The Business Case For Virtual Agents
a Forrester Report

by Brendan Witcher
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The Business Case For Virtual Agents
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KEY TAKEAWAYS

Time-Saving Benefits Are Driving Customer Adoption Of Self-Service Tools
Today’s online consumer expects technology to provide efficiencies across all
touchpoints of the order life cycle. Consumers view the valuing of time as one of the
most important things a company can do to provide good online customer experience,
and self-service solutions are being utilized across all industries to satiate this demand.

Today’s Virtual Agents Are Robust, Personalized Customer Engagement
Solutions
Connecting to back-end customer relationship management and product information
systems, virtual agents can now deliver personalized experiences that go beyond
general FAQs. The evolution of these solutions includes major advances in knowledge
management capabilities and simplified user interface tools, notably reducing total
cost of ownership.

Virtual Agents Lift Revenues And Reduce Costs Across Screens And
Channels
The business case for virtual agents has historically been built on contact center cost
savings, with any lift in revenue considered de minimis. But today’s tools are built to
monetize self-service by driving revenue through measurable increases in conversion
and average order values across online, mobile, store, and contact center touchpoints.
The Business Case For Virtual Agents

Why A Personalized Virtual Agent Is The Right Tool For Today’s Self-Service Driven Consumer

By Brendan Witcher
with Zia Daniell Wigder and Rebecca Katz

WHY READ THIS REPORT

Virtual agents have evolved from simple, self-service chat-bots to today’s personalized, data-driven answer engines that deliver customer value in both sales and service engagements. eBusiness leaders who passed on these tools years ago are likely missing out on opportunities to win customers today. As consumer demand grows for consistent, easy-to-find solutions across channels and screens, a strong business case emerges for adding virtual agents to the customer’s journey. But questions still exist: Are today’s consumers more satisfied with virtual agents? Are solutions still costly and difficult to maintain? Can tools be measured in reduced costs and increased revenues? This report will answer these questions and identify reasons companies today should strategically utilize virtual agents to markedly improve the customer experience and drive positive results to the bottom line.
CUSTOMERS ARE DISCONNECTING PHYSICALLY TO RECONNECT DIGITALLY

Today’s consumer is turning away from store staff and contact center associates as the first touchpoints of engagement with a brand. Indeed, only 45% of online consumers state that the store associate is the best resource for information. Today over half of retail shoppers are utilizing a brand’s web presence — on websites, mobile sites, and apps — to discover and research retailers, brands, products, and services before making a purchasing decision (see Figure 1).

With this volume of consumer engagement starting online, the eBusiness professional must recognize the significant influence the online experience has for both online and offline sales. How important is a positive web experience? In a recent study of US online consumers, 55% said that they would likely abandon their online purchase if they could not find quick answers to their questions. In addition, 72% said that they were unlikely to return to a website that did not provide a satisfactory customer experience (see Figure 2).

Driving these high expectations for consumer engagement is the ever-increasing speed of digitally delivered information. Product comparison engines and specialized websites allow consumers to compare a single product across multiple brands or multiple products across a single brand in mere minutes. In addition, with product recommendation engines being utilized within the path to purchase, consumers no longer need to take any time searching for complementary items. The speed at which a consumer can move from login to checkout is staggering compared to a decade ago. With this evolution came a new metric for the eBusiness professional to deliver as a value for the consumer: time. Seventy-seven percent of US online consumers said “valuing my time” was the most important thing a company could do to provide good customer service (see Figure 3).
**Figure 1** This Year 52% Of All Retail Sales Will Either Be Influenced By, Or Occur, Online

![US Retail Sales ($ billions)]

Source: Forrester Research Web-Influenced Retail Sales Forecast, 2013 To 2018 (US)

**Figure 2** Chat Is A Critical Component To Online Customer Engagement

"Please tell us how much you agree with each of the following statements."

(4 or 5 on a scale of 1 [disagree completely] to 5 [agree completely])

- I am unlikely to return to a website that does not provide a satisfactory customer experience
- I am very likely to abandon my online purchase if I cannot find a quick answer to my questions
- I have researched a purchase online but did not complete the purchase because I wanted to engage with a live person

Base: 7,522 US online adults (ages 18 and older)

Virtual agents, online engagement tools that provide interactive Q&A capabilities powered by natural language processing (NLP), are not the digital toys they were a decade ago. When first introduced, they often provided more hype than help. eBusiness leaders cited low adoption by consumers, the lack of interest from management in non-revenue driving initiatives, and the solutions’ weak customer satisfaction scores as reasons to pass on virtual agent tools. Why is today different than the past? Because consumers are adopting and demanding self-service more than ever before; organizations are focused on servicing the customer’s needs as a No. 1 priority; and virtual agent vendors are successfully delivering high customer satisfaction through solutions powered by new, personalized, data-driven engagement engines. Key factors contributing to these changes include:

**Figure 3** Consumers Of All Ages Demand Effortless Service

<table>
<thead>
<tr>
<th>Government</th>
<th>Gen Z</th>
<th>Gen Y</th>
<th>Gen X</th>
<th>Younger Boomers</th>
<th>Older Boomers</th>
<th>Golden Generation</th>
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<td>“I am very likely to abandon my online purchase if I cannot find a quick answer to my question”</td>
<td>43%</td>
<td>49%</td>
<td>52%</td>
<td>54%</td>
<td>56%</td>
<td>54%</td>
</tr>
<tr>
<td>“Valuing my time is the most important thing a company can do to provide me with good customer service”</td>
<td>63%</td>
<td>69%</td>
<td>69%</td>
<td>74%</td>
<td>76%</td>
<td>75%</td>
</tr>
</tbody>
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Source: North American Technographics® Customer Experience Online Survey, Q4 2012 (US)

**TODAY’S VIRTUAL AGENTS CAN NOW DELIVER ON YESTERDAY’S PROMISES**
• **Natural language processing becoming ubiquitous across consumer touchpoints.** Consumers talking and texting to devices — particularly mobile phones and tablets — is more prevalent than ever before. Tools like Apple’s “Siri” and Google’s “Google Now” have educated the consumer on the power of engaging devices through NLP solutions. This adoption has carried over into the online space, as well. When Aetna initially launched its virtual agent tool in the online registration process, it saw about a 20% reduction in service calls related to website registration and login (see Figure 4). Six months later, the company tweaked the tool and asked the customer to restate questions if the virtual agent didn't have an answer from the initial question; from this, they saw a 50% reduction from the original baseline in calls concerning registration. Today, about one in five visitors to the site uses the virtual agents. With the consumer’s comfort level raised for engaging through automated answer engines, all of the vendors and organizations we spoke to for this report acknowledged that a past barrier to adoption has been nearly eliminated.

• **Answer engines evolving into self-measuring tools that deliver high success rates.** Increased processing power and the development of complex algorithms have allowed for NLP tools to expand the range of questions that can be addressed and increased the rate of success in answering questions. Most vendors and organizations interviewed for this report agreed that well-managed tools today are often delivering greater than 90% success in addressing customer inquiries. In addition, the tools themselves provide insights into what questions require refinement for higher success rates. This makes virtual agents one of the few customer engagement solutions that can deliver analytics that show both specific positive and negative effects on each individual customer engagement.

• **Data access through API connections enabling personalized customer experiences.** The number of questions and answers that tools and resources could manage years ago were limited to general information that rarely changed. Today’s core processing hasn’t changed that much, but tools today can tie into back-end systems through robust APIs to call on dynamic data for products, services, and even customers. This allows for personalization of the experience within the tool for each individual customer’s journey, instead of directing customers to static landing pages to search on their own.

• **Simplified knowledge management interfaces removing the need for specialized staff.** Today’s virtual agent programs are often managed and maintained by a single non-technical person. Even large organizations utilizing virtual agent solutions to deliver thousands of responses highlighted the minimal resources needed to maintain the tools. The necessary staff usually depends on the complexity of the business. Many organizations we spoke to manage their virtual agent tools with one person, often as a part-time responsibility. There are two factors today driving this change from years ago: 1) knowledge management tools have improved to be user friendly and executed by nearly anyone in the organization and 2) vendors themselves are taking on the role of business partner, measuring the analytics themselves — monthly or quarterly — and making recommendations in reports to the organization.
**Robust reporting capabilities uncovering true voice-of-the-customer insights.** Fully integrated virtual agent tools today are rich with analytics and reporting: They can assess the success of the tool, measure conversion of customer engagements, calculate deflection of service calls/chats, and provide insights into what questions the tool was unable to answer. Reporting dashboards can also provide deep, actionable views into the voice of the customer as they engage tools in real time including customer preferences for answers, opportunities for improving website content, and measuring levels of success in converting customers across channels. Knowing what data to measure, knowing how to measure it, and having an automated process in place is a marked improvement from the past when each individual engagement had to be manually reviewed and assessed.

![Figure 4 Aetna.com Registrations Increased After Adding A Virtual Agent To The Sign-Up Process](image)

**EXECUTING WITHOUT A STRATEGY CAN HANDICAP THE PATH TO SUCCESS**

An investment in a virtual agent solution must fit with the organization’s strategy and provide solutions for meeting company goals. In addition, the virtual agent must be enabled to provide true value during the customer journey without being a source of frustration. Some of the pitfalls that can cause virtual agents to fail to meet either one of these requirements include:
- **Launching a virtual agent without an understanding of customer pain points.** Although customer journeys can cross a multitude of touchpoints, applying virtual agents at a select number of touchpoints where help isn’t needed nearly assures a low-impact effect of launching the tool. The first step in road map development for launching these tools should be to assess key customer pain points — pages or areas of the web experience where a large number of visitors are having difficulties continuing their online purchasing journeys. These can be defined as pages with high abandonment rates and areas of the web experience that frequently trigger customer service chats or calls. Once these areas have been identified — for mobile and online separately — virtual agent tools, armed with deep access to knowledge, should be launched within them.

- **Offering virtual agents that utilize a weak or incomplete knowledge base.** Behind every virtual agent tool is a knowledge repository driving the ability to answer customer questions efficiently and effectively. That pool of information must be accurate, complete, clear, and concise. eBusiness leaders must work with business partners — such as marketing, legal, contact center, distribution, and merchandising — to assure that each piece of information the virtual agent tools delivers represents each answer the organization truly wants to deliver. Vendors we spoke to for this report stated that they often help to develop answer formats that work best in this type of engagement, but it expedites the process when the organization has already confirmed the information is accurate and complete.

- **Initially presenting the solution to the customer across the entire web experience.** One of the primary reasons organizations passed on virtual agents years ago was the inability for the tool to understand a wide range of questions or provide deep sets of answers to a specific areas of inquiry. Organizations can make the mistake of creating the same effect when they choose to launch virtual agents that can only answer one or two questions in each area of the total web experience. To avoid this, vendors and organizations alike recommended first launching tools equipped with deep, robust capabilities to understand and answer hundreds of questions common to particular parts of the customer journey.

- **Failing to have an escalation solution that seamlessly ties to the virtual agent tool.** A common mistake is to assume or expect that a virtual agent should be able to answer any and all customer questions. In reality, virtual agents should be able to address the majority of common, general questions quickly and reliably using continuously improved knowledge base contents. But there will always be questions — due to their complexity, sensitivity, or personal nature — that will be better serviced by a live associate. This being the case, it is essential for virtual agents to have the ability to escalate to chat or another form of contact to deliver a high quality customer experience. Time Warner Cable strongly supports this advice, believing that “the idea is not to ‘trap the customer’ in the virtual agent solution.”
VIRTUAL AGENTS FILL THE GAP IN A GROWING DEMAND FOR SELF-SERVICE

As online customers interact with brands across industries — retailers, insurance, hospitality, financial organizations — they are assessing, measuring, and comparing the total value each engagement delivers. As mentioned above, this includes the value of time. But investing in a virtual agent solution — tied into back-end data systems — is more than a simple time saver: It is the equivalent of assigning your most knowledgeable and reliable associate to help each and every online customer through each stage of the order life cycle. This attention to the customer puts the virtual agent solutions squarely into the category of what Forrester has identified as the business technology (BT) agenda: investing in and delivering technology that will win, serve, and retain customers. For the eBusiness professional, this investment comes with financial and operational benefits on top of meeting customer self-service expectations.

Consumers Want The Experience Of Engaging With Your Very Best Associate

eBusiness professionals have always been challenged to meet the same level of customer engagement online that consumers experience in the physical store. Virtual agents help close the gap between the two channels. But can the virtual agent deliver an even better experience than engaging directly with a live store or call center associate? With today’s digitally connected, educated consumer shopping across screens and channels, often armed with more information about products than any one of your average associates, the answer is yes. Virtual agents can be deployed across screens and channels, externally and internally, with knowledge about every product, every service, every policy, and every piece of customer information available for the customer — or associate — to ask about in real time. Benefits for the customer include:

- **Responses in real time, which provide the time-saving value customers are demanding.** Virtual agents today answer questions in real time — often populating answers even as the customer types the question. By comparison, chat can take 2 to 5 minutes and a call to the contact center can take twice that amount of time or more. In the digital world, where websites are considered “broken” if load times exceed 5 seconds, a minute is a lifetime. By delivering answers quickly, the online consumer’s pace of purchase is maintained, and his expectation of having a fast, efficient online experience is met. One of the best practices is to place the virtual agent on the contact us page in order to help the customer save engagement time. Upon launch, CIBC discovered that virtual agents had an immediate positive impact in helping customers throughout the web experience. But when the tool was later added to the contact us page, the company saw an even greater effect: a 40% drop in customers utilizing the contact center to ask questions from that location.

- **The ability to understand that intent allows for delivery of the “one right answer.”** Virtual agents today are built to address an intended question in a customer inquiry. They view word associations as indicators and — like a good associate would — ask clarifying questions until the list of answers has been narrowed enough to provide a quality response. By comparison,
FAQ searches, which return nearly everything and anything related to a simple search term, are not an alternative solution for meeting today’s customer needs. Customers aren’t looking for any answer to their question; they place the burden on the organization to understand their intent and deliver one or two — not many — answers to a question. Virtual agents stay with the customer and continue to engage until they deliver the right answer or offer a live associate through click-to-chat or click-to-call connected services.

- **A single engagement tool, which means answers are consistent across screens and channels.** One of the biggest advantages virtual agents deliver over all other forms of engagement is consistency in engaging the customer. When a virtual agent is launched across screens and channels — used both externally on web engagements and internally for assisting in store and call center engagements — it eliminates the customer frustration of inconsistent answers from associate to associate, screen to screen, and channel to channel. By delivering all answers through one tool, from one knowledge repository of information, the organization can be sure that customers are consistently being given the right answers to their questions regardless of how the customer chooses to engage.

- **Automated escalation rules that know when to pass the conversation on to a live person.** Just as your very best associate would know when to get a manager involved, virtual agents do the same by connecting automatically to click-to-chat and click-to-call services. Virtual agents can be programmed to escalate questions to a live person when the question is about something that is extremely complex, the requested data is too sensitive to access through an automated service, similar questions are asked repeatedly, and even when the customer enters text associated with feelings of frustration. The transition can be transparent and communicated to the customer or completely seamless and without interruption to the conversation. AXA Direct feels that live chat must be connected and completely integrated; the customer should not feel like there is a large switch in communication from the virtual agent to the live chat person. Many organizations we spoke with that have mature virtual agent programs agreed, saying that customers often have a hard time recognizing when a conversation has switched from a virtual agent to a live person.

- **Continuation capabilities that remove the customer frustration of starting from scratch.** Virtual agents today — when fully integrated and connected into back-end customer relationship systems — can record each engagement in real time to a customer database or CRM system. This allows for contact center and store associates to access this information anytime and continue discussions where the virtual agent left off. This saves the customer the frustration of asking and answering questions about the same issue more than once. This is particularly useful when virtual agents are used for seamless escalation to live chat; allowing the associate to quickly assess what a customer is asking about and what has already been provided before engaging the customer through chat.
Financial And Operational Benefits Solidify The Business Case For Virtual Agents

Before making an investment in technology, management often tasks the eBusiness professional with making a business case for the capital commitment by proving that the technology will support strategic initiatives — like servicing the customer’s needs — while providing tangible benefits to the organization’s operation. Fortunately, along with the benefits that customers enjoy, virtual agents offer value propositions for the organization as well. Among them:

- **Virtual agents in the path to purchase can save the sale and the customer’s loyalty.** Today’s virtual agent comes with capabilities that go beyond service: delivering product information, comparison tools, multimedia aids, cross-selling, up-selling, and even marketing/promotional messaging. CIBC recently tested displaying personalized offers — relevant to each customer’s question — directly in the virtual agent tool (see Figure 5). The number of customers who converted using the virtual agent offers was positive and “dramatic” compared to the same offers being made elsewhere on the site. Virtual agent solutions, enabled in this fashion, are emulating true associate engagement; delivering value and encouraging the consumer to feel confident in his or her buying decisions. By placing virtual agents in key touchpoints along the path to purchase (account sign-up, product pages, checkout, etc.), the business case for the virtual agents can be built on revenue as well as delivering the cost-saving opportunities normally associated with these investments.

- **Actionable customer insights guide changes to the online customer experience.** Virtual agent tools today can give the eBusiness professional deep insights into the customer’s online experience. Questions that customers ask along their journeys can be aggregated and measured by the subject of the question, where the question was asked, what device the question was asked on, and how often the answer that was given successfully answered a customer’s question. These analytics give invaluable insights to eBusiness leader by identifying at which points in the customer journey — either mobile or online — the right information is not being made available. This allows for website improvements to be made strategically and efficiently, putting time and effort into improving areas of the online experience that the customer has identified as problematic.

- **Call and chat deflection often make the entire case for return on investment.** Virtual agents have typically been used as a deflection tool for eCommerce service calls, and business cases were often built around delivering contact center cost reductions. The ability to reduce contact center resource costs still holds true, and as customers become more comfortable adopting virtual agents for their needs, the savings continue to grow. Organizations we spoke to for this research reported 20% to 50% reductions in call/chat volume depending on how broadly and deeply the virtual agent tool was deployed. Reducing the number of common, easy-to-answer questions through the contact center has an impact on associate moral as well. Gruper.pl, a popular flash sale website in Poland, mentioned that associate fatigue was reduced by eliminating the most common questions asked by consumers, allowing associates to handle only the more ‘dynamic’ interactions that required a personal touch. In Q2 2014, the company’s virtual agent solution answered around 21,000 questions.
Continuation capabilities produce significant efficiencies for service calls and chats. As mentioned earlier, virtual agent solutions can now be connected to back-end CRM systems. This connection allows associates in stores and contact centers to see the history of each customer’s virtual agent engagement: what the customer has asked about and the answers that have been given. This visibility eliminates the need for associates to start from scratch with every new engagement. While this has clear benefits for the customer, it also allows for these types of calls and chats to be executed with greater efficiency. This enables the associate to skip over the process of asking and answering questions provided during the virtual agent discussion, shortening call time and freeing the associate to move on to other calls.

Figure 5 CIBC Uses Virtual Agents To Deliver Relevant Marketing For Driving Website Conversion
RECOMMENDATIONS

UTILIZE VIRTUAL AGENTS TO CREATE VALUE FOR THE ONLINE CONSUMER

As eCommerce continues to evolve in order to meet the needs of today’s changing customer expectations, eBusiness professionals should recognize the desire for customers to save time through self-service and leverage virtual agent tools to bridge gaps in the online experience. Consequently, they should:

- **Scope a holistic use case for virtual agents.** eBusiness professionals who spoke to us for this report stressed the importance of tapping the experience of the contact center service teams to identify areas of pain for the customer along the online journey. This helps the eBusiness professional identify areas where virtual agents would likely be most effective. This input should also be aggregated, categorized, and used in the business case to highlight the true scope of opportunity for a virtual agent solution.

- **Include key partners in vendor selection.** Because virtual agent technology touches so many parts of the business — eCommerce, contact centers, marketing, IT — it is critical for the eBusiness professional to include these partners in vendor selection. If the tool is to be used by store associates, retail operations should be included as well. Understanding capabilities up front will be important to assure application of the tool meets the needs of all company stakeholders.

- **Start small and build based on learnings.** Most vendors agreed that deploying the virtual agent in a specific area — preferably one where service calls often originate from — is a prudent approach to launching the solution. This allows for tools to deploy quickly using a deep — rather than wide — catalog of answers, providing a higher perceived value by the customer. This should be followed by phased integrations into the customer journey, being managed and measured with each new area of engagement.

- **Deploy the tool broadly.** Organizations and vendors alike stressed the importance of eventually utilizing the virtual agent across screens and channels. This includes internal use of the tool in contact centers and even providing access to the store associates through a terminal, kiosk, or associate tablet. This leverages the true power of the solutions to meet the needs of today’s omnichannel shopper and provides a single voice across the enterprise for communications with the customer.

- **Use insights to improve the online customer experience.** Use the analytics that virtual agents provide to improve the online customer journey. When significant areas of customer inquiries are discovered, consider adding the information to the website itself. The best experience for the online consumer is when they need no help at all. Using virtual agents in this way brings each customer journey and engagement touchpoints closer to that ultimate goal.
### SUPPLEMENTAL MATERIAL

**Companies Interviewed For This Report**

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### ENDNOTES

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« ERIC CHANG, client persona representing eBusiness & Channel Strategy Professionals

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