

THE RISE OF ARTIFICIAL INTELLIGENCE: A CORRELATIONAL STUDY ON AI-POWERED BOTS AND CUSTOMER SATISFACTION IN A PEOPLE-ORIENTED INDUSTRY

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Abstract

The prominence of Artificial Intelligence has pervaded practically every facet of modern life. Incorporated into multitudinous industries, AI has revolutionized the way businesses operate. It has helped organizations streamline operations, optimize processes, and maximize productivity from manufacturing to healthcare. In a people-oriented industry, including tourism and hospitality, AI can be perceived as favorable or disadvantageous depending on the customer's viewpoint and set of experiences. Before this study, customers' satisfaction with AI-powered bots had yet to be sure. Ergo, this paper aimed to determine the significant relationship between AI-powered bots and customer satisfaction in a people-oriented industry by assessing the responses of one hundred individuals in Malolos obtained in the survey questionnaire. The respondents have had interactions with AI-powered bots and were surveyed regarding the needs sufficiently provided by AI-powered bots, their poor qualities, and their impacts, benefits, and effectiveness in customer service. Using Pearson's Correlation Coefficient, the relationship between the variables was determined, having the interpretation of a moderate positive correlation. The results of this research will be used to educate the local community and help establishments and businesses within the service industry comprehend the edge of well-equipped bots and how they can meet and satisfy the demands and expectations of customers. On top of that, the findings served as a foundation to make the Philippines' tourism sector more globally competitive by investing in cutting-edge technology and exceptional customer service.

Keywords: Artificial Intelligence, AI-Powered Bots, Technology, Customer Satisfaction, Customer Service.

Introduction

Tourism has been a global phenomenon in light of its versatility, adaptability, and multidisciplinary approach across a wide array of fields throughout history. It is a globally competitive and dynamic industry that requires continual adaptability to changing client needs and aspirations. Tourism organizations prioritize consumer satisfaction, security, and enjoyment (Go2Hr, 2020 [2]). The hospitality and tourism sector ranks among the most diverse and prominent worldwide. Increasing technological and innovative trends are anticipated to have a favorable impact on these industries in future scenarios. In recent years, the growing usage of new technology in a broad spectrum of industries has radically transformed the services they supply (Thakur, 2022 [29]).

One of the innovations done by tourism is using Artificial Intelligence-driven systems that help meet the complex needs of consumers. Artificial Intelligence (AI) is the emulation of human intelligence in robots that are designed to act and think like humans. The term can also be applied to

any computer demonstrating human-like characteristics, such as problem-solving and learning (Frankenfield, 2022 [15]). Along with the ongoing growth of technology in the current day, AI is ubiquitous in people's daily lives. Significant AI advancements have occurred in various industries, including healthcare, manufacturing, physics, finance, and retail, as a result of its widespread adoption (IOT Philippines, 2022). AI has made inroads into the service business over the years in the Philippines. Businesses profit from it by enhancing and innovating customer experiences, boosting operational efficiency, and, lastly, improving customer connections and obtaining a significant competitive edge.

Tourism is one of the industries that Artificial Intelligence will majorly impact. Providing exceptional customer service is an integral part of the reputation and success of most hotels and resorts, and AI technology can assist and enhance it in numerous ways. AI can, for instance, customize recommendations, enhance personalization, and meet customer demands quickly, even when staff is

not available. It has progressed to the extent that it is routinely used to help and communicate with consumers, 'learning' from each encounter and enhancing similar incidents in the future. Additionally, AI may assist with calculations, problem-solving, and data analysis which can be invaluable for hotel owners (RevFine, 2022 [4]).

At the current times, modern technology has taken over multiple industries in the world and tourism which is heavily impacted by Artificial Intelligence is one of these sectors. Hence, several research with regards to this topic have risen. However, the researchers noticed that previous studies about AI and tourism focus solely on its benefit and what it can bring to the industry mentioned. For that reason, the researchers find it essential to conduct a study that would center on the rise of AI-powered bots and its relationship with the satisfaction of consumers. This correlational study aimed to assess the relationship between Artificial Intelligence Powered bots and customer satisfaction in the people-oriented industry.

Statement of the Problem

1. What is the demographic profile of the respondents in terms of:
 - 1.1 Age
 - 1.2 Sex

2. What is the assessment of the respondents about the needs of customers sufficiently provided by AI-powered bots in terms of:
 - 2.1 Convenience
 - 2.2 Efficiency
 - 2.3 Speed and Accuracy
 - 2.4 Information
3. What is the assessment of the respondents about the poor qualities of AI-powered bots in terms of customer service:
 - 3.1 Empathy
 - 3.2 Communication
 - 3.3 Automation in Solving Complex Issues
4. What is the level of assessment of AI-powered bots in customer service and satisfaction in terms of:
 - 4.1. Impacts
 - 4.2. Benefits
 - 4.3. Effectiveness
5. Is there a significant relationship between Artificial Intelligence-powered Bots and Customer Satisfaction in the people-oriented industry?
6. What possible recommendations could the researchers make to the service industry regarding AI-powered bots?

Conceptual Framework

AI-POWERED BOTS

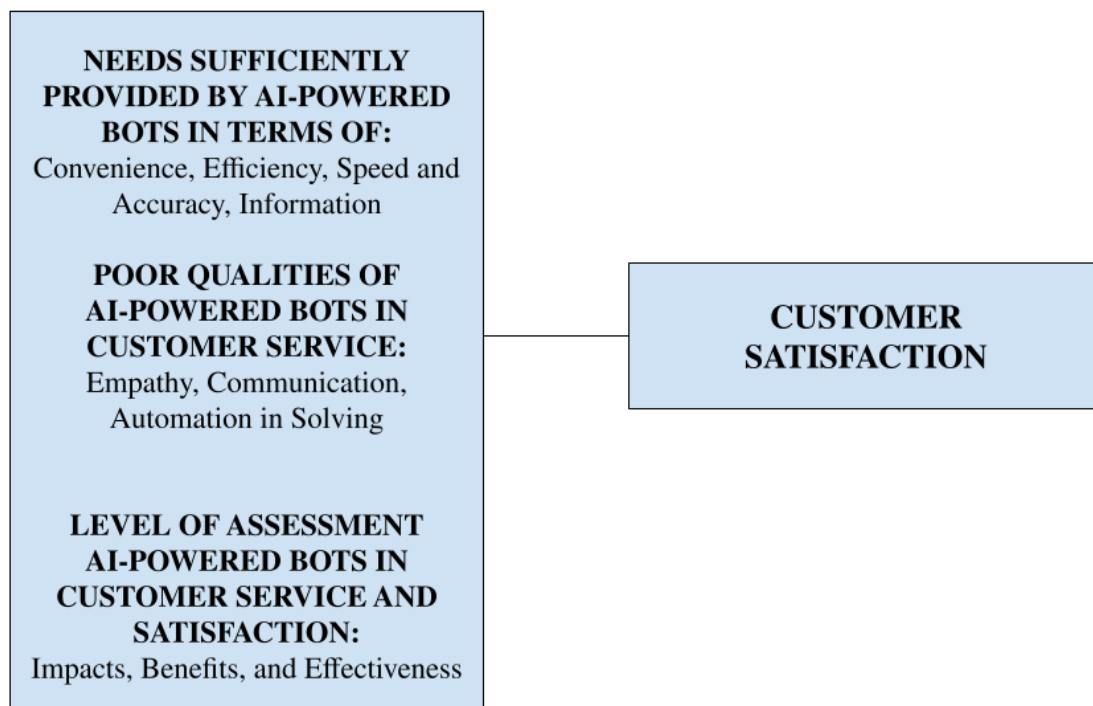


Figure 1: The Rise of Artificial Intelligence: A Correlational Study on AI-Powered Bots and Customer Satisfaction in a People-Oriented Industry Conceptual Framework

The diagram above detailed and outlined the research process and conceptual framework that the researchers used to analyze how artificial intelligence AI-powered bots were assessed by customers in terms of convenience, efficiency, speed and accuracy, and information. This likewise determined the poor qualities and issues of AI-Powered robots in terms of customer services, including empathy, communication and automation in solving complex problems. The research was based on the respondents' various points of view which provided the researchers insights into the perceptions of artificial intelligence in customer satisfaction in a people-oriented industry.

Theoretical Framework

Customers are the lifeblood of every establishment, and providing quality service while maintaining their satisfaction is the primary concern and challenge businesses face in the present competitive market as it keeps them from operating and existing. Oliver (1988) [24] stated that expectations are formed before purchasing a product or service in the context of consumer behavior. His proposed theory which Bacinskas (2020) also used, Expectancy Disconfirmation Theory, posits that customers evaluate a service provider's performance in light of their expectations. When the perceived performance matches or surpasses expectations, satisfaction is attained.

With the advancement of technology and its cutting-edge artificial intelligence, customers are more likely to be satisfied with fast, time-saving, and innovative products and services. Most individuals are never content. It is typical for people to want the latest available, and the more up-to-date they can have or use, the better. The majority of technological products and services have minimal-to-no human errors because of automation solutions. Consequently, it minimizes, if not combats, human mistakes effectively. Fewer errors and mistakes would equate to a smoother operation and quicker service, which would lead to happier and more satisfied customers and providers.

This theory is relevant to the study, bearing in mind that it is focused on customer satisfaction and preference. This theory helped the researchers better grasp where consumers come from when it comes to satisfaction.

Methodology

Design Evaluation Procedure

The research is a non-experimental study to preserve the respondents' environment and genuine responses. In addition, the researchers adopted this study design to examine the variables in their natural contexts and occurrences and not to modify or manipulate the independent variable, AI-powered

bots. That being the case, the research is purely observational and descriptive. The research falls under a certain type of non-experimental research called, Correlational Research. This was the primary research methodology used in this study. The study's researchers firmly believed that this approach, which shows whether there is a significant relationship or the other way around that exists among variables, was better suited to achieving the study's objectives than alternative approaches.

Research Instrument

The research instrument utilized for this study is survey, which is used to obtain an immense number of information and opinion from the target respondents. The researchers formulated survey questionnaires to acquire all of the quantitative data required for the study. The design of these survey questionnaires were based on the standardized *likert* scale that is highly effective in eliciting and measuring the perceptions, opinions, and preferences of the respondents.

The survey form is composed of four parts: the first part of the questionnaire is about the personal data of the participants: sex and age. In the second part of the survey questionnaire, the researchers used a 5-point likert scale to know and measure the respondent's assessment with various statements about the needs sufficiently provided by AI-powered bots. Same goes with the third part which consists of statements about the poor qualities of AI-powered bots. In the last part of the questionnaire, a 4-point likert scale was utilized to quantify the participant's assessment on the statements with regards to Artificial Intelligence's Impacts, benefits and effectiveness.

Sampling

The researchers employed two non-probability sampling techniques that do not rely on randomization, particularly Purposive and Convenience sampling. First, Purposive sampling which is driven by the purpose that the sample needs to perform. The researchers purposely selected respondents who had direct experience with AI-powered bots in Malolos, Bulacan. Lastly, Convenience sampling which is carried out only if a suitable sample is readily available. The research's respondents were chosen because of their proximity to the study's location and their ease of contact with the researchers.

Data Analysis

This study intended to determine the relationship of artificial intelligence powered bots and customer satisfaction's relationship. By gathering 100 respondents from Malolos, Bulacan, the researchers disseminated the survey questionnaire. Based on the

data obtained, the researchers interpreted it by using correlational methods.

Results

In this chapter, the researchers discuss the findings based on the data gathered. A total of 100 people in Malolos, Bulacan, were surveyed about their experiences with AI-powered bots, and this report analyzes their responses. Descriptive statistical and correlational analysis were presented along with the interpretation of the study.

SOP1: What is the demographic profile of the respondents in terms of age and sex?

Table 1: Frequency Distribution Table of the Respondents in Terms of Age

AGE	FREQUENCY	PERCENTAGE
16 - 20	19	19.0%
21 - 34	52	52.0%
35 - 44	11	11.0%
45 - 60	18	18.0%
TOTAL	100	

Table 1 shows the descriptive statistics of the respondents. This table detailed the age of the

respondents. There was a relatively higher age range of 21-34 years old where 52 respondents (52%) participated. On the other hand, the number of respondents in the other age ranges was quite low, which shows that the majority of respondents are between the ages of 21 and 34.

Table 1.1: Frequency Distribution Table of the Respondents in Terms of Sex

SEX	FREQUENCY	PERCENTAGE
Male	52	52.00%
Female	48	48.00%
TOTAL (N)	100	

Table 1.1 shows the descriptive statistics of the respondents. This table showed the gender who participated in this study wherein the respondents are a total of 100 composed of 52 Males (52.00%) and 48 females (48.00%), which shows a higher male response. Nonetheless, the difference is not that significant.

SOP2: What is the assessment of the respondents about the needs of customers sufficiently provided by AI-Powered bots in terms of convenience, efficiency, speed and accuracy, and information?

Table 2.1: Mean and Descriptive Interpretation on the Needs Sufficiently Provided by AI-Powered Bots in Terms of Convenience

CONVENIENCE		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>It is preferable to use AI-Powered bots to avail services or products.</i>	4.13	Strongly Agree
<i>Using AI-Powered bots make tasks easier</i>	4.32	Strongly Agree
<i>AI-powered bots such as kiosks are easy to use. Thus, make transactions almost effortless.</i>	4.23	Strongly Agree
<i>AI-powered bots are like all-rounders. They can be used nearly in every activity.</i>	4.09	Strongly Agree
WEIGHTED MEAN	4.09	Strongly Agree

Legend:

- 5.00-4.00- Strongly Agree
- 3.99-3.00- Agree
- 2.99-2.00- Somewhat Agree/Disagree
- 1.99-1.00- Disagree
- .99 - 00 - Strongly Disagree

As shown in table 2.1, “Using AI-powered bots make tasks easier” had the highest mean of 4.32 and a descriptive interpretation of “Strongly Agree,” while the statement, “AI-powered bots are always available and accessible” had the lowest mean of 3.7

yet had a descriptive interpretation of “Agree”. The weighted mean of Convenience was 4.09. This means that AI-powered bots can make tasks, transactions, and activities easier and convenient for most rents.

Table 2.2: Mean and Descriptive Interpretation on the Needs Sufficiently Provided by AI-Powered Bots in Terms of Efficiency Provided by AI-Powered Bots in Terms of Efficiency

EFFICIENCY		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>Artificial Intelligence systems and bots can perform better than human agents.</i>	3.52	Agree
<i>AI-powered bots can adapt their actions to their environment.</i>	3.47	Agree
<i>Comparing outcomes to expectations, AI-powered bots assists better.</i>	3.77	Agree
<i>AI-Powered bots are a powerful tool for consumer engagement.</i>	4.21	Strongly Agree
<i>AI-powered bots produce more optimal results in customer service.</i>	3.98	Agree
WEIGHTED MEAN	3.79	Agree

Legend:

- 5.00-4.00- Strongly Agree
- 3.99-3.00- Agree
- 2.99-2.00- Somewhat Agree/Disagree
- 1.99-1.00- Disagree
- .99 - 00 - Strongly Disagree

As depicted in table 2.2, “AI-Powered bots are a powerful tool for consumer engagement.” had the highest mean of 4.21 and a descriptive interpretation of “Strongly Agree,” while the statement, “AI-powered bots can adapt their actions to their environment.” had the lowest mean of 3.47 yet had

a descriptive interpretation of “Agree”. The weighted mean of Efficiency was 3.79. This implies that the vast majority of respondents found that using AI-Powered bots is a powerful tool for the consumer's engagement and efficient to the respondents.

Table 2.3: Mean and Descriptive Interpretation on the Needs Sufficiently Provided by AI-Powered Bots in Terms of Speed and Accuracy

SPEED AND ACCURACY		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>Transactions using AI are time-saving.</i>	4.42	Strongly Agree
<i>AI-powered robots are faster than human agents in terms of customer service.</i>	4.19	Strongly Agree
<i>AI-powered bots can efficiently accommodate customers whenever.</i>	4.08	Strongly Agree
<i>AI-powered bots can process data rapidly</i>	4.37	Strongly Agree
<i>AI-powered bots are capable of giving accurate details and service to the customers.</i>	4.12	Strongly Agree
WEIGHTED MEAN	4.24	Strongly Agree

Legend:

5.00-4.00- Strongly Agree
 3.99-3.00- Agree
 2.99-2.00- Somewhat Agree/Disagree
 1.99-1.00- Disagree
 .99 - 00 - Strongly Disagree

Per the data in the table above, “Transactions using AI are time-saving.” had the highest mean of 4.42 and a descriptive interpretation of “Strongly Agree,” while the statement, “AI-powered bots can efficiently accommodate customers whenever.” had the lowest mean of 4.08 yet had the same descriptive

interpretation of “Strongly Agree”. The weighted mean of Efficiency was 4.24. However, this indicates that the majority of respondents will conclude that the use of AI-Powered bots can provide the service with the same level of speed and accuracy.

Table 2.4: Mean and Descriptive Interpretation on the Needs Sufficiently Provided by AI-Powered Bots in Terms of Information

INFORMATION		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>Using AI-Powered provides you with all the information needed in a transaction.</i>	4.21	Strongly Agree
<i>Only close-ended questions can be answered by AI-powered bots.</i>	4.27	Strongly Agree
<i>Every transaction can be tracked down through AI's history.</i>	4.32	Strongly Agree
<i>AI-powered bots are built to provide necessary information regarding a product or service.</i>	4.26	Strongly Agree
<i>AI-powered bots can secure information and confidentiality.</i>	4.12	Strongly Agree
WEIGHTED MEAN	4.24	Strongly Agree

Legend:

5.00-4.00- Strongly Agree
 3.99-3.00- Agree
 2.99-2.00- Somewhat Agree/Disagree
 1.99-1.00- Disagree
 .99 - 00 - Strongly Disagree

The aforementioned table demonstrates above, “Every transaction can be tracked down through AI’s history.” had the highest mean of 4.32 while the statement, “AI-powered bots can secure information and confidentiality” had the lowest mean of 4.12 and

both are interpreted as “Strongly Agree”. The weighted mean of Efficiency was 4.24. However, this demonstrates that the average of respondents will conclude that the use of AI-Powered bots can provide sufficient information to the customers.

Table 2.5: Descriptive Statistics of the Variables in Terms of the Needs Sufficiently Provided by AI-Powered Bots

NEEDS SUFFICIENTLY PROVIDED BY AI-POWERED BOTS			
VARIABLES	MEAN	STANDARD DEVIATION	LEVEL/ INTERPRETATION
Convenience	4.09	.502	Strongly Agree
Efficiency	3.79	.687	Agree
Speed and Accuracy	4.24	.782	Strongly Agree
Information	4.24	.659	Strongly Agree

Table 2.5 gives the descriptive information of the variables in SOP2. According to the results and

table, Speed and Accuracy, and Information had the highest mean of both 4.24 which means that most

respondents strongly agree with this need sufficiently provided by AI-powered bots. Hence, the level and interpretation of Speed and Accuracy, and Information were Strongly Agree. Efficiency, on the other hand, had the lowest mean of 3.79 yet had a level or interpretation of Agree. Additionally, convenience had a mean of 4.09 and a level or interpretation of Strongly Agree. Moreover, the Standard Deviation of each variable ranges from .50 to .78 which are small values and indicates that the individual scores of the participants were either

similar or close to each other. This means that AI-powered bots can sufficiently provide good and satisfying service in terms of convenience, efficiency, speed and accuracy, and information for the majority of the participants.

SOP3: What is the assessment of the respondents about the poor qualities of AI-Powered bots in terms of customer service: Empathy, communication, and automation in solving complex issues?

Table 3.1: Mean and Descriptive Interpretation on the Poor Qualities of AI-Powered Bots in Terms of Empathy

EMPATHY		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>AI-powered bots are not considerate towards customers.</i>	3.84	Agree
<i>I believe that AI-powered bots are emotionless, and they cannot understand the feelings of customers.</i>	4.3	Strongly Agree
<i>AI-powered bots lack emotional intelligence</i>	4.31	Strongly Agree
<i>AI-powered bots are unable to empathize with customers during conflicts and complaints.</i>	4.31	Strongly Agree
<i>I-powered bots never place judgments on what users have expressed.</i>	4.37	Strongly Agree
WEIGHTED MEAN	4.23	Strongly Agree

Legend:

5.00-4.00- Strongly Agree
 3.99-3.00- Agree
 2.99-2.00- Somewhat Agree/Disagree
 1.99-1.00- Disagree
 .99 - 00 - Strongly Disagree

As gleaned on the above table, “AI-powered bots never place judgments on what users have expressed” had the highest mean of 4.37 and a descriptive interpretation of “Strongly Agree” while the statement, “AI-powered bots are not considerate towards customers” had the lowest mean of 3.84 yet

had a descriptive interpretation of “Agree”. The weighted mean of Empathy was 4.23. This means that most of the respondents agreed that AI-powered bots cannot understand, considerate, and unable to empathize with customers during conflicts.

Table 3.2: Mean and Descriptive Interpretation on the Poor Qualities of AI-Powered Bots in Terms of Communication

COMMUNICATION		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>In terms of responding to customers' queries, AI-powered bots are always ready.</i>	4.02	Strongly Agree
<i>With regards to giving customers individual attention, AI-powered bots can easily accommodate them.</i>	3.99	Agree
<i>Customers are less likely to follow instructions from the AI since they cannot be spoken to.</i>	3.85	Agree
<i>Some questions of customers including open-ended queries are not accurately answered by AI-powered bots.</i>	4.08	Strongly Agree

<i>AI-powered bots are made to lessen face-to-face interactions with humans.</i>	4.16	Strongly Agree
WEIGHTED MEAN	4.02	Strongly Agree

Legend:

5.00-4.00- Strongly Agree
3.99-3.00- Agree
2.99-2.00- Somewhat Agree/Disagree
1.99-1.00- Disagree
.99 - 00 - Strongly Disagree

As reflected on the above table, “AI-powered bots are made to lessen face-to-face interactions with humans” had the highest mean of 4.16 and a descriptive interpretation of “Strongly Agree” while the statement, “Customers are less likely to follow instructions from the AI since they cannot be spoken

to” had the lowest mean of 3.85 yet had a descriptive interpretation of “Agree”. The weighted mean of Communication was 4.02. This means that AI-Powered bots can give customers individual attention and most of the respondents agreed that bots are less likely to follow instructions from AI.

Table 3.3: Mean and Descriptive Interpretation on the Poor Qualities of AI-Powered Bots in Automation In Solving Complex Issues

AUTOMATION IN SOLVING COMPLEX ISSUES		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>An artificial intelligence system cannot perform a complicated task.</i>	3.8	Agree
<i>I believe that AI-powered bots are purely automated resulting in inability to answer perplexed issues</i>	3.99	Agree
<i>Considering that AI-powered bots are programmed to perform at a single pace, serving times are sometimes delayed.</i>	4.05	Strongly Agree
<i>Some complex decisions are best left to human agents rather than AI-powered bots.</i>	4.39	Strongly Agree
<i>AI-powered bots cannot accommodate customers' complaints.</i>	4.05	Strongly Agree
WEIGHTED MEAN	4.06	Strongly Agree

Legend:

5.00-4.00- Strongly Agree
3.99-3.00- Agree
2.99-2.00- Somewhat Agree/Disagree
1.99-1.00- Disagree
.99 - 00 - Strongly Disagree

As reflected on the above table, “Some complex decisions are best left to human agents rather than AI-powered bots” had the highest mean of 4.39 and a descriptive interpretation of “Strongly Agree” while the statement, “An artificial intelligence system cannot perform a complicated task” had the

lowest mean 3.8 yet had a descriptive interpretation of “Agree”. The weighted mean of Automation in Solving Complex Issues was 4.06. This means that AI-Powered bots cannot perform complicated tasks and accommodate customers' complaints for most respondents.

Table 3.4: Descriptive Statistics of the Variables in terms of the Poor Qualities of AI-Powered Bots in Customer Service

POOR QUALITIES OF AI-POWERED BOTS IN CUSTOMER SERVICE			
VARIABLES	MEAN	STANDARD DEVIATION	LEVEL/ INTERPRETATION
Empathy	4.23	.668	Strongly Agree
Communication	4.02	.567	Strongly Agree

Automation in Solving Complex Issues	4.06	.655	Strongly Agree
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Table 3.4 gives the descriptive information of the variables in SOP3. According to the results and table, Empathy had the highest mean of 4.23, Communication had the lowest mean of 4.02, and Automation in Solving Complex Issue had $m=4.06$. As given by most of the respondents, the means are around 4.00 above. This shows that the participants agreed with AI-Powered Bot's poor qualities. Moreover, the Standard Deviation of each variable ranges from .56 to .668 which are small values and

indicates that the individual scores of the participants were either similar or close to each other. This means that AI-powered bots in customer service are lacking in terms of empathy, communication, and solving complex issues.

SOP4: What is the level of assessment of AI-Powered bots in customer service and satisfaction in terms of impacts, benefits and effectiveness?

Table 4.1. Mean and Descriptive Interpretation on the Impacts of AI-Powered Bots in Customer Service and Satisfaction

IMPACTS		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>How satisfied are you with AI-powered bots in terms of saving time?</i>	3.45	Very Satisfied
<i>How satisfied are you with AI-powered bots in terms of recognizing and segmenting customers as seen in table 4.1?</i>	2.98	Satisfied
<i>How satisfied are you with AI-powered bots in terms of easier transactions?</i>	3.35	Very Satisfied
<i>How satisfied are you with AI-powered bots in terms of faster service and transactions?</i>	3.36	Very Satisfied
<i>How satisfied are you with AI-powered bots in terms of formulating appropriate responses?</i>	3	Very Satisfied
WEIGHTED MEAN	3.23	Very Satisfied

Legend:

4.00-3.00 - Very Satisfied

2.99-2.00- Satisfied

1.99-1.00- Neutral

1.00-0.99- Dissatisfied

As seen in table 4.1, "How satisfied are you with AI-powered bots in terms of saving time?" had the highest mean of 3.45 and a descriptive interpretation of "Very Satisfied," while the question, "AI-powered bots are good in terms of recognizing and segmenting customers" had the lowest mean of 2.98

yet had a descriptive interpretation of "Satisfied". The weighted mean of Impacts was 3.23 and an interpretation of "Very Satisfied" which meant that AI-powered bots are viewed to have satisfying impacts to customer satisfaction and service especially in saving time to customers.

Table 4.2: Mean and Descriptive Interpretation on the Benefits of AI-Powered Bots in Customer Service and Satisfaction

BENEFITS		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>How satisfied are you with AI-powered bots in terms of giving reliable service to customers?</i>	3.12	Very Satisfied
<i>How satisfied are you with AI-powered bots in terms of giving informative details regarding a product or service to customers?</i>	3.2	Very Satisfied
<i>How satisfied are you with AI-powered bots in terms of offering personalized services?</i>	2.93	Satisfied

<i>How satisfied are you with AI-powered bots in terms of providing immediate and on demand assistance?</i>	3.08	Very Satisfied
<i>How satisfied are you with AI-powered bots in terms of minimal-to-no human errors?</i>	3.07	Very Satisfied
WEIGHTED MEAN	3.08	Very Satisfied

Legend:

4.00-3.00 - Very Satisfied

2.99-2.00- Satisfied

1.99-1.00- Neutral

1.00-0.99- Dissatisfied

As illustrated in table 4.2, “How satisfied are you with AI-powered bots in terms of giving informative details regarding a product or service to customers?” had the highest mean of 3.2 and a descriptive interpretation of “Very Satisfied,” while the question, “How satisfied are you with AI-powered bots in terms of offering personalized services?” had the lowest mean of 2.93 yet had a

descriptive interpretation of “Satisfied”. The weighted mean of AI-powered bots’ benefits in customer service and satisfaction was 3.08 and a level or interpretation of “Very Satisfied”. This means that AI-powered bots appear to be beneficial in customer satisfaction and service, especially in giving information and details regarding products and services.

Table 4.3: Mean and Descriptive Interpretation on the Effectiveness of AI-Powered Bots in Customer Service and Satisfaction

EFFECTIVENESS		
ITEMS/ STATEMENTS	MEAN	LEVEL/ INTERPRETATION
<i>How satisfied are you with AI-powered bots in terms of quality service over human agents?</i>	3.01	Very Satisfied
<i>How satisfied are you with AI-powered bots’ availability almost 24/7?</i>	3.32	Very Satisfied
<i>How satisfied are you with AI-powered bots in terms of solving complex issues?</i>	2.58	Satisfied
<i>How satisfied are you with AI-powered bots’ customer service performance?</i>	3.03	Very Satisfied
<i>How satisfied are you with AI-powered bots’ ability to quickly process information and data?</i>	3.4	Very Satisfied
WEIGHTED MEAN	3.07	Very Satisfied

Legend:

4.00-3.00 - Very Satisfied

2.99-2.00- Satisfied

1.99-1.00- Neutral

1.00-0.99- Dissatisfied

As displayed in table 4.3, “How satisfied are you with AI-powered bots’ ability to quickly process information and data?” had the highest mean of 3.4 and a descriptive interpretation of “Very Satisfied,” while the question, “How satisfied are you with AI-powered bots in terms of solving complex issues?” had the lowest mean of 2.58 yet had a descriptive

interpretation of “Satisfied”. The weighted mean of AI-powered bots’ effectiveness in customer service and satisfaction was 3.07 and an interpretation of “Very Satisfied” which meant that AI-powered bots are seen as effective in customer service and satisfaction, especially in processing information and data quickly.

Table 4.4: Descriptive Statistics of the Variables in Terms of AI-Powered Bots’ Impacts, Benefits, and Effectiveness in Customer Service and Satisfaction

AI-POWERED BOTS IN CUSTOMER SERVICE AND <u>SATISFACTION</u>			
VARIABLES	MEAN	STANDARD DEVIATION	LEVEL/ INTERPRETATION

Impacts	3.23	.596	Very Satisfied
Benefits	3.08	.590	Very Satisfied
Effectiveness	3.07	.517	Very Satisfied

Table 4.4 showed the description information of the variables in SOP4. As measured by AI-powered bot's impact ($m=3.23$), benefits ($m=3.08$), and effectiveness ($m=3.07$), the majority of respondents received positive and satisfied service from AI-powered bots. Moreover, the Standard Deviation of each variable ranges from .51 to .59 which are small values and indicates that the individual scores of the

participants were either similar or close to each other. This denoted that AI-Powered bots have good impacts, satisfying benefits, and are effective in customer service.

SOP5: Is there a significant relationship between Artificial Intelligence-powered bots and customer satisfaction in the people-oriented industry?

Table 5: Correlation Table between AI-Powered Bots and Customer Satisfaction

	AI-POWERED BOTS	CUSTOMER SATISFACTION
AI-POWERED BOTS	1.00	.516**
CUSTOMER SATISFACTION	.516**	1.00

Legend: **. Correlation is significant at the 0.01 level (2-tailed).

This table indicated the correlation between AI-powered bots and customer satisfaction using Pearson's r correlation. As shown in the correlation table, AI-powered bots were found statistically significantly correlated to Customer Satisfaction ($r = .516$, $p < .01$). This depicted that there is a moderate positive relationship between AI-Powered Bots and satisfaction of the customers. This implied that Miller's (2022) statement that as a result of the positive outcomes from implementing AI-supported bots in their customer service operations, many companies are considering going all in on this strategy was considered true according to this study taking into account that the quality of service AI-powered bots can give results in satisfied and pleased customers. Thus, the null hypothesis was rejected.

Conclusion

Despite the correlational nature of this study, important conclusions can be taken from the collected data.

1. Speed and Accuracy, and Information both had the highest mean and an interpretation of "Strongly Agree". Therefore, customers were pleased with the fast service, time-saving and easier transactions that AI-Powered Bots can sufficiently provide. Efficiency, on the other hand, had the lowest mean yet a level or interpretation of "Agree." This meant that among the other variables, Efficiency was seen as the least need sufficiently provided by AI-powered bots. However, this need was likewise perceived as a good quality of AI-powered bots considering its interpretation. Thus, the researchers concluded that AI-powered bots can sufficiently provide the needs of customers in

terms of efficiency, speed and accuracy, and information.

2. Empathy had the highest mean, which meant that AI-powered bots were proven to be lacking in emotional intelligence, and that these bots cannot place judgments on customers. Communication, on the contrary, had the lowest mean but also had an interpretation of "Strongly Agree". This depicted that AI-Powered bots can communicate with customers to lessen face-to-face human interactions but are not that competent enough to communicate and answer all customer queries, especially open-ended questions. Based on the results and taking into consideration the emotionless and purely automated nature of AI-powered bots, the researchers conclude that these bots are found to be lacking in qualities such as empathy, communication, and solving complex issues due to automation.
3. AI-Powered Bots' Impacts in customer service and satisfaction had the highest mean and a level or interpretation of "Very Satisfied". This revealed that AI-powered bots have favorable impacts in customer service, especially in saving time and rapid service and transactions. Contrastingly, Effectiveness of AI-Powered Bots in customer service and satisfaction had the lowest mean yet had a level of interpretation similar with the other variables. This confirmed that AI-Powered Bots are effective to most customers, more particularly in its availability to render service which is almost 24/7 and its ability to process information and data quickly. Hence, the researchers concluded that the majority of individuals find AI-powered bots' impacts, benefits, and effectiveness in customer service satisfying.

4. Lastly, the findings of the study affirmed that artificial intelligence powered bots and customer satisfaction have a moderate positive relationship. Even though AI-Powered bots have good characteristics that customers can benefit from, these as well have poor characteristics that can lead to consumer's dissatisfaction specifically, the inability of AI-Powered bots to solve complex issues and complaints. Be that as it may, the valuable and advantageous qualities of these bots outweighs its weaknesses. Thus, the researchers have drawn to a conclusion that AI-powered bots can contribute to the success of attaining a higher satisfaction rate from customers.

Recommendations

The researchers would like to advocate and propose the following in line with the results and findings that have been uncovered in this study about AI-powered bots and Customer Satisfaction. Furthermore, the researchers would like to enumerate the various benefits of the study in certain groups of people.

1. The researchers recommend AI-powered Bots to customers who prefer convenient, fast, and reliable service with little-to-no human interaction. Companies and establishments that aim for an increase in customer satisfaction and higher quality of services are recommended to deploy AI-powered bots in their outlets and stores.
2. The study's findings have given the researchers a better grasp of AI-powered bots' shortcomings. Having said that, the researchers suggest companies to not be heavily reliant on AI-powered bots. Although AI-powered bots in customer service are beneficial, retaining human agents is still necessary, for AI-powered bots are proven to be lacking in certain qualities; qualities that most humans excel in such as empathy, communication, and solving conflicts and issues. Moreover, the customers are suggested to know the limitations of AI-powered bots in customer service. Although service can be supplied almost instantaneously by AI-powered bots, these have insufficient characteristics when it comes to emotional intelligence.
3. The researchers propose utilization of AI-powered bots in the country's tourism and hospitality industry. The capabilities of AI-powered bots to meet the requirements and standards of individuals and the extent to which these AI-powered bots can contribute to the improvement of society can be beneficial to the entire nation and the aforementioned sectors.
4. The results of the study have enlightened the researchers for whether AI-Powered bots can be essential to ensure customer satisfaction or

not. Accordingly, the researchers recommend the service sector to invest in cutting-edge technology such as AI-powered bots to give exceptional customer service, and satisfying outcomes to consumers to the point where in the Philippines' tourism and hospitality sectors would be globally competitive.

Conflict of Interest

There is no conflict of interest between the authors in this manuscript.

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