

Walmart takes on Amazon

An exploration into the large scale trends and forces that will determine who wins the battle for the future of retail.

Part 1- Walmart is
really, really big.

Part 2- amazon is
**way ahead and winning
faster by the day.**

Part 3- How Walmart can
**leverage their size to beat
amazon**

Part 1

How Big is Walmart?

Walmart is very big. We all know that to some degree. I will explain why that size is important in part 3.

For right now though it is important to get a grasp on just how big Walmart really is. The massive scale at which Walmart operates is truly a marvel of the modern world.

It is often hard for us to wrap our heads around very large numbers.

With the following visuals I hope to provide some interesting clarity into the enormous scale at which Walmart operates.

While the following charts and graphs may not be up to the minute accurate, they communicate effectively the broad scale of which I am trying to present

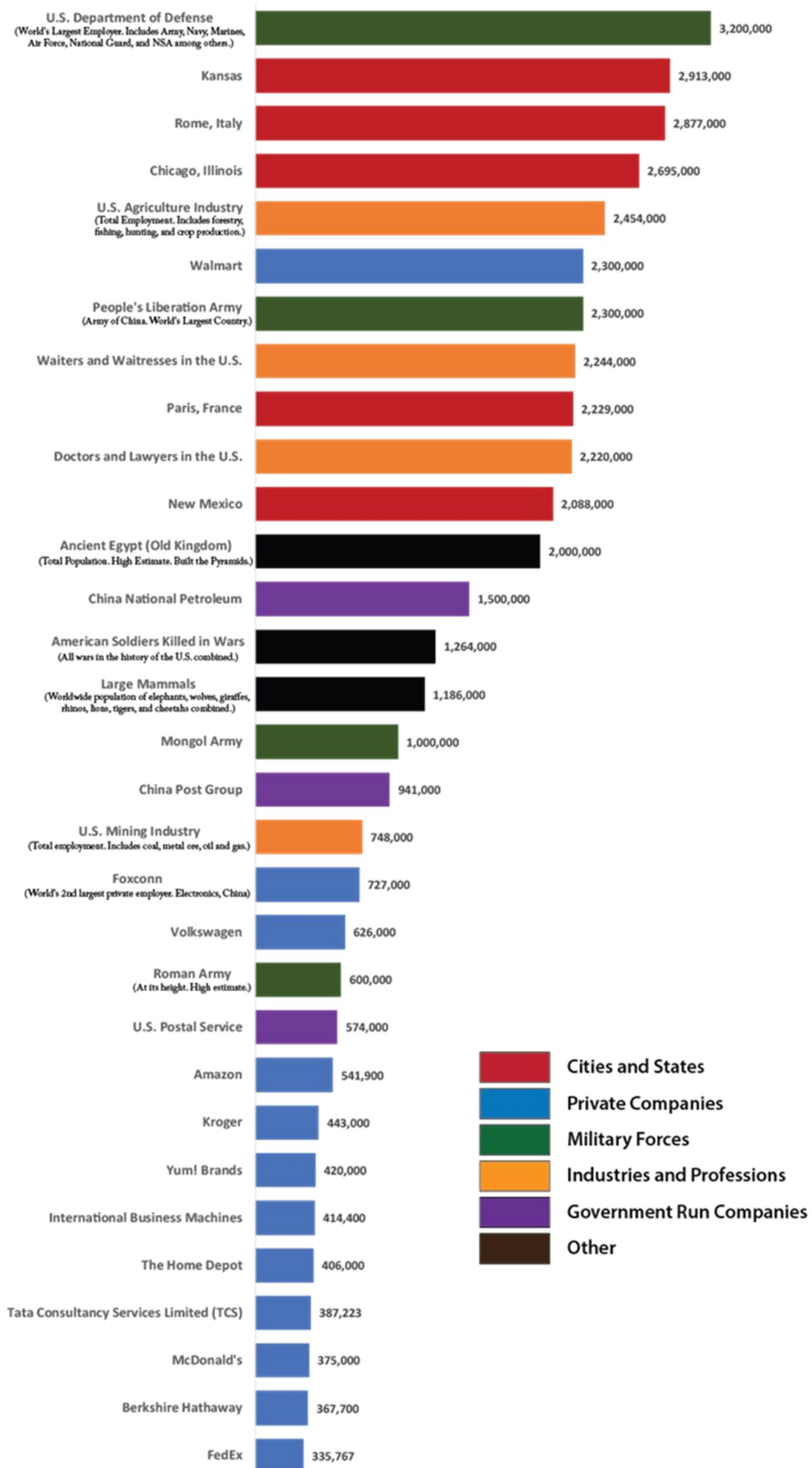
Employees



2nd Place Amazon added ~300,000 jobs last year. Prior to that the difference between Walmart and everybody else was even larger.

Walmart looked out of place on the last graph so I increased the scope. Walmart looks more at home on the next page surrounded by other really large groups of people. Notice the other largest US employers way down at the bottom.

Large Groups of People



THE LARGEST EMPLOYERS IN EVERY STATE

■ Retailers ■ Hospitals ■ Public universities ■ Other



AL	Walmart
AK	Providence Health & Services
AZ	Walmart
AR	Walmart
CA	University of California
CO	Denver International Airport
CT	Yale New Haven Health System
DE	Christiana Care Health System
FL	Walmart
GA	Walmart
HI	University of Hawaii
ID	St. Luke's Health System
IL	Walmart
IN	Walmart
IA	University of Iowa
KS	Walmart
KY	Walmart

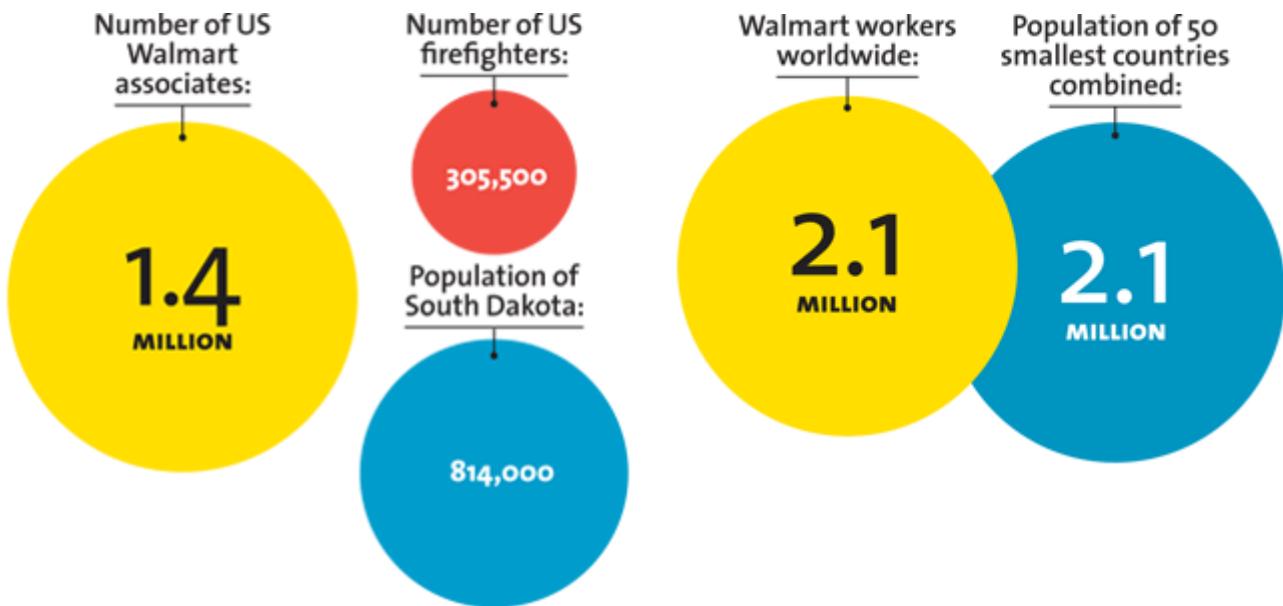
LA	Walmart
ME	Hannaford Supermarkets
MD	Johns Hopkins Institutions
MA	Partners Healthcare
MI	University of Michigan
MN	Mayo Clinic
MS	Walmart
MO	Walmart
MT	Walmart
NE	University of Nebraska
NV	MGM Resorts International
NH	Walmart
NJ	Wakefern Food Corporation
NM	University of New Mexico
NY	State University of New York System
NC	University of North Carolina System
ND	Sanford Health

OH	Walmart
OK	Walmart
OR	Providence Health & Services
PA	University of Pittsburgh Medical Center
RI	Lifespan System of Hospitals
SC	Walmart
SD	Avera Health
TN	Walmart
TX	Walmart
UT	Intermountain Healthcare
VT	The University of Vermont Medical Center
VA	Walmart
WA	Boeing
WV	Walmart
WI	University of Wisconsin
WY	Walmart

SOURCE: 24/7 Wall St.

BUSINESS INSIDER

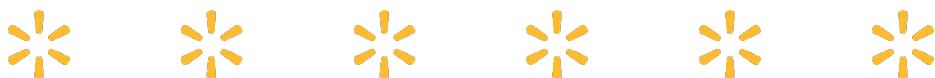
Walmart is the largest employer in 22 states. No other company has more than one state



Walmart employs more people than the next 12 largest traditional retailers combined.



If Walmart was a U.S. city, it would rank fifth. Only behind New York, Los Angeles, Chicago, and Houston.



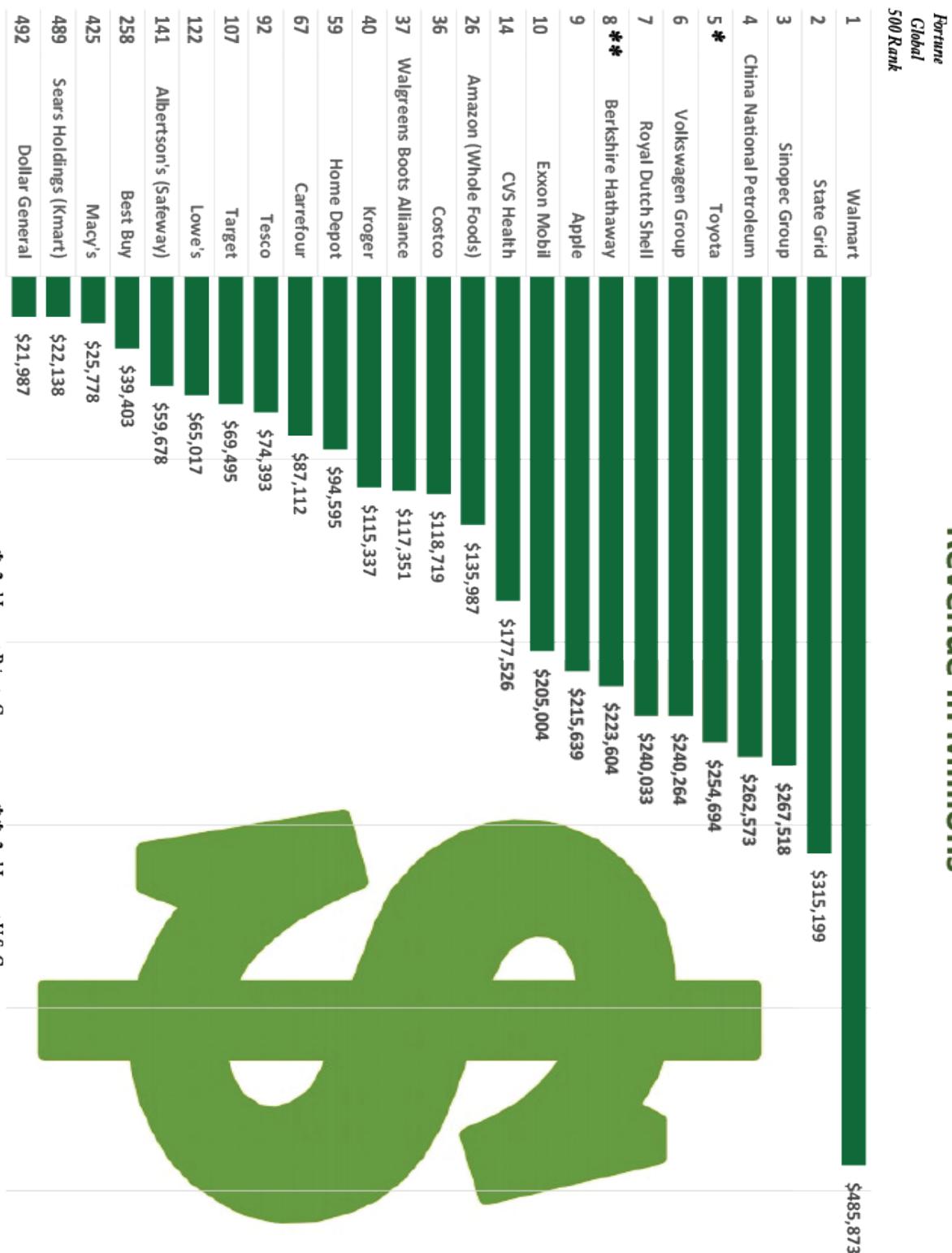
If Walmart was a state it would rank 36th between Kansas and New Mexico.



If Walmart was a country it would rank 144th out of 233. Ahead of countries like Latvia, Slovenia, Fiji, and Iceland.

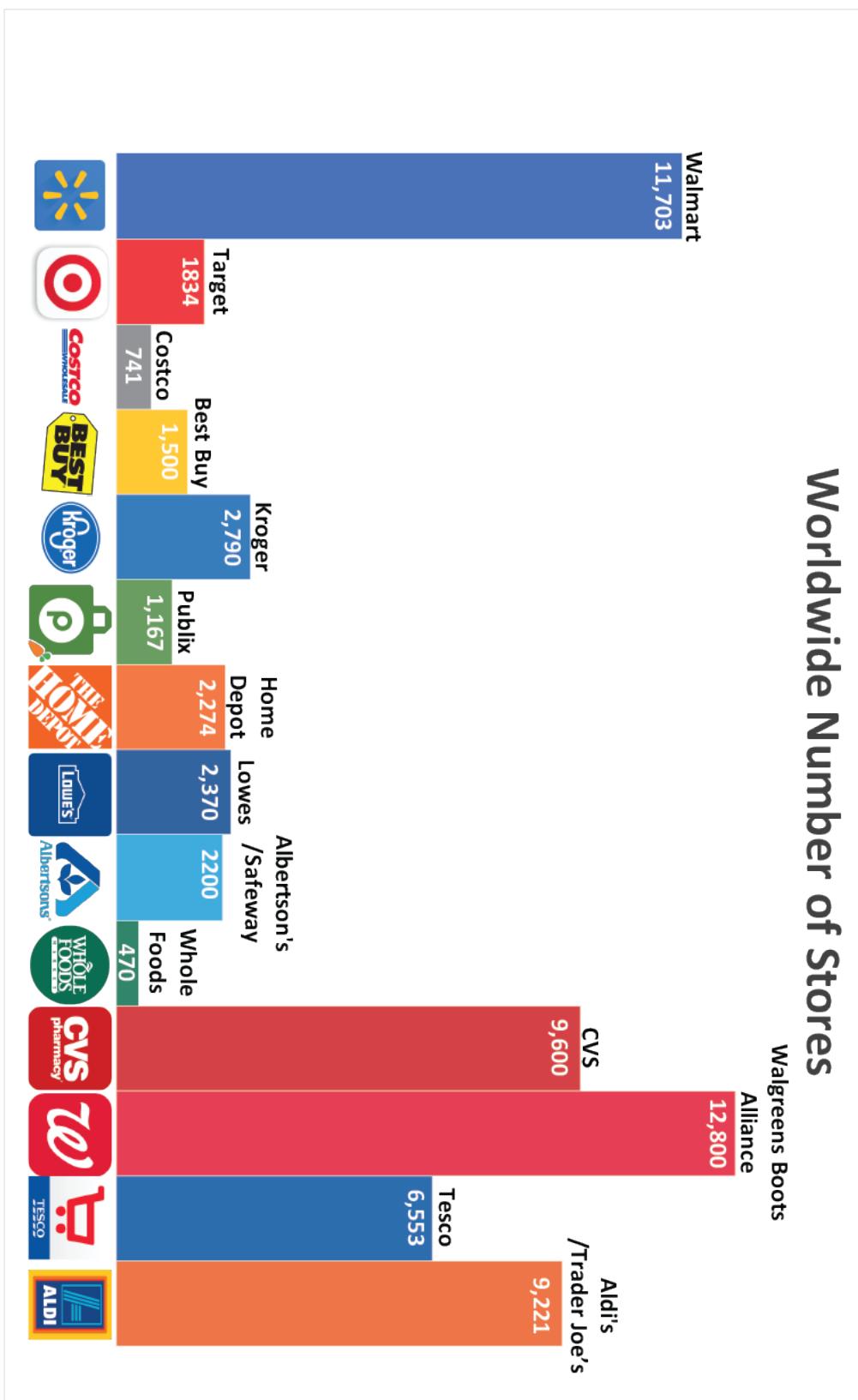
Revenue

Revenues of the 10 largest companies in the world along with some of Walmart's largest competitors.



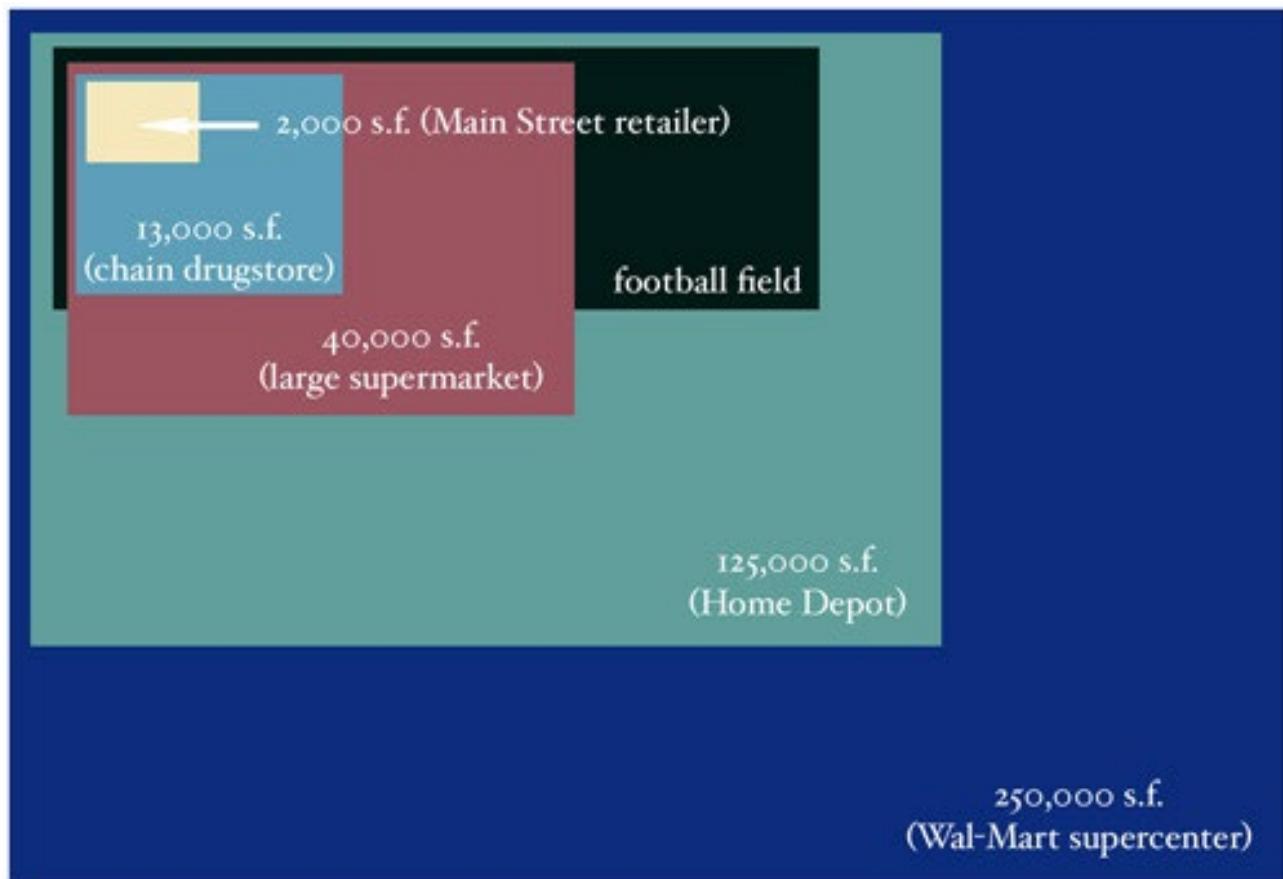
Store Locations

Number of locations for Walmart and their main competitors.



Retail Square Feet

The last graph seems slightly less impressive than the one's before it since a few other retailers having similar store counts compared to Walmart. Although, once you consider the average size of a Walmart store in comparison to those other retailers, the store count takes on a whole new meaning.



Unit Count and Square Footage

Third Quarter, Fiscal Year 2018

As of October 31, 2017

Format	Opened	Closed	Relocation/ Expansion/ Conversion/ Corrections*	Ending Square Footage	Total Locations
Walmart Discount Stores	—	(1)	—	42,089,076	402
Walmart Supercenters	2	—	—	630,879,887	3,552
Neighborhood Markets	2	—	—	29,929,444	718
Neighborhood Markets	2	—	—	29,447,845	701
Amigo	—	—	—	481,599	17
Small Formats	8	—	—	181,964	80
E-commerce Acquisition Stores	8	—	—	114,057	58
Convenience Stores	—	—	—	10,192	3
Other Small Formats	—	—	—	57,715	19
Walmart U.S.	12	(1)	—	703,080,371	4,752
Sam's Club	1	(2)	—	88,414,656	660
Total U.S.	13	(3)		791,495,027	5,412
International	48	(7)	—	368,974,297	6,291
Total Walmart	61	(10)	—	1,160,469,324	11,703



Two things to notice here. First, is the **1.16 billion** total square feet. Next, is the total square feet in the U.S. (Yellow Arrow). We're going to have some fun with this second number on the next page.

How many people can fit inside Walmart?

In an excerpt from his popular blog Tim Urban determined how many people could fit within a square meter.



7.3 Billion People, One Building

March 3, 2015 By Tim Urban

How Many People Can Fit in a Square Meter Comfortably-ish?

The quest for this answer brought me to the most obscure corners of the internet, where I came across two key groups of bored people. The first one shows nine Canadian journalists choosing to spend time positioning themselves together into one square meter. Doing so gives each of them an average of one 33cm x 33cm (13" x 13") square to stand in. You can see in the video that while it's definitely tight, no one is forced to molest anyone else and everyone can breathe.

But that's using all adults. The world's median age is 29, and the youngest billion humans tend to be quite little. The second case brings us across the world to a random New Zealand elementary school, where a teacher has decided to get cute and cram as many kids as she can into a square meter. She maxes out at a shocking 22 kids.

Putting these two performances together, it seems reasonable to say that 10 humans per square meter is a safe estimate for what we can use as our human-bunching metric. Nine adults in the square managed fine and the addition of children into the mix should be able to easily increase that total by one to 10 (yes, some adults are much larger than average, but others are tiny—the world's average adult is a not-that-large 62kg (137lb) person).

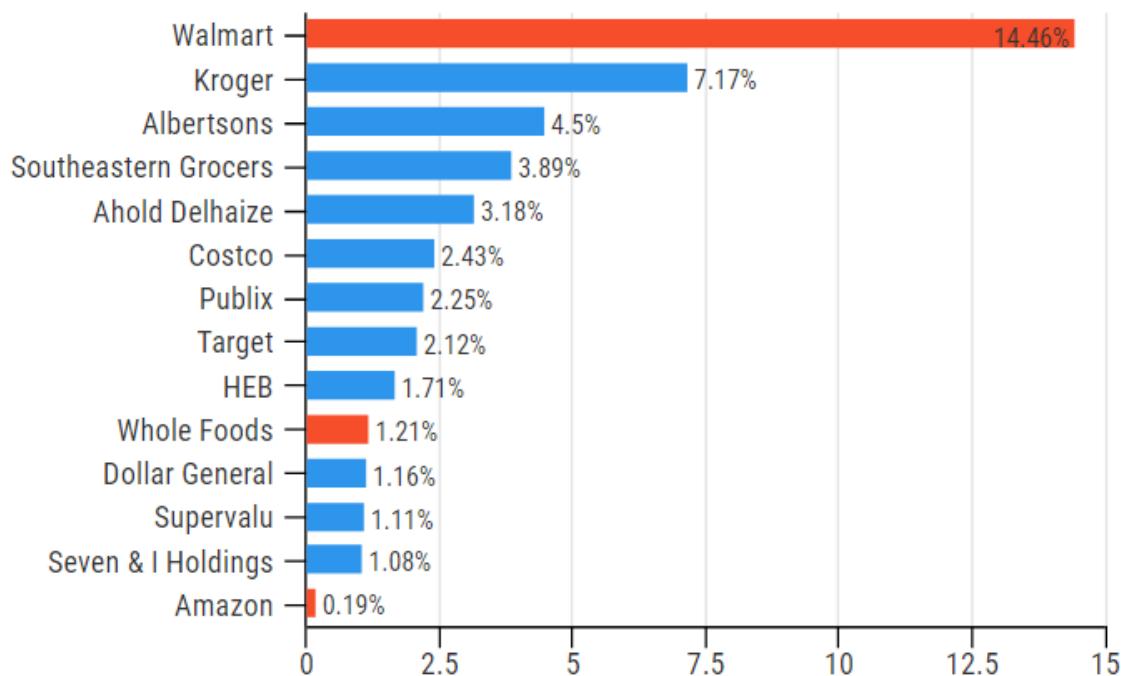
Walmart's 791,495,027 retail square feet within the U.S. could hold 735,322,941 people. More than twice the population of the United States.

*Read the rest of this post or any of Tim's other interesting posts at waitbutwhy.com

Market Share

Grocery is probably the most important retail market and Walmart is dominating here as well.

U.S. Grocery Market Share in 2016



Source: GlobalData Retail estimates and analysis

Conclusion

Hopefully you now have a better grasp of just how big Walmart is.

Also remember that the above examples are just a few of the ways in which Walmart operates at an enormous scale. There are hundreds of more possible examples where the size of Walmart is extraordinary.

Finally, not only is Walmart big now, but they have been big for a long time. This adds another level in the story of Walmart's large numbers. Think about the total number of people that have worked for Walmart since they opened in 1962. Total revenue since 1962? Total number of customers? Total items sold?

The numbers just get more and more overwhelming.

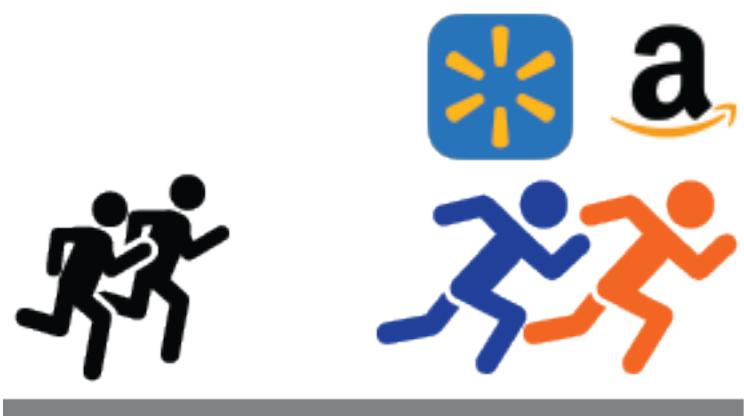
Part 2

Amazon is winning. How? Why?

While Walmart may be really big, Amazon is the company currently winning the retail battle.

In part 2, I will explain how Amazon is winning right now, why they will start winning even faster in the future, and why they will probably win the retail battle with Walmart altogether.

**Amazon
Is
Winning**



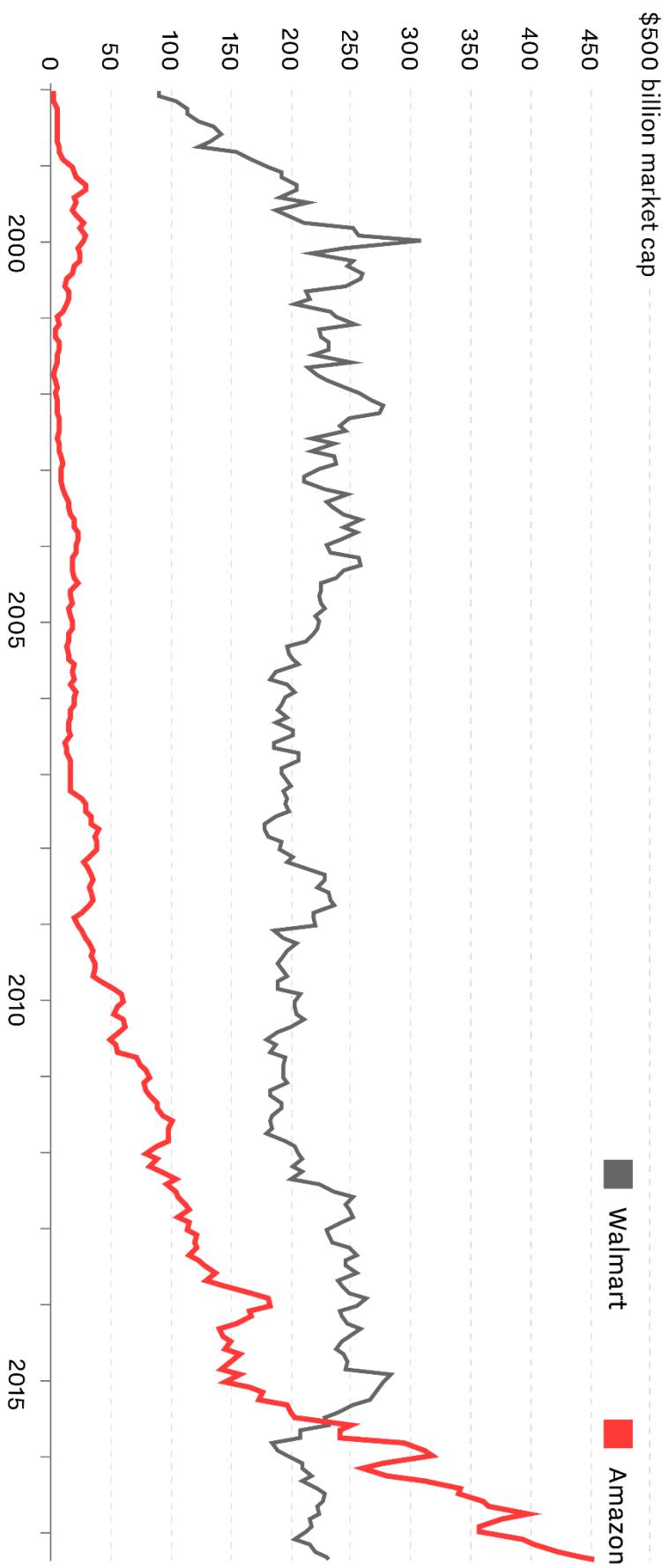
Market Cap

The most commonly used means by which companies are valued (market capitalization) shows that Amazon is not only more valuable than Walmart but more valuable than the major traditional retailers combined.

Market value as of December 30, 2016



Amazon became more valuable than Walmart in 2015



This next and slightly newer graph shows the point where Amazon flew past Walmart.

Source: FactSet

An even newer graph showing the race to be the first trillion-dollar company has Amazon firmly in contention with Walmart barely making the list.

The Biggest U.S. Companies

Apple is certainly ahead in the race to a trillion among American firms.



Based on the S&P 500 Index as of 11/8/17

SOURCE: Bloomberg
FORTUNE

In the couple of months since this last graph was published, Walmart's value has grown to **313 billion dollars**.
(As of Feb. 2nd, 2018) \$105 per share.

In the same time Amazon has rocketed up to a value of **705 billion dollars**. More than twice the value of Walmart.
(As of Feb. 2nd, 2018) \$1467 per share.

Number of Products Available

The second sign of Amazon's dominance is their enormous lead in the quantity of available products for sale, which along with cost and convenience is one of the main areas on which the retail battle is fought.



If Walmart is successful in adding a million items per month and Amazon for some reason stops adding items altogether, it would take over 29 years for Walmart to catch up.

E-commerce Sales

Amazon also dominates in the most important segment of the retail industry, e-commerce.

Top 10 U.S. Retailers (Ranked by Online Sales)

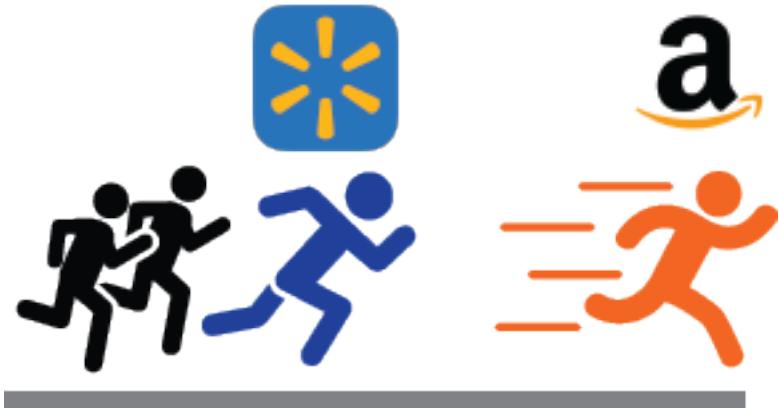
Company	E-commerce Sales (in \$US millions)	E-commerce Sales Growth	E-commerce % of Revenue
1. Amazon Inc.	\$94,665.0	19.4%	69.6%
2. Apple	\$16,800.0	40.0%	7.7%
3. Wal-Mart Stores Inc.	\$14,429.8	8.9%	3.0%
4. Macy's Inc.	\$4,621.5	12.5%	17.9%
5. Costco Wholesale	\$4,226.6	11.4%	3.5%
6. QVC	\$4,047.0	5.1%	46.6%
7. Nordstrom	\$3,219.0	13.7%	21.8%
8. Target Corp.	\$3,082.1	22.9%	4.4%
9. Kohl's Corp,	\$2,870.0	13.8%	15.4%
10. Gap Inc.	\$2,530.6	0.0%	16.3%

Source: eMarketer via wwd.com

E-Commerce Sales of Amazon: 94.7 billion

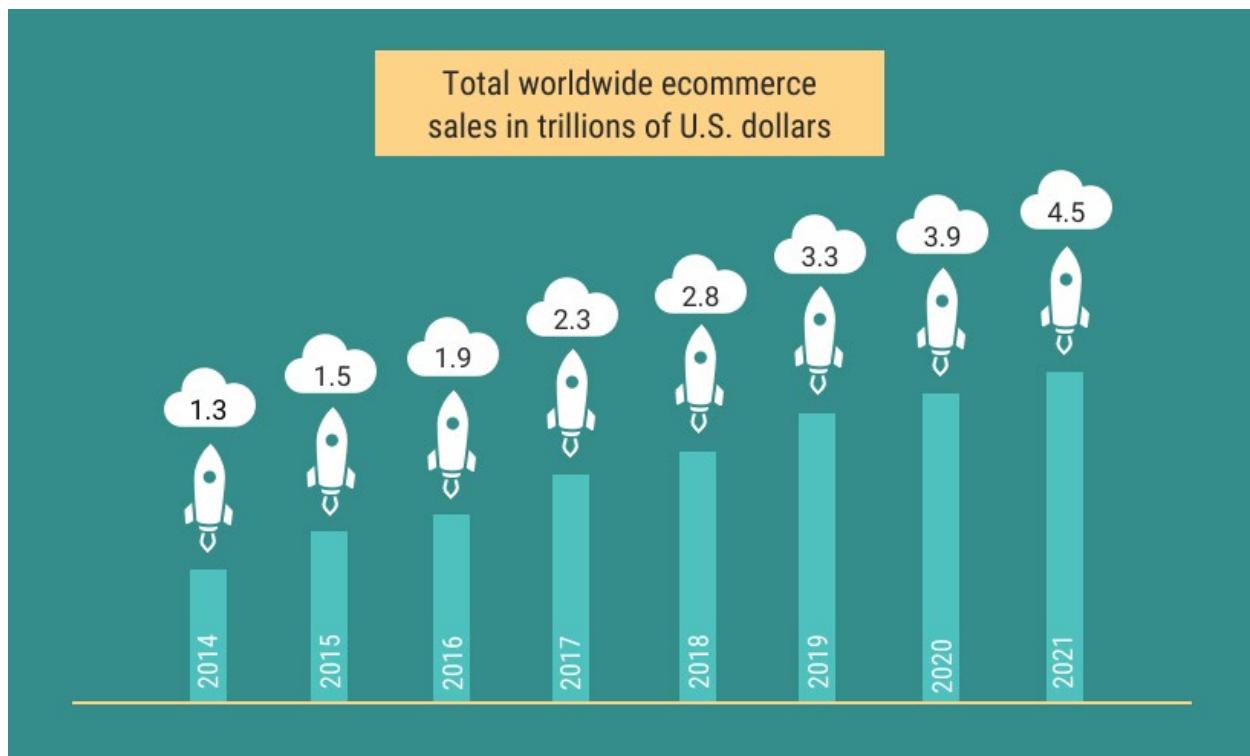
E-Commerce Sales of Companies 2 to 50 combined: 88.3 billion

Amazon Is Winning Faster



Not only is Amazon currently leading but there is good reason to believe they will be able to increase their lead due to broader trends in retail and world in general.

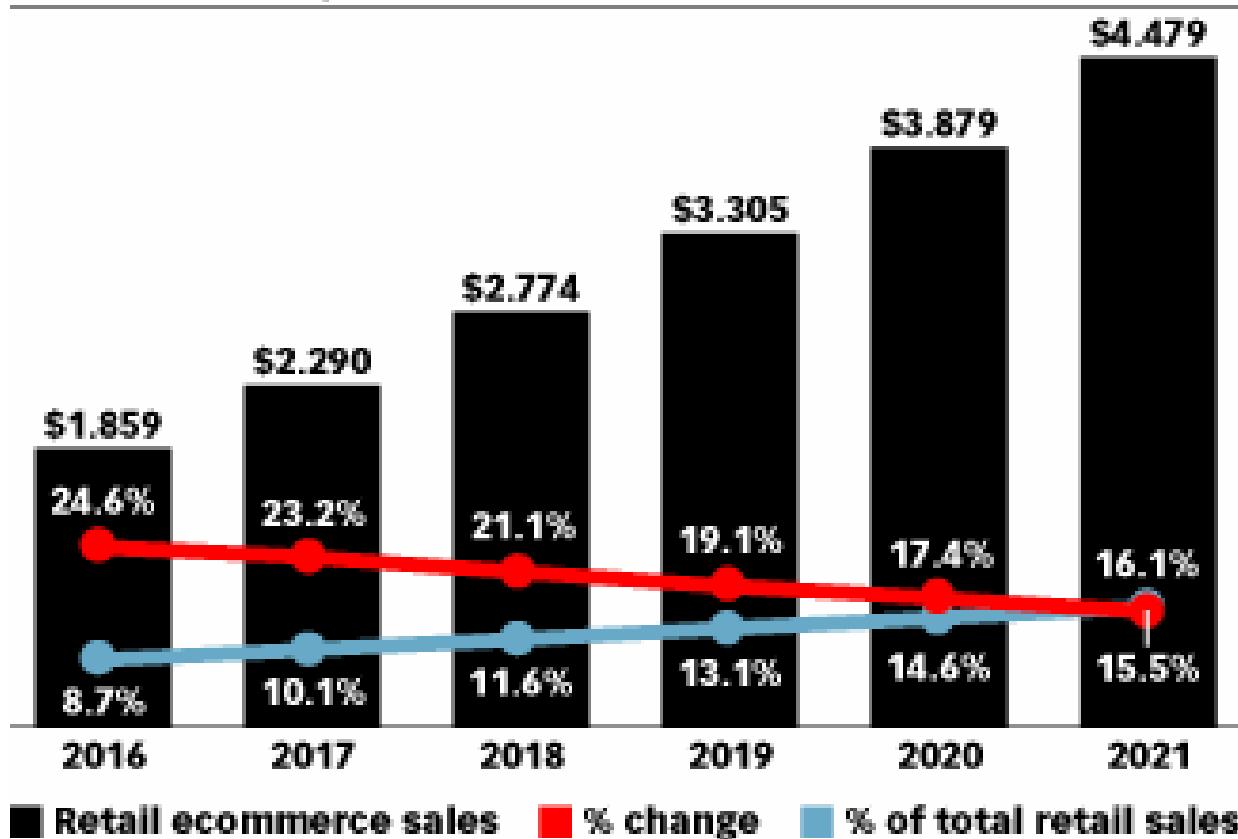
The Growth of E-commerce



E-commerce sales have been growing and are expected to continue growing worldwide. Advantage: **amazon**

Retail Ecommerce Sales Worldwide, 2016-2021

trillions, % change and % of total retail sales



Note: includes products or services ordered using the internet via any device, regardless of the method of payment or fulfillment; excludes travel and event tickets

Source: eMarketer, June 2017

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www.eMarketer.com

Not only are e-commerce sales growing. The percentage of total retail sales that are e-commerce is growing as well.
(the light blue line)

Advantage: **amazon**

Finally, the growth of e-commerce is the most pronounced in the enormous and enormously important Asia-Pacific marketplace.

Retail Ecommerce Sales as a Percent of Total Retail Sales Worldwide, by Region, 2014-2019

	2014	2015	2016	2017	2018	2019
Asia-Pacific	8.2%	10.2%	12.4%	14.9%	17.6%	20.4%
Western Europe	6.7%	7.5%	8.2%	8.9%	9.6%	10.2%
North America	6.3%	7.0%	7.7%	8.3%	9.0%	9.7%
Central & Eastern Europe	2.6%	3.0%	3.4%	3.9%	4.2%	4.6%
Latin America	1.9%	2.2%	2.6%	3.0%	3.2%	3.5%
Middle East & Africa	1.6%	1.7%	1.8%	1.9%	2.0%	2.1%
Worldwide	6.3%	7.4%	8.6%	9.9%	11.4%	12.8%

Note: includes products or services ordered using the internet via any device, regardless of the method of payment or fulfillment; excludes travel and event tickets

Source: eMarketer, Dec 2015

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www.emarketer.com

Advantage: **amazon**

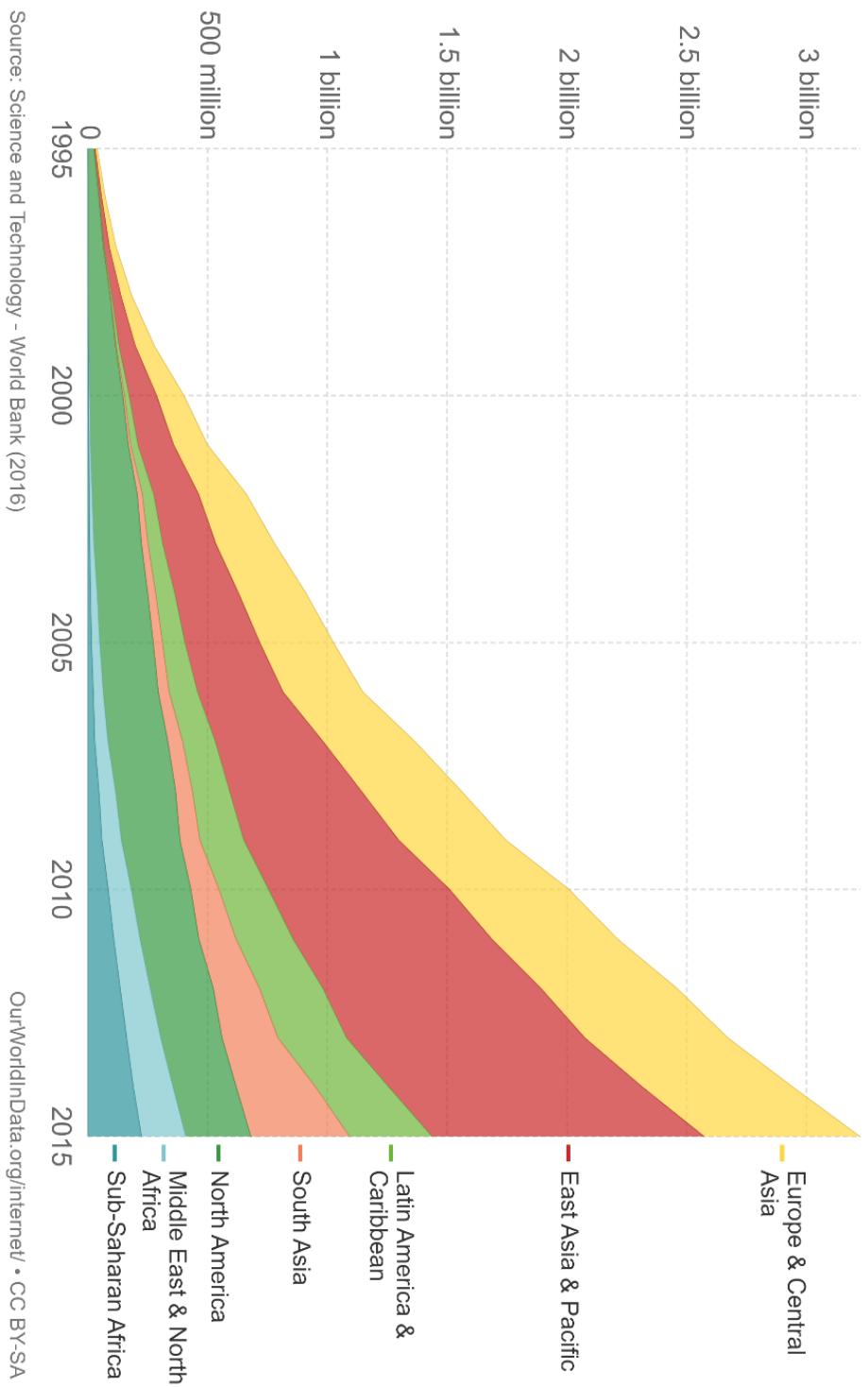
Worldwide Internet Usage

Let's go a layer deeper. Why is E-commerce growing? Simple. The number of people with access to the internet is growing and will continue to grow.

Yet again, Advantage: **amazon**

Internet users by world region

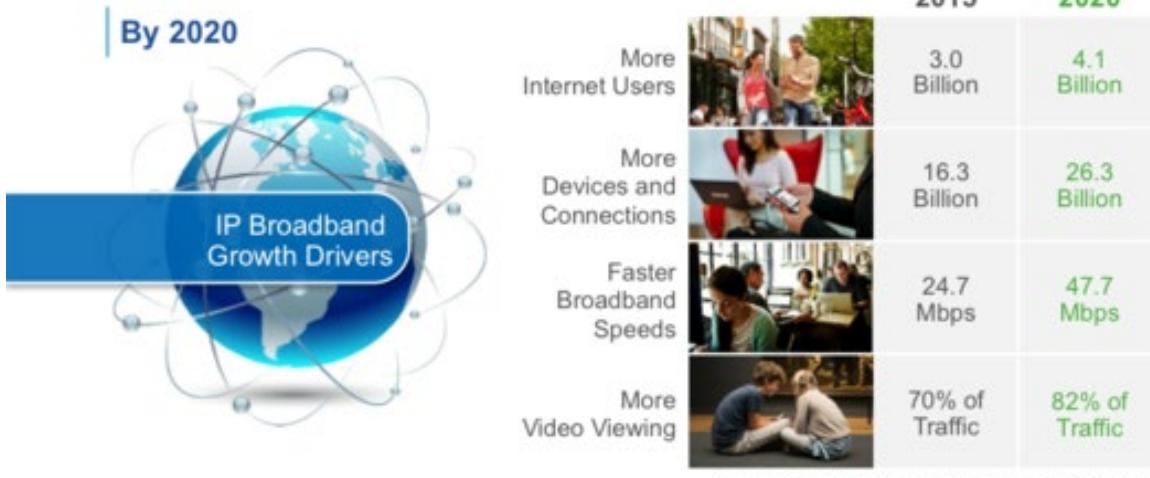
OurWorld
in Data



Source: Science and Technology - World Bank (2016)

OurWorldInData.org/internet/ • CC BY-SA

Global IP Traffic & Service Adoption Drivers



More people on the internet, using more devices, and with faster speeds.

You guessed it, Advantage: **amazon**

Broader Forces

When comparing Walmart and Amazon, Walmart is on the wrong side of some forces even greater than e-commerce and the internet. In a sense Walmart is fighting an uphill battle against not only Amazon but some pretty tough opponents:

Technology- Amazon has adopted technology better in the past and is positioned to better take advantage of tech in the future.

In addition, the rate at which technology is improving increases exponentially.

Human Intuitive Perspective of Technological Advancement in Ten Years

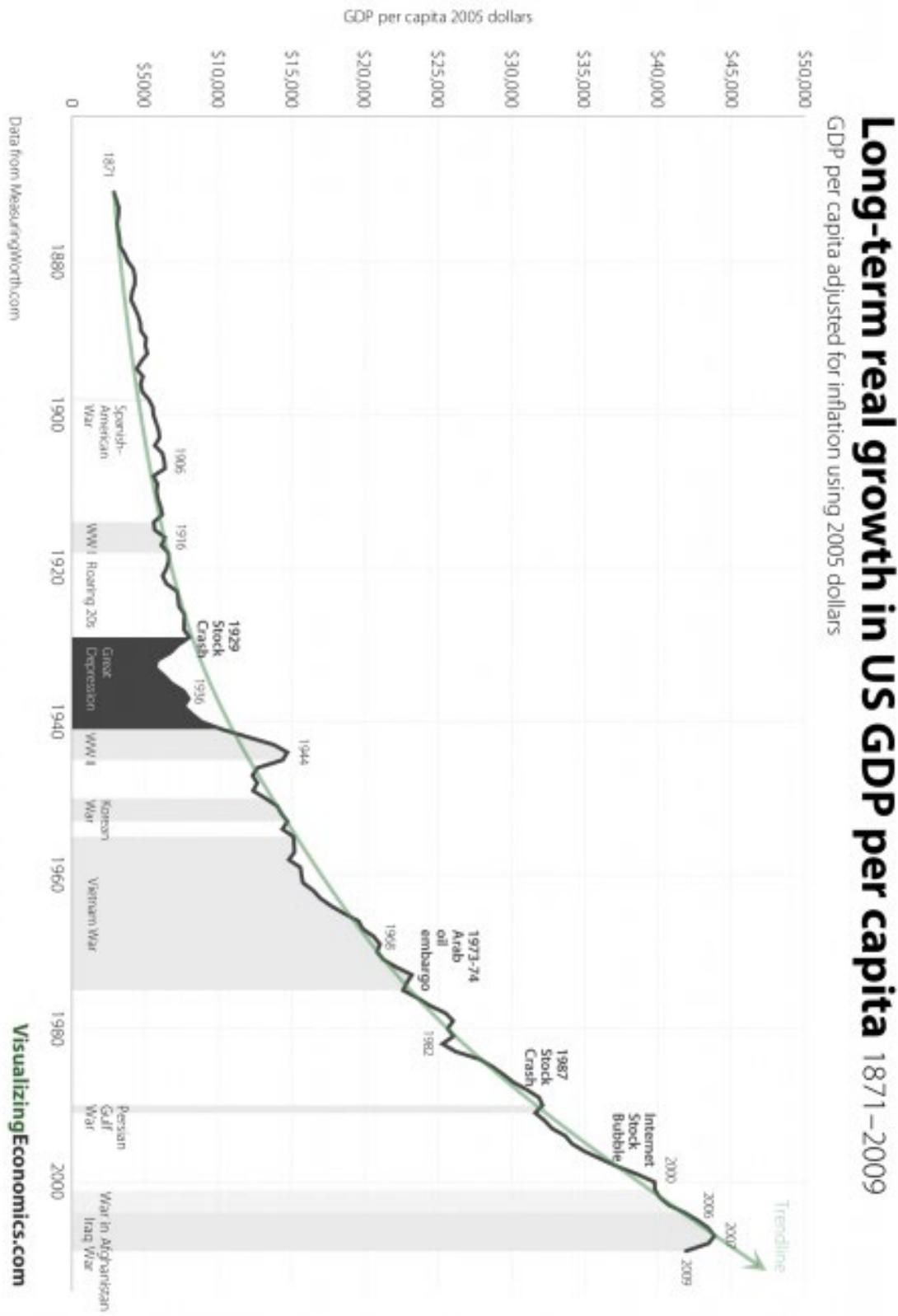
A Thousand Times More Advanced



© Theemergingfuture.com

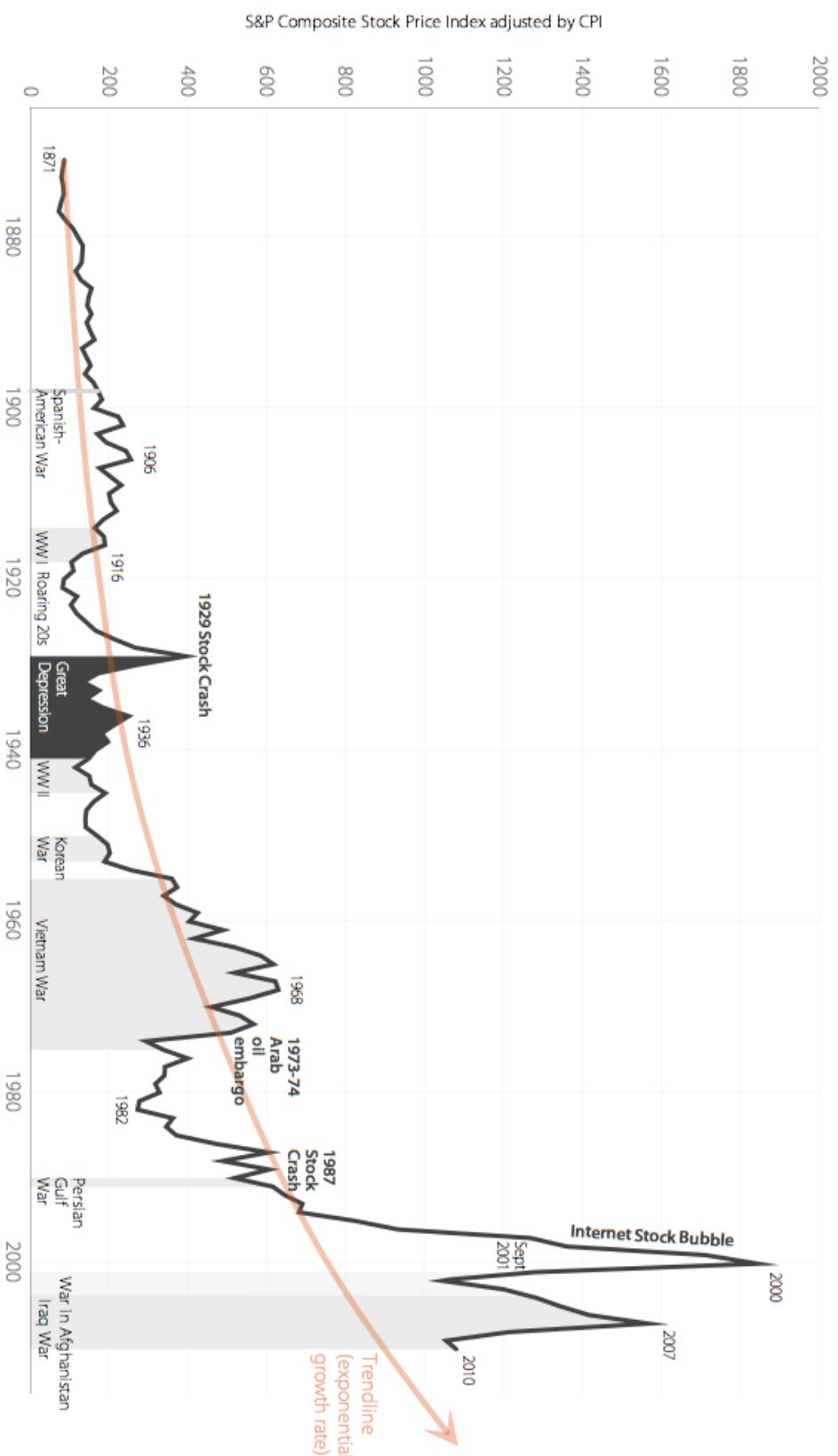
“Every twelve to eighteen months, computers double their capabilities, and so do the information technologies that use them.”

Economic Progress and Education- Amazon generally does better with wealthier customers and deals in generally higher end products. Walmart does better during economic downturns. Level of education correlates with and probably causes increases in wealth.



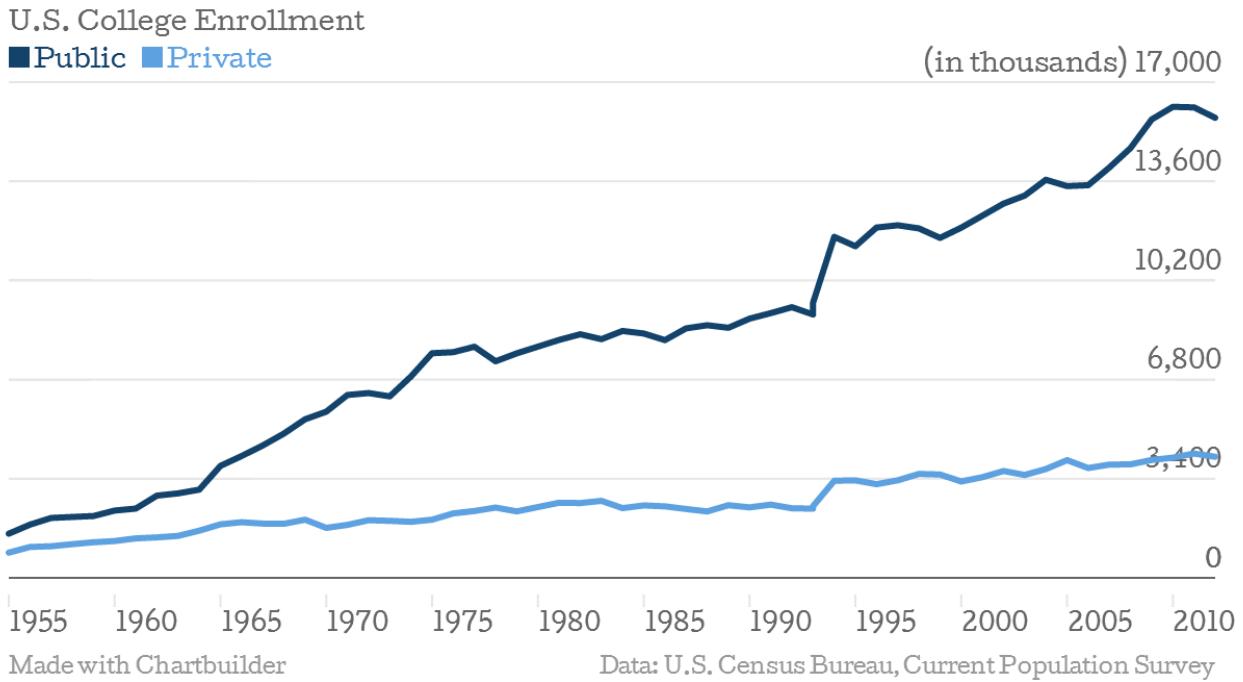
Long-term real growth in US stocks

Annual price index adjusted for inflation 1871– 2010



Data from IrrationalExuberance.com

VisualizingEconomics.com



Wealth and education are increasing everywhere in the world. The rate of increase is especially prevalent in the huge emerging markets of China and India.

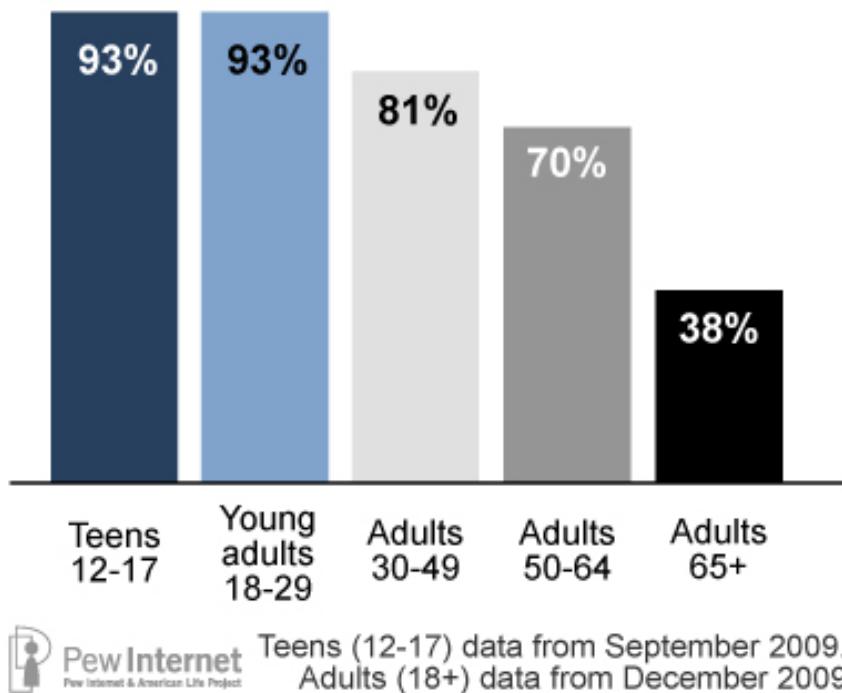
Increases in wealth and education aren't necessarily bad for Walmart, but they are much better for Amazon.

Due to the nature of these two businesses it could be argued that the best thing that could possibly happen for Walmart in its competition with Amazon is a large market crash and economic downturn like what happened in 2000(dot com crash) or 2008(housing crash). This is a sad thing to be implicitly hoping for.

Also notice the little bump up for Walmart during the recent economic recession. "Catching up" graph under "The World of Retail" in a few pages.

Age- Younger generations are more interested in tech, the internet, and general ideas of what's "new", "cool", and "the future". Amazon is much more associated with and tied into these concepts than Walmart is.

Who's online? The internet by age groups

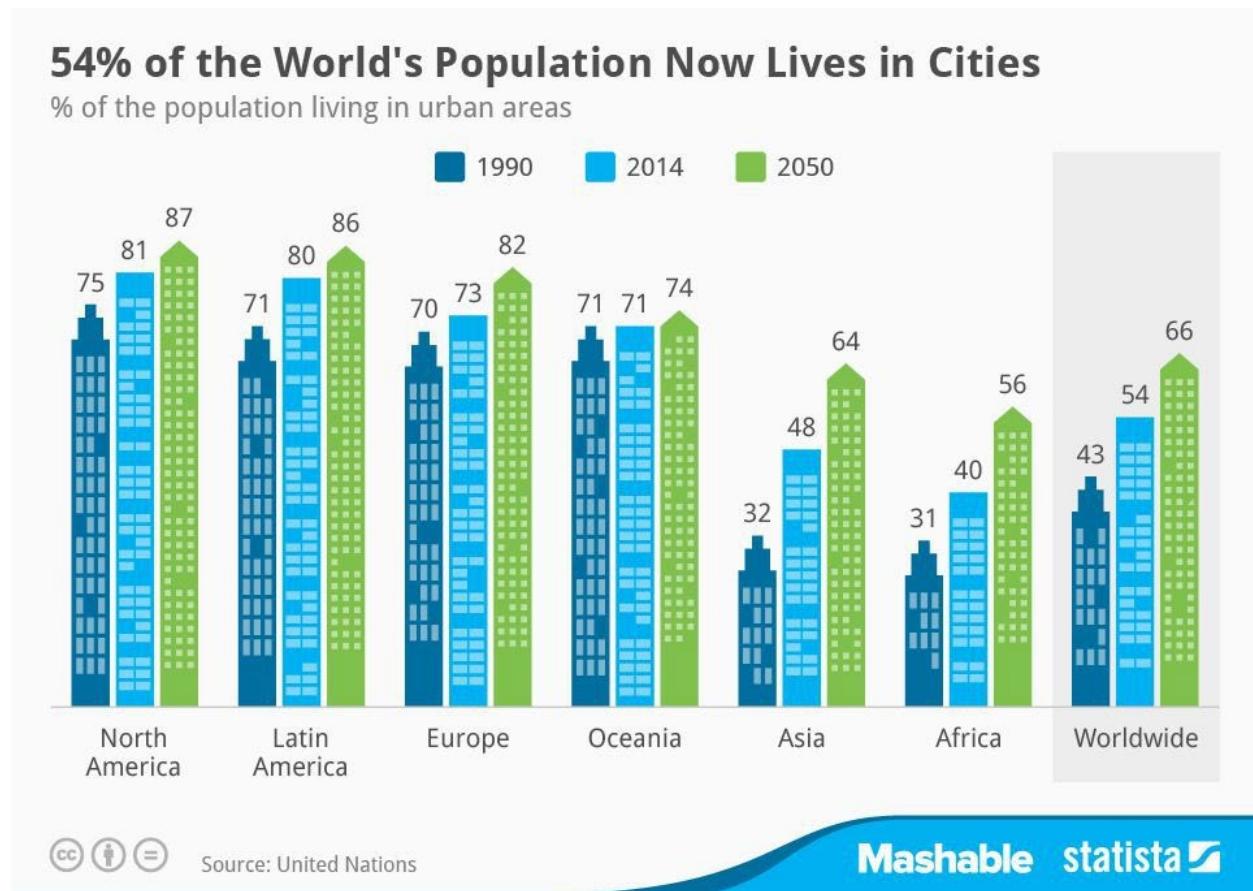


Here's the problem. Younger people are not going to forget how to use the internet and technology as they get older. Also, they will be replaced by younger generations that are even more technologically inclined.

This graph isn't going to look the same in the future. The large % of internet usage among people aged 12 to 29 will transfer over as they age. These groups will be replaced by even more tech savvy young people.

All this benefits Amazon much more than it does Walmart.

Urbanization- People worldwide are gradually moving to more and more dense urban areas. Again, this is a trend at the broadest levels that benefits Amazon much more than it does Walmart.



Walmart thrives in rural and suburban areas. Plenty of room for gigantic stores and parking lots.

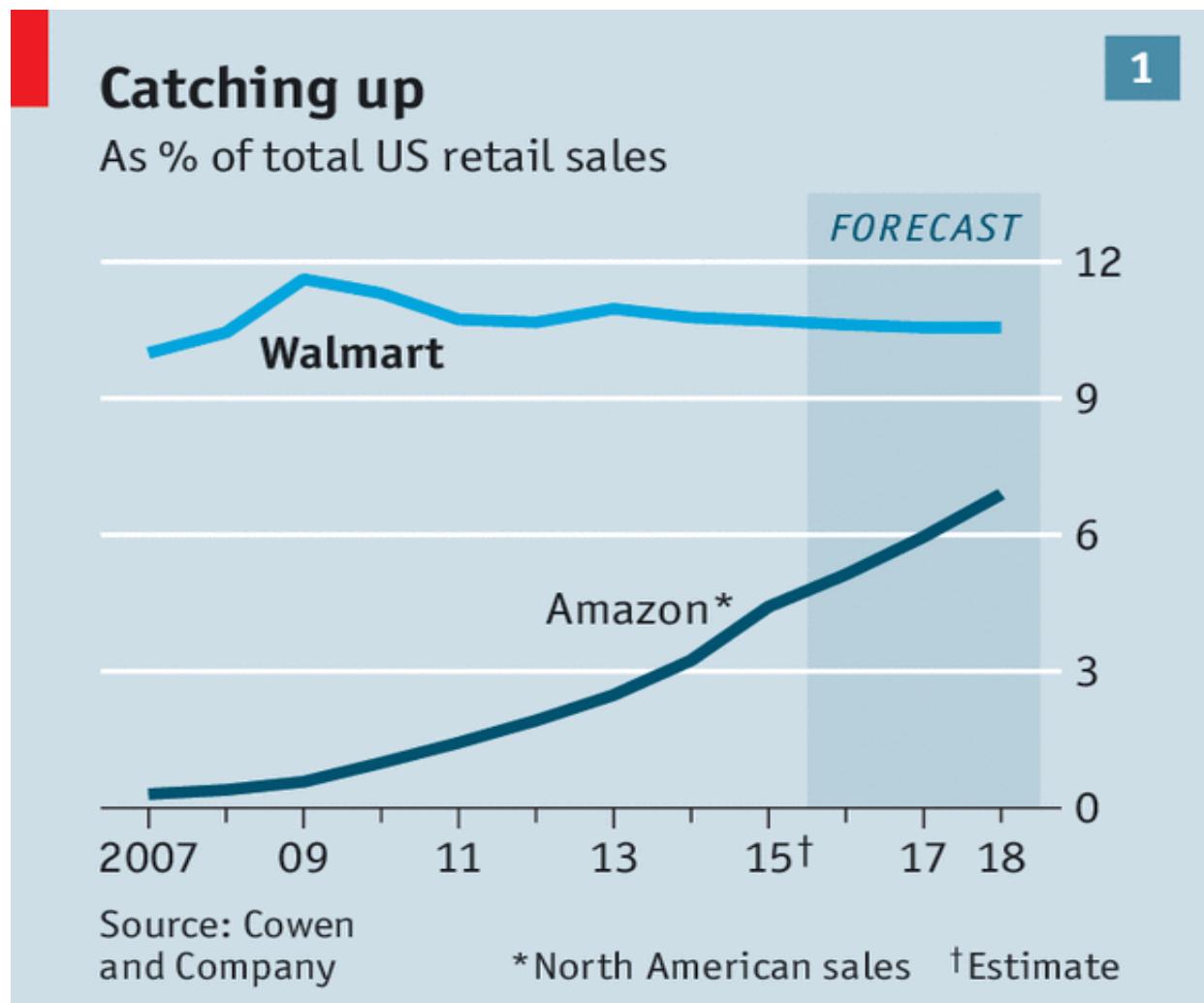
Large and dense cities provide less room for mega stores. The time it takes to ship items is less which benefits online shoppers.

When Walmart tries to break into urban areas they are forced to create smaller stores (Neighborhood Markets). This eliminates one of Walmart's biggest strengths (Huge stores with a huge variety of items.) Walgreens, CVS, and 7-Eleven are much more experienced and competitive at these smaller store sizes.

When I worked at DC 7024 we started shipping to a few Chicago stores. I was the loader for these trucks for multiple years. Chicago stores were less efficient on the distribution level in just about every way you could think of.

The World of Retail

Three images that tell three stories about Walmart, Amazon, and the future of retail.



Economist.com

Walmart may be bigger, but they aren't growing, and Amazon certainly is.

On the next page is the history of retail. Walmart is at home in, their business was designed for, and was built in a past era. It is not impossible for Walmart to jump into a new era, but many of the past's largest retailers have tried and failed to make this jump.



- Local corner stores



- Self-service model
- Department stores
- General merchants



- Enclosed malls
- Strip centers
- Mass retailers



- Value players
- Club stores
- Category killers



- E-Commerce
- Mobile Shopping

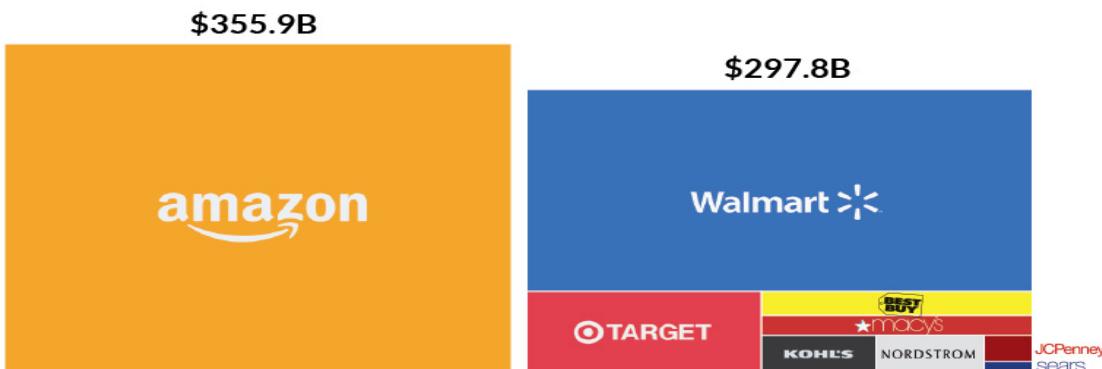
Here is the rest of a graph shown earlier. Notice everybody that isn't Walmart or Amazon. Walmart may be more responsible for the slow death of traditional retailers than Amazon is, but they have a lot more in common with the dead and dying than they do with Amazon.

Chart of the Week

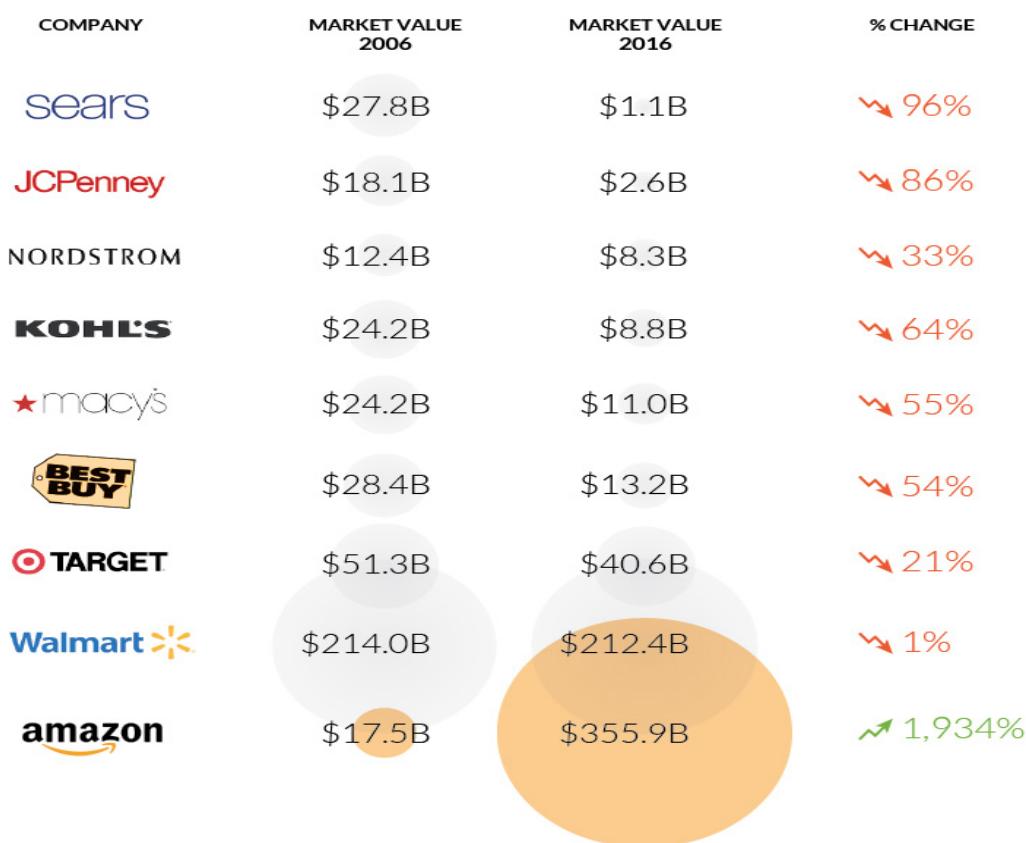
THE EXTRAORDINARY SIZE OF AMAZON IN ONE CHART

Amazon is bigger than most brick and mortar retailers put together

Market value as of December 30, 2016



Here is how the value of these companies has changed over the last 10 years:



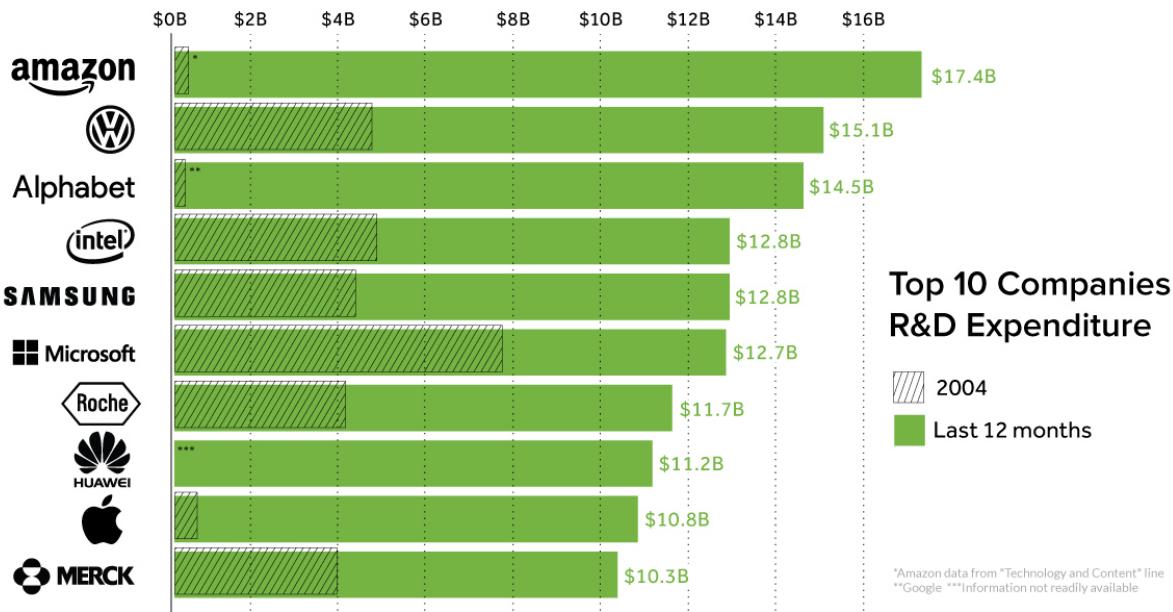
Amazon Will Win Period.



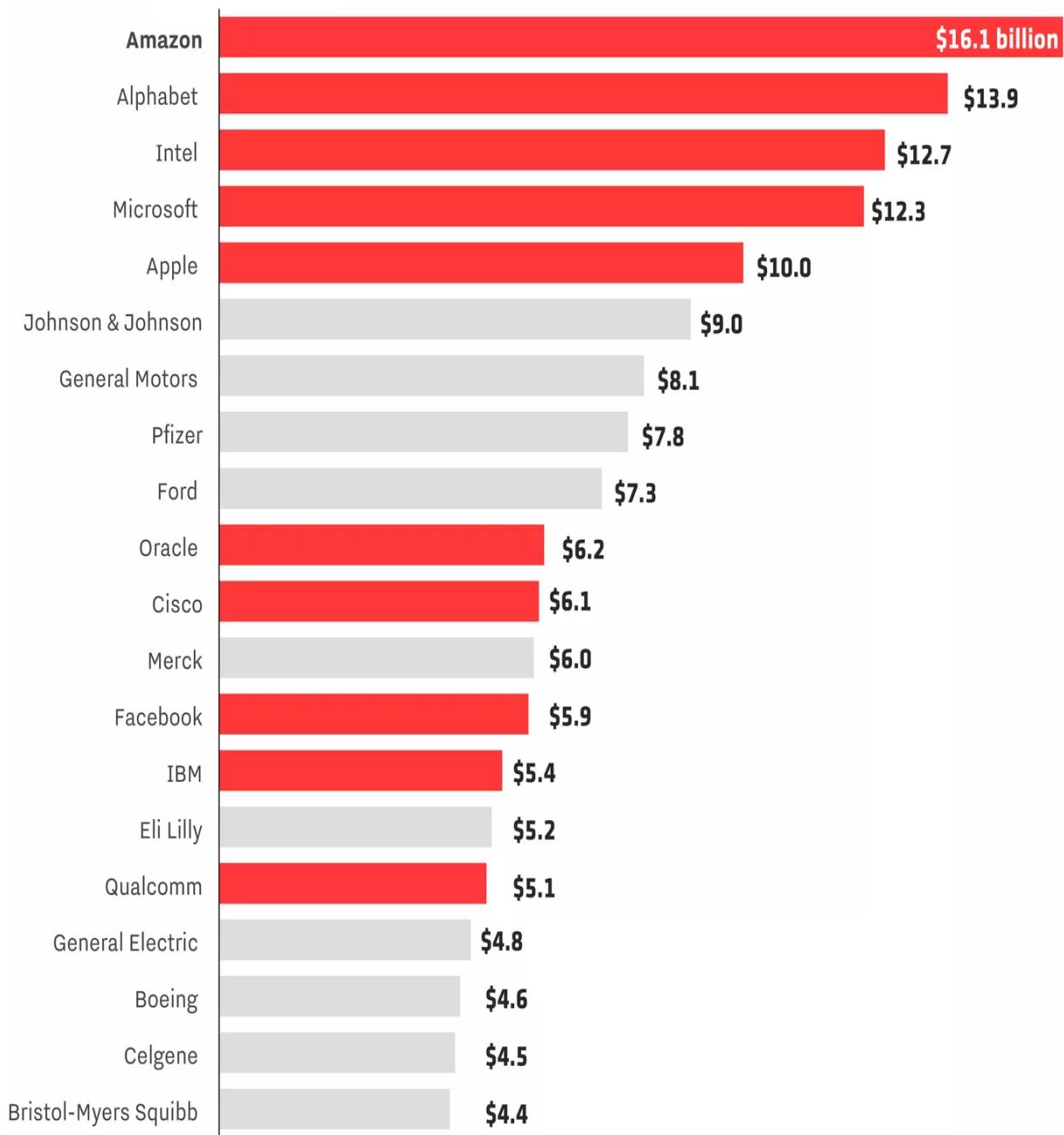
There is even more reason to believe the future holds an Amazon victory. To understand why this is we need to compare Amazon and Walmart in a few crucial areas.

Research and Development

The next three graphs show R and D spending totals. Exact R and D totals fluctuate and are somewhat hard to calculate. Regardless, one thing is an obvious constant. Amazon is at the top and Walmart is nowhere to be found.



Tech companies lead in R&D spending



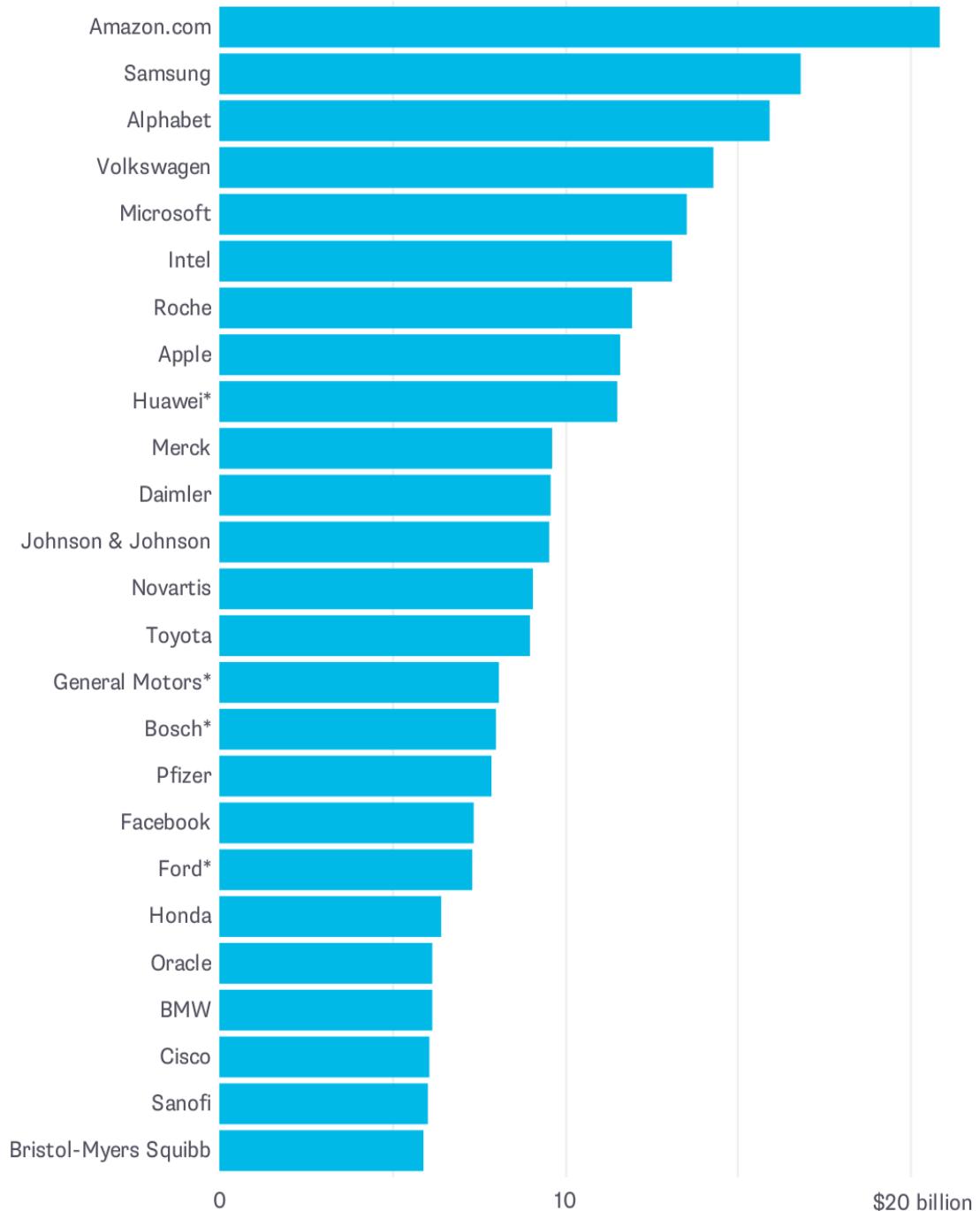
Includes latest fiscal year data for reporting S&P 500 companies.

Source: FactSet

recode

The Top Corporate R&D Spenders

Research and development spending, trailing 12 months, as of December 2017



*These companies only report R&D spending annually.

Sources: Bloomberg, company reports

Bloomberg View

Mergers and Acquisitions

Walmart isn't a complete stranger to buying useful companies and they are proud of their acquisition of Jet.com....



Figure 1: Walmart's Acquisitions in eCommerce



\$3.3 billion
August 2016

eCommerce Platform



\$70 million
January 2017

Shoes & Apparel



\$51 million
February 2017

Outdoor Products



\$50-75 million
March 2017

Women's Apparel



\$310 million
June 2017

Men's Apparel

Jet

SHOEbuy.com®

Moosejaw

MODCLOTH

BONOBOS

Source: Public Information, Company Reports

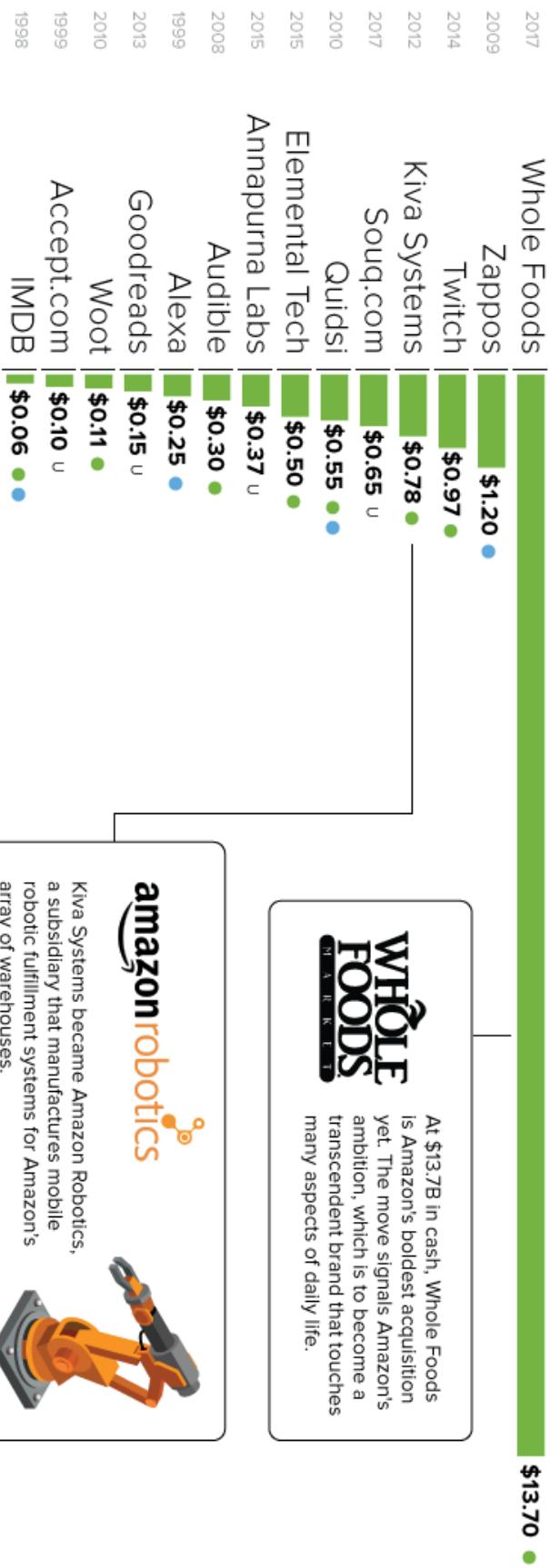
 **toptal**

.... though Amazon has shown the ability and willingness to make larger, smarter, more diverse, and more numerous acquisitions.



KEY ACQUISITIONS IN BILLIONS

CASH ●
STOCK ○
UNDISCLOSED □



WHOLE FOODS

At \$13.7B in cash, Whole Foods is Amazon's boldest acquisition yet. The move signals Amazon's ambition, which is to become a transcendent brand that touches many aspects of daily life.



Kiva Systems became Amazon Robotics, a subsidiary that manufactures mobile robotic fulfillment systems for Amazon's array of warehouses.



NASH HOLDINGS LLC | KEY ACQUISITIONS IN BILLIONS

Washington Post

\$0.25

The Washington Post

In 2013, Bezos locked up one of the world's most trusted publishers for \$250 million, and has big plans to redefine the company through the use of technology.

Talent Acquisition

Amazon's employees are smarter, more talented, and better educated than Walmart's are. I am not talking about hourly associates and middle management. When it comes to the people in important roles, making important decisions, Amazon is way ahead.



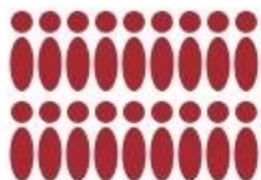
Where do graduates from top colleges go to work?

- Tech- Silicon Valley, Seattle
- Finance- Wall Street
- Consulting
- Doctors/Lawyers
- Academia/Research

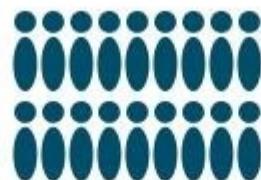
The Harvard Crimson



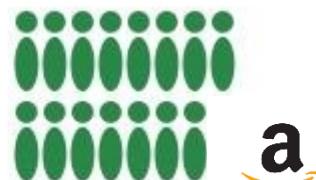
Of seniors entering the workforce, what industry are they working in?



18%



18%



15%





Global Winners

- | | |
|-----------------------|-----------------------------|
| 1. Alphabet | 14. Siemens |
| 2. Amazon | 15. Unilever |
| 3. Facebook | 16. The Walt Disney Company |
| 4. Uber | 17. Johnson & Johnson |
| 5. Apple | 18. IBM |
| 6. Salesforce | 19. Deloitte |
| 7. McKinsey & Company | 20. PepsiCo |
| 8. LVMH | 21. Accenture |
| 9. L'Oréal | 22. EY |
| 10. Dell Technologies | 23. Schneider Electric |
| 11. Cisco | 24. Adobe |
| 12. Tesla | 25. GE |
| 13. Oracle | |

50 Smartest Companies 2017

Our editors pick the 50 companies that best combine innovative technology with an effective business model.

Rank
Name
Location
Years on List

- 1 **Nvidia**
- 2 **SpaceX**
- 3 **Amazon**
- 4 **23andMe**
- 5 **Alphabet**
- 6 **iFlytek**
- 7 **Kite Pharma**
- 8 **Tencent**
- 9 **Regeneron**
- 10 **Spark Therapeutics**
- 11 **Face ++**
- 12 **First Solar**
- 13 **Intel**
- 14 **Quanergy Systems**
- 15 **Vestas Wind Systems**
- 16 **Apple**
- 17 **Merck**
- 18 **Carbon**
- 19 **Desktop Metal**
- 20 **Ionis Pharmaceuticals**
- 21 **Gamalon**
- 22 **Illumina**
- 23 **Facebook**
- 24 **Udacity**
- 25 **DJI**
- 26 **MercadoLibre**
- 27 **Microsoft**
- 28 **Rigetti Computing**
- 29 **Kindred AI**
- 30 **Sophia Genetics**
- 31 **Tesla**
- 32 **Oxford Nanopore**
- 33 **Foxconn**
- 34 **M-KOPA**
- 35 **ForAllSecure**
- 36 **Flipkart**
- 37 **Bluebird Bio**
- 38 **Adidas**
- 39 **IBM**
- 40 **General Electric**
- 41 **Alibaba**
- 42 **HTC**
- 43 **Blue Prism**
- 44 **Jumia (Africa Internet Group)**
- 45 **Veritas Genetics**
- 46 **Daimler**
- 47 **Salesforce**
- 48 **Snap**
- 49 **Ant Financial**
- 50 **Baidu**



Leadership

Next let us jump from the people that make up the companies to the leaders at the very top.



Doug McMillon CEO

Jeff Bezos Founder and CEO

Forbes Most Powerful List

#27 (3rd Appearance)

#14 (7th Appearance)

Fortune World's Greatest Leaders

2017	2016	2015	2017	2016	2015
NR	NR	NR	5 th	1 st	27 th

Time Influential Top 100

None

2008, 2009, 2014, 2017

Doug McMillon is actually a very accomplished person. He worked his way up from unloading trucks to become the CEO of Sam's Club before the age of 40 and then became the youngest CEO in Walmart history at age 48.

Jeff Bezos on the other hand is the richest person in the world (>\$115 Billion), the 1999 Time Person of the Year, and the person most responsible for creating the e-commerce industry. His hobbies include running the Washington Post and competing with Elon Musk to put the first person on Mars.

New Technology- Retail Disruptors

Amazon's dominance in R & D, M & A, Talent Acquisition, and Leadership is part one of an important equation. Part 2 revolves around the future advancements that will shape the retail industry.

Cost and Time Efficient Shipping Processes

Technological advancements that make shopping online and shipping to your home an overall cheaper and more desirable experience than going to a store.



Augmented Reality (AR)



Computer generated information and graphics on top of everyday environments.

Most well-known for Snapchat filters and Pokémon Go.

Some interesting retail applications of AR include:



"**Ikea Place**, which was recently launched in the United States, allows users to place virtual Ikea furniture into their own home to see how everything might look once assembled."



Sephora Virtual Artist AR technology lets beauty consumers see what certain products might look like on their own face.



Dressing Room Gap uses augmented reality to let shoppers "try on" clothes without having to step into a store.

Virtual Reality (VR)



Virtual reality is a computer-generated scenario that simulates a realistic experience. The immersive environment can be similar to the real world in order to create a lifelike experience.

Drone Delivery



Artificial Intelligence (AI), Machine Learning, Deep Learning

Wide reaching and near unlimited retail applications.



ARTIFICIAL INTELLIGENCE IN RETAIL MARKET MAP

REAL-TIME PRODUCT TARGETING



REAL-TIME PRICING & INCENTIVES



NATURAL LANGUAGE SEARCH



VISUAL SEARCH



CONVERSATIONAL COMMERCE



SIZING & STYLING



INTEGRATED ONLINE & IN-STORE ANALYTICS



LOCATION-BASED MARKETING & ANALYTICS



NATURAL LANGUAGE SEARCH



IN-STORE VISUAL MONITORING



PREDICTIVE MERCHANDISING



MULTICHANNEL MARKETING



Robotics and Automation



Conclusion

The previously mentioned technological advancements are not guarantees. Some of them will be crucial to the future of retail.

Some of them might end up being unimportant.

They are just a small sampling of possible advancements in retail. There are dozens of others that we know about and hundreds that are yet to be discovered.

With the advent of the computer and internet age, the rate at which important technological advancements will shape the retail world has been and will continue to increase. Probably to a pace that is shocking to us today.

To sum up my point I want to ask you a question.

When it comes to creating, implementing, and benefitting from the technological advancements that will shape the future of retail.

Which company would you put your money on?

My money is on the company that has smarter people with better leadership, vastly more R & D funding, and a greater ability to acquire companies when necessary.

Judging by market cap and stock price movement the world is putting their money on the same company.



Not Convinced?

"Yeah sure technology will make a difference but the core principles of retail (Product, Price, Place, Promotion, etc.) that Walmart dominates won't change."

"None of these new things will turn out to be that important. It's all just hype. Overrated"

If you don't think new technology will make that big of a difference imagine that Amazon disappears completely, and Walmart is back to being the unchallenged king of retail. Now imagine Walmart loses just four of the technological advancements from the past.

No online retail. No warehouse management systems. No barcode scanners. No credit and debit card processing. If this happened how fast does Target or somebody else take over the retail world?

"Walmart is too big to fail"

"Walmart is enormous and has been around forever. They will be fine in the long run."

Big companies fail. Old companies fail. Only 12% of companies in the 1955 Fortune 500 are still there today. The retail industry in particular is known for the death of enormous companies.

Remember Sears?

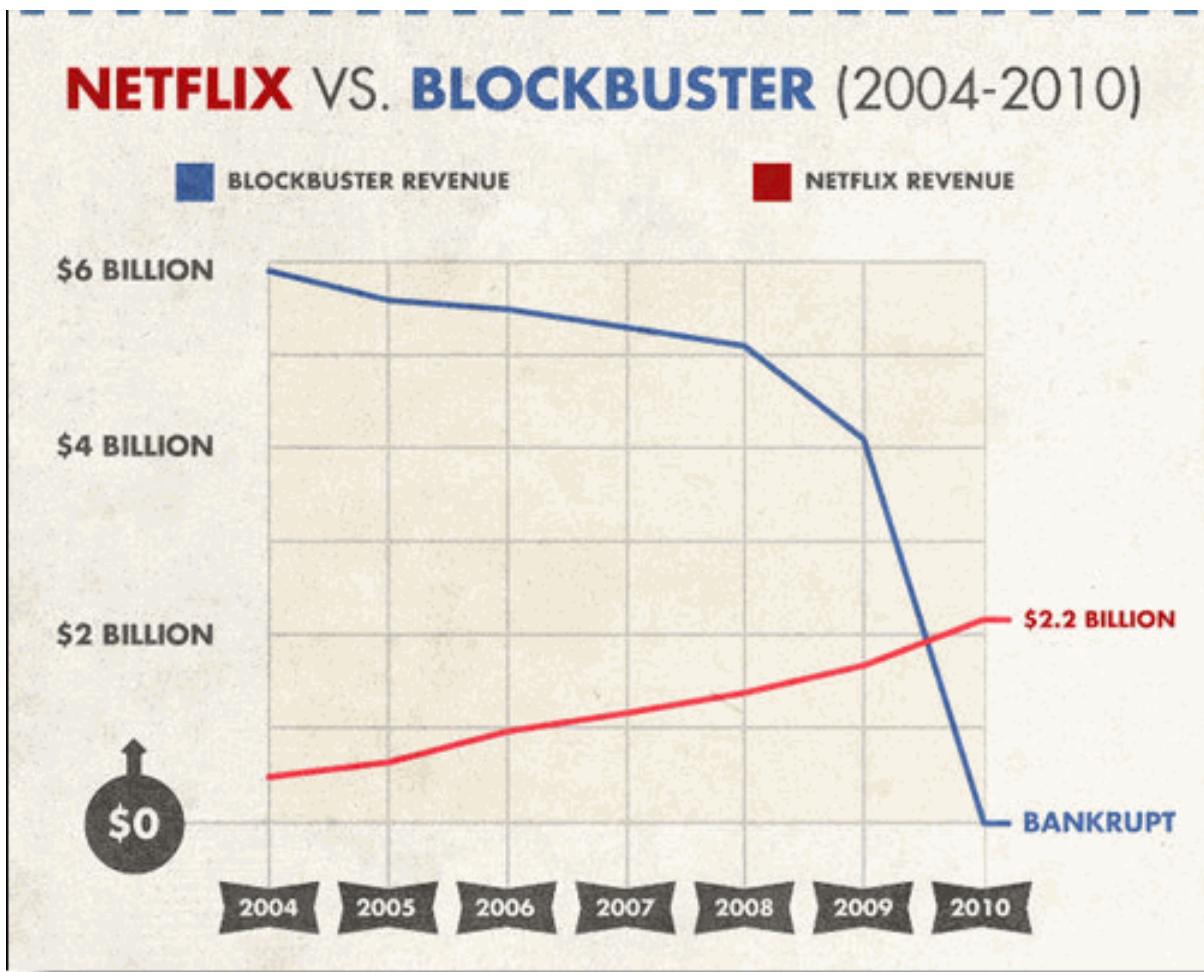


Founded in 1886. Dominated retail for decades. Was so successful at their peak they decided to build the Sears Tower. Tallest building in the world for 25 years.



Bought by Kmart in 2004. Has closed thousands of stores. Current debt is 4x current market cap. Sears Tower is now the Willis Tower. Bankruptcy Imminent.

Still not convinced of the importance of being on the forefront of new technology? Let me tell you a story about the industry giant that was a little too slow to adapt to a technological advancement and the upstart tech company that led the shift in an industry.



End of Story.

The point of the past few pages is not to predict the future or the coming demise of Walmart.

The point is to show what can happen, what has happened, and what will happen if Walmart doesn't respond quickly and effectively to this new world.

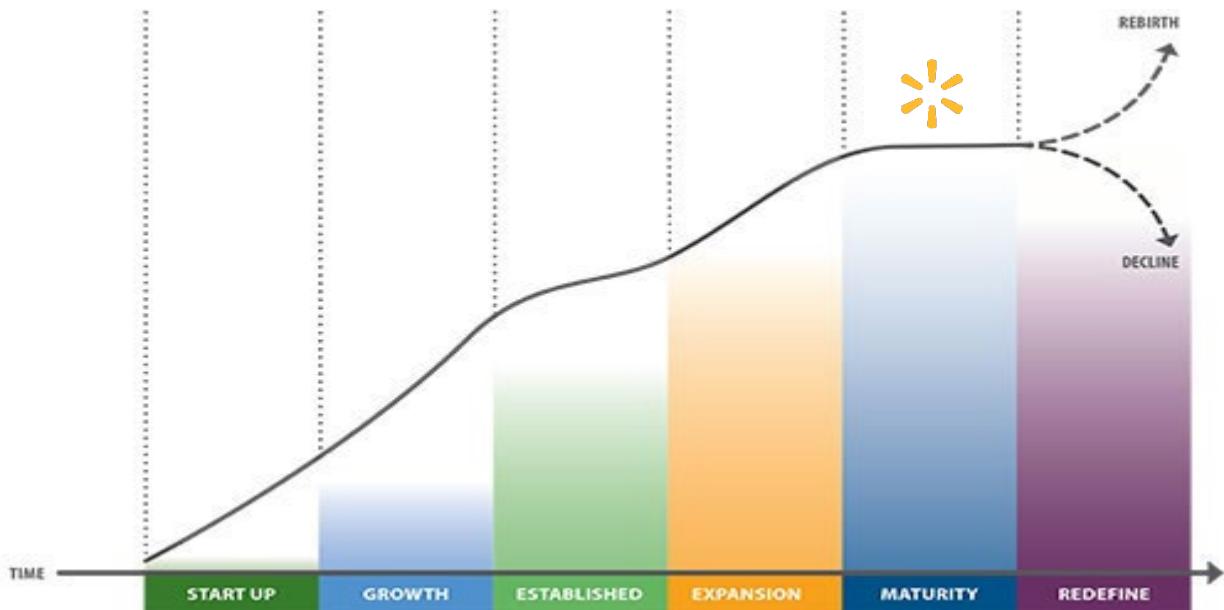
Part 3 will outline how Walmart should respond.

Part 3

How Walmart Can Leverage Their Size to Beat Amazon

Business School 101. Lesson #1. Business Life Cycle.

Walmart is at the Maturity Stage. The choices they make will soon determine whether they have a rebirth and continue upward or the decline begins.



Business School 101. Lesson #2. Locate and Utilize Strengths.

Walmart's biggest strength is their size. Walmart can utilize their size in three main areas.

- 1. Data**
- 2. Time**
- 3. Process Efficiency**

The world's most valuable resource is no longer oil, but data

The data economy demands a new approach to antitrust rules



This recent article by The Economist highlights the importance of Data in the 21st century economy. The best companies in the world are at their core data companies. The more data they collect and the better job they do interpreting it, the more successful they are.

Uber, Lyft and Tesla utilize data about people's movements.

Facebook and Twitter utilize data about people's social lives.

Amazon utilizes data about people's shopping habits.

Google utilizes data about everything.



Everything Walmart does is on huge scale and generates an accordingly gigantic amount of data. Walmart has also been operating on this huge scale for a long time. This means even more data. In many places the amount of data Walmart has dwarfs any other company. Walmart has more available data about how retail works than Amazon by a mile. Walmart has by far the largest reserves of the new most valuable resource in the world. The challenge is collecting it and interpreting it.

Walmart has more oil than anybody else. They just have to figure out how to mine it and refine it.

It will not be cheap or easy, but the possibilities are enormous.

I cannot emphasize enough the importance of data and the opportunities Walmart has if they utilize it.

Walmart Supercenter

3.8 ★★★★☆ (828)

\$ · Department Store · 2032 Dell Range Blvd



NCAR-Wyoming Supercomputing Center

5.0 ★★★★★ (5)

Visitor Center · 8120 Veta Dr
Opens at 8:00 AM



Walmart Distribution Center

3.2 ★★★★☆ (213)

\$ · Distribution Service · 426 Logistics Dr



This is Cheyenne, Wyoming. At the bottom is Walmart DC 7077. Next door is the NCAR-Wyoming Supercomputer. Across town is Walmart store #1315. The future of Walmart depends just as much, if not more on places like the one in the middle than either the top or the bottom. Why? **Data**.

Time

The second reason size is Walmart's biggest strength is that it allows them time. Walmart won't disappear overnight like Blockbuster. They have some time to change, grow, and evolve. Unfortunately, they have used a good chunk of this time up with nothing much to show for it. Fortunately, they haven't run out yet.

So, Walmart's size provides them time. Time for what?

Time to address weaknesses and shortcomings.

Time to explore new avenues of business.

Time to capitalize on opportunities and strengths.

I don't have specific answers here.

Maybe Walmart starts acting a little bit like a modern tech company by embracing change and trying new ideas.

Maybe Walmart improves its shortcomings when it comes to talent acquisition, research and development, and acquisition power.

Maybe Walmart partners with other large companies to combat the growing Amazon threat.

Maybe Walmart advertises more and improves their low-quality reputation.

Maybe the Walton family comes back into the picture using their enormous wealth in positive ways.

Maybe Walmart becomes a more socially and environmentally conscious retailer. A title neither Walmart nor Amazon has a hold on currently.

Maybe Walmart is already doing these things.

Answer: They are, but maybe not to the degree necessary.

Again, I don't have specific answers. Though in general Walmart needs to Think Bigger, Think Faster, and Think More Creatively.

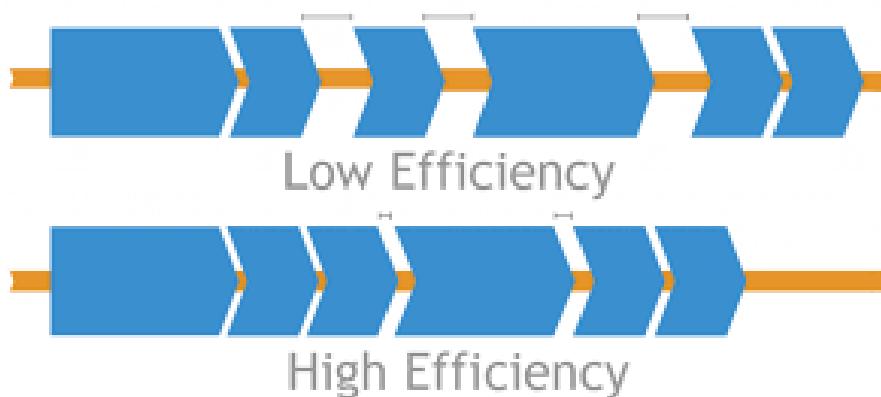
Process Efficiency

The third way Walmart can leverage their size for success is through process efficiency. In this section I will at times narrow my focus much more than the broad ideas presented up until now. I have worked in a food distribution center (DC) for approximately seven years and have been thinking about ways to improve efficiency at the DC level for most of that time. Due to my personal experiences, this section will include specific recommendations and ideas with regards to Grocery DC's and specifically meat and produce shipping operations. My focus on these areas does not mean there are not other places that benefit even more from process efficiency improvements. Process efficiency is an opportunity for every area of Walmart's business operations.

What is Process Efficiency?

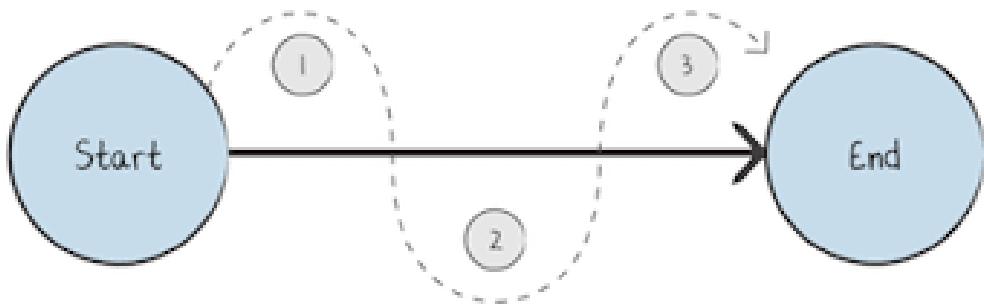
In general process efficiency is the streamlining of anything and everything involved in Walmart's business operations. It consists of two main pieces.

First, is removing unnecessary actions or pieces of a particular process.



The gaps above are unnecessary actions or pieces and can be removed to streamline a process.

Second, is finding the most efficient way of navigating the necessary pieces within a process.



The goal is to find the path most like the bold line and least like the dotted line.

The steps for process efficiency are broadly simple as seen above. The difficulty is the implementation.

It is important to remember that processes are additive. Some processes can be parts of others and smaller processes can combine to be part of bigger processes. The general principles above can be utilized over and over on each type and size of process.

Minimize the number of necessary pieces and navigate these pieces in the most efficient and effective way possible.

Why Process Efficiency?



1. Small Improvements over large numbers add up to make a big difference.

- The enormous volume and scale of Walmart's operations creates an equally enormous amount of times that small improvements can add up.
- The cost of an improvement is spread across the number of occurrences. Specific improvements become cost effective much sooner for Walmart than they would for anybody else.

For example: If an improvement costs a billion dollars and saves the company \$1 on every unit shipped, it would take 1 billion units shipped to break even. If Walmart ships a billion units a year while the competitor only ships 100 million it would take the competitor 10 years to break even while Walmart breaks even in only one year.

2. Improvements in one area affect many areas in various ways.

- This is also multiplied by Walmart's size.
- An improvement focused on improving production can have positive impacts on accuracy, safety, quality, worker satisfaction, and many other things indirectly.

An example: At the Grocery DC I work at we have a thing called "multi-slots". Typically, each item is assigned a specific slot in the building. Higher volume and faster moving items are often assigned two slots side by side. These "multi-slots" are signified by a laminated sign either screwed onto or attached by magnets to the racking between the two slots.

At the end of a night we were short a few cases from one of these "multi-slots". In order to fulfill the store order, we needed these cases. Typically, this involves an area manager working with a QA manager or associate to locate more of this specific product in the warehouse and "force" a "move" to bring the product to the slot that it is needed at. This process was in progress when I noticed something was different.

In this case we were not actually short the cases necessary. Instead the sign signifying the "multi-slot" had been missing. (Slot signs are occasionally damaged or lost during typical movement throughout the day.) There was plenty of product in one of the slots within the "multi-

slot” but with the sign missing the order filler thought this product was different than what was needed. This caused the order filler to call the slot “short”.

(This problem has happened before, and various similar problems happen all the time somewhere in the Walmart universe. This specific problem isn’t necessarily important, but I believe it does a good job of showing some of the unseen impacts that even simple, everyday things can have. Now back to our example situation.)

The solution to this problem is simple. A sticker labeling the “multi-slot” in this case is a much more resilient option than the laminated label. The cost of a sticker is also extremely cheap and cheaper than the laminated label. Total cost of creating and placing the sticker is probably under a dollar. Even if this particular solution is not satisfactory for some reason, the satisfactory solution is probably also on the extremely cheap and simple side.

What did this problem cost Walmart? And what could the solution have prevented? Broken down by category.

Production / Cases Per Hour / Worker Costs-

The main aspect of this problem is the associated worker costs. Both the chase runner responsible for retrieving “short” cases and the loader of the truck were completely done with all other work and cleaning and were idle for ~14 minutes each. If a move had been forced as is a typical result of short cases at the end of the night this would have resulted in another ~2 min. of unnecessary time for a lift driver.

Cost: (30 min.) * (~\$20 per hour wages) = ~\$10 lost.

This is the largest and most obvious cost of this particular problem although there are many others.

Safety-

The 30 extra minutes is also time where workers could be injured. Especially while operating dangerous power equipment.

Cost: (Average Cost of an Accident) * (Average Number of Accidents per year) / (Hours Worked per year) = (Expected Costs from Accidents per hour worked) * (30 min.) = Safety related costs

Quality/FSA Compliance-

The way in which “short” cases are placed on the necessary pallet results in lower quality and higher chance for damages than the average case. These “shorted” cases also have a higher likelihood of improper “species divider” usage and other problems. These problems can result in issues related to food borne illness prevention and other FSA related issues.

Cost: (Marginal difference in product quality and FSA compliance/food borne illness) * (cost of lower product quality from decreased likelihood of sale) and (cost of FSA fine) and (cost of negative publicity from food borne illness issue)

Accuracy-

Due to the more steps necessary to “short” an item than the normal process there is an increased risk of picking the wrong number of cases.

Cost: (Risk difference of selecting improper amount of cases) * (cost of selecting improper amount of cases)

Training and Education Costs-

Training people to recognize these sorts of problems and address them.

Cost: Unnecessary and Unproductive Training Time

Worker Satisfaction/Morale-

On what was already very late night, multiple employees had to stay later than necessary. This has a cost in some way to general worker morale. This has downstream effects on employee turnover rate and training costs among other things.

Costs: Various

Opportunity Cost-

Members of management are salaried and therefore their time spent isn't directly a cost of the problem in question. Regardless, two managers spent unnecessary time to resolve a problem. This time could have been spent in a better way.

Cost: Suboptimal Use of Management Resources

Overhead Costs-

This problem occurred at the end of a shift causing an extra ~10 min. of the area being at an operating capacity. Automatic warehouse lights stayed on longer. Equipment was used longer. Etc.

Costs: Unnecessary Utilities and Other Overhead

Risk of Negative Outcomes-

None of these happened in this particular situation but could easily have happened if the situation was slightly different.

Risk of Missed Dock Outs, Risk of Worker Overtime Premium

Costs: Increased risk of and associated cost of these possible negative outcomes.

That was a deep dive into a simple everyday problem. What was the point of all that? To understand the ways in which simple solutions can have vast impacts. Especially when added over huge numbers of occurrences.

- The above problem had various costs. Many of which were extremely small. Even the smallest costs are still negatives, and they add up fast with Walmart's huge volume and size.
- Each cost had downstream effects, each with their own associated costs.
- This was not an exhaustive list of costs. There are many more less obvious costs involved in even this simple problem.

3. Transition to Automation, Robotics, and Artificial Intelligence

- Making processes more efficient also makes it easier for Walmart to transition these processes to some sort of automation.
- In my opinion this is an area where Walmart is lagging far behind where they could be and where they need to be.



Automated Pallet Stacker

Automated Lift



4. Reality of Walmart Employment

- Through basic research and my years of experience of being a Walmart associate and, working with, working around, and training Walmart associates I have come to notice some general traits common of Walmart associates.
- These observations are Grocery DC specific, but I believe they generally extend to all areas of distribution and retail within Walmart.
- The following difficulties do not apply only to Walmart. These are common to retail and warehousing in general.
- The following is not meant to be demeaning in any way and I am not saying that everybody that works for Walmart falls into any one of these categories. I am a Walmart associate. All of my friends are Walmart associates. With that being said, Walmart associates are often and broadly:
 - Uneducated and Unskilled- This should be obvious. Retail and Warehouse work are not the first choice of skilled tradespeople and university graduates.
 - Tired, Unmotivated and Unfocused- Retail and Warehouse work generally doesn't inspire a person's best work and greatest effort. DC schedules are odd hours and odd days. A large number of associates have their minds and energy tired up in other jobs or schooling. The work itself is often tiring.
 - Overwhelmed/Anxious- Many new associates are laser focused on production goals, often to the point where they are oblivious to everything else.
 - Bored- On the other extreme longer-term associates can grow very bored of the repetitive tasks and lose attention.
 - Intoxicated- The number of people that are under the influence of drugs or alcohol while working is higher than I would have expected.
 - Not Aligned to the Overall Mission- The percentage of people that truly care about the goals of Walmart as a company and are striving to achieve them is very low.
 - New to the Work- Walmart's high turnover rate ~25% and the ease of transferring to new positions leads to a lot of people still learning how to do their jobs correctly.

In addition to these previous difficulties and because of them, Walmart spends an enormous amount of time, money and resources on a couple things:

- Training and Education

Computer Based Learning (CBLs), 2 Weeks One on One Training, 90 Day Production Curve, Retraining Struggling Associates, Endless Safety Explanations and Demonstrations, Axonify, General Meetings, etc.

- Supervision and Management

Low level management's main function is to resolve conflicts and problems related to associates. People move up in management generally by showing the ability to influence and support associates. The vast amount of management time and resources is spent on dealing with people and their actions. Not on improving processes or working on technical issues.

Due to the difficulties presented by Walmart associates and the energy spent dealing with these difficulties, I believe Walmart should alter their focus.

1. Spend less time, money, and resources on fitting the people to the processes.
2. Spend more time, money, and resources on fitting the processes to the people.

This is accomplished in large part by improving Process Efficiency and as with everywhere else the size of Walmart makes this even more beneficial.

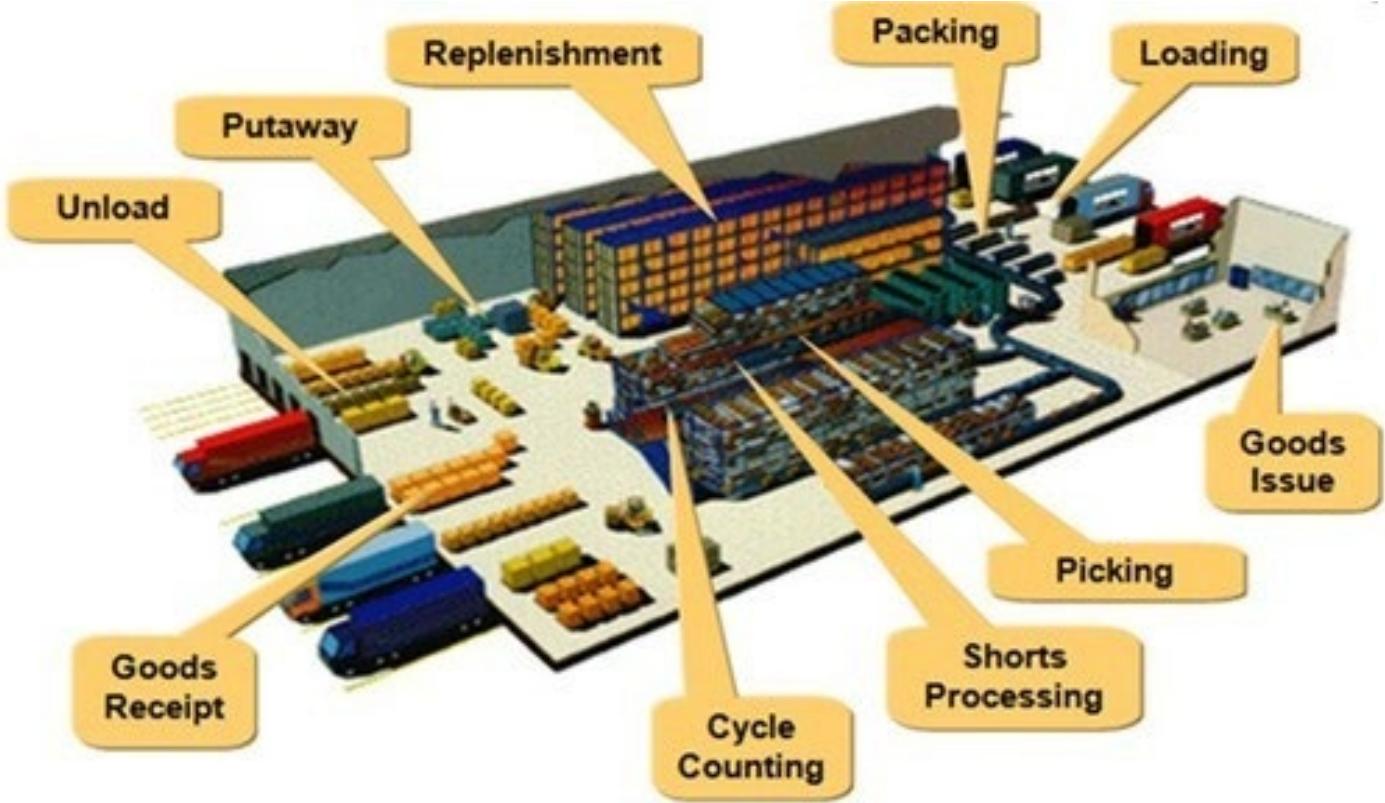
How? Process Efficiency.

How does one determine what processes to improve and how to go about improving them? Generally, the answer is through collecting and analyzing data. This is something I expressed the importance of earlier on.

Below I explain some interesting ways in which Walmart could collect and use data to find ways to improve process efficiency.

Use of tracking technology for pallets, equipment, and people within distribution centers.





A tracking system could be used to better understand how people, pallets, and equipment move throughout a warehouse. This tracking system could be used to determine more efficient ways of moving within the warehouse.

Example: I currently work as a lift driver that replenishes product from the racking and into floor slots. I have a screen where I can choose my next “move” and I then determine the best way to get to where I need to go taking into consideration congestion from surrounding workers.

I shouldn't have these choices to make.

The next “move” should be automatically selected for me and I should be presented with the most efficient path with which to complete this “move” taking into consideration travel path and traffic flow. Think Google navigation only a lot easier to design and develop.

Example 2: I used to work as a truck loader and when the loading dock got extremely congested it would often take 20 minutes to an hour to locate a single pallet. A tracking system would lead me right to the pallet I need to find.

Analyzing Order Filling on a Slot by Slot Basis

Walmart order-filers have a production goal based on a very specific formula of how long it takes to get from slot to slot and how long it takes to “pick” specific products from a slot. These are collectively known as “standard times”.

The next step should be to evaluate the actual time it takes for associates to perform these tasks. Higher than normal average times could be used to discover inefficient areas. This data can be examined more closely to determine the labor costs related to specific items in a distribution center. What items take the longest to “pick”? What items cause the most extended delays? What is the true cost of warehousing and shipping a particular item? Why do certain “trips” (parts of a store order) consistently have lower productivity numbers than others across multiple DC’s? (Meat and Produce-Dry Room Trips for example). These questions all have answers and the proper analysis can find these answers.

Example: When associates have trouble making production goals they are retrained via PPMs. This process consists of a trainer following an associate and trying to determine how they need to improve. This process is often ineffective.

With a specific understanding on how the employee spends their time the trainer would not only know the particular associates issues (Let’s say they take 50% longer acquiring pallets between trips than the average order filler). They would also be able to easily show the order-filler exactly what the issue is and then how to fix it. This is considerably more effective, takes less time, and costs less money.



SportVU Tracking

I am a big basketball fan. Within basketball there is a technology called SportVU. This technology uses cameras to keep track of where all of the players and the ball are located at all times.

SportVU can tell you simple things like where players are moving to and where shots are taken.

SportVU can tell you more complex info. Players average speed. Players max speed. Total distance covered. Average location. Average time with the ball. Average distance from the ball.

SportVU can even decipher complex interactions and movements. Pick and Roll. Back Cut. Dribble Hand Off, Screens, Pick and Pop, Post Up, Charges, Screen the Screener, Closeout Speed, Defensive Rotations, Secondary Assists, and so on.

Imagine using this in retail stores.

Imagine knowing exactly how every customer moved throughout the store. Where they stopped. How much time they spent looking at specific items. How many items they picked up. How many they put back.

Imagine even knowing a customer's body posture and facial expressions while they are shopping.

What displays attract the most customers? How much is being on an eye level shelf worth compared to a low shelf? How should you position the departments within a store to maximize people's time spent in the store?

I think the possibilities for this type of technology are particularly powerful. On the next couple pages, I included the selling points for SportVU. Look at how much they align with the main goals in the DC and the store.



Why Choose STATS SportVU Data?

Prevent Injuries

STATS SportVU measures distance run, average speed and acceleration to assess the strain and physical load for each player. Monitoring when strain is high for a prolonged period can help alert teams that a player needs to rest in order to avoid a possible injury.

Additionally, coaches can use STATS SportVU data during recovery periods to verify the return of a player's performance to levels recorded prior to the injury, therefore reducing the chances of the injury recurring. NBA teams lose an average of \$357 million a year in salaries due to injuries, just a 5% reduction can lead to a savings of \$18 million.

Make Better Coaching Decisions

A wide range of tactical insights on team and opponent tendencies and efficiencies are available for coaching and scouting review. With a better understanding of team strengths and weaknesses, coaches use STATS SportVU data to make better decisions and win more games.

Proprietary, cutting edge defensive data sheds new light on matchups. STATS SportVU can quantify defensive matchups, ball pressure, closeouts, rotations and much more to measure defensive effectiveness unlike any other tool.

Maximize Player Performance

STATS SportVU empowers basketball analytics by providing derived statistics on in-game events that previously took too much effort or were impossible to chart by hand. Both physical performance metrics and tactical, basketball related events like drives and post-ups can be analyzed quickly and easily with STATS SportVU.

Data is also available year after year so coaches can review a player's entire career to validate training programs and practice plans.

Save Time

Our expert data analyst team serves as an extension of your staff, helping with report creation and guiding you to the most actionable and impactful data insights.

Reports are displayed directly within our software platform for easy review on any internet-connected device. Every game event that previously had to be charted by hand is now aggregated, analyzed and delivered automatically.



Process Efficiency – Examples

As I have said before there is a variety of ways in which to improve process efficiency. In this the last section I will present three specific examples of improvements. These improvements apply specifically to Grocery Distribution Centers.

Profiling

“Profiling” is the process of organizing products in the warehouse in a way that makes them easier to stack and combine into pallets. In general, heavier and more stable boxes and crates are profiled at the beginning of order filling “trips” while lighter things are placed later on in the trip. In addition, items that are similar shapes and sizes are placed near each other. This helps the order filler to stack the products onto pallets in a way that is the most stable, least damaging to the products, and most time efficient.

In general, the profile of the Distribution Center (DC) is good. Unfortunately, due to changes in the types of boxes that products come in and the seasonal nature of certain items, the profile can gradually become worse.

The worse the profile is, the more difficult and time consuming it is to fulfill store orders. A poor profile can have wide reaching and significant impacts throughout the shipping process. I refer you back to part 2 of the Why Process Efficiency Section.

The improvement and fixing of the profile is ongoing, but it usually and often significantly lags behind the pace at which the profiling naturally becomes worse.

This all leads to the profiling being well below optimal levels for the vast majority of the time.

A poor profile has costs. These costs are multiplied by the vast amount of units handled by distribution centers every day. There is a solution to this problem that eliminates these costs. The solution might be a technological advancement, or it might be something that one DC has an answer to but has neglected to share with others. Regardless, there is a solution out there somewhere.

Warehouse Incentive Program

The first problem (profiling) revolved around an inefficiency regarding items.

This problem revolves around an inefficiency surrounding people.

Grocery DC's utilize a Warehouse Incentive Program.

This incentive program pays out a quarterly bonus based on performance within 4 categories. This incentive can pay out up to ~\$1 per hour worked

per employee. This comes out to very roughly ~\$1600 per year per associate. At 750 associates per DC this incentive program can pay out well over a million dollars each year at each DC. These are very rough estimates, but a million dollars is a solid ballpark number.

I believe this incentive program is next to useless. I believe the benefit of this incentive plan could be achieved for a fraction of the cost in other ways.

What makes a good incentive system?

- 1. *The goal of the incentive system and how it works must be obvious to and easily understood by the people using the incentive system.***

I'm going to use myself as an example here.

I have worked in a Walmart DC for 7 years. Well above the average time from what I can tell.

I am not a below average employee. I have been a T3 trainer for ~5 years. I have received the associate of the month award at multiple DCs. My attendance, accuracy, quality, safety record is well above average. My production has been well above goal in multiple job functions and has been record setting in order filling.

When it comes to paying attention to how Walmart operates I believe I am above average. I think this is evidenced by me creating this now 70 page and counting exploration into the Walmart/Amazon battle.

All in all, I would say if any hourly associate should understand the DC Warehouse Incentive System it would be me.

In reality...

I don't understand it at all.

I know there are 4 parts. I know one part is based in some way on Cases Per Hour (CPH). I know the other three parts in some way relate to stray and damaged cases and "outs" (cases ordered by a store but not available to be shipped). I think one part is called "cycle count" and another is called "gross adjustments". This is what I know.

I don't know the titles of the 4 parts for sure. Even if I knew the titles of each part I wouldn't know what they mean or how exactly I could improve them. I don't know why each part is less or more valuable than another (Why does one part max out to 60 cents while another only 20 cents?). On any given day I don't know why the amount we are receiving for each part changes for better or worse. To be honest I don't even know the whole Warehouse Incentive System exists at all unless we are listening to the numbers being read at a general meeting, I see a larger than normal paycheck, or happen to glance at the board showing our current incentive numbers.

In total I spend 99% of my working time not realizing the Warehouse Incentive System even exists and the other 1% of the time not knowing how it works.

And again, I probably know more about it than the average associate. Ask the average associate how the Warehouse Incentive System works and you're going to get a lot of blank stares and anxiously hopeful uses of the terms "cases per hour", "damages", "strays" followed by a sigh of relief when you take over actually explaining some more specifics.

Ask an order filler how the order filling incentive works, and you will get a lot better answer. Why? While this incentive may not be perfect, it is simple, obvious, and easily understood. Order fill faster. Get paid more. Simple.

2. An incentive system must connect a specific action to a specific reward. The user must know the actions to take and how they increase or decrease the amount of the award.

The Warehouse Incentive System (I will refer to it as WIS from here on) fails this at every possible level. First of all, I don't really know the basics of how WIS works so I definitely can't adjust my actions in order to increase my award.

I know one of the main parts of WIS revolves around cases per hour. This part is at best repetitive and at worst useless. How do I improve cases per hour?

By working faster? Between production requirements, order filler incentive, and the general atmosphere of constant action within the DC I am already incentivized to increase production in a much more direct, obvious, and stronger way.

By eliminating unproductive time not already accounted for in production, like cleaning and time from finish to clock out (I end day)? First, the extent to which this can be controlled is minimal. Second, most people are trying to leave Walmart as fast as possible at the end of the day regardless. Third, those that are taking too long to get off the clock or cleaning for too long are either more greatly incentivized by the extra pay(wages) or don't really care about the WIS in this situation.

If you wanted to give out incentives based on a person's average daily indirect time you might be successful. If the person knows that taking longer to clock out directly costs them incentive money they might change their ways.

As currently constructed WIS is virtually useless for improving cases per hour. This isn't good being that CPH is the biggest part of WIS.

In addition, when the CPH goal increases each year without any concurrent improvements in the process efficiency, this part of WIS becomes even less useful.

The other parts of WIS relate to doing work with quality and accuracy. Specific actions include collecting and taking care of stray and damaged cases.

These parts are largely unsuccessful. I pick up strays and damages, but it is definitely not because I expect a greater WIS reward.

Most people do not look for, or actively avoid dealing with strays and damages. Why is this?

One reason is that other incentives take preference. Production goals, incentives, and the general working mindset force workers to continue moving instead of stopping to deal with strays and damages.

Another reason is that the action of taking care of a stray case does not directly result in a larger bonus.

The person gets the bonus only if hundreds of other people over which they have little to no control also perform similar actions.

I could do the best job possible and still receive no award or I could do the worst job possible and receive the maximum award.

In short, my actions as an individual have no impact on how much WIS I receive.

Even if my actions really did matter they do not seem connected to my reward. I receive my WIS quarterly bonus at a date offset from the end of the quarter. The action I take and the reward I receive can be months apart.

It's difficult to create the understanding of a cause and effect relationship when the cause is months away from the effect.

WIS might be functional as a haphazardly applied hourly wage increase or a quarterly boost to worker happiness, but it certainly isn't functional as an incentive system for the average associate.

An alternative to WIS.

What could a DC do with a million dollars a year?

A lot. Some could be distributed to associates in a more beneficial way. Some could be used for building and process improvements. You know better than me what a DC can do with a million dollars.

I would recommend using a small fraction to create an incentive system that actually works.

Maybe a token-based incentive system like what is currently used (ineffectively I might add) for safety.

Find a stray case. Bring it to the desk. Take a token out of a box on the desk. Use token to get a candy bar from the associate store. Have the value of the tokens scale with the value of the action. Find a pallet in the wrong slot. Get 5 tokens. Or a free lunch card. Or whatever. Run it on the honor system. Even if there is massive token fraud it is still miles cheaper and more effective than WIS.

This simple token system has all of the things WIS doesn't.

People Understand It. It's Simple. People Know How It Works.

It connects the desired action to the reward. If I pick up a stray case I get a candy bar token now. This is a lot better than if I pick up a stray case and hope really hard that everybody else picks up their stray cases I might get an unknown amount of money months later.

The token system scales with how much effort and skill I put in. Find one stray. Get one token. Find a hundred strays. Get a hundred tokens. Even if WIS was perfect it still doesn't scale in a straightforward way.

I believe this even improves worker satisfaction in the long run. Get a token and it boosts your mood each time. WIS only boosts your mood four times a year at the most. If the WIS is less than you were expecting it can even have a negative effect here.

The best thing is you can give out a ton of tokens, a ton of candy bars before you get to the million-dollar mark WIS is costing.

New-Hire Production Goals

My last example of a possible improvement in process efficiency is an idea taken from multiple years of training order fillers.

The main thing that concerns new order fillers is production goals. The most common questions I get right away when training involve production goals.

For some reason Walmart DCs have the reputation of being very difficult and quick to fire for missing production goals. This is obviously incorrect.

The percentage of people fired for production is extremely small. The training curve is very long and reasonable. Management is generally patient with new hires struggling to make production. Regardless of this the thing most on new hires minds is production, speed, and going faster.

These goals are immediately emphasized. The warehouse environment is fast paced. Order filling is a fast-paced mindset by its nature. Everybody

around the new hire is going way faster than they are. Management emphasizes speed indirectly. “Cases per hour” “Get off the clock quickly” “Get back from breaks quickly” “at X% we will be done at 11, at XX% we will be done at 10” “Short, Fast Startup Meetings”

The biggest problem is the second you put on the headset. It’s a constant reminder to do the next thing. Pick the next case. Go to the next aisle. go.

Do. FASTER. **SPEED.**

Then once you finish your trip the headset tells you exactly how fast you went on that trip and how fast you’re going overall. Remember, you are new, so the numbers are never good. 45%. 52%. 36%. And so on. The only option is to go faster and hope the numbers get better.

This is bad for new hires. They get laser focused on speed and forget everything else. This is why new hires are more prone to unsafe actions, accidents, and injuries. This is why their quality, accuracy, and stacking are below average. This early focus on speed even restricts the ability to learn the skills that lead to increased production speed in the future. It also makes the training process dramatically more difficult.

I don’t think this issue can be completely fixed but it can be improved upon. Turning off the in-headset production percentage read-out for people in training and people early on in their training curves would help.