

HOW CHATBOTS WILL TRANSFORM THE RETAIL INDUSTRY



Whitepaper

1.1 Introduction

Chatbots hold the potential one day to replace the tasks of many human workers with AI (Artificial Intelligence) programs sophisticated enough to hold fluent conversations with human users.

Juniper Research defines a chatbot as:

‘A computer program utilising technology designed to simulate conversational interactions with human users, which may also include automated processes triggered from these interactions’.

Chatbots are becoming increasingly influential in day to day life. These programs have been developed to assist a range of industries, from simple banking transactions, to retail customer service enquiries.

1.2 Chatbot Sector Analysis: Commerce & Retail

Juniper asserts that the commerce and retail sector is one which is most likely to encourage present chatbot success. There are high monetisation opportunities from up selling, marketing and cart recovery as well as a large the tech savvy user base ready to be exploited.

Regulation for the sector is not as strict as in other vertical sectors such as healthcare, banking, insurance and even travel and hospitality and as consumers are used to buying products online, trusting a chatbot to complete transactions is not an issue.

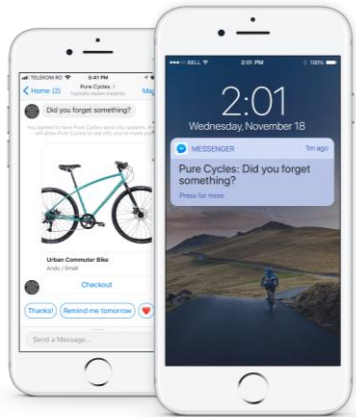
The cost impact of chatbots in this area is not as great in the retail space relative to others. Yet, chatbots still make a large cost saving for the industry in absolute terms, as Juniper has found that bots are much cheaper to implement as customer service agents than humans.

1.2.1 Monetisation Opportunities

The commerce and retail segment offers huge potential in terms of monetisation for brands and retailers. As well as upselling targeted products which are similar to what the customer has already purchased, providers can offer a wealth of services directly to consumers via their social media account or a dedicated app. These include loyalty schemes, eStores/eRetail, Coupons and time-limited offers/discounts.

Another potentially lucrative revenue source from chatbots for commerce and retail vendors is through cart recovery. This is where an abandoned online cart can still be a source of revenue. Chatbots can remind customers of the products still in their shopping cart and ask them if they are willing to proceed with the purchase, do nothing or clean the cart.

A front runner in chatbot cart recovery is the Facebook Messenger bot, Octane AI. This eCommerce concierge bot not only answers consumer questions regarding products, it also reaches 90% of customers who have abandon their carts, with 10% of these messages ending in sales conversion. The bot saves vendors revenues, without needing customer email addresses or expensive remarketing advertising.

Figure 1: Octane AI Abandoned Cart Messaging for Pure Cycle

Source: *octane.ai*

Juniper believes this is an incredible opportunity for eCommerce. By sending automated messages via messenger bots, particularly Facebook due to its expansive user base, eCommerce ensures relevance and saved revenues with no additional expense.

1.2.2 Consumer Trust

Provided AI is fed with enough, relevant input, machine learning has the ability to pool vast amounts of data from transaction history, website and in-store behaviour, and can make highly accurate predictions about what a shopper may do next. For consumers to give up this extra data to retail vendors for chatbot machine learning they will need to be able to trust the decisions chatbots make on behalf of the given data.

Similar to other vertical sectors outlined above, it is advisable to commerce and retail vendors to start off with simple chatbot functions and build the complexity to create trust and to improve machine learning capabilities. Lenient regulation and users which are more relaxed using technology in the retail sector, allows scope to use alternative techniques to build trust as long as mistakes are not made.

An example of this can be found with the Taco Bell chatbot, TacoBot. This bot has a jovial personality, answering and dealing with questions with wit and patience. This relaxed approach must only be used in certain situations, again reiterating the importance of AI in determining context and underlines that long-term trust can only be built through machine learning and conversational design.

1.2.3 Cost Saving Impact

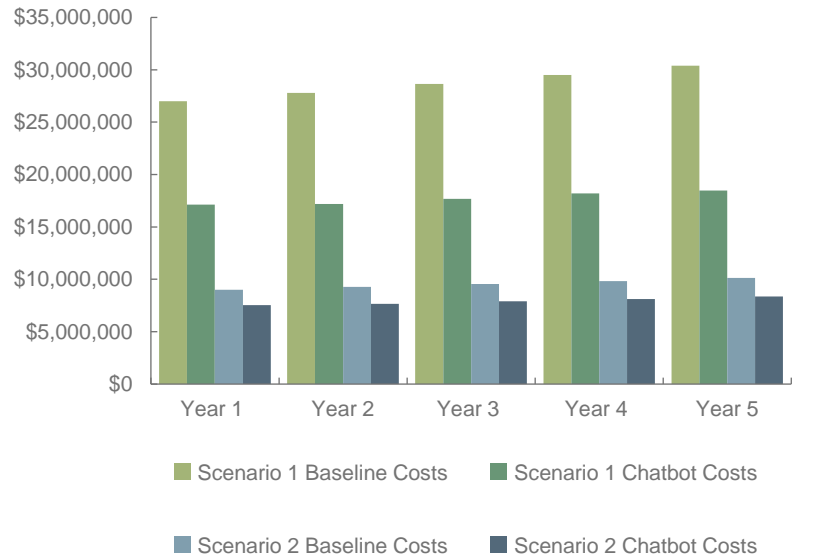
Juniper has modelled the cost impact of chatbots on the retail sector's customer service space, using the following cost scenarios:

- **Scenario 1:** We assume the chatbot has reached the ability to automate 40% of requests, at a development cost of \$2 million (including iterations of over 4 years).
- **Scenario 2:** We assume the chatbot has reached the ability to automate 20% of requests, at a development cost of \$1 million (including iterations of over 4 years).

Retail customer service agent salaries have been applied at \$18,000, with representatives needing a year's experience for the role. This is due to the prevalence of offshore call centres in this area, even with the recent onshoring trend building up steam. Needing little experience and

qualifications to carry out retail customer service on average has also lowered the salary of representatives in this case.

Figure 2: Commerce & Retail - Chatbot Implementation vs Baseline: Annual Cost (\$000), Split by Scenario, Year 1-Year 5



Source: Juniper Research

The lower salaries specified in the commerce and retail space have assumed the least disparity between chatbot and traditional call centre costs out of all sectors, over both scenarios.

Scenario 1 gives an \$11.9 million cost saving due to bots and Scenario 2 has a \$1.8 million saving due to bots, over the 5 year period. These

figures confirm the substantial costs saved due to chatbot implementation, even when automation is towards the lower scale.

1.2.4 Regulations

Commerce and retail chatbot vendors must comply with eCommerce regulation to exist in this space. This means that when trying to sell products to customers, bots must clearly display:

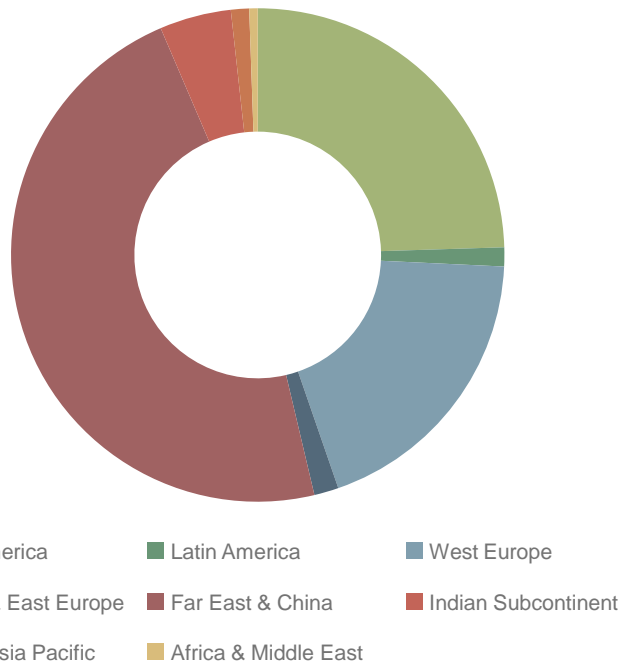
- A full description of the goods or service
- Unambiguous pricing information
- Delivery costs and returns policy in the event of cancellation
- Cancellation rights, including the right to cancel up to 14 days after purchase
- The address, phone number and email address of the seller

This also means that if vendors want to utilise online cart recovery, any price changes during the time products have been in a cart will need to be relayed to consumers.

1.3 Forecast Summary

Juniper has found that businesses can expect to save \$11.5 billion by 2023 using chatbots as a replacement for customer service representatives. This will increase from \$48.3 million in 2018.

Figure 3: Total Cost Savings for Businesses from Chatbots & Chatbot Applications (\$m), Split by 8 Key Regions, 2023: \$11.5 billion



Source: Juniper Research

Juniper suggests that the 3 key industries set to benefit from time and cost savings related to chatbot delegation of customer service enquiries including healthcare, banking, and retail.

Using chatbots can cut the response and interaction times via phone and social media channels. Juniper estimates that consumers and businesses combined will save over 2.5 billion hours by 2023 in these sectors.

Juniper found that the retail sector will gain the most benefits from chatbot technology, estimating that by 2023 over 70% of chatbots accessed will be retail-based. It highlighted both customer service and eCommerce as key use cases, with benefits such as cost savings, upselling, marketing and cart recovery as major retailer chatbot ‘push’ factors. Retailers will take advantage of these opportunities, propelling chatbot implementation and driving eCommerce transactions via chatbots to reach \$112 billion by 2023.

Order the Full Research

Juniper's **Chatbots** report examines the impact of chatbot implementation across the Banking & Finance, Commerce & Retail, Healthcare, Travel & Hospitality and Insurance sectors. It analyses factors such as monetisation potential, cost savings, reach and the regulatory landscape, and provides insightful reports on the leading Chatbot Development Tool vendors.

Key Features

- **Benchmark Industry Forecasts for Chatbots:** Provided across SMS, web browser, discrete applications and messaging applications, quantifying the following indicators Total Chatbot Spend, Advertising Spend, Customer Service Provider Cost Savings and End User Time Savings.
- **Sector Impact Analysis:** Investigates chatbot impact across 5 key industry verticals, with analysis of the following criteria Monetisation Opportunities, Potential User Base, Consumer Trust, Cost Saving Impact and Regulation.
- **Sector Dynamics:** In-depth analysis of the evolving chatbot landscape, including Key developments in the chatbot ecosystem; Market forces impacting chatbot evolution and take-up; Chatbot Threat Matrix in terms of present and future market challenges.
- **Juniper Leaderboard:** In-depth analysis of 15 Chatbot Development Tool vendors driving chatbot development, including their products, future strategies and AI capabilities.

<http://www.juniperresearch.com>

What's in This Research?

The research suite includes:

- **Market Trends & Opportunities** – Key trend analysis allied to strategic recommendations on market opportunities on a segment-by-segment basis for Banking & Finance, Commerce & Retail, Healthcare, Travel & Hospitality and Insurance.
- **Strategic Analysis** – Chatbot sector analysis, coupled with Juniper's Leaderboard assessment for 15 leading Chatbot Development Tool vendors.
- **IFxI (Interactive Forecast Excel)** – Highly granular dataset comprising more than 33,660 datapoints, allied to regional and sector analysis tools, along with key country level analysis and 5 year forecasts for the chatbot market.

Publications Details

Publication date: July 2018

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