The Impact of Social Media Usage on Business Performance

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ABSTRACT

Social media platforms are growing more popular in modern society, increasing digital interaction and influencing consumer decisions. The majority of Fortune 500 businesses and corporations are taking advantage of social media platforms (Instagram, Facebook, Twitter, and YouTube) in attempt to increase brand awareness, customer relationship development, sale opportunities, and ultimately to improve business performance. Studies have established a positive correlation between consumer sales and consumer traffic on social media, along with a positive relationship with perceived business value. However, little research has investigated the relationship between social media presence, followers, and posts in correspondence with Fortune 500 rank, return on assets, revenue, and stock price. In this exploratory study, regression analysis finds significant relationships between social media followers and rankings in the Fortune 500. The total number of posts had a small, slightly negative relationship with average annual revenue growth and average annual stock price growth. None of the social media metrics showed a significant relationship to average annual return on assets.

Keywords: Social media, revenue, ROA, stock price, Fortune 500

INTRODUCTION

Digital communication technology platforms have redefined and expanded the concept of consumer-business interaction and are used in various ways (Stephen, 2015). Consumers utilize digital media technology to follow their friends or family, stay updated on their interests, or for sheer entertainment purposes. Businesses use digital technologies and media to gain a following, advertise for their business, and ultimately contribute to profit.

Consumer Use

During 2021, the most widely used platforms among US adults were YouTube (used by 81%), Facebook (69%), Instagram (40%), Pinterest (31%), LinkedIn (28%), Snapchat (25%), Twitter (23%), WhatsApp (23%), and TikTok (21%) (Auxier & Anderson, 2021). Meta owns the Facebook, Instagram, and WhatsApp platforms. For companies with a customer base age 30+, Hruska (2020) recommends YouTube and Twitter as a primary source of media to boost sales, promote content, go viral, and learn more about customers and competition.

While social media platforms provide an opportunity to view and to retain information, they also give consumers the ability to interact and produce public content. Ghoshal (2019) found that the majority of people use social media platforms to connect with friends, network, and socialize online. Most consider social media networks in their buying decision-making process most of the time. Traditional marketing techniques can no longer compete with the interactive features social media provides with the public posting of consumer information (Ratliff & Kunz, 2014).

Research proves how the digital interconnectedness of social media has increased active participation and interaction by consumers with businesses (Hennig-Thurau, Hofacker & Bloching, 2013). Exposure to other consumer opinions and reviews online through social media can even impact subsequent behaviors of consumers (Stephen, 2015). Since these platforms and social networks contain content made by people and are easy to access, information (followers, posts, reviews, and comments) is generally credible and trustworthy to consumers which impacts their behavior (Hruska, 2020). When a possible customer looks at a business's social media platform and sees a high volume of followers, likes, and comments, customers may become more inclined to purchase goods or services from that company. On the contrary, people and businesses who lack presence or activity on social media networks are generally deemed less credible because there are no references or interconnectedness (Hennig-Thurau, Hofacker & Bloching, 2013; Hruska, 2020; Stephan, 2015).

Producers have also taken advantage of the interconnectedness of consumers and producers by collecting digital data and targeting consumers with personalized advertisement (Stephen, 2015; Hennig-Thurau, Hofacker & Bloching, 2013). There are negative reactions from consumers when producers use advertisement targeting. These negative reactions are excused, however, when the consumer preferences advertised are precise and consumers have a higher perception of control regarding their privacy with personalized information (Stephen, 2015).

Business Use

Given society's heavy dependency on social media for information, entertainment, and networking, it is "inexcusable" for an aspiring successful business to not participate (Ghoshal, 2019). Deepa & Deshmukh (2013) confirmed the early popularity of social media use among successful businesses, indicating 86% of the 100 largest Fortune 500 companies used at least one form of social media in 2013 and 28% of them used Facebook, Twitter, and YouTube. Ratliff & Kunz's (2014) research found that 60% of all the corporations had integrated multiple social networking sites and social media into their digital presence and marketing schemes. The Fortune 500 companies with larger revenues (higher ranked) were more likely to have adopted more social media platforms. The main ways social media use contributes value to a business include exposure to target audiences (brand awareness), interaction with target audiences (customer/public relationship development), and the opportunity to sell products and services (Deepa & Deshmukh, 2013; Hennig-Thurau, Hofacker & Bloching, 2013).

Business Performance

According to Miciula, Kadlubek & Stepien (2020), business valuation methods should consider multiple components of the company affecting its value because one correct method or technique is nonexistent. For the purposes of this study, relevant business performance measurables include return on assets (ROA), revenue, and stock price. Organizations with a growing ROA are using their assets (marketing, investments, PP&E-property, plant and equipment) efficiently and improving the business's overall financial health. Generally speaking, a company which markets to consumers effectively should see a growth in revenue over time. Stock price provides valuation from traders in the market, and growing stock prices are also an indicator of a growing business.

Consumer buzz and traffic on business websites and social medias explain a large portion of variance for firm value. Luo & Zhang (2013) defined "consumer buzz" as the form of user-generated reviews, recommendations, and blogs to signal consumer attitude via digital platforms and defined consumer web traffic as the frequency of consumer visits to company websites and social media. Their model supported that increased online buzz (consumer advocacy, brand engagement), site traffic (eyeball effects, brand interest) and firm performance (wealth creation, brand protection) were reinforcing variables. Traffic to the company social media would "enhance the odds of conversion to consumer purchases" which would in turn increase sales.

Yasa (2020) measured the influence of social media usage on perceived business value and its impact on business performance, with similar conclusions as Luo & Zhang. Perceived business value was defined as customer service value, rise in sales value, and customer relationship value along with a few other factors. The usage of social media positively impacted perceived business value, and perceived business value significantly impacted the business performance as measured by three years of annual sales, market share, and profit (Yasa, 2020). Increases in stock price volatility and turnover are connected with increases in social media buzz (Jiao, Viega & Walther, 2020). These are different than stock price growth.

METHODOLGY

Data Collection

Because of the retail industry's heavy reliance on marketing to customers and customer relations, the retail industry is an ideal focal point for a business social media study. This study focuses upon the top 30 retail Fortune 500 companies from 2022. The Fortune 500 list itself serves as a business performance indicator, showing company rankings overall and relative to industry based on the total sales from its previous fiscal year. This study utilizes fifteen years of data on stock price growth, revenue growth, and return on assets. The hypotheses are that business social media presence, followers, and posts are significant in regards to five financial metrics: return on assets (ROA), revenue growth, stock price growth, Fortune 500 rank, and Fortune 500 rank among retail companies.

A novel data set was constructed using social media data collected directly from the companies' platforms on Instagram, Twitter, Facebook, TikTok, and YouTube. For each of companies' profiles and accounts on each platform, the presence, number of followers/subscribers, and cumulative number of posts were recorded as of November 19, 2022. The majority of retail Fortune 500 companies were present on all five platforms. Every company was present on Instagram, Facebook, and YouTube. Costco and Ross Stores were absent from Twitter, while Lithia Motors and Qurate Retail were absent from TikTok.

Target had the most Instagram (5.2 million), TikTok (2.1 million) and overall (10 million) followers, Amazon had the most Twitter followers (5 million), Lowe's had the most YouTube subscribers (1.2 million), and Lithia Motors had the fewest overall followers (3,557) out of all the companies. Nordstrom had the most Instagram posts (7,384), Walmart had the most Twitter posts (626,700), and Costco Wholesale had the most YouTube Posts (3,100). Facebook does not publicize the number of followers on user accounts/profiles.

Financial metrics were collected from Capital IQ and Yahoo Finance for fifteen years between 2006 and 2021. Because the social media measurables consist of cumulative data, they cannot be compared and analyzed fairly to financial metrics reported at regular intervals over time. Each company's business performance data was condensed to the average annual percentage change for the measurable (ROA, revenue, and stock price) between 2006 and 2021, with the exception of Fortune 500 ranking because it is already represented by one comprehensive number. Both the overall Fortune 500 ranking and the retail ranking are investigated. While the order of the companies is the same, the gaps between them are different.

Data was retrieved for the top 30 retail companies. However, holes in the data required the exclusion of some from the study. Six were dropped due to missing business performance measurables (ROA, revenue, or stock price): BJ's Wholesale, Murphy USA, AutoZone, Wayfair, Carvana, and Dollar General. TJX and Penske Automotive were also excluded. Because TJX represented multiple big branches of business (TJ Max, Marshalls, HomeGoods, etc.), it was deemed inappropriate to include its social media statistics in the study. Penske Automotive was present on social media, but its account represented the company's racing team and not the business as a whole. The final sample utilized 22 retail Fortune 500 companies.

The data reveal some interesting superlatives (see Table 1). Amazon was a clear leader in business performance, showing the largest average percent change in ROA growth (54.8%), revenue growth (28.9%) and stock price growth (37.2%). Although only nine places apart in the overall Fortune 500 rank, Amazon led Costco Wholesale by roughly $273 billion in revenue. Total revenue ranged between $573 billion (Walmart) and $12 billion (Dick's Sporting Goods). The only superlative Lowe's holds in the study is most YouTube subscribers, which is fitting because of its niche market of home improvement.

On average, the companies in the sample posted average annual stock price growth of 16.6%. Revenue growth averaged 7.7%. Average annual ROA was slightly below zero (-0.2%); however, the median ROA was +4.0%. Four companies had average annual ROA worse than -29%.

Regression Analysis

Linear regression was used to investigate the relationships between social media and business performance of the retail Fortune 500 companies. Here are the general equations:

- $ROA_i = \alpha_i + \beta_1 Total\ Followers_i + \beta_2 * Total\ posts_i + \beta_3 * Platforms\ used_i$
- $Stock\ Price\ Growth_i = \alpha i + \beta_1 Total\ Followers_i + \beta_2 * Total\ posts_i + \beta_3 * Platforms\ used_i$
- $Annual\ Revenue\ Growth_i = \alpha_i + \beta_1 Total\ Followers_i + \beta_2 * Total\ posts_i + \beta_3 * Platforms\ used_i$
- $Rank_i = \alpha_i + \beta_1 Total\ Followers_i + \beta_2 * Total\ posts_i + \beta_3 * Platforms\ used_i$

Findings of the regressions concluded mixed results for the relationships between social media (presence, followers, and posts) and the business performance measurables of revenue growth, stock price growth, overall Fortune 500 rank, and retail Fortune 500 rank. As indicated in Table 2 (Appendix), the two regressions for rank were significant overall (F=0.0294 and F=0.0377). Total followers was a key variable in these regressions. The negative coefficients mean that having more followers was connected with an improved ranking, as lower is better. The coefficient on total posts was significant and negative in two of the specifications: average annual revenue growth and average stock price growth. This result may have been influenced by one retailer and may not hold in a larger sample.

DISCUSSION

Companies utilize social media platforms to improve their image, make sales, and advance their customer relations, and it appears to be working. Using data of retail Fortune 500 companies, this exploratory study indicates a relationship between business performance and business presence on social media. The number of followers is more beneficial than the number of posts. This result aligns with the research findings of Luo (2013), which confirmed "dynamic relationships of buzz and traffic with firm value" along with the conclusions of Yasa (2020) which determined "the usage of social media and perceived business value has a significant and positive influence on business performance."

A key limitation of the research is the sample size. Future studies could include a larger sample of companies and also include measures of social media postings taken at different points in time. We note that many retail companies were affected by covid closures during 2020. A different set of years in the sample could bring different results for ROA, revenue growth and stock price growth.

According to regression results, there are connections between the social media measurables of total followers and total posts in relation to revenue growth, stock price growth, overall Fortune 500 rank, and retail Fortune 500 rank. Total followers may be more useful than total posts. Certainly, the corporate managers are themselves interested in the financial impacts of using social media.

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APPENDIX

Table 1. Sample Statistics

Company	Overall Fortune 500 Rank	Rank among retail compaines	Social media sites with presence	Total Followers	Total Posts	Annual revenue in 2021 (mil)	Average annual revenue growth	Average annual stock price growth	Average Annual ROA
Walmart	1	1	5	6,019,000	630,150	$ 572,754	3.4%	10.6%	-1.8%
Amazon	2	2	5	9,865,700	48,804	$ 469,822	28.9%	37.2%	54.8%
Costco Wholesale	11	3	4	1,168,400	4,406	$ 195,929	8.3%	18.4%	2.1%
Home Depot	17	4	5	2,291,000	29,026	$ 151,157	4.6%	20.1%	4.5%
Target	32	5	5	10,014,000	101,289	$ 106,005	4.1%	15.4%	2.3%
Lowe's	35	6	5	2,435,400	195,502	$ 96,250	5.1%	17.1%	3.8%
Best Buy	68	7	5	2,153,400	66,461	$ 51,761	2.7%	11.1%	1.0%
Dollar Tree	137	10	5	858,700	7,815	$ 26,321	14.7%	19.1%	-1.1%
AutoNation	141	11	5	59,054	32,331	$ 25,844	3.1%	16.1%	8.6%
Macy's	144	13	5	3,679,500	145,158	$ 25,292	0.4%	9.5%	-38.2%
Lithia Motors	158	14	4	3,557	2,883	$ 22,832	18.1%	30.4%	12.1%
CarMax	174	15	5	103,104	41,447	$ 33,197	11.5%	16.2%	11.3%
Kohl's	183	16	5	2,607,400	199,884	$ 19,433	1.8%	7.5%	-56.4%
Ross Stores	189	17	4	514,377	1,114	$ 18,916	9.3%	22.8%	21.4%
Gap	220	18	5	3,824,000	39,252	$ 16,670	0.6%	8.3%	-33.5%
Nordstrom	245	21	5	4,187,200	300,684	$ 14,789	4.6%	5.4%	-29.6%
Qurate Retail	265	23	4	3,920	752	$ 14,044	3.8%	12.0%	10.9%
Group 1 Automotive	273	24	5	6,068	1,552	$ 13,482	6.4%	14.3%	5.3%
O'Reilly Automotive	279	26	5	330,000	7,601	$ 13,328	12.9%	22.8%	4.2%
Tractor Supply	294	28	5	273,600	7,569	$ 12,731	12.0%	24.1%	1.5%
Sonic Automotive	300	29	5	25,713	8,159	$ 12,396	3.8%	10.1%	5.1%
Dick's Sporting Goods	307	30	5	1,189,200	63,046	$ 12,293	9.8%	17.4%	7.0%
Average	**158**	**14.7**	**4.8**	**2,346,013**	**87,949**	**$ 87,511**	**7.7%**	**16.6%**	**-0.2%**
Median	**166**	**14.5**	**5.0**	**1,178,800**	**35,792**	**$ 24,062**	**4.9%**	**16.2%**	**4.0%**

NOTE: The business performance measurables represent the average growth percentage change for each company between 2006 and 2021.

Table 2. Regression Results

Independent Variable	Average Annual ROA	Average Annual Revenue Growth	Average Annual Stock Price Growth	Fortune 500 Rank	Retail Fortune 500 Rank
Intercept α	0.6443	0.1949	0.3935	-89.4795	-7.8546
(p value)	*0.3043*	*0.2978*	*0.0575**	*0.7294*	*0.7295*
Total Followers β_1	0.0002	0.0008	0.0009	-0.0002	-0.0001
(p value)	*0.2347*	*0.1599*	*0.1186*	*0.0126***	*0.0181***
Total Posts β_2	0.0006	-0.0001	-0.0002	-0.0001	-0.0001
(p value)	*0.1180*	*0.0978**	*0.0374***	*0.5061*	*0.4595*
Presence β_3	-0.1340	0.0248	-0.0467	63.6098	5.7168
(p value)	*0.3123*	*0.5269*	*0.2675*	*0.2534*	*0.2427*
Adjusted R-Squared	0.0688	0.0589	0.1796	0.2829	0.2615
Significant F	0.2442	0.2648	0.0895*	0.0294**	0.0377**
Number of observations	22	22	22	22	22

NOTE: ***p<0.01; **p<0.05; *p<0.10.