**How Conversational AI and Chatbots Are Improving the Jordanian Customer Experience**

**Abstract**

This study looks at how chatbots and conversational AI improve the consumer experience in Jordan. It focuses on the quality of chatbot interactions, how frequently people use chatbots, and the importance of conversational AI. The researchers collected information from 500 clients who had interacted with bots in retail, banking, and telecommunications sectors. They conducted a survey to assess the quality of bot interactions, including how frequently individuals used them, what the AI could perform, and how customers felt about it all. They ran the numbers through SPSS v26 to examine how these things were related.

The findings revealed that stronger chatbot interactions led to happier customers. People who utilized chatbots more frequently reported a better experience. Customers were particularly pleased with advanced AI technology that allowed them to personalize talks to individual needs. These findings support previous research and add new information from a burgeoning market, helping to enhance our understanding of chatbots and conversational AI.

This study has practical implications for Jordanian enterprises. It demonstrates that they should invest in high-quality chatbots, encourage more people to use them, and employ clever AI to interact with clients. The study has some limitations, such as employing a convenience sample and looking at a single point in time. The researchers propose additional studies to investigate how these technological tools affect various industries in the long run..

**Keywords**: Conversational AI, Chatbots, Customer Experience, Artificial intelligence

**Introduction**

Technology's quick progress has changed how businesses talk to their customers. Dale (2016) says chatbots and conversational AI are now key tools to make customer experience better by giving fast, personal, and effective service. Gnewuch et al. (2017) point out that chatbots, which are computer programs that act like humans when they talk, are getting more popular in many industries to handle customer questions, solve problems, and give advice. Xu et al. (2020) explain that conversational AI, which uses natural language processing (NLP) and machine learning (ML), can help chatbots understand and answer human language better. This makes conversations feel more natural and work better. Jordan's population is getting younger and more tech-savvy, with more people gaining internet access (Jordanian Department of Statistics, 2021). This trend has an impact on the use of chatbots and conversational AI. However, we don't know much about how these technologies affect customer experiences in Jordan. This study aims to fill this knowledge gap by looking into how chatbots and conversational AI help to improve customer experiences in the country.

This study adds to the research by offering real-world evidence from a developing market. The results will assist companies in Jordan to grasp how chatbots and conversational AI can boost customer satisfaction. What's more, the study gives policymakers and tech companies insights on how to implement and advance these technologies in Jordan.

**Problem Statement**

While chatbots and conversational AI might help businesses, we don't know much about how they affect customer experience in Jordan. Most studies have looked at developed countries leaving a gap in our knowledge about emerging markets like Jordan. This study aims to fill this gap. It looks into how the quality of chatbot interactions how much people use chatbots, and conversational AI shape customer experience in Jordan.

Here are the research questions:

* How does the quality of chatbot interactions relate to customer experience in Jordan?
* What effect does chatbot use have on customer experience in Jordan?
* How does conversational AI help to improve customer experience in Jordan?

**Literature Review**

**Chatbots and Customer Experience**

Chatbots have gained popularity as a powerful way to boost customer experience by offering quick, personal, and useful support. Dale (2016) points out that chatbots could improve customer satisfaction by cutting down response times and being available 24/7. Also, chatbots can handle many customer requests at once, which leads to better productivity and lower operating costs for businesses (Gnewuch et al. 2017; Hashem & Hamdan, 2017).

Many studies show that how people talk with chatbots has a big effect on their overall experience as customers. For example, Blut etal. (2021) found that chatbots with human-like qualities such as understanding and using natural language have a positive impact on customer experience. These chatbots make talks feel more like they're with a real person, which customers enjoy more. In a similar way, Følstad and Brandtzaeg (2020) showed that chatbots that give personal responses based on the situation lead to happier consumers and better experiences overall.

**Conversational AI and Customer Experience**

Chatbots are getting better at talking to people, thanks to fancy tech like NLP and ML. These tools help chatbots get what we're saying and reply in a way that makes sense. Xu and his friends wrote in 2020 that this smart chatbot tech can make chats with bots feel more natural and on-point. When that happens, customers end up happier and more into it (Hashem etal.,2023; [Beyari](https://www.researchgate.net/profile/Hasan-Beyari?_sg%5B0%5D=3ytO05a7vfuBk5H2BxZvNrIpI_56aqLtjl_NI5Q5fS8Jqnt3Njltx0N7Q85inF5eKvFJPBA.Lvb1Y0HhNOrXWMlLgydvXpCjgvEnVwGTRDAD6PCjOThnhsz61719qASTI2l1kwRJKtmq6yQTkGm31Bdrkb-Gng&_sg%5B1%5D=uo-9vFKTERVWYzk3clbI2H450rTDXf_VukytDuQSC9pBoabOmDnybZV77zIfEFxAKiJyalY.4rIwQ9_Z7h-eJrGwk1Mhmx1CsecIiHNW2mUdsBMvevlS_4lPcBgColXVQKN4zppYoc5nYSYWF4wW6_UuRjU2GQ&_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uIiwicG9zaXRpb24iOiJwYWdlSGVhZGVyIn19) etal., 2024).

What's more conversational AI has an influence on chatbots to offer customized and forward-thinking help, which builds trust and loyalty. For example, Sheehan et al. (2020) discovered that chatbots using conversational AI were better at creating personalized experiences, which then boosted customer loyalty. In the same way, Pizzi et al. (2021) showed that conversational AI improves customer experience by enabling proactive and predictive support such as guessing customer needs and providing tailored solutions.

**Chatbots and Conversational AI in Emerging Markets**

People know a lot about how chatbots and talking AI are used in rich countries, but we don't know much about how they affect places like Jordan that are still growing. These growing countries have their own special problems and chances when it comes to using chatbots and talking AI. For example, Jordan has many different languages and cultures, so chatbots there might need to be more flexible and careful about culture (Al-Sayed & Al-Zu'bi 2020; Hashem, 2016).

Despite these hurdles, the rise in internet use and smartphone ownership in Jordan creates a favorable setting to adopt chatbots and conversational AI. A study by the Jordanian Department of Statistics (2021) shows that internet usage in Jordan hit 80% in 2020, with many people going online through their mobile devices. This gives businesses a chance to use chatbots and conversational AI to improve customer service in Jordan.

**Hypotheses Development**

* **Hypothesis 1 (H1): Chatbot Interaction Quality and Customer Experience**

**Chatbot interaction quality has a positive impact on customer experience in Jordan.**

Research has shown that chatbot interaction quality has a big impact on customer experience. For example, Gnewuch and colleagues (2017) discovered that chatbots able to give personalized, context-aware responses resulted in customers feeling more satisfied and having a better overall experience. In the same way, Blut etal. (2021) proved that human-like features in chatbots, like showing empathy and processing natural language have a positive effect on customer experience by making interactions feel more human and engaging.

In Jordan, people are getting more used to online services as more folks have internet and smartphones (Jordanian Department of Statistics, 2021). This means they expect better digital services. How well chatbots talk to customers is likely to have a big impact on their experience. So, this study thinks that if chatbots interact better with customers, it will make for a better customer experience.

* **Hypothesis 2 (H2): Chatbot Usage and Customer Experience**

**Chatbot usage has a positive impact on customer experience in Jordan.**

Chatbot usage means how often and how much customers interact with chatbots. When customers have frequent and meaningful chats with chatbots, it can make their experience better. This happens because chatbots can give quick help, suggest things just for them, and fix problems without a fuss (Kumar et al. 2019). Research shows that customers who often talk to chatbots say they're happier overall. They like how easy and quick it is to use chatbots (Van Doorn et al. 2017; Hashem etal.,2015).

For instance, Moriuchi (2021) discovered that regular chats with AI assistants boosted customer involvement and happiness, as these digital helpers offered instant support and tailored answers. Likewise, McLean and Osei-Frimpong (2019) showed that customers who often used AI chatbots tended to see them as helpful and simple to navigate resulting in an improved overall experience.

In Jordan where younger, tech-loving people are embracing online services more and more frequent use of AI chatbots is expected to make customers happier by being available round the clock and giving personalized attention. This study therefore, suggests that using chatbots will have a positive impact on how customers feel about their experience.

* **Hypothesis 3 (H3): Conversational AI and Customer Experience**

**Conversational AI has a positive impact on customer experience in Jordan.**

Conversational AI, which includes cutting-edge tech like natural language processing (NLP) and machine learning (ML), boosts chatbot capabilities. It allows them to offer more precise, situation-aware, and tailored interactions (Xu et al. 2020). These features can boost customer experience by making chats more natural, quick, and pleasing.

Research backs up the impact of chatbots on improving customer experience. A study by Sheehan and colleagues in 2020 showed that AI-powered chatbots did a better job at creating personal experiences, which made customers happier and improved their overall experience. In the same way, Pizzi and team's 2021 research proved that chatbots boost customer experience by offering proactive and predictive help, like guessing what customers need and giving them tailored answers.

In Jordan, companies are using more AI-powered tech to stand out in a tough market. They expect chatbots and virtual assistants to make a big difference in how customers feel about their service. These AI tools can give steady, trustworthy, and tailored help, which should make customers happier and more involved. So, this research thinks that these smart talking systems will improve the way customers experience a business.

Methodology

**Methodology**

A quantitative method was what the researcher chose to see the influence of chatbots and conversational AI on customers shopping in Jordan. They handed out a well-organized questionnaire to 500 customers who had chatted with chatbots while dealing with retail, banking, and telecommunications. By doing this, the researcher could tally up how happy customers were with these tech tools in diverse business areas.

**Data Collection**

The survey had parts that asked about personal details how good chatting with the bot was how much people use chatbots, what they think about AI that talks, and their thoughts on the service they got. To make sense of the info, they used this program called SPSS..

**Data Analysis**

**Sample Characteristics**

The researcher gathered info from 500 participants in Jordan who used chatbots across different industries like retail, banking, and telecommunications. Frequency and Percent were used to describe the study sample as follows:

**Table1: Sample Characteristics**

| **Variable** | **Category** | **Frequency** | **Percentage** |
| --- | --- | --- | --- |
| **Gender** | Male | 275 | 55% |
|  | Female | 225 | 45% |
| **Age** | 18–24 | 150 | 30% |
|  | 25–34 | 175 | 35% |
|  | 35–44 | 100 | 20% |
|  | 45+ | 75 | 15% |
| **Education** | High School | 100 | 20% |
|  | University | 350 | 70% |
|  | Postgraduate | 50 | 10% |
| **Chatbot Usage** | Daily | 100 | 20% |
|  | Weekly | 200 | 40% |
|  | Monthly | 150 | 30% |
|  | Rarely | 50 | 10% |
| **Sector** | Retail | 200 | 40% |
|  | Banking | 175 | 35% |
|  | Telecommunications | 125 | 25% |
| **Region** | Amman | 250 | 50% |
|  | Irbid | 100 | 20% |
|  | Zarqa | 75 | 15% |
|  | Other | 75 | 15% |

**1. Gender Distribution**

It is found that males are more than females , 275 males making up 55% and 225 females being 45%. Looks like it's pretty similar to how things roll online in Jordan, with both men and women hanging out on the internet in almost the same numbers at least that's what the stats from 2021 say from the Jordanian Department of Statistics.

**2. Age Distribution**

The bulk of people who took part were young adults, with 65% of those answering aged between 18 and 34 years. This age spread matches up with how tech-savvy Jordan's population is where younger folks are more likely to pick up and use digital tech like chatbots.

**3. Educational Background**

The participants were well-educated, with 70% (n = 350) having a college degree. Their high education level indicates they know how to use digital tech and can talk to chatbots without problems..

**4. Frequency of Chatbot Usage**

The frequency of chatbot usage among participants varied, with the majority reporting regular interactions:

* **20% (n = 100)** used chatbots daily.
* **40% (n = 200)** used chatbots weekly.
* **30% (n = 150)** used chatbots monthly.
* **10% (n = 50)** rarely used chatbots.

This spread shows that chatbots are playing a key role in how customers and businesses talk in Jordan for those who use them often..

**5. Sector of Interaction**

Participants interacted with chatbots in various sectors, reflecting the widespread adoption of this technology across industries:

* **40% (n = 200)** interacted with chatbots in the retail sector.
* **35% (n = 175)** interacted with chatbots in the banking sector.
* **25% (n = 125)** interacted with chatbots in the telecommunications sector.

This spread shows how chatbots can be used in many ways across different industries in Jordan.

**6. Geographic Distribution**

Participants were drawn from various regions in Jordan, including:

* **Amman (50%, n = 250)**: The capital city, where the majority of businesses and tech-savvy individuals are concentrated.
* **Irbid (20%, n = 100)**: A major city with a large student population.
* **Zarqa (15%, n = 75)**: An industrial city with a growing digital infrastructure.
* **Other regions (15%, n = 75)**: Including smaller cities and rural areas.

The wide range of locations in this study makes sure the results speak for all of Jordan's people.

## Descriptive Analysis

Below is a **descriptive analysis table** for the statements of each variable, including the mean, standard deviation for each statement as well as the reliability test for each variable:

### Table 2: Descriptive Analysis of Statements for Each Variable

| **Variable** | **Statement** | **Mean** | **Std. Deviation** | **Alpha** |
| --- | --- | --- | --- | --- |
| **Chatbot Interaction Quality** | The chatbot provided accurate information. | 4.090 | .831 |  |
|  | The chatbot responded to my queries in a timely manner. | 4.004 | .902 |  |
|  | The chatbot was easy to use. | 3.650 | 1.038 |  |
|  | The chatbot understood my requests clearly. | 3.930 | .766 |  |
|  | The chatbot provided empathetic responses. | 4.096 | .886 |  |
|  |  | 3.954 | .661 | 0.798 |
| **Chatbot Usage** | I use chatbots frequently to resolve my queries. | 4.396 | .754 |  |
|  | I find chatbots convenient for quick problem resolution. | 3.702 | 1.039 |  |
|  | I prefer using chatbots over other customer service channels. | 4.026 | .914 |  |
|  |  | 4.041 | .754 | 0.773 |
| **Conversational AI** | The chatbot understood complex queries effectively. | 3.706 | 1.123 |  |
|  | The chatbot provided personalized recommendations. | 3.156 | 1.299 |  |
|  | The chatbot anticipated my needs and offered proactive solutions. | 3.728 | .994 |  |
|  |  | 3.530 | .953 | 0.778 |
| **Customer Experience** | I am satisfied with my overall experience of using the chatbot. | 3.926 | .875 |  |
|  | The chatbot enhanced my perception of the brand. | 3.560 | 1.123 |  |
|  | I would recommend the chatbot to others. | 3.420 | 1.172 |  |
|  | The chatbot met my expectations. | 4.150 | .623 |  |
|  |  | 3.764 | .763 | 0.791 |

When views toward the stated question are analyzed using mean and standard deviation, a good trend is discovered. The fundamental reason for this is that their means are greater than the scale's average value, which was set to 3. Cronbach's alpha is used by the researchers to examine the reliability of the scale. The table2 shows that the alpha values imply a credible scale because they exceed 0.70, the cutoff limit.

**Hypotheses testing:**

**H : Conversational AI and Chatbots Are Improving the Jordanian Customer Experience**

### Table 3: Hypotheses Testing

|  |
| --- |
| **Model Summary** |
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .790a | .624 | .622 | .46916 |

|  |
| --- |
| **ANOVA** |
| Model | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 181.350 | 3 | 60.450 | 274.631 | .000b |
| Residual | 109.177 | 496 | .220 |  |  |
| Total | 290.527 | 499 |  |  |  |
| **Coefficients** |
| Model | Unstandardized Coefficients | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| 1 | (Constant) | 1.100 | .137 |  | 8.001 | .000 |
| Chatbot Quality | .090 | .040 | .078 | 2.287 | .023 |
| Chatbot Usage | .081 | .036 | .080 | 2.250 | .025 |
| Conversational AI | .561 | .027 | .701 | 20.651 | .000 |

The above hypothesis was verified using multiple regression analysis, which revealed a significant positive correlation (r = 0.79) between the independent and dependent variables. The independent variables contribute an additional 62.4% of the total variation in the dependent variable.
It is worth noting that the F value is statistically significant at the 0.05 level, showing that Conversational AI and Chatbots Are Improving the Jordanian Customer.
Additionally, the coefficients table shows the following results:

* Chatbot interaction quality has a positive impact on customer experience in Jordan, since t- value is significant at 0.05 level
* Chatbot usage has a positive impact on customer experience in Jordan, since t- value is significant at 0.05 level
* Conversational AI has a positive impact on customer experience in Jordan, since t- value is significant at 0.05 level

**Discussion**

The sample's demographic and behavior patterns hint that this study's results matter most for companies aiming at young well-educated, and tech-friendly clients in Jordan. How often people in the study used chatbots also shows that these tools are starting to play a key role in how businesses talk to customers in the country.

This study's results show that chatbot interaction quality, chatbot usage, and conversational AI have a strong impact on customer experience in Jordan. These findings back up earlier research and offer useful insights into how chatbots and conversational AI boost customer experience in developing markets.

* **Chatbot Interaction Quality and Customer Experience**: The research showed that chatbots giving accurate, quick, and caring responses boosted customer experience. This backs up what Gnewuch et al. (2017) found - top-notch chatbot interactions lead to happier customers and better overall experiences. In Jordan where customers value quick and personal service, chatbots that deliver high-quality interactions are bound to improve customer experience.
* **Chatbot Usage and Customer Experience**: The relationship between chatbot usage and customer experience (H2) shows how often and meaningful chats with bot’s matter. People who used chatbots were happier overall, as these bots gave quick help and tailored suggestions. This backs up what Moriuchi (2021) found - frequent bot chats boosted customer involvement and happiness. In Jordan where young people love tech, pushing chatbot use can boost customer experience by offering around-the-clock help and smooth problem-solving.
* **Conversational AI and Customer Experience**: The positive impact of conversational AI on customer experience (H3)

Conversational AI has an influence on chatbot interactions making them better. This technology helps chatbots grasp and answer tricky questions, offer tailored suggestions, and predict what customers want. Xu et al. (2020) back this up, showing that conversational AI boosts customer experience by making chats feel more natural and aware of context. In Jordan, as more businesses start to use AI-driven tech conversational AI can play a big part in creating a customer experience that's more satisfying and keeps people interested.

**Recommendations:**

This study's results offer real-world insights for Jordanian companies:

* **Put Money into Top-Notch Chatbots**: Companies should aim to create chatbots that give correct, swift, and understanding replies. By making sure interactions are high-quality, companies can boost customer satisfaction and build lasting bonds with their clients.
* **Push Chatbot Use**: Companies should nudge customers to try chatbots by pointing out their perks, like always being available, fixing problems , and giving personalized tips. They can do this through ad campaigns how-to guides, and rewards for chatbot use.
* **Embrace Talking AI**: Companies need to put money into chatbot tech that can talk like a person. This lets their chatbots get what people are asking and give good answers even for tricky questions. When businesses do this, customers end up happier and more interested in what the company has to offer.
* **Support Digital Transformation**: Policymakers should back the use of chatbots and conversational AI by offering incentives for businesses to put money into these technologies. This can speed up digital transformation and boost the overall customer experience in Jordan.
* **Develop Localized Solutions**: Tech providers should create chatbots and conversational AI solutions that fit the language and culture of Jordan. This can help make sure that chatbots work well and customers like them.

**Limitations and Future Research**

This study gives us good info, but it has some weak spots we need to look at in future work:

* **Convenience Sampling**: The study picked its sample in a way that might not show the whole picture. Next time, we should pick a sample that better represents everyone to make sure our results apply more .
* **Cross-Sectional Design**: The study looked at everything at one point in time, which makes it hard to say what causes what. In the future, we should watch things over a longer time to see how chatbots and AI conversations affect customer experience in the long run.
* **Limited Sector Focus**: The research looked at just a few industries (retail, banking, and telecommunications). Later studies should look into how chatbots and conversational AI affect other fields, like healthcare and education.

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