

WALMART VS. AMAZON:

ABSTRACT

This report provides an in depth comparative analysis between Walmart and Amazon with respect to each company's demographics, marketing, operations, and finance. The intent of this analysis is to determine the better stock to buy and hold over the next decade. It addresses the questions of market mispricing, the changes each entity must address to be competitive in the long run, and the importance of profitability.

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CUSTOMER DEMOGRAPHICS

Walmart has approximately 11,100 stores around the world in over 27 countries.

Walmart is the largest brick and mortar retailer in the United States and worldwide. Walmart has established e-commerce websites in 11 countries. As reported by The Market Realist website, http://marketrealist.com/2015/05/e-commerce-spark-walmarts-fiscal-1q16-performance/, the addition of e-commerce to Walmart's business model has helped improve same-store sales by a reported 0.3% in Q4 2015 within the United States.

Almost 60% of Walmart customers have annual income less than \$50,000. Chart 1 in the Appendix depicts various age ranges of some of the larger brick and mortar retail operations. In fact, it is estimated that as many as 25% of Walmart customers do not use debit or credit cards, or even have a bank account. Amazon's customers are socio-economically better off and have access to the technology needed; this particular market segment that shops at Walmart will unlikely be served by Amazon's e-commerce exclusive operations. Please reference chart 2 of the appendix for a breakdown of consumer age at the largest brick and mortar retail operations.

Amazon operates an e-commerce business in 10 countries and has no brick and mortar retail locations. Growth in Amazon Prime memberships rose by 53% in 2014 worldwide. This growth was largely in the United States as only 3% of the growth was from international memberships. In 2014, it was estimated that Amazon Prime had 30M-40M subscribers in the United States and 40M-50M subscribers worldwide. While the growth rate seems incredible it is important to note that the United States' population is approximately 320M, and the

worldwide population is over 7.2B. In the United States, 87.4% of the population have access to the internet. Amazon, to date, has only been able to acquire a market share of roughly 14% of the U.S. population. Outside of the United States, only about 42% of the population has access to the internet. This leaves a tremendous, untapped international opportunity for Amazon that will continue to be unattainable until the infrastructure and income throughout the world can provide the means for consumers to take advantage of its benefits.



MARKETING

It is human nature to be emotional, and even the most prudent investors make decisions based on emotion. From the standpoint of marketing, successful marketing plans help a company increase sales in the short run and create brand equity over the long term. Customers purchase products based on things such as product quality, price, packaging, and their perception of the brand. Likewise, shareholders' investment decisions are based on things more than the intrinsic value of the company's equity, but also the evaluation of the company's past performance, confidence in the company, and forecasting on its potential growth. Subjective judgments are involved when investors forecast a stock's potential growth, and, therefore, it is important for a company to create a strong brand image through effective marketing communications that keep the company as an attractive option for its shareholders. A year ago, Walmart had a market capitalization of approximately \$245 billion and Amazon was approximated at \$140 billion. Today, Walmart has lost its retail king's crown to Amazon. Looking at the marketing strategies for both Walmart and Amazon, we could have a more holistic picture for each company besides their financial, operations, and managerial performances.

Walmart serves nearly 260 million customers weekly across 27 different countries, both in stores and through its websites. Without proper and effective marketing strategies, Walmart would not have been able to achieve success at this scale. Some major tactics Walmart has used in its marketing plan include low prices, easy access for its customers, and social media campaigns. Consider Walmart's brand promise, "Save Money. Live Better." Walmart aims to



deliver to the customers a message that it provides products at the lowest prices. This low price strategy plays a marketing role that caters to customers who seek the lowest prices and with grocery stores that provide great deals. The low cost business model of Walmart is backed up by its powerful supply and distribution chains throughout the world. Customers can expect the same cost efficient style in every Walmart store worldwide.

Easy access is the second component in Walmart's marketing strategy. Having thousands of physical stores and online storefronts throughout the world, Walmart is extremely accessible to its0 customers. Additionally, most of its supermarket locations stay open 24 hours a day, 7 days a week. Easy access offers more opportunities and more channels for potential business to reach out. As an example, Walmart is expanding mobile access with Asda (a subsidiary supermarket brand of Walmart based in Britain) through its Click & Collect initiative. Ease of access also assists customers to shop with greater information and transparency.

Walmart has put significant effort into its social media campaign to communicate with its customers. Walmart has successfully managed to use social media to maintain its brand image. Walmart has more than 32,000,000 Facebook Likes, over 700,000 Twitter followers, and over 55,000 Pinterest followers. Different social media platforms serve different functions for Walmart. On Facebook, Walmart has created a timeline since it was established in 1962, showcasing how the brand has grown. On Twitter, Walmart tweets about various topics including sports, news, and requests for retweets. Walmart interacts with its customers on Twitter rather than using the platform as an advertising tool. Pinterest has been used by Walmart to promote green living and its product ideas. Other social media tools used by



Walmart are used to segment customers by their interests, to interact with customers to better understand their needs, and to promote products.

Amazon has shown increasing revenues from Q1 2015 through today reflecting more than \$25 billion in revenue for Q3 2015. Amazon stated its marketing approach in its 2011 annual report as "we direct customers to our websites primarily through a number of targeted online marketing channels, such as our associated program, sponsored search, portal advertising, email marketing campaigns, and other initiatives." Being the leader of the ecommerce industry, Amazon maintains that customers are the most important element to its business. To meet its customers' different needs, Amazon has done an excellent job with customer segmentation by offering recommendations for various products based on its customers' shopping patterns and purchase history. Web browsing on other websites, such as Google, Facebook, and YouTube, are used by Amazon to analyze its customers' shopping preferences, and then to personalize and improve its users' experience at Amazon.com.

In general, both Walmart and Amazon have well-developed marketing strategies to cater to their respective segments. Walmart is more focused on its everyday low price strategy, and aims to expand its online services in the future. Amazon has been improving its customers' online shopping experience through marketing automation, which incorporates more internet channels, such as websites, social media, and email, to automate repetitive tasks in order to enhance working efficiency.



OPERATIONS

Walmart's main strategic goal is to provide quality merchandise at an affordable, low cost to consumers. Its operational goals focus on efficient logistics requiring technology and inventory management systems to help reduce costs which is passed on to the consumer.

A major operational feature that was adopted by Walmart is its cross-docking inventory system. Cross-docking is the process of moving material from the receiving dock to the shipping dock, bypassing storage. Cross-docking reduces inventory carrying costs, transportation costs, and costs associated with order fulfillment and material handling.

Walmart also has its own transportation system, which helps in shipping goods from the warehouse to the store. This allows Walmart to restock their stores more rapidly than their competitors.

Walmart has established itself as the market leader by using a simple strategy of offering merchandise at lower prices. By the use of efficient logistics, Walmart improves its buying power, scale of operations, and minimizes costs for the company.

One of Walmart's weaknesses is declining prices, and subsequently, diminishing margins. With the increase in operational efficiencies, along with the import of Chinese goods into the US market, Wal-Mart has been suffering from decreasing gross margins in certain product categories.

Every month Walmart receives approximately \$140 million worth of payments through non-cash payments. As a result, Walmart has an opportunity to enter the banking industry, by



establishing its own bank, which would provide significant savings on third-party electronic payment processing fees.

Amazon, at its roots, is built to transform. When it finds opportunities to serve new customers, or existing customers in new ways, it conceives, and builds, new business models to exploit them. Amazon has the unique ability to launch and run entirely new types of businesses, while simultaneously extracting value from existing businesses.

Amazon has achieved its online dominance by deploying its threefold strategy of limitless inventory, customer convenience, and low price. The primary difference between a physical retailer and Amazon is its online operations that allow Amazon to adopt mass customization. Currently, its product range can be divided into 34 broad categories. Such product customization differentiates Amazon from its competitors, and is a critical source of its competitive advantage, which has led to its success.

In order to provide such mass customization, Amazon follows three operating models. First, it sells its own inventories and manages customer relations and supply chain on its own through its website. Second, Amazon acts as a third person and allows other companies to place their products on its website. Through this model, Amazon only manages front-end customer relations, while logistics issues are controlled by sellers. Third, Amazon has introduced its e-commerce solutions by designing websites and offering hosting services to its customers.

In order to fulfill its customers' orders, Amazon uses its supply chain optimization software to predict demand and to optimize its supply chain. Its integrated system speeds up its shipping process, which allows customers to receive their product in as little as one or two



days, if not sooner in some areas. This positively attributes to customer loyalty, and allows it to compete with retail stores.

Amazon also uses cross-docking shipments to minimize operational costs. Its mass customization model generates high activity with low variable costs. Even though Amazon's fixed costs dominate its operational costs as compared to nominal variable costs, its high activity drives down its fixed cost per unit, which allows it to gain a competitive advantage through cost leadership.

Amazon has also adopted a customer fulfillment networking strategy to augment gross profit margins by purchasing books directly from publishers, rather than involving distributors, which adds to their profits. Amazon benefits from this strategy because it allows them to predict dynamic demand that reduces the carrying and transportation costs at their warehouses. This improves their cash flow since less cash is tied up in inventory and increases inventory turnover, which both augment Amazon's profits.

Amazon has also leveraged technology to extract and use customer information. By doing this, Amazon is able to customize the customer experience by offering products based on a customer's past buying behavior. It continues to leverage this data to engage buyers and sellers through the use of customer reviews, which can entice future buyers to make a purchase.

Amazon also differentiates itself from other online retailers, and allows it to compete with brick-and-mortar retailers, through its hassle-free fulfillment of customer orders. Through its extensive logistical network and order fulfillment process, Amazon has created significant barriers to entry due to the money needed to implement a logistics network that would allow

competitors to provide same-day delivery (or two day delivery through its Prime membership) without losing money.



FINANCIAL ANALYSIS

Walmart carries a debt to equity ratio of 1.50 compared to Amazon's of 4.07, signifying Amazon's capital structure is heavily loaded with debt by comparison. However, when looking at each companies cash coverage ratios it is apparent that sufficient cash is available to cover their respective interest obligations.

The financial story gets really interesting when a closer look at each of the company's cash flows are examined. Walmart is generating significant cash flows from their operating activities and appears to be managing it very effectively by continuing to invest in capital expenditures, increase dividend payouts year over year, and maintain a stable and slowly declining level of debt. Meanwhile, Amazon has a much different story in their cash flows. While Amazon has been able to generate increasing positive cash flows from operating activities, it appears that they have been increasing their borrowing to cover the net outflow related to capital expenditures. Although they have been able to increase their cash position, the increasing leverage in their balance sheet is an increasing risk to the company and its investors.

According to information from Morningstar, Walmart has a bond issuance with a maturity date of 4/22/24 paying a coupon of 3.3% with a current yield of 2.69%. In comparison, Amazon has a bond issuance with a maturity date of 12/5/24 paying a coupon of 3.8% with a current yield of 3.23%. The spread in yield of 54 basis points, over a roughly six-month duration, is evidence of the increased risk that investors attribute between the two companies.



Up to this point, it is clear that Walmart appears to have a stronger financial basis. This is further illustrated when calculating each companies weighted average cost of capital (WACC). When taking the most effective tax rates of each company from their latest federal tax filings, along with the cost of debt based on each company's approximately 10 year debt, yields the cost of after tax debt. For Walmart, this is 1.77%, and for Amazon, it is 2.20%. Cost of equity was calculated using the CAPM approach, using the 10-year treasury as the risk free rate and 7% as the market risk premium for each company. With betas of 0.46 for Walmart and 1.49 for Amazon, their cost of equity is 5.54% and 12.75%, respectively. From these figures, we can determine that Walmart's WACC is 1.81% and Amazon's WACC is 2.21%. The lower WACC of Walmart means that cost of expansion makes them more competitive for market growth.



RECOMMENDATION

While both companies lead their respective industries, their financials tell a different story. Historically, the S&P 500 has averaged a PE ratio of 15.56, which is a respected gauge of a stock's fair value. As of 11/06/15, Walmart's P/E ratio was 12.27 and Amazon's P/E ratio was 944.66. In addition, as of the end of their fiscal year 2014, Wal-Mart showed a net income of \$16.363B, while Amazon showed a net loss of \$241M. The Financial Analysis section addresses additional, key figures that show Walmart is in a better position financially.

Finally, the goal of long-term investing is to buy low and sell high. Even though the financials show Walmart as a well-established, profitable company, and Amazon as a fully-leveraged, unprofitable company, their 2015 stock prices have gone in opposite directions. Amazon stock has increased from \$308.52 on January 2 to \$659.37 on November 6, a 114% increase, while Walmart has decreased from \$84.28 to \$58.78, a 30% decrease. By keeping the long-term investing goal in mind, Amazon is continuing to set new highs, while not proving it can sustain a profitable business model, and Walmart continues to get driven lower, even though it has a proven, profitable business model, and an ability to continually pay out increasing dividends.

We see a firm that has created value with positive net income getting squeezed in a world where economic growth is being thwarted. On the other hand we see another firm that is constantly expanding without showing consistent profits that is able to fund its innovative selling model. The access to computers around the world will hamper Amazon for some time. Walmart however, will still profit and continue to prosper. Our money is on Walmart.



APPENDIX

The following charts are extracted from the article "Here's A Breakdown of Walmart Shoppers by Demographic" by James Kosur, June 19, 2015 at

http://www.businesspundit.com/heres-a-breakdown-of-walmart-shoppers-by-demographic/

Chart 1:

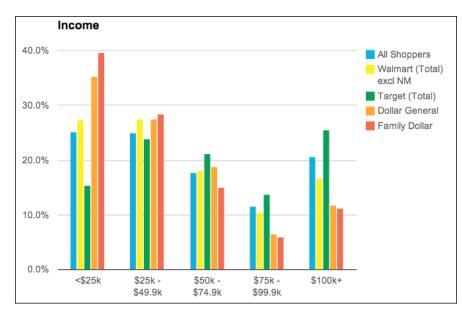
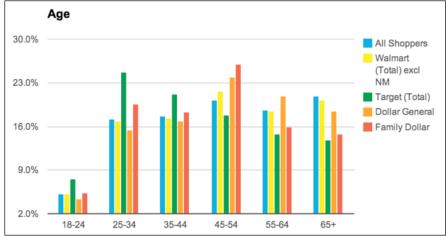


Chart 2:





Comparative Balance Sheets Fiscal 2014

	Wal-Mart 31-Jan-15		Amazon 31-Dec-14	1
Assets				
Current Assets				
Cash And Cash Equivalents	9,135,000	4.5%	14,557,000	26.7%
Short Term Investments	-	0.0%	2,859,000	5.2%
Net Receivables	6,778,000	3.3%	5,612,000	10.3%
Inventory	45,141,000	22.2%	8,299,000	15.2%
Other Current Assets	2,224,000	1.1%	-	0.0%
Total Current Assets	63,278,000	31.1%	31,327,000	57.5%
Property Plant and Equipment	116,655,000	57.3%	16,967,000	31.1%
Goodwill	18,102,000	8.9%	3,319,000	6.1%
Other Assets	5,671,000	2.8%	2,892,000	5.3%
Total Assets	203,706,000	100.0%	54,505,000	100.0%
Liabilities Current Liabilities				
Accounts Payable	58,583,000	28.8%	26,266,000	48.2%
Short/Current Long Term Debt	6,689,000	3.3%	-	0.0%
Other Current Liabilities	-	0.0%	1,823,000	3.3%
Total Current Liabilities	65,272,000	32.0%	28,089,000	51.5%
Long Term Debt	43,692,000	21.4%	8,265,000	15.2%
Other Liabilities	-	0.0%	7,410,000	13.6%
Deferred Long Term Liability Charges	8,805,000	4.3%	-	0.0%
Minority Interest	4,543,000	2.2%	-	0.0%
Total Liabilities	122,312,000	60.0%	43,764,000	80.3%
Stockholders' Equity				
Common Stock	323,000	0.2%	5,000	0.0%
Retained Earnings	85,777,000	42.1%	1,949,000	3.6%
Treasury Stock	-	0.0%	(1,837,000)	-3.4%
Capital Surplus	2,462,000	1.2%	11,135,000	20.4%
Other Stockholder Equity	(7,168,000)	-3.5%	(511,000)	-0.9%
Total Stockholder Equity	81,394,000	40.0%	10,741,000	19.7%
Total Liabilities and Equity	203,706,000	100.0%	54,505,000	100.0%
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Comparative Income Statements For the Fiscal Year 2014

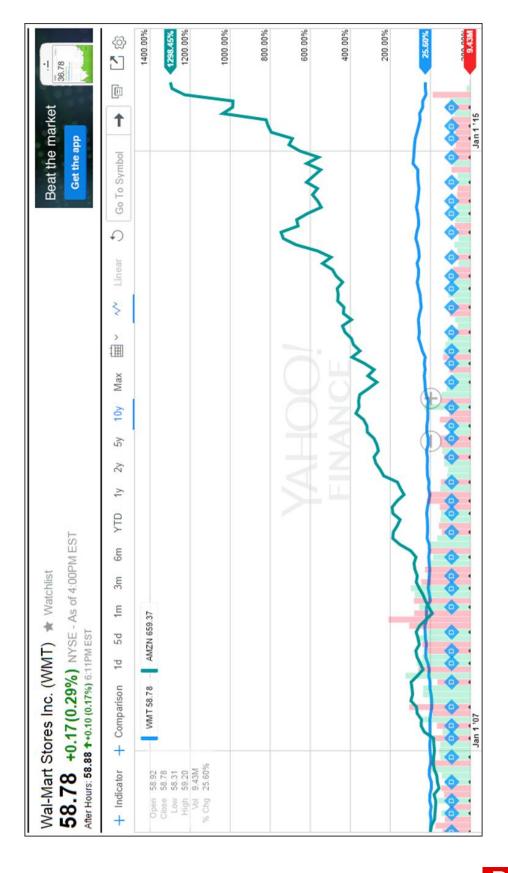
All Numbers in '000	Wal-Mart		Amazon		
	31-Jan-15	31-Jan-15		31-Dec-14	
Total Revenue	485,651,000	100.0%	88,988,000	100.0%	
Cost of Revenue	365,086,000	75.2%	62,752,000	70.5%	
Gross Profit	120,565,000	24.8%	26,236,000	29.5%	
Operating Expenses					
Selling General and Administrative	93,418,000	19.2%	26,058,000	29.3%	
Total Operating Expenses	93,418,000	19.2%	26,058,000	29.3%	
Operating Income or Loss	27,147,000	5.6%	178,000	0.2%	
Income from Continuing Operations					
Total Other Income/Expenses Net	113,000	0.0%	(79,000)	-0.1%	
Earnings Before Interest And Taxes	27,260,000	5.6%	99,000	0.1%	
Interest Expense	2,461,000	0.5%	210,000	0.2%	
Income Before Tax	24,799,000	5.1%	(111,000)	-0.1%	
Income Tax Expense	7,985,000	1.6%	167,000	0.2%	
Minority Interest	(736,000)	-0.2%	-	0.0%	
Net Income From Continuing Ops	16,814,000	3.5%	(241,000)	-0.3%	
Non-recurring Events					
Discontinued Operations	285,000	0.1%	-	0.0%	
Net Income	16,363,000	3.4%	(241,000)	-0.3%	
Preferred Stock And Other Adjustments	-	0.0%	-	0.0%	
Net Income Applicable To Common Shares	16,363,000	3.4%	(241,000)	-0.3%	



Comparative Solvency and Measures

	Wal-Mart	Amazon
Long Term Solvency Ratios		
Debt - Equity Ratio	1.50	4.07
Times Interest Earned Ratio	11.08	0.47
Cash Coverage Ratio	14.80	23.07
Asset Management Measures		
Inventory Turnover	8.09	7.56
Days' Sales in Inventory	45.13	48.27
Profitability Measures		
Profit Margin	3.4%	-0.3%
EBIT Margin	5.6%	0.1%
Return on Assets	8.0%	-0.4%
Return on Equity	20.1%	-2.2%
Market Value Measures as of 11/6/15		
EPS	4.79	0.70
PE Ratio*	12.27	944.66
Enterprise Value Mulitple	6.57	44.46
Beta	0.46	1.49
Forward Annual Dividend Yield	3.03%	0.00%
Payout Ratio	39.70%	0.00%







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