The Influence of Artificial Intelligence on Customer Experience (Study of Maxim Users in Surabaya, East Java)

Pengaruh Artificial Intelligence terhadap Customer Experience (Studi pada Pengguna Maxim di Surabaya, Jawa Timur)

Candra Astra Terenggana
Universitas Katolik Musi Charitas
candra_astra@ukmc.ac.id

*Corresponding Author

ABSTRACT
This study aims to investigate the impact of artificial Intelligence (AI) on customer experience (CX) for customers of the Maxim transportation application in Surabaya. With the aid of focusing on the implementation of the AI era in personalizing services, growing operational performance, and responding quickly to customer needs, this research explores the fantastic impact on the customer. The research method makes use of a deductive approach, accumulating records from Maxim customers in Surabaya through surveys, interviews, and information analysis. The research results display that AI permits deeper personalization and designs more adaptive user experiences. The study’s conclusion highlights that the integration of AI in Maxim’s transportation offerings extensively increases customer experience and opens up commercial enterprise opportunities. But, demanding situations related to ethics and facts protection need to be cautiously taken into consideration. This study affords a holistic view of the way artificial intelligence may be a tremendous driver in creating better customer studies in the context of transportation offerings in Surabaya.

Keywords: Artificial Intelligence, Customer Experience, Online Transportation

ABSTRAK
Penelitian ini bertujuan untuk mengetahui dampak Artificial Intelligence (AI) terhadap Customer Experience (CX) pelanggan aplikasi transportasi Maxim di Surabaya. Dengan berfokus pada penerapan era AI dalam mempersonalisasi layanan, meningkatkan kinerja operasional, dan merespons kebutuhan pelanggan dengan cepat, penelitian ini mengeksplorasi dampak luar biasa pada pengalaman pengguna. Metode penelitian menggunakan pendekatan deduktif, mengumpulkan kuesioner dari pelanggan Maxim di Surabaya melalui survei, wawancara, dan analisis informasi. Hasil penelitian menunjukkan bahwa AI memungkinkan personalisasi yang lebih mendalam dan merancang pengalaman pengguna yang lebih adaptif. Kesimpulan penelitian ini menyoroti bahwa integrasi AI dalam penawaran transportasi Maxim secara signifikan meningkatkan kepuasan user dan membuka peluang pertumbuhan perusahaan. Namun, situasi yang menuntut terkait dengan etika dan perlindungan fakta perlu dipertimbangkan secara hati-hati. Studi ini memberikan pandangan holistik tentang bagaimana kecerdasan buatan dapat menjadi pendorong yang luar biasa dalam menciptakan studi pelanggan yang lebih baik dalam konteks penawaran transportasi di Surabaya.

Kata Kunci: Artificial Intelligence, Customer Experience, Online Transportation

Introduction
Inside the generation of fast virtual transformation, the presence of Artificial Intelligence (AI) has grow to be a critical issue in influencing numerous elements of lifestyles, together with patron enjoyment. because the business paradigm shifts closer to utilising superior technology to enhance provider fine, artificial intelligence (AI) is taking center stage in this modification. This text aims to offer an in-intensity evaluation of the way using AI technology affects customer experience (CX) in numerous commercial enterprise contexts (Tiutiu, 2023).
In recent years, advances in the AI era, along with machine learning knowledge of, natural language processing, and information evaluation, have spread out new opportunities in coping with customer interactions (Miles, 2006). This generation isn’t always only a device, but a brand new paradigm that modifications the essential manner companies communicate with customers. With the increase of e-commerce, online services, and the integration of technology into ordinary life, the significance of having the most appropriate CX is an increasing number turning into a key awareness in business strategy (Hoyer, 2020). Using AI generation in CX isn’t pretty much responding to consumer expectations, on the contrary, it’s far from a clever commercial enterprise approach. The purpose is to increase customer retention, gain a deep information of customer options, and optimize standard operations. However, ethical and record safety demanding situations have become an increasing number as the era advances (Ameen, 2021).

This alteration reflects an enterprise paradigm shift in the use of the superior era, specifically artificial intelligence (AI), as a key detail in improving the satisfaction of customer support. AI, via technology inclusive of gadget learning and facts evaluation, isn’t always just a device, however a foundation that modifications the manner corporations communicate with purchasers (Nikitas, 2020). The development of virtual technology, together with mobile gadgets and increasingly faster net-get entry, creates new desires for organizations to provide better patron reviews. current purchasers demand quicker, greater customized and more contextual interactions with the brands they pick out. This is what drives organizations to adapt to the trendy technological answers (Knidiri, 2021).

Changes in customer conduct pushed by using trends in virtual technology, inclusive of mobile devices and quicker internet access, are creating new demands on organizations to deliver better consumer studies. modern customers assume quicker, extra personalised and more contextual interactions with the brands they select. Therefore, businesses that need to stay aggressive and relevant in the marketplace should be capable of undertaking the ultra-modern technological solutions (Ullah, 2018). The use of the AI era in CX isn’t simply an attempt to meet purchaser expectancies, however is likewise a smart commercial enterprise method to increase customer retention, benefit from deep insights into consumer preferences, and optimize standard operations. although, moral and information safety concerns have become increasingly essential as technology advances (Rane, 2023). The volume to which customers are willing to offer the right of entry to their personal records is a query that needs to be replied to in going through this project.

Seeing this phenomenon, a selected query arises: to what quantity does synthetic intelligence have an effect on the belief, satisfaction and loyalty of Maxim customers in Surabaya? This research explores the effect of AI in shaping what the client enjoys, highlighting the reaction of Maxim users in Surabaya to the application of artificial intelligence to their local surroundings. With the ever-growing penetration of transportation apps like Maxim, users are exposed to AI capabilities, consisting of course hints, correct arrival time estimates, and personalized services. This take a look at is expected to provide a comprehensive picture of the way synthetic intelligence shapes consumer belief and pleasure, in addition to offer treasured insights for destiny commercial enterprise strategies.

Literature Review
Understanding Artificial Intelligence (Artificial Intelligence)

Artificial Intelligence (AI) is the potential of a computer system to perform duties that generally require human intelligence. Artificial Intelligence (AI) refers to the potential of a computer system or device to perform tasks that commonly require human intelligence. The primary purpose of AI improvement is to create entities which could suppose, analyze, and adapt to the surroundings without human intervention (Mogaji, 2019). In the context of AI, intelligence is often defined as the capacity to apprehend facts, solve troubles, examine from
experience, and adapt to trade. Some of the strategies and techniques used in AI improvement consist of machine learning knowledge of neural networks, natural language processing, and complex algorithms to enable AI systems to adapt to data, apprehend styles, and make selections (Rana, 2022).

AI has a wide range of programs in a spread of industries, which include medicine, finance, manufacturing, transportation, and extra. While it affords many blessings, moral and security questions surrounding the use of AI are also a challenge, consisting of facts, privateness, computerized selections without human supervision, and potential social effect (Agarwal, 2015).

In the context of this research, AI consists of Mechanical Intelligence (MI), Analytical Intelligence (AI), Intuitive Intelligence (II), and Empathetic Intelligence (EI). The subsequent is an evidence of the dimensions associated with synthetic intelligence (Huang, 2018):

**Dimensions of Artificial Intelligence**

1. Mechanical Intelligence (MI): Refers to a system's ability to perform physical and mechanical tasks with high precision. In the context of a transportation application like Maxim, MI might include automated navigation and fleet management.
2. Analytical Intelligence (AI): Implies AI's ability to analyze and process information quickly and accurately. In these cases, AI can be used to optimize travel routes and provide intelligent recommendations.
3. Intuitive Intelligence (II): Refers to AI's ability to recognize patterns and trends without human supervision. II can be related to the ability of AI to understand users' individual preferences in service settings.
4. Empathetic Intelligence (EI): Implies the ability of AI to respond to and understand human emotions. In customer service, EI can include AI's ability to capture and respond to user feelings.

**Customer Experience (Customer Experience):**

Customer experience (CX) Refers to the general interplay and perception of customers towards a brand or enterprise at some point of the whole customer journey cycle. This covers every factor from the primary time a consumer will become aware of a service or product contact to once they make a purchase and receive after-sales assistance. Consumer revel consists of diverse aspects, which include direct interplay with the product, customer service, use of the app or internet site, or even interplay with the logo through social media (Hindarto, 2023).

Here are some key elements related to Customer Experience:

1. **Brand Awareness:**
   Customer experience begins with brand awareness, where customers first learn about a product or service. This awareness can come from advertising, friend referrals, or online searches.

2. **First Time Interacting:**
   When a customer first interacts with a product or service, this initial experience can have a significant impact on their perception of the brand. A friendly user interface, easy navigation, and clear information can enhance a positive impression.

3. **Purchasing process:**
   Customer experience during the purchasing process is very important. The availability of information, an easy check-out process, and responsive customer service can influence customers' purchasing decisions.

4. **Use of Products or Services:**
   How customers experience and use a product or service is also an integral part of the customer experience. Product performance, comfort of use, and reliability can influence the level of customer satisfaction.
5. After Sales Support:
Customer service and after-sales support play a big role in creating a positive customer experience. Quick responses to customer questions or problems can increase trust and loyalty.

6. Customer Feedback:
Customer experience is often reflected in the feedback provided by customers. Listening to and responding to customer feedback helps companies continually improve and enhance their experience.

7. Overall Perception:
The customer experience is not just about one element, but how all interactions and phases come together to form the customer’s overall view of the brand. It includes emotions, attitudes, and the overall impression customers gain from their interactions.

Managing the customer experience nicely is not just about offering functionally good products or services, but also approximately growing tremendous and sustainable relationships with clients. Corporations that target advanced customer experience can achieve advantages in phrases of customer retention, emblem popularity, and long-time period commercial enterprise growth (Razak, 2019).

Customer experience (CX) includes customers’ perceptions of their interactions with a brand or provider. CX dimensions may be measured through Immersion, drift, Cognitive in shape, and Emotional in shape (Parise, 2016):

1. Immersion: Reflects the customer’s level of involvement in the experience provided by the service. In the context of transportation services, the level of immersion may include the degree to which users feel connected and involved during their journey.
2. Flow: Refers to a state where the customer feels fully engaged and focused on using the service. Flow can occur when users experience a seamless movement from one stage of the journey to the next.
3. Cognitive Fit: Includes the extent to which the service’s interface and functionality match the user’s understanding and expectations. AI that can align itself with the user’s understanding can increase the level of cognitive fit.
4. Emotional Fit: Reflects the suitability between customers’ emotional responses and the services provided. In the context of this research, emotionally responsive AI can increase the level of emotional congruence.

The Influence of Artificial Intelligence on Customer Experience

The effect of artificial intelligence (AI) on consumer experience (CX) is a huge component within the development of modern business. AI enables agencies to gather, examine and apprehend customer facts in depth (Marasabessy, 2024). With these facts, groups can offer a more personalized and relevant revel in (Abduljabbar, 2019). AI recommendation systems, for example, can offer product tips that match previous choices, developing an extra engaging and pleasant experience. AI can be used to research consumer behavior styles from ancient information. As a consequence, corporations could make predictions about future patron needs or possibilities (Lee, 2021). This facilitates making plans with extra powerful advertising techniques and providing products or services that meet customer expectations. AI-based chatbots and virtual assistants can provide fast and responsive customer service, improving interactions with customers. They can solve questions, resolve issues, or provide help with excessive performance, growing customer satisfaction (Ho, 2021). AI can be used to automate some of enterprise obligations, including customer support tactics. This will reduce reaction instances and speed up trouble resolution, supplying a greater green and handy customer experience (Kishen, 2021).
AI can analyze client sentiment via social media, product critiques, and other on-line interactions. By knowing customer emotions, corporations can reply to comments extra quickly, boom believe, and keep away from capacity terrible influences on logo recognition (Srivastava,2021). The use of AI in coping with and studying large data can enhance operational performance. This allows companies to better appreciate consumer needs, develop higher marketing techniques, and enhance ordinary client pleasure. via the getting to know system, AI can provide deep insights into consumer conduct, alternatives and market developments (Khatri,2023). With this higher expertise, organizations can lay out more targeted techniques to improve customer experience (CX).

H1: Artificial intelligence has a positive influence on customer experience

Research Methods

This study will use a quantitative approach to investigate the effect of artificial intelligence (AI) on customer experience. The layout of this research is a move-sectional examination with statistics collection done at one precise point in time. population Maxim customers in Surabaya, East Java. sample range: two hundred respondents. pattern selection: Sampling turned into performed randomly from active Maxim users in Surabaya. In selecting the sample, special interest will be paid to ensuring that the sample displays a range of demographic traits, which includes age, career, and academic background.

The independent variables on this examine use signs: Mechanical Intelligence, Analytical Intelligence, Intuitive Intelligence and Empathetic Intelligence. Meanwhile, the based Variable makes use of the Immersion, flow, Cognitive fit and Emotional fit indicators. data collection may be done through dispensing questionnaires to selected respondents. every respondent might be given an explanation of the studies goals and a way to fill out the questionnaire. The selection of respondents changed into achieved critically, inclusive of people who often use Maxim's services, might be a priority to ensure results that reflect the everyday enjoyment of users.

Results may be analyzed by the usage of simple regression techniques to expose the connection between independent and established variables. An easy regression analysis will make it viable to show the volume to which every size of artificial intelligence affects every measurement the client enjoys. With this research method, it’s far hoped that a vast relationship can be found between artificial intelligence and customer experience amongst Maxim users in Surabaya, East Java. A simple regression analysis will offer deep insight into the effect of every dimension of artificial intelligence on customer experience.

Results and Discussions

Of the 200 respondents who participated in this research, the majority were active users of the Maxim application in Surabaya. Demographically, the majority of respondents were men, in accordance with the sample size setting which showed there were more men than women. Simple regression analysis is used to evaluate the influence of each dimension of artificial intelligence (Mechanical Intelligence, Analytical Intelligence, Intuitive Intelligence, Empathetic Intelligence) on the dimensions of customer experience (Immersion, Flow, Cognitive Fit, Emotional Fit).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>118</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>82</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Processed Data, 2023
Based on data collection, it is known that the largest number of respondents in the sample in this study were 118 men (59%) while only 82 women (41%).

### Table 2 Recapitulation of Artificial Intelligence Variable Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Score</th>
<th>Max Score</th>
<th>%</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical Intelligence</td>
<td>755</td>
<td>978</td>
<td>78.02</td>
<td>Very Good</td>
</tr>
<tr>
<td>Analytical Intelligence</td>
<td>778</td>
<td>946</td>
<td>82.24</td>
<td>Very Good</td>
</tr>
<tr>
<td>Intuitive Intelligence</td>
<td>1348</td>
<td>1619</td>
<td>83.14</td>
<td>Good</td>
</tr>
<tr>
<td>Empathetic Intelligence</td>
<td>1968</td>
<td>2589</td>
<td>77.69</td>
<td>Good</td>
</tr>
<tr>
<td>Total</td>
<td>4815</td>
<td>6102</td>
<td>79.89</td>
<td>Good</td>
</tr>
</tbody>
</table>

Source: Processed Data, 2023

Tabel 2, suggests that each measure of artificial intelligence has suitable and superb ratings. This proves that Maxim application users believe that synthetic intelligence within the Maxim utility has been implemented well. artificial intelligence has been carried out properly, measured thru four dimensions, particularly mechanical intelligence which is implemented in the Maxim application person interface inside the shape of command buttons and key-word banks. Matching the enter commands and key phrases with the responses and seek outcomes displayed by way of the Maxim application maximizes efficiency and minimizes diversity in order not to confuse customers. Respondents agreed that the instructions and key phrases they gave the Maxim application displayed appropriate responses and search effects, making it simpler to apply the application. The analytical artificial intelligence measurement in this study affords personalization that makes it less complicated for customers to use the Maxim utility.

### Table 3 Recapitulation of Customer Experience Variable Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Score</th>
<th>Max Score</th>
<th>%</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immersion</td>
<td>1375</td>
<td>1896</td>
<td>72.84</td>
<td>Good</td>
</tr>
<tr>
<td>Flow</td>
<td>1877</td>
<td>2576</td>
<td>72.86</td>
<td>Good</td>
</tr>
<tr>
<td>Cognitive Fit</td>
<td>1643</td>
<td>1937</td>
<td>84.82</td>
<td>Very Good</td>
</tr>
<tr>
<td>Emotional Fit</td>
<td>1899</td>
<td>2649</td>
<td>71.89</td>
<td>Good</td>
</tr>
<tr>
<td>Total</td>
<td>6795</td>
<td>9061</td>
<td>75.07</td>
<td>Good</td>
</tr>
</tbody>
</table>

Source: Processed Data, 2023

In table 3, immersion in this study is characterized by the user's tendency to choose the Maxim application as an online transportation provider. Respondents agreed that the Maxim application is an online application that is often used. Respondents have been additionally inquisitive about knowing greater about the functions furnished via Maxim, but there has now not always been an opportunity to apply these features. but, if there is a possibility for the need, then they're inquisitive about using other capabilities furnished by Maxim. The flow dimension in this research is proven within the capacity of the Maxim utility to run without mistakes and lag. In widespread use, the Maxim application can run smoothly with no lag. However, at certain times, such as rush hour, sometimes the Maxim application experiences lag and this is annoying because during rush hour the respondent is in a state of dire need. Apart from that, the capacity of the Maxim application is too large for older smartphones, as a result of which the smartphone and its Maxim software experience lag, but respondents stated that they would still use the Maxim application based on their needs. Cognitive fit in this research is the match between user expectations for online applications and the Maxim application. This conformity to expectations makes them more confident in using the Maxim application for sustainable consumption.
Table 4 Simple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>22.074</td>
<td>2.457</td>
<td>5.148</td>
<td>.000</td>
</tr>
<tr>
<td>Artificial Intelligence</td>
<td>.047</td>
<td>.18</td>
<td>.625</td>
<td>2.674</td>
</tr>
</tbody>
</table>

* Dependent Variable: Customer Experience

Source: Processed Data, 2023

Based on the results of the simple linear regression above, the following regression equation can be created:

\[ Y = a + BX1 + e \]

\[ Y = 22.074 + 0.047X1 + e \]

The simple linear regression equation above explains that every one point increase in the artificial intelligence variable (X) will increase the customer experience variable (Y) by 0.047. Meanwhile, if the artificial intelligence value is zero or is said to have no effect on Maxim’s customer experience, then the customer experience value is 22.074.

Table 5 Coefficient of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.662</td>
<td>.442</td>
<td>.431</td>
<td>1.5942</td>
</tr>
</tbody>
</table>

Source: Processed Data, 2023

In the table above, the Adjusted R Square figure is 0.431, which means that the influence of Artificial Intelligence on Customer Experience for Maxim users in Surabaya only has an influence of 43.1%. Meanwhile, the other 56.9% is influenced by other variables which were not included in the assessment in this research.

Discussion

The results of studies targeted at the effect of artificial Intelligence (AI) on customer experience (CX) for Maxim application users in Surabaya offer exciting fine findings. The implementation of AI inside the Maxim application enables richer records collection and deeper analysis of consumer conduct in Surabaya. With a higher information of local customers’ options and wishes, Maxim can deliver extra customized and relevant studies, together with surest direction recommendations and unique gives in step with their geographic context. An included AI gadget can provide more accurate arrival time estimates which can be adapted to local site visitors conditions. This makes a significant contribution to the purchaser experience, minimizing waiting instances and providing an extra efficient adventure for Maxim users in Surabaya. The usage of AI chatbots in the Maxim utility can grow responsiveness in imparting information or helping users with technical problems. This creates a responsive, interactive surroundings, speeds problem decision, and provides greater efficient customer support. AI can also be used to enhance travel safety. Through information evaluation, AI can predict ability problems or obstacles at some stage in the journey, offer preventative statistics to users, and enhance normal protection. AI can carry out sentiment evaluation on user remarks in Surabaya through numerous channels, consisting of opinions and social media. This
way, Maxim can reply speedy to adjustments in client sentiment and make important improvements, building a greater high-quality courting with customers. Overall, the tremendous effect of AI on CX provides a better experience for Maxim customers in Surabaya. With the aid of imparting extra non-public, green and responsive offerings, Maxim can increase personal pride stages, which in turn can increase patron loyalty and enhance their function inside the neighborhood transportation market.

Conclusion

Artificial intelligence may be a powerful catalyst for developing better and extra customized customer reviews within the context of transportation offerings together with Maxim in Surabaya. The utility of this technology strengthens client engagement, increases operational efficiency, and gives widespread brought fees for users. As a consequence, the general conclusion of the studies shows that the wonderful effect of AI on customer enjoyment does not best create delivered prices for Maxim users in Surabaya, however additionally opens up opportunities for enterprise increase and wish. Continuous attention to moral elements and information security is critical in retaining the tremendous sustainability of the utility of artificial intelligence.

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