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## ARTIFICIAL INTELLIGENCE TOOLS INFLUENCING CONSUMER'S INTRINSIC DESIRES TOWARDS PURCHASE DECISIONS

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### Abstract

*The purpose of this study was to examine how AI tools affect consumers' Intrinsic Desire towards Purchase Decisions. The selected AI Tools were Personalized recommendations, Chabot, Virtual Assistants, Virtual Try-On, Sentiment analysis, Email marketing optimization, and Intrinsic Desire towards Purchase Decisions were fear of missing out, feeling special and privileged, Time Saving and stress reduction, easy and intuitive shopping experiences, Desire for Social Acceptance. This study applied the Unified Theory of Acceptance and Use of Technology (UTAUT) as its theoretical foundation. 132 customers were sampled for an online survey conducted by the researcher. The researcher used structural equation modeling (SEM) for the analysis of the data. The results showed evidence of a relationship between AI tools and Intrinsic Desire towards Purchase Decisions.*

Keywords: AI Tools, Intrinsic desire towards a purchase decision.

### Introduction

Technology is always pushing the boundaries of what e-commerce can accomplish by virtual reality and artificial intelligence to software that is offered and the rise of digital transformation. Technology is advancing at an accelerating rate, so every day something new rivals online businesses' attention. AI is being ingrained in every facet of our existence. AI is present practically everywhere, from airport security checks to the growing number of self-checkout cash machines. According to a Gartner survey, companies using AI have grown by 270% over the previous four years.

One technology that is affecting every part of our lives is artificial intelligence. Major computer corporations are focusing their research efforts on artificial intelligence as they try to transition from simple algorithms to complicated systems that rely on vast amounts of data. 23% of companies have integrated until source into their operations or product/service offerings. Artificial intelligence is having an impact on every industry, from improving consumer shopping experiences to creating vaccinations and assessing environmental data. AI systems are currently making an effort to understand human behavior in an effort to tailor advertisements and services.

The market for AI-enabled e-commerce is expected to develop at a 15.7% CAGR over the following eight years, to reach a size of \$16.8 billion by 2030. By using gathered business and customer data to make better business decisions and more precise future predictions,

artificial intelligence (AI) can assist today's online merchants in providing the best possible customer experience both on and off their e-commerce websites. AI technology has developed over the last few years into a potent tool for increasing sales and streamlining operations. Even a large number of small e-commerce enterprises use AI-capable technologies.

### Literature Review

Artificial intelligence is gaining more knowledge on how to operate on and alongside people. According to a new study, AI is capable of recognizing flaws in human customs and behaviors and using those insights to persuade decisions made by humans.

According to robotics and automation news editor Mark Allinson, AI is the future of e-commerce since it provides individualized customer service. AI is able to monitor consumer purchases, determine their buying inclinations, and make personalized recommendations in accordance with those inclinations. This enables companies to give prospective customers a more relevant and customized buying experience. Early in the product cycle, AI technology can even predict customer demand and use predictive analytics to better meet that want.

Businesses are starting to use AI in their strategies as e-commerce becomes increasingly technology-driven in an effort to enhance the online shopping experience for their customers. Artificial intelligence (AI) is mainly utilized on e-commerce websites to gently persuade users to buy additional goods or to think about purchasing various products. A study reveals that AI supports decision-making for consumers, businesses, and customer retention plans.

According to research on the impact of AI on consumer behavior, AI has the ability to change consumer interactions with online platforms into more fruitful ones. It is found that AI facilitates consumers' online purchases from e-commerce websites by making the decision-making process more user-friendly. The primary factor that an AI system in e-commerce uses to forecast user behavior is the duration of the purchase. A shorter purchase duration suggests that an AI algorithm has a significant influence on the customer.

AI tools and techniques not only enhance the efficiency of sales and marketing processes but also improve the customer experience, resulting in increased sales and revenue for businesses. AI can trigger intrinsic desires in consumer buying behavior by understanding individual needs and motivations and providing a shopping experience that aligns with those desires. By personalizing, simplifying, and enhancing the shopping process, AI can create a strong connection between consumers and products or services, leading to increased engagement and conversion.

### Theoretical Background

The unified theory of acceptance and use of technology is a model that clarifies users' intentions and their implicit and explicit behaviour when interacting with information systems.

### Conceptual Model

This study examined the hypothesis regarding AI Tools influencing the Intrinsic desires towards purchase decision of the consumers



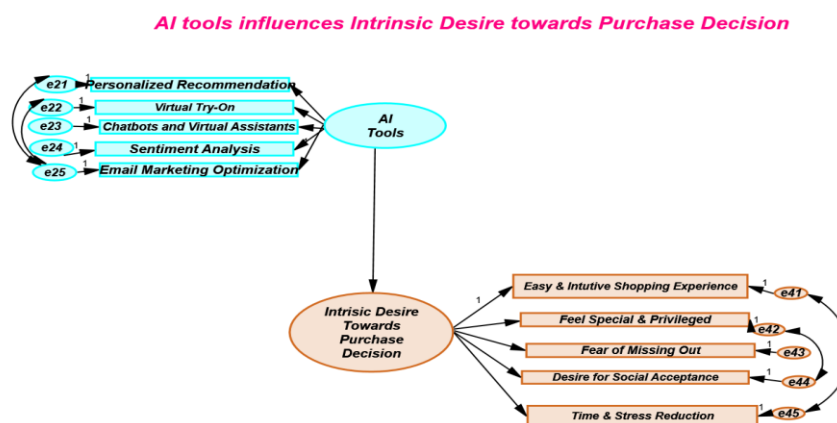
### Hypothesis Development

Collection of Data - Snowball sampling Method, Online Survey 132 Consumers

The 9 factors of Intrinsic desire towards purchase decisions such as Convenience and Seamless shopping experiences, fear of missing out, desire for social acceptance, easy and

intuitive shopping experiences, sense of understanding and trust, helping to make socially responsible choices, feeling special and privileged, Time Saving and stress reduction, authenticity, and social validation are identified. Since all of the variables were thought to contribute in a similar way to the intrinsic desire towards purchase decisions, the confirmatory factor analysis was used to identify the specific variables. In order to determine whether each variable fit into that specific construct, confirmatory factor analysis was performed with 132 consumers included in the study and found that the data was normal according to the central limit theorem. The data is also free of abnormalities, as demonstrated by the Boxplot test and the Histogram and Q-Q plot. Using SPSS Amos 21.0 software, a measurement model based on confirmatory factor analysis is created for the variables of consumers' intrinsic desires towards purchase decisions. The method of maximum likelihood estimation is then applied to the variables within that construct in order to test the hypothesized relationships among the variables. The results showed that the variables accurately represented consumers' intrinsic desire towards purchase decisions. Taking standardized regression weights and modification indices into account the following 4 factors are Convenience and Seamless shopping experiences, sense of understanding and trust, helping to make socially responsible choices, authenticity, and social validation were found to be irrelevant. Using the above process, factors for AI tools have been decided as Personalized recommendations, Chatbot, and Virtual Assistants, Virtual Try-On, Sentiment analysis, Email marketing optimization

To determine how AI tools—an independent variable— influence consumers' intrinsic desires and impact their purchasing decisions – a Dependent Variable. The Pearson Correlation Coefficient was computed for the dependent variable. Given that the p-value is less than 0.01 and the given results indicate a substantial association between AI tools and intrinsic desire toward Purchase decisions (0.000). This makes it possible to generate a Path diagram.



**Figure 1 - Relationship between AI tools and intrinsic desire towards Purchase decisions**  
*Source: Analysis of computed data*

Figure 1 of the path diagram, provided by SPSS Amos Graphics, illustrates how the Independent variable (AI Tools) affects the Dependent variable (Intrinsic desire towards purchase decisions). Using the Maximum Likelihood Estimation Method on the Path diagram, several fit indices were employed to assess the Path diagram's fit.

The  $\chi^2/df$ , CFI, SRMR, and RMSEA values in the following table demonstrate a perfect match for the Path model. The outcomes show how well the model fits the data.

**Table 1.1 - Model fit summary for the Path Model**

Index	Index Value	Acceptance level	Outcome
$\chi^2/df$	2.328	< 5(Marsh et al., 1985)	Good fit
GFI	.957	>0.90 (Byrne, 1994)	Good fit
CFI	.959	$\geq 0.95$ (Hulland et al., 1991)	Good fit
SRMR	.045	$\leq 0.05$ (Byrne, 1998)	Good fit
RMSEA	.054	$\leq 0.07$ (Steiger, 2007)	Good fit

**Source: Analysis of survey data**

The Standardised Regression Weights Estimate for the Structural Model was examined in order to determine the relationship between AI tools, an independent variable, and consumers' intrinsic desires towards purchasing decisions, a dependent variable, as the model shows an acceptable fit as indicated in Table 1.1. Following an assessment of the model fit, the Path analysis results were used to evaluate research Hypothesis Ha1, "AI Tools influence intrinsic desires towards purchasing decisions."

Regression analysis results are displayed in Table 1.2.

**Table 1.2 - Regression coefficients**

			Standardized Estimate	S.E.	C.R.	P	Results
Intrinsic desires towards purchasing decisions.	<---	AI Tools	.545	.050	8.241	***	Ha1 is supported

**Source: Analysis of computed data**

The hypothesis Ha1 is accepted since the P-value is less than 0.01. Hence "AI Tools influence intrinsic desires towards purchasing decisions."

**Findings**

As Ha1 is accepted, it can be concluded that AI tools influence intrinsic desires toward purchasing decisions

**Conclusion**

The result of the study supported the idea that AI tools could be a useful tool for influencing consumers' Intrinsic desire towards online buying decisions. E-commerce companies should take advantage of the elements that influence a customer's choice to buy and utilise AI tools to influence end-user behaviour through the promotion of personalised recommendations, chatbots and virtual assistants, sentiment analysis, and email marketing optimisation. The substantial constraints of the study may restrict the generalizability of its conclusions. The study looked at a number of areas that were particularly promising for future investigation.

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