

# **The Advantages of Enhancing Your Customer Service and Support Teams with Artificial Intelligence**

Allan Marin

Computer Information Systems

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## **Abstract**

The purpose of this report is to solve the problem of companies not implementing artificial intelligence into their company. Implementing artificial Intelligence into a company greatly increases customer retention rate. By increasing the customer retention rate, the company should see an increase in returning customers. When customers continue to return, it is expected the customer tells friends, family, and social media about their experience at the company. The use of artificial intelligence in a business can improve accurate delivery of information and decrease response time at a 24/7/365 availability. AI is a useful tool in which companies can innovate and change the course of their company. As stated below, it is important to remember the purpose of AI in a business is not to take jobs from people. The purpose of implementing artificial intelligence is to help a company prosper when utilizing the tool properly. A company can implement artificial intelligence with 3 low-cost solutions. These solutions being AI and human customer service and support, all human customer service and support, and outsourcing customer service and support. If a company were to have both AI and humans it would see an increase in sales, but has the forward costs holding companies back from incorporating artificial intelligence. With these options a company can improve their overall customer retention rate, which increases productivity and profits. When recommended a company should choose both AI and human customer service and support.

Keywords: Artificial Intelligence (AI), Frequently Asked Questions (FAQ), Bot

## **INTRODUCTION**

This report will cover the advantages to implementing AI into a company's customer service and support teams. As we all know Artificial Intelligence has been around and used in businesses for many years now. In modern day companies, AI has become a tool to gain a competitive advantage over competitor companies. Customer service and support are major sections of business that have been at a steady increase of success with AI. Customer service and support is a core piece in ensuring customers stay satisfied with a company's services and or products. The use of bots as customer service agents capable of handling many tasks is revolutionizing the relationships between companies and their clients (Welch 2019). Using Bots as customer service representatives is a great way for companies to provide information, trouble-shooting, and frequently asked questions (FAQ). Bots act as humans responding to customer questions when online the same way an employee would go about the conversation. With the addition of AI, a company can confirm their loyal customers are getting properly informed and helped on varieties of topics regarding the company at a high speed.

## **PROBLEM**

The main problem to be solved in this report is increasing customer return rates with AI customer service and support specialists. In doing this, companies will be able to see an increase in production and profits.

Most companies have customer service and support specialists working for their company at a regular 9-5 schedule. This creates an issue when an influx of consumers when the company is closed or the representatives are all busy with other customers. Having a customer service/support line unavailable 24/7 is an issue faced with an all human staff. In today's world, customers expect the company's support team to be fast and accurate with information. Faster service means happier customers and more efficient sales and support funnels. Conversational AI can automate manual data entry, ensure data consistency between communication channels and departments, and solve simple problems much faster and more accurately than human operators (Integritassolutions , 2020). When a customer is assisted they are expecting it to be the most reliable information. When a customer is given the wrong information from customer service and support, they tend to make the issue a cause of the company as a whole. When this happens the customer is likely to not return to the company, post badly about the company online, and or go to a competitor company.

The more artificial intelligence is used in a company, the more data can be collected to make a more personalized experience for every customer. This does not mean AI should take all customer service and support specialists jobs though. The cost of a human to work for a company is far more expensive than using AI. AI should be utilized any time it can minimize customer effort and still meet their needs (Voices 2017). The goal of AI in a company is to create room for growth within the company. Implementing AI would increase returning customer rate, thus increasing production rate and creating more profit.

## **EVIDENCE**

The second step in the PEAS is evidence, where Identify relevant facts and data(PEAS 2020)). This section is giving you evidence to support why artificial intelligence will be beneficial to a company. Here there will be facts, concepts, and theories used to help support the recommendations of fixing the problem above.

### **Artificial Intelligence improving Customer Service and support specialist teams**

Customer service is a key component to increasing customer return rate. Artificial intelligence is a forever growing industry, which means it will forever be able to do its job properly. A human on the other hand is not capable of doing so. AI-powered Chatbots are of great help. They engage in intelligent conversations 24\*7 without a dull moment. Chatbots are able to attend to the customers without any time limits (Top, 2020). Having an around the clock customer support service will greatly increase customer return rates. Many companies have implemented AI into their business and have seen substantial improvements in many areas, especially in customer service and satisfaction. Below, Figure 1 shows the largest areas of benefit companies have reported after implementing Dell’s artificial intelligence.

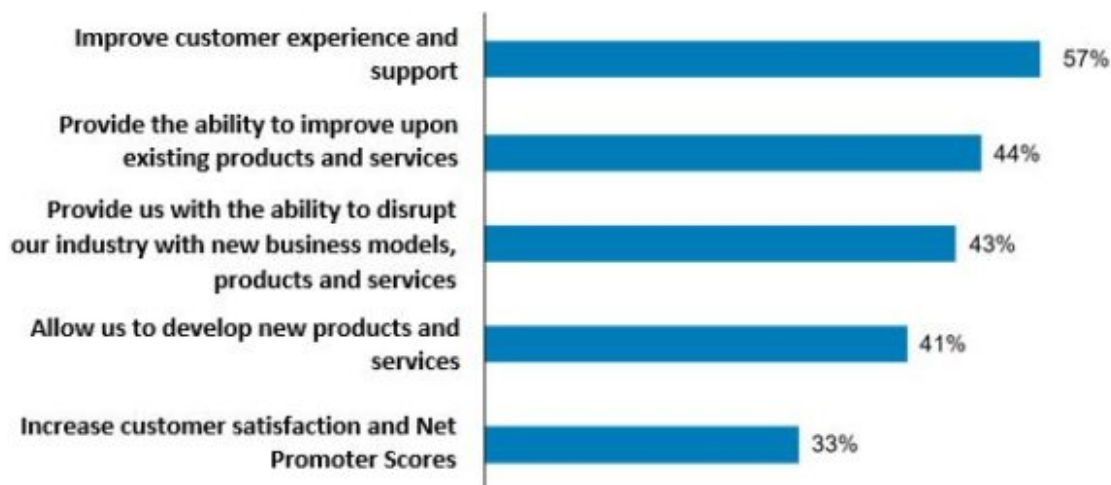


Figure 1: “What are the biggest strategic/growth benefits AI will contribute to your organization?”  
Source:(President, 2018)

In today's fast paced world of information, many consumers are eager to get information as fast as ever. With the rise in population, millennials seem to believe patience has become a thing of the past and instant is the way of today. With the idea of fast in mindBelow, Figure 2 shows customers' thoughts regarding the speed at which they expect good customer service from 2008-2013 .

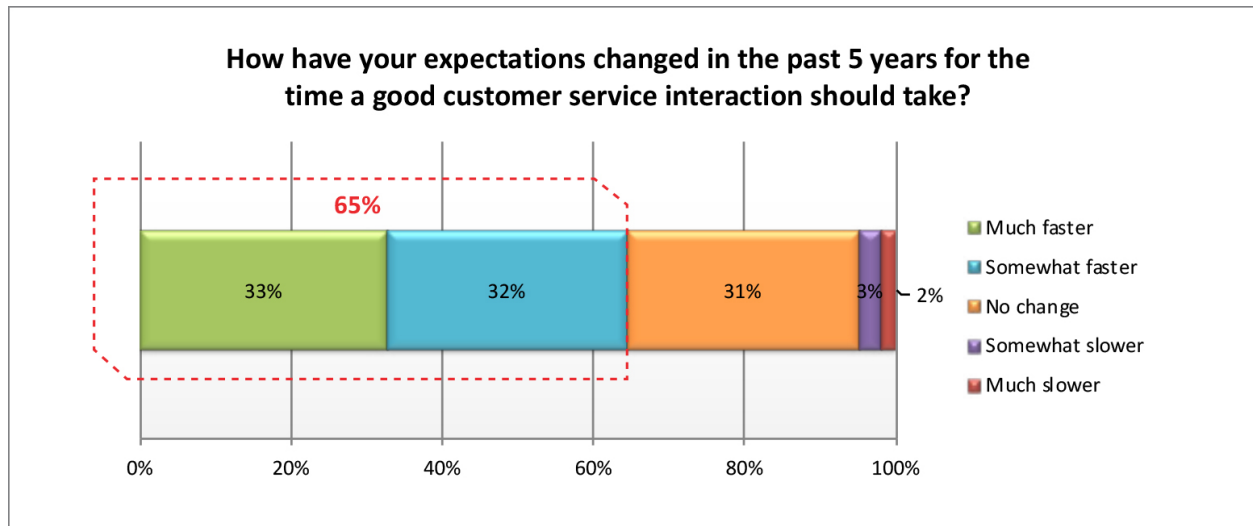


Figure 2:

Source: (What is the impact of customer service on lifetime customer value?)

Another key component to increasing customer return rate is the accuracy of the information given. Ensuring the customer is informed as accurately as possible is the sole purpose of customer services and support specialists' jobs. Artificial intelligence is a forever accurate tool companies can use to provide specific information to its customers. AI for customer service will not only make self-service interfaces more intuitive and economical, but its intelligence will help anticipate specific customer needs learning from their contexts, previous chat history and preferences (Makadi). When customer service and support AI interact with customers, it allows for the AI to gain data on the customer and ensure a better experience for the next interaction with the customer. Over time artificial intelligence increasingly makes an algorithm based on the inputs from the customer to give the best customer service experience possible as accurately as possible. Many companies use artificial intelligence on websites in the form of chat bots. Utilizing chatbots allows companies to help customers have instant response time with information requested by the customer. The artificial intelligence as customer service and support would be given present information to present by the company ensuring the customer is getting accurate information corresponding with the question asked. When a customer asks a chatbot a question, it doesn't just offer a suggestion: Intercom's chatbots automatically *resolve* questions using your own source material, including knowledge bases and FAQs (McEntee 2020).

### Low-Cost implementation to Create

When hearing about the implementation of artificial intelligence in the customer service and support, many companies think of large amounts of cost and the possibility of downsizing staff in the customer service and support department. On the contrary to these popular beliefs, AI as service and support representatives is a low-cost implementation tactic to improve production. The cost over time of using AI will be significantly compared to hiring and training new staff when a company is looking to increase customer satisfaction. Ergo, increasing production, which increases profits.

Hiring and training staff takes time and money. In fact, on average, it costs \$4000 or more to hire a call center service agent, and an additional \$4,800 or more to train them. These costs can quickly grow with an increase in staff attrition, a common problem at call centers (10 reasons 2019). The implementation of AI to customer service and support is a cost and time effective way for a company to increase customer return rate. "According to the Human Resource Institute, it costs companies \$10-\$15k to replace one frontline employee" (Why Employee IT Self-Service Needs Chatbots Instead of Portals? 2020). A company is able to use its time and resources toward more important projects. Using AI will be able to automate the customer service experience, allocating time and resources to company production. By 2035, AI technologies are projected to increase business productivity by up to 40% – Accenture (Unitt 2018).

With the implementation of AI customer service and support systems, employees have had an increased fear of losing their jobs. The goal of AI customer service and support systems is not to replace jobs. The main goal of the AI is to make a better experience and aid the hired representatives tackle the never ending flow of customer service. I believe the future of human-AI collaboration in customer service will be more than a simple binary with humans tackling certain types of requests and AI handling others, with an occasional hand-off happening between the two. That's because, as AI technology progresses, the line between human and artificial intelligence could become increasingly blurred (Brydon 2020). If working in synchronization, a company's customer service and support teams can greatly benefit in the long run from AI customer service and support systems.

## **ANALYSIS**

In this section of analysis the topic of three viable options will be recommended based on the information in the evidence above. Each of the following will show the strengths and weaknesses of each option.

### **Both AI and Human Customer Service and Support Team**

The first option available is to make a balanced AI and human customer service and support team. As humans and artificial intelligence work together, the two piggyback one another to create a mutual increase of customer satisfaction. The AI relies on the Human to provide information that it is supposed to give to customers. This means the company needs to have a customer service and support team member pre input the information for the AI to distribute to customers. The AI is able to cover most of the FAQ by customers. Thus, employees get time off of unnecessary basic queries. The human side of this option, allows the customer service and support team to work with customers with larger and more in depth issues, while the AI takes care of the smaller and shallower of the basic problems that occur a majority of the time. When a company integrates artificial intelligence into its already working customer service and support team, it adds a level of competitive advantage.

It's projected that AI will create nearly \$3 trillion in business value by 2021 and AI usage in customer service will increase by 143% by late 2020. At the same time, leading companies understand that AI solutions are most effective when they work hand in hand with humans, not instead of them (Birnbaum, 2020). As a financial cost benefit, the addition of AI will be a long term investment for the company. These AI systems can be significantly low-cost when implemented into a company properly. If your company uses a third-party AI software, like for a pre-built chatbot, expect to pay up to \$40,000 per year (Ai pricing). When looking at the available options for third party software, it is important to remember that the AI system ranges from \$0-\$40,000, but many companies offer free AI chatbots that make it a \$0 cost to start up .

### All Human Customer service and Support Team

The second option available is all human customer service and support teams. Customer service and support teams have been made up of humans for many years. Companies for decades now have been using this as their customer service and support technique to increase customer return rate and customer satisfaction. Below Figure 3 shows a comparison of live chat human interaction satisfaction vs the average rate of satisfaction on customer satisfaction within different industries.

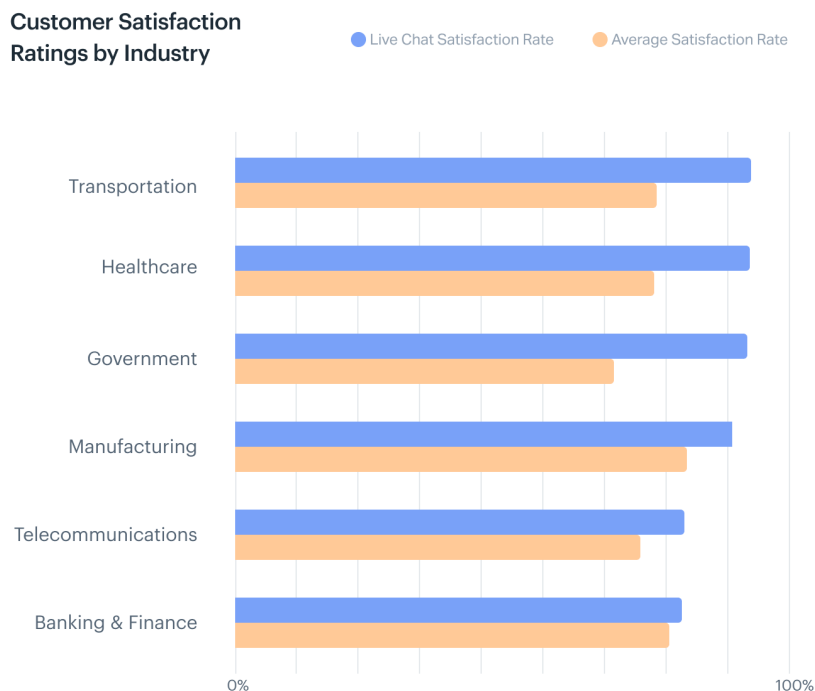


Figure 3: Customer Satisfaction Rating by industry  
Source: (AI Pricing)

The benefits of human service and support representatives include higher customer retention rate, free advertisement via customer word of mouth, and increased profits. When a customer has a good experience with customer services and support, they tend to come back and stay a loyal customer. Making the customer service and support team all human will increase the amount a customer feels connected to the company and will in return come back to the company. An increase in customer retention of merely 5% can equate to an increase in profit of 25%. This is because repeat customers are more likely to spend more with your brand -- 67% more, to be exact -- which then results in your business having to spend less on operating costs (Patterson, 2020).

## Outsourcing Customer Service

The last option available for increasing customer retention rates is bringing in a third party company to do the customer service for the company. Including a third party allows a company to use the data collected by the third party company, reduces company work loads, and is low-cost. When a company outsources their customer service and support, it allows the company to focus on other business matters. Companies pay for outsourcing customer service and support when it is viable in their budget and necessary to focus on other aspects of the business.

Looking at the pricing of outsourcing customer service options vary in price. This is due to hiring these outsourced companies as contract work instead of salary. Having customer service and support outsourced can be beneficial to a company when incoming call rates are much higher or the company decides to cut employees for the long term savings. A company does not always have the resources or finances to support in house customer service and support. A computer and all the necessary software could cost upward of \$1,000, while a good headset can cost more than \$60. When you factor in office space, a desk, chair, an additional monitor, etc., you could spend \$5,000 on equipment for just one customer service rep (Pros and Cons of Outsourcing Customer Service.). Comparing these prices to the cost of \$65-\$80 per representative at outsourced locations, shows it is financially cheaper to use outsourced teams rather than hiring, hiring training, and stocking employees.

Table 1: Summary of Alternative Solutions

Possible Solutions	Pros	Cons
Both AI and Human	<ul style="list-style-type: none"> <li>Increased response time</li> <li>Low-cost over time</li> <li>Increased productivity</li> </ul>	<ul style="list-style-type: none"> <li>Upfront costs</li> <li>Reduced number of human staff needed</li> <li>Human Error</li> </ul>
Only Human	<ul style="list-style-type: none"> <li>Increased return rate</li> <li>Face of the company to consumer</li> </ul>	<ul style="list-style-type: none"> <li>High cost over time (location, training, salaries, raises, and supplies)</li> </ul>

		<ul style="list-style-type: none"> <li>• Human Error</li> </ul>
Outsourcing	<ul style="list-style-type: none"> <li>• Low-cost</li> <li>• Time effective</li> </ul>	<ul style="list-style-type: none"> <li>• Face of company to consumers</li> <li>• Representatives do not represent the company paying</li> <li>• Reduce human staff in customer service and support</li> <li>• Human Error</li> </ul>

## Solution and Conclusion

After analyzing all of the information above any of these three options are practical avenues for a company to increase customer retention rate in customer service and support. When making the big decision on whether or not to incorporate artificial intelligence into a business , it is an important part of making sure the company produces satisfactory customer service and support.

Considering all of the options above, it is of best interest for a company to implement Artificial intelligence into their company with solution 1. Looking over the evidence implementing both Humans and AI into a company will substantially increase customer retention rate as well as production in a low-cost way. Having AI take care of basic questions from customers will allow the human representatives to take care of longer and more tedious calls. Implementing both AI and human representatives will also reduce response time for customers with urgent questions regarding the company or any of its products and or services. This option is a bit of an up front cost in order to get the AI equipment, licensing and software, but over time will pay itself off and thus generate future profits for the company.



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## Appendix

	Article 1	Article 2	Article 3	Article 4
C-1	Oct 17,2017	No date	August 19,2020	Mar 5 2020
C-2	No date	No date	No date	No date
C-3	YES	yes	yes	yes
C-4	Yes	yes	yes	yes
R-1	yes	yes	yes	yes
R-2	businesses	businesses	businesses	AI specialists
R-3	Yes	yes	yes	yes
R-4	yes	yes	yes	yes
R-5	yes	yes	yes	yes
AU-1	IBM	WebFX	Mitul Makadia	Forbes
AU-2	Marketing lead	Company page	Founder of maruti techlabs	N/A
AU-3	yes	yes	yes	yes
AU-4	yes	no	yes	yes
AU-5	.com	.com	.com	.com
AC-1	IBM	WebFX	Business 2 Community	Forbes
AC-2	yes	yes	yes	yes
AC-3	unknown	unknown	no	unknown
AC-4	no	yes	yes	yes
AC-5	no	no	yes	yes
AC-6	no	no	no	no
P-1	inform	sell	inform	inform
P-2	yes	yes	yes	yes
P-3	fact	fact	fact	fact
P-4	impartial	objective	impartial	objective
P-5	no	no	no	no
Your Overall Assessment	credible	credible	uncreditable	credible

	Article 5	Article 6	Article 7	Article 8
C-1	Feb 24, 2020	No date	No date	Feb 14, 2020
C-2	No date	No date	No date	No date
C-3	yes	yes	yes	yes
C-4	yes	yes	yes	yes
R-1	yes	yes	yes	yes
R-2	Businesses	businesses	businesses/info system specialists	Customer support services teams
R-3	yes	yes	yes	yes
R-4	yes	yes	yes	yes
R-5	yes	yes	yes	yes
AU-1	Anthony Brydon	Company page	Kaitlyn Petterson	Mathew Patterson
AU-2	Forbes Council Member	yes	Global Director of Customer Support	unknown
AU-3	yes	yes	yes	yes
AU-4	yes	yes	yes	yes
AU-5	.com	.net	.com	.com
AC-1	Forbes	Integritas Solutions	Inside intercom	Help Scout
AC-2	yes	no	yes	yes
AC-3	yes	no	unknown	yes
AC-4	yes	yes	yes	yes
AC-5	yes	no	yes	yes
AC-6	no	no	no	no
P-1	inform	inform	inform	inform
P-2	Yes	yes	yes	tes
P-3	fact	opinion	fact	fact
P-4	impartial	objective	no	no
P-5	no	no	no	no
Your Overall Assessment	credible	Not credible	credible	credible

	Article 9	Article 10	Article 11	Article 12
C-1	No date	Apr 18, 2018	Jul 17, 2020	Aug 31, 2018
C-2	No date	No date	No date	No date
C-3	yes	yes	yes	yes
C-4	yes	yes	yes	yes
R-1	yes	yes	yes	yes
R-2	College students	Businesses	Businesses	businesses
R-3	yes	yes	yes	yes
R-4	yes	yes	yes	yes
R-5	yes	yes	yes	yes
AU-1	Montana State University	Alex Barretto	Marisa Sanfilippo	Ian Taylor
AU-2	University	Senior Vice President, Dell EMC Support and Deployment Services	writer	unknown
AU-3	yes	yes	yes	yes
AU-4	yes	yes	yes	yes
AU-5	.net	.com	.com	.com
AC-1	Montant state university	Dell Technologies	business.com	USA Today
AC-2	yes	yes	yes	yes
AC-3	yes	yes	unknown	yes
AC-4	yes	yes	yes	yes
AC-5	unbiased	biased	unbiased	unbiased
AC-6	no	no	no	no
P-1	teach	inform	inform	inform
P-2	yes	yes	yes	yes
P-3	facts	facts	facts	fact
P-4	unknown	objective	objective	objective
P-5	no	no	no	no
Your Overall Assessment	credible	credible	uncredible	credible

	Article 13	Article 14	Article 15	Article 16
C-1	No date	No date	Jul 2, 2019	Apr 18, 2013
C-2	No date	No date	No date	Oct 6, 2020
C-3	yes	yes	yes	yes
C-4	yes	yes	yes	yes
R-1	yes	yes	yes	yes
R-2	Tech interested people	businesses	Businesses	Marketing firms and businesses
R-3	yes	yes	yes	yes
R-4	yes	yes	yes	yes
R-5	yes	yes	yes	yes
AU-1	Ashley Unitt	Tiago Paiva	Kathleen Walch	unknown
AU-2	New Voice Media Founder	Founder and CEO of talkdesk	unknown	unknown
AU-3	yes	yes	no	yes
AU-4	yes	yes	yes	yes
AU-5	.com	.com	.com	.com
AC-1	Other companies	Forbes	Forbes	The Library
AC-2	yes	yes	yes	yes
AC-3	unknown	yes	unknown	
AC-4	unknown	yes	yes	yes
AC-5	Free of emotion	no	yes	yes
AC-6	no	no	no	no
P-1	inform	inform	inform	inform
P-2	yes	yes	yes	yes
P-3	fact	fact	facts	facts
P-4	yes	yes	yes	yes
P-5	no	no	no	no
Your Overall Assessment	credible	credible	credible	credible

	Article 17			
C-1	Feb 21, 2018			
C-2	No date			
C-3	yes			
C-4	yes			
R-1	yes			
R-2	Business owners			
R-3	yes			
R-4	yes			
R-5	yes			
AU-1	Jagan Jami			
AU-2	unknown			
AU-3	unknown			
AU-4	no			
AU-5	.ai			
AC-1	Bot Core			
AC-2	yes			
AC-3	yes			
AC-4	yes			
AC-5	yes			
AC-6	no			
P-1	inform			
P-2	yes			
P-3	facts			
P-4	yes			
P-5	no			
Your Overall Assessment	uncredible			