Why Machine Customers May Be Better Than Human Customers

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Initiatives: CRM Strategy and Customer Experience

Nonhuman machine customers will behave differently than today's human customers. They might even be better for some businesses. Application leaders can use this research to understand the impact of this massive emerging market on business models and customer engagement.

Overview

Impacts

- Machine customers will buy based on data and logic, which will upend traditional sales and marketing practices.

- Machine customers will be more reliable than human customers, resulting in more consistent financial benefits for companies.

Recommendations

Application leaders who support customer experience should:

- Partner with your customer experience (CX) team to develop new machine-centric customer journey maps by analyzing several different human-machine journeys.

- Support selling to machine customers by planning to evolve the applications underlying your traditional sales training, incentives, compensation, sales operations and customer satisfaction systems.

- Prepare for the machine customer transition by ensuring that the artificial intelligence capabilities of your organization can help to spot patterns in customer buying behaviors.

- Ensure that all information relevant to a machine customer is easily accessible and current depending on their stage in the purchase journey by adding machines to your core digital commerce strategy.

Strategic Planning Assumptions
By 2022, 70% of customer interactions will involve emerging technologies such as machine learning applications, chatbots and mobile messaging, up from 15% in 2018.

By 2023, smart personalization engines used to recognize customer intent will enable digital businesses to increase their profits by up to 25%.

By 2030, a billion requests for customer service will be raised automatically by company-owned bots.

Analysis

Introduction

Today, there are more machines with the potential to act as customers than humans on the planet. And, we expect the number of physical smart machines and ambient artificial intelligence, like Virtual Personal Assistants, with this capability to rise steadily over time (see “Machine Customers: The Next Massive Emerging Market”).

Gartner defines a machine customer as a nonhuman economic actor that obtains goods or services in exchange for payment. ¹

As the number and capability of machine customers grows, organizations will be forced to reconsider what a customer is, and how they will engage them for business growth.

According to Gartner research, both CEOs and CIOs agree on the potential of this emerging trend. Of those we surveyed, 76% of CIOs and 61% of CEOs believe that demand from machine customers will become significant in their industry by 2030. On average, these leaders believe over 21% of their revenue will come from machine customers by 2030. That would suggest a market shift twice as deep and twice as fast as the arrival of e-commerce has been. For example, air conditioners would buy filters, cars would buy tires and fuel, “roboadvisers” would buy investment products and ovens would buy cleaning services. Trillions of dollars will be in the hands of nonhuman customers, and it has already started (see “2020 Gartner CEO Survey: The Year of Recession”).

The true impact of machine customers will not be evenly distributed. It will vary by industry, situation and geography. For example, industries involved in routine or repeatable transactions (such as financial trading, energy contracts, cleaning services, printer ink and other consumables) will be impacted first. Industries that have more complex or emotional decision-making processes will take more time to be impacted, if at all. In truth, machine customers are already part of our present and will be part of our future. Even in the aftermath of the global pandemic, organizations will again seek a return to growth. Machine customers may be a viable pathway, especially if humans want to shop at a safe distance.
This specific document provides insight on the potential value of a machine customer and how it can augment the humans that surround it.

**Figure 1: Impacts and Top Recommendations for Application Leaders Supporting CX**

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Top Recommendations</th>
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<tbody>
<tr>
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<td>• Partner with your CX team to develop new machine-centric customer journey maps.</td>
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<td>• Plan to evolve the applications underlying your traditional sales operations and customer satisfaction systems to support selling to machine customers.</td>
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<td>• Invest in your digital commerce platform and applications so all relevant information is easily accessible to a machine customer during their purchase journey.</td>
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<td>Machine customers will be more reliable than human customers, resulting in more consistent financial benefits for companies.</td>
<td>• Add IoT/machines to your core digital commerce strategy. Don’t treat it as a separate channel.</td>
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<td>• Eliminate known inefficiencies in your customer’s purchase behavior so you can offer the right alternatives to machine customers that will not harm your business.</td>
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<td></td>
<td>• Master machine learning and related artificial intelligence technologies that can be applied to the customer buying process.</td>
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Source: Gartner

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**Impacts and Recommendations**

**Machine Customers Will Buy Based on Data and Logic, Which Will Upend Traditional Sales and Marketing Practices**

A large amount of conventional marketing and sales excellence relies on human initiative, emotion and personal contact or relationships. How will this work if you are marketing to or selling to machines? Decades of insight and training in marketing and selling to human customers suddenly becomes irrelevant. Why? Machines don’t have emotions, and they will behave logically and rationally based on rules and programming.

In cases where decision making is largely rational, having a machine as a customer should be a great thing. If emotion plays a vital role in the purchasing decision (in the case of luxury goods or other indulgences) or the project is complex (custom-built IT projects, for example), selling to a machine customer will not be easy. It may not happen at all.

In a machine customer world, marketing and selling will be data-science-oriented (see Table 1).

- Sales will be largely programmatic, and the process will be automated. Salespeople are still needed, but mostly for B2B and large accounts where it becomes essential to understand the
human customers who are ultimately responsible for the purchase. They could also study machine behavior, looking for patterns that could inform their sales strategy. Extensive effort will be invested in developing ways to manage and influence the logic and algorithms that machines use to drive their purchases.

- Marketing will also be programmatic and automated. Marketers will still be needed to understand the needs and behaviors of human customers, but they will have to consider how machines have become integral parts of the customer journey.

- Customer experience will need to be reimagined if a machine customer is the primary purchasing agent for a human owner. For example, an intelligent vending machine, owned and operated by a small company, will not only have the ability to automatically replenish itself. It may also have the ability to choose between different suppliers. It will make decisions based on such data as on-time delivery, user ratings and product availability, not how friendly the route driver is or how creative the products are (see “How Customer Experience Changes When Your Customer Is a Thing”).

Data and analytics capabilities (which are also applicable to human customers) will be critical to success in a machine customer world as algorithms will sell to algorithms. Machines will sell to other machines (see Table 1 for an illustration).

Organizations will also need other capabilities including:

- Advanced analytics and AI to personalize marketing offers, products, services and content (see “Modernize Privacy to Put the Personal Back Into Personalization”).

- Customer journey analytics to target the right set of customers with the right content and offers, based on their individual journey stages (see “Market Guide for Customer Journey Analytics”).

- Advanced analytics and AI to improve B2B sales forecasting by predicting and qualifying sales leads and process automation (see “Add AI to Your B2B Sales Organization Now to Improve Revenue”).

- Disciplined data management yielding high-quality information (“Use Customer Data Management Technologies to Deliver Better Customer Experiences”).

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Table 1: Selling to Humans Versus Selling to Machines

<table>
<thead>
<tr>
<th>Category</th>
<th>Human Customer Emotional Focus Marketing and Selling</th>
<th>Machine Customer Differential Data Marketing</th>
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<tr>
<td>Industrial Cleaning Services</td>
<td>■ Professional image</td>
<td>■ Price</td>
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<td></td>
<td>■ Cleanliness</td>
<td>■ Location/availability</td>
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<td></td>
<td>■ Healthy environment</td>
<td>■ Timeliness</td>
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<td>■ Safety</td>
<td>■ Products employed and their specifications</td>
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<td></td>
<td>■ Price</td>
<td>■ Environmental impact</td>
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<tr>
<td>Auto Parts Replacements</td>
<td>■ Cost</td>
<td>■ On-time performance</td>
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<tr>
<td></td>
<td>■ Range of products</td>
<td>■ User reviews/ratings</td>
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<td></td>
<td>■ Fast delivery</td>
<td>■ Employee efficiency ratings</td>
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<td></td>
<td>■ Quick installation</td>
<td>■ Statements of insurance and liability</td>
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<td>■ Peace of mind</td>
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As approaches to marketing and sales pivot to be more data-oriented, we believe machine customers may be more efficient to engage than human customers:

- Machine customers will be transparent because their motivation is to solve a problem. Their assumptions will be visible in their rules and queries, and in the decisions they make. Humans often keep their intentions hidden during the buying process (also known as having a "poker face").

- Machine customers can process large amounts of data from a large variety of inputs, based on today's experience with AI. They will carefully collect and weigh the data to make an informed decision based on logic and rules.

- Machine customers don't need to be delighted, so resources normally spent on exceeding human customer needs are diverted to making the machine transactions seamless.

- Machines may be more willing to lock into a supplier when the sales and fulfillment process works seamlessly and meets the requirements of the SLA.

- Machines may be more adaptable to changes in human requirements and/or product specifications.

We see several examples where machines are involved in the sales, marketing or procurement process:
Digital marketers are making increasing use of “ad tech,” a collection of automation technologies, like Google Ads or Facebook Ad Manager, to make their media purchases. This “programmatic media” is allowing marketers to reduce their dependence on people-based media buying agencies (see “Master the Basics of AdTech”).

Datapred uses machine learning to recommend optimized purchasing strategies and generate related financial risk reports based on commodity or raw material price predictions and organization-specific internal constraints. Commonly analyzed data types include historical pricing, market data, internal operations data and any available contextual data. Based on this, and combined with internal constraints (such as available storage and capital, and production plans), the solution gives “buy” or “hold” recommendations (see “Cool Vendors in Sourcing and Procurement”).

Pactum is an AI-based contract negotiating system. It evaluates agreement terms and offers an unbiased resolution that can result in either business development or renewed agreements where both parties have been equally evaluated to support a fair deal. Based on historical data, terms are suggested and discussed through an autogenerated chatlike interface to generate a contract that is then ready for review and sign off. ¹

BRIDGEi2i offers an advanced analytics solution for B2B sales organizations that collects, categorizes, aggregates and benchmarks sellers’ engagement with customers on B2B sales cycles. Using AI, it manages both structured and unstructured data, such as voice-based interviews and text within emails. This helps uncover competitive advantages and disadvantages, such as price and pricing construct, operational features, product-related aspects, relationships to be leveraged and more. It also processes external signals from social channels, such as news releases (see “Cool Vendors CRM Sales Technology 2020”).

There are a number of risks when marketing or selling to machines:

- **Context:** Machines do not understand context beyond the data to which they have access. This may result in cheap substitutions for products or services that were never intended, but still within the rules set for them.

- **Trust and fraud:** Untrustworthy organizations or machines may still be able to induce machines to purchase from them.

- **Cost:** It might be cheaper for a human to purchase an item themselves than have a machine do it, especially if there is more emotion involved.

- **Second-class status:** A machine that posts a low user rating may not have the same importance as an unhappy human customer, resulting in missed opportunities to improve the experience.

- **Change resistance:** Human sales and marketing people may resist the introduction of AI-based tools that impact their jobs.
Recommendations:

- Partner with your customer experience team to develop new machine-centric customer journey maps based on several different human-machine journeys.
- Plan to evolve the applications underlying your traditional sales training, incentives, compensation, sales operations and customer satisfaction systems to support selling to machine customers.
- Master machine learning and how it can help spot patterns in customer buying behavior as a precursor for a machine customer taking over.
- Develop your own bot to sell to other bots.
- Invest in your digital commerce platform to ensure that all information relevant to a machine customer is easily accessible and current depending on its stage in the purchase journey.
- Develop or adopt some communication protocols for bots (see “Maverick* Research: Machines Will Talk to Each Other in English”).
- Plan for an arms race, as offensive and defensive algorithms are developed to categorize the strengths and flaws of machine customers’ logic, and to influence the logic for gain or for criminal activity.

Machine Customers Will Be More Reliable Than Human Customers, Resulting in More Consistent Financial Benefits for Companies

Reliability is a cornerstone of how organizations build trust with customers. Does the product or service live up to its promise? How reliable are we as customers? At home, do you forget to buy laundry detergent or bring your car in for a check-up? At work, does a competing demand push a planned purchase lower in the priority queue until you have to request emergency delivery? In truth, the purchase journey for us as human customers may not be as linear as we think. We are all guilty of these lapses at one time or another.

Today, simple rule-based technologies used in auto replenishment of commodities are the first step. Machine learning is the next step. This form of AI learns by emulating human performance to find better answers to the same problem when faced with it repeatedly (see “Hype Cycle for Artificial Intelligence, 2019”). Order replenishment services like Amazon Subscribe and Save, as well as digitally enabled, vendor-managed inventory services, have set the foundation for machine customers. Their purchase journey will be more linear (see Figure 2).
We believe that machine customers will be more reliable and efficient purchasers than humans and potentially reduce price volatility because they:

- Will be more consistent and can process a wide variety of inputs faster and more consistently than humans. You can give a machine a task once and it doesn't forget to repeat it.

- Will minimize waste by ordering exactly what customers need at the right time and be more predictable, having a positive impact on sustainability. This could take the form of smaller sizes or just-in-time replenishment, depending on availability from the provider.

- Are better able to find substitutable products that may be geographically closer with lower shipping costs.

- Will request products and services before they are needed, minimizing downtime, such as in IoT predictive maintenance.

- Can recommend value-added products that might be more expensive in the short run, but cheaper in the long run (such as a service contract or warranty).

We have seen the following early examples of how machines are designed to be more reliable customers:

- Pantri is a U.K.-based platform connecting Internet of Things appliances like dishwashers, washing machines and coffee makers. After connecting your appliance to the company’s app, you choose which consumables you want your appliance to shop for and from which online shop you want to buy. The appliance and Pantri work together in the background to reorder when the consumables run low. Items are delivered straight to your door. 

  \(^2\)
Staples has partnered with Brother to offer the Smart Ordering service for internet-connected Brother printers. When the ink or toner supply runs low, the printer automatically places a Brother Genuine replacement order so that users don’t run out.  

Noodle.ai creates enterprise AI applications for companies that make and/or move things. They helped a large third-party logistics company to save millions of dollars by predicting changes in shipping rates, acquiring capacity, increasing visibility, avoiding the spot market and reducing carrier costs and waste (see “Cool Vendors in Artificial Intelligence Across the Supply Chain”).

Genpact offers GEPSmart, an AI-enabled digital inventory management system, that can manage inventory across the supply chain in real time, monitor stock levels and supplier performance. It can also send out restocking alerts, generate smart replenishment orders based on recommended or preset inventory levels and forecast demand.

More efficient machine customers pose these key risks as marketing and sales attention shifts away from humans in a number of ways:

- **Adjusting demand**: If you are in a market that is prone (or encouraged) to overbuying, such as consumer products or retail merchandise, having machines as customers will disrupt or slow your demand curve until supply evens out.

- **Adjusting supply**: Machines from the supplier side could take new input about possible supply disruptions, initiating a series of what-if scenarios based on many different variables — some of which may not be favorable to the buyer.

- **Finding substitutes**: If your products have substitutes, machines will be better equipped to find them and exploit pricing inefficiencies, thereby impacting your market position — as we see in commodity markets today.

- **Direct relationships**: If you are an intermediary or distributor, machines may find it easier to order products directly from the manufacturer, reducing your available market.

Recommendations:

- Add IoT/machines to your core digital commerce strategy. Don’t treat machines as a separate channel.

- Eliminate known inefficiencies in your customer’s purchase behavior so that you can offer the right alternatives to machine customers that will not harm your business.

- Master machine learning and related artificial intelligence technologies that can be applied to the customer buying process.
Work with your CFO to establish the rules for accounts payable or receivable for orders from machine customers. This may change financial reporting terms in the broader world.

Initially (for the three-to-five-year planning horizon), most machines will use more basic rule-based algorithms and analytics to improve decision making for purchases (for example, automated replenishment based on preset reorder parameters). Eventually, machine customers will be further enhanced to also be able to make more and more complex decisions from a broader set of options. Advances in AI technology (like augmented intelligence, Edge AI, reinforcement learning and quantum computing) will facilitate this (see “Hype Cycle for Artificial Intelligence, 2019”). Machine customers won't fully replace humans, but they will release humans from having to deal with low-value transactions, allowing them to focus on higher-priority initiatives for their organization.

Evidence

1. “Pactum Launches Artificial Intelligence Tool for Commercial Negotiations” (PDF)

2. Pantri

3. “Staples Smart Ordering”

4. “Inventory Management Software,” GEP SMART

Gartner's Machines as Customers Survey was conducted online from 28 June through 12 July 2019 with 50 Gartner CIO Research Circle Members — a Gartner-managed panel of CIOs and other heads of IT. The survey was developed collaboratively by a team of Gartner analysts and was reviewed, tested, and administered by Gartner’s Research Data and Analytics team.

The 2020 Gartner CEO and Senior Business Executive Survey is part of Gartner's research into CEO and C-level business executive concerns, priorities and attitudes toward technology-related issues. For this annual survey, 444 responses were collected in 50 countries during 4Q19 (before COVID-19), from leaders of companies with $50 million or more and 61% with $1 billion or more in annual revenue.

Recommended by the Authors

How to Use AI to Improve the Customer Experience

How to Drive Value From Customer Experience Analytics

IoT-Based Thing Commerce Requires a Differentiated Customer Experience

Accelerate Your Machine Learning and Artificial Intelligence Journey Using These DevOps Best Practices

Recommended For You
Redesign Governance for Agile Teams

Agile Readiness Scorecard

Toolkit: Job Description for the Sales and Operations Planning Process Owner

4 Takeaways From CHRO Conversations on Leadership to Drive Growth