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Proven Guidance for C-Suite Action

Machine Customers Will Decide Who Gets Their Trillion-Dollar Business

by Don Scheibenreif and Mark Raskino

Machine customers represent the biggest new growth opportunity of the decade, but they don't make decisions the way humans do. As more increasingly smart devices are connected to the internet and more people use intelligent virtual assistants such as Siri and Cortana, the commercial possibilities are staggering. Trillions of dollars will progressively slide into the hands — or should we say processors — of nonhumans.

When this market matures, an autonomous car will know when it's got a flat tire, find the nearest repair shop, book a service and send the store all the relevant details about itself. When you realize you won't get home in time to make dinner for your family, the car will ask if you want to place an order from your preferred restaurant and send a text to your family saying you will be late. This is the promise of machine buyers that operate in connected digital marketplaces. They no longer provide only process support or channel technology; for the first time in history, companies will manufacture customers.

In fact, the machine customer era has already dawned. Today, there are more machines with the potential to act as buyers than humans on the planet. There are over 7 billion phones, tablets, PCs, smartwatches, smart speakers, and connected personal and commercial printers.[1,2] Each of these has a steadily improving ability to analyze information and make decisions.

> A machine customer is a nonhuman economic actor that obtains goods or services in exchange for payment.

By 2030, executives believe at least 25% of all consumer purchases and business replenishment requests will be substantially delegated to machines (see Figure 1).

That would suggest a market shift roughly twice as large and twice as fast as the historical arrival of e-commerce.
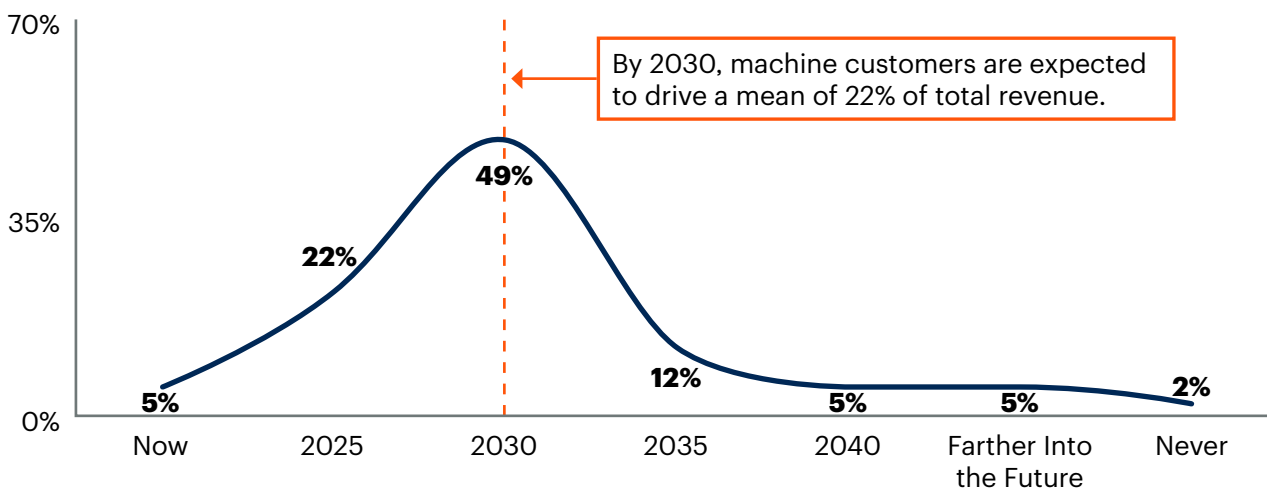
Today, services such as HP Instant Ink, Amazon Dash Replenishment and Tesla's automobiles can automatically perform limited functions as a "co-customer" on the owner's behalf. People set the rules, and the machine executes them within a specific and prescribed ecosystem. These machines are therefore "bound customers," and they represent the first in a three-phase evolution (see Figure 2).

In the second, emerging phase, people still set the rules for machines as "adaptable customers," although AI technology can choose and act on behalf of a human with minimal intervention for select tasks. Examples include robotrading, the Staples Easy System and financial "roboadvisors" such as Betterment, Free2Spend and Wealthfront. Autonomous vehicle systems from Google, Tesla and Toyota also fit here.

Figure 1. When CEOs Expect Machine Customers to Become Significant
Percentage of CEOs Selecting Each Time Period

By 2030, machine customers are expected to drive a mean of 22% of total revenue.

Now	2025	2030	2035	2040	Farther Into the Future	Never
5%	22%	49%	12%	5%	5%	2%

n = 419 total respondents answering, excluding don't know
Q: "When do you think a machine customer's demand trend will become significant in your industry?"
Source: 2020 Gartner CEO and Senior Business Executive Survey

Figure 2. Three Phases of Machine Customers' Evolution

1 Bound Customer
Purchases specific items as defined by rules

2 Adaptable Customer
Makes optimized selections among competing products based on rules

3 Autonomous Customer
Infers customer needs based on rules, context and preferences; also has its own needs

Clearly Defined Choices	Competing Choices	Inferred Needs
Human leads, thing executes	Shared lead, thing executes	Thing leads and executes
Today	2026	2036

Source: Gartner

Machine Customers Will Decide

In the final phase, these new economic actors are "autonomous customers." They have enough intelligence to act independently on behalf of humans with a high degree of discretion and own most of the process steps associated with a transaction. This is not a sentient machine, but it will have its own needs to meet as well, such as maintenance and software updates, which it will address on its own. Aidyia, an AI-enabled automated hedge fund that can operate with complete autonomy from human intervention, according to company engineers, is an example of an autonomous machine customer.[3] Aidyia reads news, analyzes large amounts of economic data, identifies obscure patterns, makes predictions about market trends and makes investments accordingly.

What the machine customers from each phase have in common is that they will make decisions differently from humans in three ways. These differences have significant commercial and operational impacts:

- **They are transparent — to a point.** Machines are logic- and rule-based. Their motivation is to solve a problem. Their assumptions will be visible in their rules and queries as well as the decisions they make. Humans often keep their intentions hidden during the buying process. Machines can't have a "poker face" in the traditional sense. They will focus on solving a problem, but how they do it may not be clear, especially when complicated algorithms are involved. In these instances, the opacity surrounding how the machine makes decisions can be an issue and has caught the attention of regulators that are enforcing accountability measures.[4]

- **They can process large amounts of information to make a decision.** With that ability, they will carefully collect and weigh the data to make an informed choice without being influenced by emotion.

- **They don't need to be delighted.** Machines focus on completing tasks efficiently. You can't wine and dine a machine to win its loyalty, and you don't need to. It's more likely to commit to a supplier if the sales and fulfillment process works smoothly and simply meets the requirements of the service-level agreement.
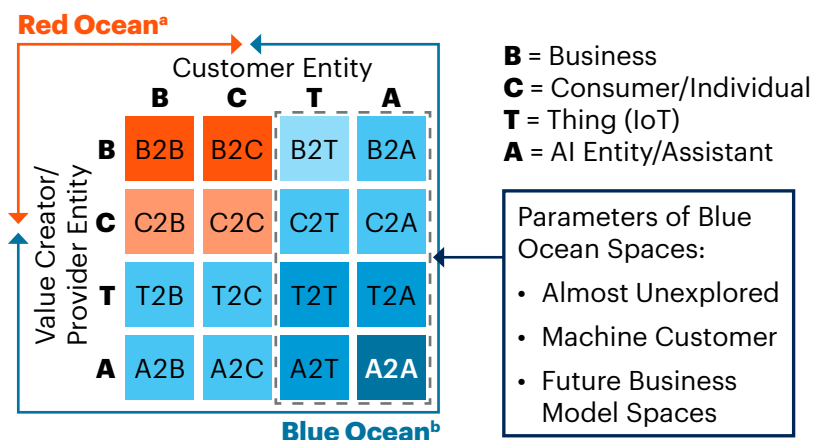
Companies playing to win must decide on a corporate strategy and a business model that fits into this new world. As part of this evolution, the sales, marketing, and data and analytics practices will transform how they work; in some instances, people will take a back seat to sophisticated gadgets. Business leaders need to understand and prepare for these overhauls.

Evolve Your Corporate Strategy and Business Model to Account for Machine Customers

New combinations of value exchanges between businesses, consumers, machine customers and AI-driven algorithms (the first is physical and the last is virtual) will give rise to many new kinds of business model categories and new ways to make money (see Figure 3).

Organizations should evaluate whether machine customers and AI-algorithms represent growth, stagnation or destruction for their markets.

Figure 3. Business Model Space

Red Ocean[a]

Customer Entity

	B	**C**	**T**	**A**
B	B2B	B2C	B2T	B2A
C	C2B	C2C	C2T	C2A
T	T2B	T2C	T2T	T2A
A	A2B	A2C	A2T	A2A

Value Creator/Provider Entity

Blue Ocean[b]

B = Business
C = Consumer/Individual
T = Thing (IoT)
A = AI Entity/Assistant

Parameters of Blue Ocean Spaces:
- Almost Unexplored
- Machine Customer
- Future Business Model Spaces

[a] Red oceans are the industries in existence today — the known market space.

[b] Blue oceans are all the industries not in existence today — the unknown market space.

Source: Gartner

First, enumerate and explore what kinds of bots could become buyers for your products and services. Think of market-growth additions, not just substitutions. Also, consider whether they will liaise between you and your human shoppers, like financial roboadvisors do. If so, they might remove today's intermediaries or become the new ones of tomorrow.

Just as important, consider these strategic questions about what type of player you want to be in a machine customer world:

- Will you manufacture them?
- Will you create a platform to serve them?
- Will you join a marketplace to sell to them?
- What capabilities will you need in any case?

Leading global organizations in the manufacturing, financial services and consumer products industries tell us they are preparing for this new market by becoming exceptional at digital commerce and getting their data in order to join digital ecosystems. These businesses realize that automated buyers will transact through digital platforms at greater speeds, in greater numbers and with more specific information needs than their human predecessors. One company hopes to become a leading trust broker with machine customers to verify their identities and facilitate buying from and selling to them. Another is developing its own bot framework to converse with virtual assistants, such as Siri, to negotiate prices for its goods.

Prepare for How Machine Customers Will Change Your Operations

Machine customers will also affect the way your business operates, especially customer-oriented functions.

Sales Shifts From People to Programming

Management and influence of the logic and algorithms machines use to make their purchases will increasingly drive sales strategy. However, people will still sell to B2B, large accounts and other clients where it becomes essential to understand the human responsible for the purchase.

Moving forward, salespeople should study machine behavior to identify patterns that could inform their commercial tactics. For example, a sales organization might have its own bots to sell to machines. Sales executives should partner with their customer experience teams to develop new machine-centric customer journey maps based on different human-machine journeys.

They should also plan to evolve the applications underlying their traditional training, incentives, compensation, operations and customer satisfaction systems to support selling to machines.

Marketing Evolves to Delivering Automated, Data-Driven Experiences

Marketers should focus on what information machines need and make it easy to discover. For example, if a bot wants to purchase toilet paper on behalf of a human, its data needs may go beyond price and availability to include factors such as environmental impact, hard water performance and cost per foot. To make all that information easily accessible and current, invest in a better digital commerce platform.

Marketers will still have to navigate the needs and behaviors of humans, but they will also have to consider how machines fit into the customer journey. To prepare for the future, marketers should also master machine learning to help spot patterns in machine buying behavior.

Data and Analytics Must Provide High-Quality Intelligence to Support Machine Interaction

Providing high-quality intelligence to power interactions with machine customers will be critical to success when nonhuman actors drive sales. The advanced analytics and AI of today that personalize marketing offers, products, services and content for people will need to adapt for machines. For example, improving B2B sales forecasting (a necessary tool for predicting and qualifying leads) and process automation will depend on disciplined data management yielding high-quality information. Data and analytics leaders will also need to improve their capabilities to support machine-driven sales.

[1] 2019 Revision of World Population Prospects, United Nations Department of Economic and Social Affairs Population Dynamics.

[2] 3Q19 Gartner Device Forecasts.

[3] The Rise of the Artificially Intelligent Hedge Fund, Wired.

[4] Are There Restrictions on the Use of Automated Decision-Making? European Commission Reform of EU Data Protection Rules.

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