for examining the relationship between the use of interactive AI platforms and the quality of daily decisions. This approach allows for describing the phenomenon under study and analyzing the field data collected to uncover the nature of the relationship between variables. It also contributes to drawing conclusions and formulating recommendations.

The study population consisted of all individuals who use

interactive AI platforms in their daily lives, with a focus on university students, as they are among the most interactive groups with modern technologies and rely on these platforms to make various academic, personal, and professional decisions.

A random sample of (100) university students from various academic disciplines was selected, and the questionnaire was distributed electronically to collect data from them. This sample represents an appropriate segment that represents the study community in light of the available capabilities and realistic conditions for data collection.

The study relied on a questionnaire as the primary means of data collection. The questionnaire was designed based on a review of previous relevant literature and contained four main axes:

- Demographic data (gender, age, educational level, number of years using the Internet, rate of platform use).
- The level of use of interactive artificial intelligence platforms.
- The impact of these platforms on the quality of daily decisions.
- Level of Trust on artificial intelligence versus self-reflection.

A five-point Likert scale was used to measure participants' responses, with scores ranging from (1 = strongly disagree) to (5 = strongly agree).

The questionnaire was then presented to a number of specialized arbitrators to ensure content validity. The reliability of the tool was measured using Cronbach's Alpha, with the total value of the axes exceeding 0.80, a value that indicates a high level of reliability.

9. Data Analysis and Results

9.1 Descriptive Statistics

Descriptive analysis was conducted because it is the first step

in data analysis. It aims to describe the characteristics of the sample's responses, identify general trends in the data (for example: Is the level of AI use high or low?), provide an idea of the data dispersion (standard deviation), and the maximum and minimum values for each axis.

The results, as shown in Table 1, showed that the arithmetic mean for the level of use was (3.95), indicating relatively high use. The impact on the decision also recorded a higher mean (4.16), indicating a significant positive impact from the participants' perspective. Reliance on artificial intelligence recorded (4.01), indicating increasing reliance.

Table No. 1 Descriptive analysis

Variable	Mean	Standard Deviation	Minimum	Maximum
Usage	3.9461538	0.547649	2.2	5
Impact	4.1589743	0.520098	2.8	5
Reliance	4.012820	0.601590	2.4	5

9.2 Pearson Correlation

Pearson Correlation analysis was performed because it is designed to measure the strength and direction of the relationship between two quantitative (numerical) variables, and it is suitable for hypotheses such as:

- Is there a relationship between usage intensity and decision quality?
- Is there a link between dependence and trust?

The results, as shown in Table 2, showed that all correlation coefficients were higher than 0.58, indicating strong correlations between the variables. The p-values were 0.000, i.e., less than 0.05, meaning that these relationships are statistically significant. The correlation demonstrated strong relationships between use, impact, and adoption.

The more platforms are used, the greater their positive impact, and the more people rely on them, which is a logical result consistent with previous literature.

Table No. 2 Pearson Correlation

Variable Relationship	Pearson r	p-value	Statistically Significant
Use * Influence	0.592	0.000	Yes
Use * Trust	0.619	0.000	Yes
Influence * Trust	0.588	0.000	Yes

9.3 ANOVA Test

An ANOVA analysis was conducted because it is used to compare the means of three or more groups (such as comparing students from different grade levels or different age groups). It is appropriate for testing research hypotheses.

The results, as shown in Table 3, did not show any statistically significant differences in all axes (all p values > 0.05). This means that demographic characteristics did not significantly influence levels of use, adoption, or decision quality.

This suggests that the impact of AI is similar across individuals, regardless of their background or age, reinforcing the notion that the impact of these platforms is universal. This demonstrates the homogeneity of the impact across different groups.

Table No. 3 ANOVA Test

Demographic Variable	Measured Axis	F Value	p-value	Statistically Significant
Gender	Usage	0.414	0.52185	No
Gender	Impact	0.124	0.7259	No
Gender	Reliance	0.035	0.85165	No
Age	Usage	0.499	0.68417	No
Age	Impact	2.203	0.09486	No
Age	Reliance	0.999	0.39813	No
Level of Study	Usage	0.04	0.84153	No
Level of Study	Impact	0.391	0.53375	No
Level of Study	Reliance	0.524	0.4712	No
Weekly usage average	Usage	1.662	0.16807	No

Weekly usage average	Impact	2.132	0.08537	No
Weekly usage average	Reliance	2.073	0.093	No

9.4 Hypothesis Testing

Three main hypotheses were tested in this study to measure the relationship between the three variables: the level of use of interactive AI platforms, trust in AI, and the quality of daily decisions. The results of the Pearson correlation analysis showed that all three hypotheses were acceptable and statistically significant at a significance level of ($\alpha = 0.05$), as shown in Table (4).

Table No. 4 Hypothesis Testing

Hypothesis Number	Pearson r	p-value	Result
H1	0.592	0.000	Accepted
H2	0.592	0.000	Accepted
H3	0.619	0.000	Accepted

All hypotheses studied were supported by data and were statistically significant at the level of ($\alpha = 0.05$).

10. Discussion of Results

The results of the statistical analysis showed that the average responses of participants to all study axes (level of use, impact on the decision, level of adoption) were relatively high, indicating a high interest among sample members in using interactive artificial intelligence platforms and feeling their positive impact on their daily decisions.

Through Pearson's correlation test, strong, statistically significant direct relationships were found between the three variables. The higher the level of platform usage, the greater the positive impact on decision quality, and the higher the level of reliance on these platforms. This result is consistent with previous literature, such as Duan (2019) and Tawfeeq et al., (2023), which confirmed the impact of artificial intelligence in enhancing decision accuracy and confidence.

Regarding the ANOVA test, the results showed no statistically significant differences across all axes based on demographic characteristics such as gender, educational level, age group, or platform usage rate. This suggests that the impact of interactive AI has become general and not limited to a specific age or educational group, indicating the broad scope of these technologies' influence.

Based on these findings, it can be argued that interactive AI platforms play a tangible and influential role in improving individuals' daily decisions. However, there remains a need to guide the use of these tools toward a balanced approach that enhances critical thinking and does not negate individual cognitive autonomy.

11. Conclusion and recommendations

11.1 Conclusion

The study reached important results confirming that the use of interactive AI platforms positively contributes to improving the quality of daily decisions for individuals. It also showed that the degree of trust in these platforms is directly related to the effectiveness of decisions, reinforcing the value of integrating these tools into individuals' professional and educational lives.

Statistical analysis revealed that the impact of platforms did not vary across demographic characteristics, indicating the comprehensiveness of this impact. However, it is essential to avoid drifting toward excessive reliance on technology without developing analytical and critical thinking skills.

11.2 Recommendations

In light of the study findings, the researchers recommend the following:

1. Raise digital awareness among individuals on how to optimally use interactive AI.
2. Design university training programs that contribute to developing decision-making skills in integration with AI tools.
3. Develop AI platforms to be more transparent in presenting analysis and making recommendations.

4. Encourage researchers to conduct similar studies on other segments of society, such as employees or decision-makers.
5. Include academic material in university curricula that addresses the topic of AI and its impact on behavior and decision-making.

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