Amazon's 1st high-tech grocery store opens to the public

Shoppers scan their smartphone at a turnstile, pick out the items they want and leave

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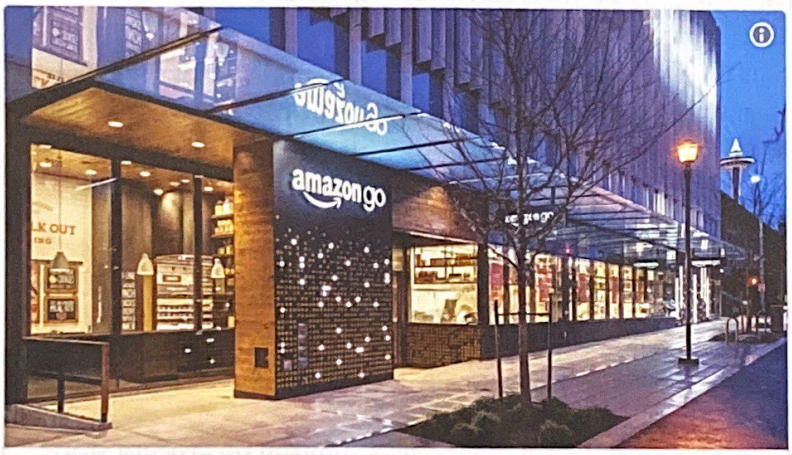
Amazon.com Inc will open its checkout-free grocery store to the public on Monday after more than a year of testing, the company said, moving forward on an experiment that could dramatically alter brick-and-mortar retail.

The Seattle store, known as Amazon Go, relies on cameras and sensors to track what shoppers remove from the shelves, and what they put back. Cash registers and checkout lines become superfluous — customers are billed after leaving the store using credit cards on file.



Amazon.com
@amazon

#AmazonGo opens on Monday, January 22 in Seattle. Get the app to enter the store. See you soon!
amzn.to/2DqGi9m

11:55 AM - Jan 21, 2018

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For grocers, the store's opening heralds another potential disruption at the hands of the world's largest online retailer, which **bought high-end supermarket chain Whole Foods Market last year for $13.7 billion US**. Long lines can deter shoppers, so a company that figures out how to eradicate wait times will have an advantage.

Amazon did not discuss if or when it will add more Go locations, and reiterated it has no plans to add the technology to the larger and more complex Whole Foods stores.

The convenience-style store **opened to Amazon employees on Dec. 5, 2016 in a test phase**. At the time, Amazon said it expected members of the public could begin using the store in early 2017.

- **Amazon's move to brick-and-mortar could cause a wave of 'Offline 2.0'**

But there have been challenges, according to a person familiar with the matter. These included correctly identifying shoppers with similar body types, the person said. When children were brought into the store during the trial, they caused havoc by moving items to incorrect places, the person added.

Gianna Puerini, vice president of Amazon Go, said in an interview that the store worked very well throughout the test phase, thanks to four years of prior legwork.

"This technology didn't exist," Puerini said, walking through the Seattle store. "It was really advancing the state of the art of computer vision and machine learning."

"If you look at these products, you can see they're super similar," she said of two near-identical Starbucks drinks next to each other on a shelf. One had light cream and the other had regular, and Amazon's technology learned to tell them apart.

How it works

The 1800-square-foot (167-square-metre) store is located in an Amazon office building. To start shopping, customers must scan an Amazon Go smartphone app and pass through a gated turnstile.

Ready-to-eat lunch items greet shoppers when they enter.

Deeper into the store, shoppers can find a small selection of grocery items, including meats and meal kits. An Amazon employee checks IDs in the store's wine and beer section.

Sleek black cameras monitoring from above and weight sensors in the shelves help Amazon determine exactly what people take.

If someone passes back through the gates with an item, his or her associated account is charged. If a shopper puts an item back on the shelf, Amazon removes it from his or her virtual cart.

- **Retailers embrace self-service technology, at the expense of jobs**

Much of the store will feel familiar to shoppers, aside from the check-out process. Amazon, famous for dynamic pricing online, has printed price tags just as traditional brick-and-mortar stores do.

Amazon first conceived of the store years ago and **applied for a patent on it in early 2015**. At the time, many conventional industry players pooh-poohed the idea, saying it would never work and would lead to rampant errors in terms of neglecting to scan an item, or charging a customer for something they didn't actually intend to buy

Answer the following questions related to this article:

1. The Amazon Go store is an excellent example of using business process improvement as a competitive strategy. *(Approx. 25-30 minutes)*

    1.1. Using a business process diagram (see lecture 2, slide 19 for an example), illustrate the business process involved in checking out from a traditional grocery store. Then create a business process diagram for the automated process used at Amazon Go. In less than 150 words, describe how automating the checkout process results in greater efficiency and, therefore, greater customer satisfaction. *[15 points]*

    1.2. Identify two other business processes that will be made more efficient by the Amazon Go concept relative to traditional grocery stores. For each of the business processes you identify, describe in 2-3 sentences how the Amazon Go concept improves the process. *[10 points]*

2. The Amazon Go store very likely uses an ERP system to maximize the value to Amazon of the data acquired in the store. *(Approx. 15 minutes)*

    2.1. Draw a diagram illustrating such an ERP system. Annotate the diagram with the type of data from each business function using the ERP (e.g, Customer transactions, Supplier transactions, employee information, etc.) that can be collected from the Amazon Go store for each of the business functions that use that ERP system. *[10 points]*

    2.2. Identify two ways in which the ERP data from 2.1 could be used to build business intelligence about Amazon Go customers. *[5 points]*

3. The article refers to the Amazon acquisition of Whole Foods Markets in 2017 for $13.7B. While Amazon has not made a statement about whether the company will deploy the Amazon Go technology in Whole Foods Markets, assume that they will do so. Now imagine that you are on the team at Amazon that is tasked with justifying the Whole Foods Markets acquisition to the CEO of Amazon, Jeff Bezos.

To illustrate the competitive landscape of the retail grocery industry in North America you recommend that the team should apply the Porter 5 forces model. The team tasks you to prepare the model and present your analysis at the next team meeting. *(Approx. 60 -70 minutes)*

3.1. Create the Porter 5 forces diagram for the retail grocery industry in North America. Identify at least the 2 largest market share competitors by name and identify their percentage market share. Where available, supply a few of the names of companies that are involved in the other Porter forces. (This will require you to do some research to identify intra-industry competitors, new entrants, substitutes and suppliers). *[25 points]*

3.2. For each of the 5 forces, analyze the strength of the force and describe in 2-3 sentences why you reached your conclusions on the strength of the force. Score the strength of each of the 5 forces on a scale of 0-10 where 10 means that the force is dominant and 0 means that the force is irrelevant. *[15 points]*

3.3. Given this competitive landscape, and knowing that the Amazon Go technology is available, what primary strategy would you recommend to the team? Justify your recommendation in 2-3 sentences. *[5 points]*

3.4. What supporting strategy(ies) would you recommend to the team? Justify your recommendations in 2-3 sentences. *[5 points]*

3.5. Identify three synergies that exist between Amazon and Whole Foods that can provide added justification for making the acquisition. Provide a 2-3 sentence description of each of these synergies. *[10 points]*

4. Optional – Extra Points.
The article refers to the difficulties the Amazon Go system had in keeping track of customers that had similar body types. *(Approx. 20 minutes)*

4.1. In less than 150 words, describe why persons with similar body type presented a problem to the Amazon Go system. *[5 points]*

4.2. Can you think of a better way to track individuals in the store? Describe your idea in 150 words or less. *[5 points]*