An Evaluation of Snap Inc. and its Recent Decision to Go Public

Nicholas Matthies and Sydney Parvin

School of Management, The University of Michigan-Flint, Flint, Michigan 48502.



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Sandun Perera, Ph.D.
School of Management
The University of Michigan-Flint

Abstract

We evaluate Snap Inc. and its recent decision to go public. Snapchat (parent company Snap) is a popular app and social media platform that allows users to talk, send pictures, read articles, post "snapchat stories," and more. While most people are familiar with Snapchat, the parent company, Snap, is making great progress in becoming a technology company rather than just a social media company. Throughout our study, we discuss the various strengths, weaknesses, opportunities, and threats that Snap has and how this may impact its future. We also examine the company's strategy to grow and diversify, and how its decision to do an IPO coordinates with its organizational and operational practices. Lastly, we forecast the future of Snap, Inc. quantitatively using firm's data and qualitative using similar companies that have gone public.

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1 Introduction to Snap Inc.

Snap is a camera company that offers Snapchat, an application that allows users to communicate through pictures and video; and its first hardware, Spectacles, which are sunglasses that capture video from human perspective. Their mobile application, Snapchat, is one of the most used social media platforms on the market. This app allows you to send pictures with captions to your friends. The picture then disappears after a short time, creating a level of privacy for which they've been held very highly. Snap is a United States company that was founded in 2011 by Evan Spiegel and Bobby Murphy, originally named Snapchat Inc, but was rebranded in September 2016 as Snap Inc. Snap is in the Computer systems design services industry (NAICS 541512) and Computer integrated systems design industry (SIC 7373), with its sector being Computer Hardware & Equipment (Mergent Online). Throughout our report, we will be discussing the firm, and the implications of the firm's decision to become a publicly traded company.

1.1 SWOT Analysis

Strengths: First mover advantage Innovative Multiple industry involvement Growth rate	Weaknesses: Revenue model Unsustainable growth Expensive stock
Opportunities: New products Future investments Acquisitions/Mergers	Threats: Competition Industry disruption Lawsuits

Figure 1: SWOT

1.1.1 Strengths

Snap is a relatively new company that has many opportunities for growth and change ahead. The strengths of the company are that it has proven to be an innovative firm, by giving a unique spin on the tech industry. Its creative app that allows users to communicate through pictures and videos that have allowed it to rapidly grow over the past two years by about 600%.

Snap has some great features and advantages over the competition. Through its app, Snapchat, it was the first to introduce a self-disappearing message, and it perfected image editing and add-ons and was also the first to enable live video and video messaging.

1.1.2 Weaknesses

The main problem that the company has faced in its development is their cost structure. Because the cost of revenue is so expensive, it is making it impossible for the company to become profitable. As they increase user base, the cost also increases because the cloud computing cost that Snapchat needs to be able to run their app increases with it. Unlike many other similar companies, Snap has made it clear that they value customer privacy and do not want to sell user data the way Facebook and Twitter have. They believe that selling customer information to advertisers is creepy and morally wrong; however, this stance is a weakness to the company's ability to gain profit. Most companies in the industry rely on advertisers for most of their revenue, so unless Snap is able to modify their operational structure that will bring profitability

from other means, they need to consider how their limits on selling user data are potentially bottlenecking the future of their company.

1.1.3 Opportunities

Through our research, we have found that the biggest opportunity for this company is to diversify their products, so they will be able to take their innovation and creativity further by making different types of products. Snap has proven its innovative nature through the success of their mobile app, which was the first of its kind to offer image editing and live video messaging. They can focus their talents in ways to create not only mobile software, but hardware as well. Spectacles, the first of the company's hardware technology, are only the beginning of what they could offer. From the company website, they announce "We believe that reinventing the camera represents our greatest opportunity to improve the way people live and communicate." Surely, Snap has potential to become a company similar to Apple, by creating new innovative products.

1.1.4 Threats

Our research has indicated that the biggest threats the company faces are from outside competition, and industry disruption. Within the tech industry there is rapid change and growth, and with that comes high levels of competition between big players and new entrants. Snap has been a first mover in their creation of Snapchat, by offering unique features such as disappearing messages and pictures, and Snapchat stories. However, when other mobile apps are able to copy these features, it poses a threat to Snapchat's uniqueness and competitive advantage. For example, Instagram, now under parent company Facebook, recently added a story feature that is very similar to that of Snapchat's. This move indicates that there is increasing competition between the services that Snap is providing, and in order to stay competitive they have to look for ways to stay creative and trendy in the industry.

Another threat for Snap and other companies in the tech industry is that they are all susceptible to industry disruptions, such as newly emerging technology that could change the entire platform of how these companies are doing business. For example, if Apple, or some other company where to come out with a

new technology rather than the mobile smartphones we are all used to, other tech companies that rely on these platforms would have to totally change how people can access their services. Snap is in some ways protecting itself from these types of disruptions by offering hardware products in addition to their mobile app.

2 Snap's Strategy

2.1 Overall Strategy

Our team has investigated the company's overall strategy, the operational and organizational practices that they have imposed as a part of this strategy, and how their decision to go public played a role in this strategy. Snap has made it clear through their actions and development that their overarching strategy is to become a larger, more diversified company. They want to be known not only for mobile software, but for innovative hardware products as well. Snap has taken a unique approach to reach their long-term goals, in which we will discuss in the following sections.

2.2 Organizational Strategy

Since the company began about six years ago, its organizational structure has played a key role in its grand strategy. The company emerged when Snap's CEO, Evan Speigel, teamed up with his Stanford classmate, Bobby Murphy, the company's now Chief Technology Officer, and cofounded the app, Snapchat. The company is still run by the two founders, along with five other executive officers and 1,859 employees as of December 2016, according to information from database, Mergent Online. In order to achieve growth and diversification, they have built an organizational culture that is diverse yet inclusive. In their filing to go public, the company explains "We compete to attract and retain highly talented individuals, including software engineers, designers, and product managers…. we compete for talent by fostering a culture of working hard to create great products and experiences and allowing our employees to have a direct meaningful contribution to new and exciting projects." (p.142).

2.2.1 Hiring Outside Experts

Snaps talent and team oriented structure has helped the company to be successful in its quest to grow and diversify. Each aspect of the company's operations, ranging from it's product development, to its financial and legal obligations/acquisitions, are organized so highly skilled and experienced officers can make the best decisions with the help of their employees. Imran Kahn, a former banker, is Snap's Chief Strategy Officer. As noted in an article from *Business Insider*, Kahn's connections helped Snap get a $200 million investment from Alibaba and another $1.8 billion in funding in May 2016. Kahn's moves have helped morph the company as a whole by finding capital that they have used to enhance and better their app, but also to invest in innovative product development. The company has made huge progress in its development thanks to its Senior VP of Engineering, Timothy Sehn, who has grown the company's software engineering team by more than 10x (Business Insider). By hiring these experts, Snap has been able to make serious improvements and new features to the messaging app Snapchat, and create their newest hardware, Spectacles. The organizational structure of the company has been successful thus far, even though it has faced criticism due to its inclusive nature and top-heavy structure.

2.2.2 Stockholder Influence

The company has clearly aligned their leader-oriented structure with their public venture, by not allowing public investors to have any say in the company's future decisions. Public investors of Snap will not be able to vote, giving Spiegel and Murphy final say in matters submitted to stockholders for approval. Thus, their organizational practices make it clear that they highly value talent within the company, but do not want influence from other means. This approach is unique, and has received criticism from Wall Street, but it has seemed to work for the emerging company this far. Surely, the growth and opportunity the company has experienced would not exist without the help of their executives and employees.

2.3 Operational Strategy

When investigating Snap's operational practices, our team looked for the methods and systems they had in place, and specifically if they aligned with their overarching goal. They have taken a few recent

actions along with their IPO that have suggested that their operational strategy is in correlation with their goal to grow internationally, and to diversify their product development. They did this in many ways, but most importantly by changing their operational practices in London, making a deal with Google clouding services, and by becoming a publicly traded company.

2.3.1 Operations in London

In January of 2017 the company decided to change the way they operate business in London. According to their website, Snap declared that "Going forward, we will bill our advertising revenue from the U.K. (and a few other countries) through a U.K. entity. This allows us to pay taxes in the U.K., which we believe is part of being a good local partner as we grow our business." Clearly, they realize that as they grow internationally, they need to modify their operations abroad so it is most beneficial to their main source of revenue- advertisements. This move is an indication that they are focused on growing their company abroad.

2.3.2 Investment Practices

Furthermore, our research indicated that the company is investing less in software related infrastructure and instead investing in product differentiation. According to a recent article, from CIODIVE, Snap recently signed a deal with Google Cloud services, promising to spend $2 billion over the next five years on Google Cloud Platform. This indicates that they will be relying on third-party infrastructure to run and scale the services they need for their app, Snapchat. Google's cloud platform will best serve the company's large user growth for now. This action conveys that investing in their own cloud structure is not a huge priority for the company right now, and instead they are more focused on other technology investments.

3 IPO Decision

Snap's decision to go public aligns with its grand strategy in a few ways. Going public for a company can provide a means to raise capital they can use to fund research and development, capital expenditure, or pay off debts. Going public can also help companies make their products more known,

which can lead to an increase in market share for the company. However, there are also disadvantages to going public that include more regulations and additional costs of financial reporting documents and other means. The biggest problem companies can face when going public is the added pressure that they face from investors, which can sometimes cause management to focus more on short-term results instead of long-term growth. Snap has made it clear in their IPO that they will not allow investment pressure to have a strong influence in the company, which can be beneficial in the long term.

When looking at Snap independently, their IPO can mean a lot of opportunity for the company. They have been able to raise capital that they clearly need. We believe this capital will be used to fund new products, grow internationally, and become more attractive to advertisers, which can make the company profitable.

4 Forecasting

In order to gain a greater understanding of Snap, and help give an inclination of the future of the company, we used forecasting methods based on their quarterly revenue data from the last three years. Although this method will not allow for conclusive findings because they are prior to their IPO, we are using this method to gain a general understanding of their revenue trends that will hint future growth rates. Snap has moved with purpose since their startup and their past quarterly reports show that on a very high level.

When trying to find the most accurate way to forecast the future revenue of the company, we used many different forecasting methods including Naïve, Moving Average, Weighted Moving Average, Exponential Smoothing, and Trend Projection. We found that with a company like Snap, with a rapid

$y = a_0 e^{bx}$

$\ln(y) = \ln(a_0 e^{bx})$

$= \ln(a_0) + \ln e^{bx}$

$y = a + bx$

$y = bx + a$

$y = 1.1335t + 7.2774$

$y_{13} = 22.0129$

$y_{13} = e^{22.0129}$

Figure 2: Natural Log Transformation

revenue growth rate, forecasting based on past figures leads to a lot of error, especially when the forecast overemphasizes beginning data, and predicts lower numbers in the future. We found that the most accurate method of forecasting was to perform a natural log transformation on our data, as shown in Figure 2; this method became our most accurate forecasting method by far, as shown in Table 1, in the Appendices. We were able to calculate the amount of error between our forecast data and actual data using three methods: MSE (Mean Squared Error), MAD (Mean Absolute Deviation), and MAPE (Mean Absolute Percentage Error); all of which were lower than those of the other forecasting methods we previously attempted.

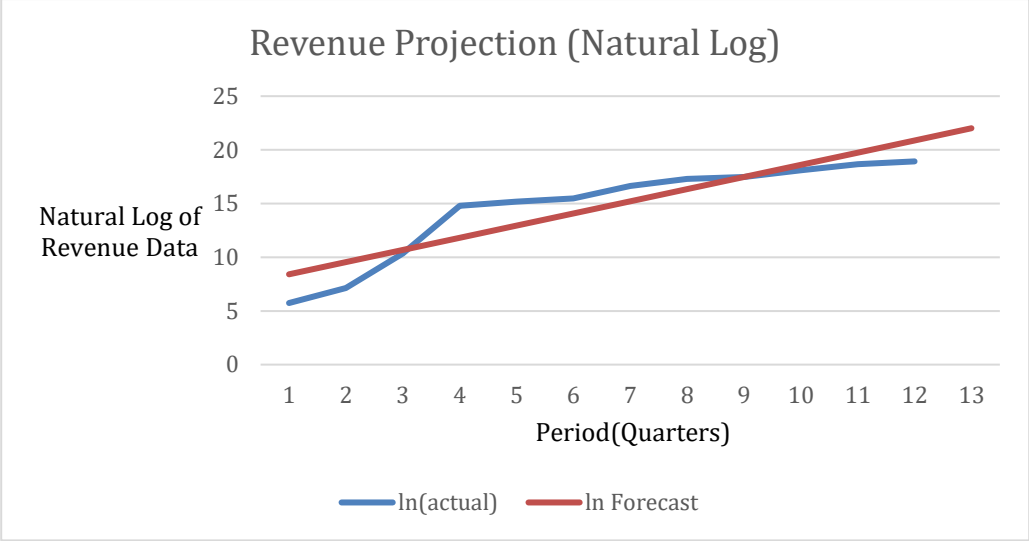


Figure 3: Revenue Projection (Natural Log)

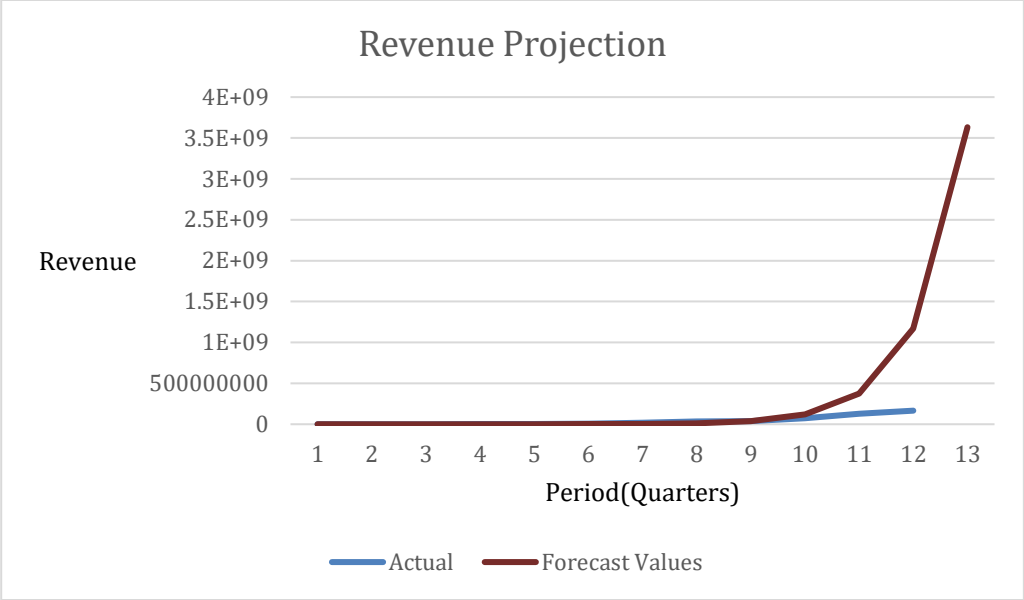


Figure 4: Revenue Projection in Dollars

We believe this method worked best because of its ability to predict growth at an exponential rate and match up with our data to a much closer degree. While this was the best system for predicting the current growth and the trend seems to stay on par for their desired growth, the decision to go public changes the environment that does not allow an accurate depiction to forecast the future. With far more money to spend on research and development, new features, and marketing, it becomes hard to use past data to predict the future revenue of the company. For this reason, we decided to primarily rely our qualitative evaluation of the company, and similar IPOs, to predict the future of Snap.

5 Similar IPOs

To get a stronger understanding as to how Snap's IPO will impact its future, we researched similar companies that also went public. In order to do this we have researched Facebook, Twitter, and Zynga, and looked at how becoming a publicly traded company influenced their company overall, and in particular their revenue trends. We've also looked at how each company has transitioned and how their different approaches have seems to impact their success or failure.

5.1 Facebook

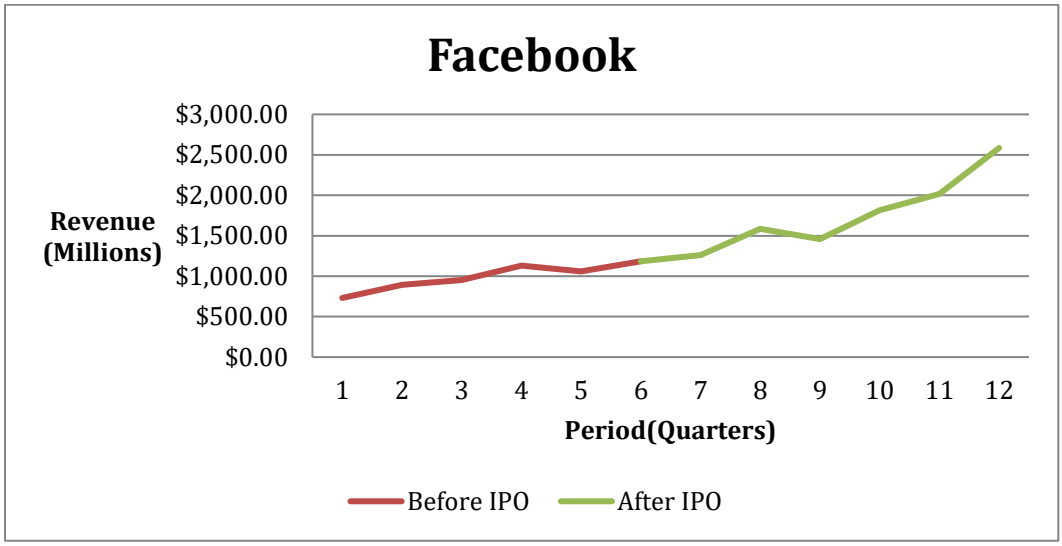


Figure 5: Facebook Data

When Facebook went public in 2012, the company underwent many changes, and some were arguably bad for their website, but better for the company. After going public, Facebook became more concerned with making money, by offering paid services through their app. They also started placing advertisements front and center on the website, which involved selling user information to allow users to be targeted by advertisements based on their data. Although these changes have helped Facebook grow into an extremely large and successful company, going public played a huge role into changing what used to be a user-first website to a profit driven company. As shown above, their revenue growth rate increases following their IPO.

5.2 Twitter

When Twitter, the popular social media app, went public in 2014, they faced many issues because they did not have a clear vision about what type of company they were trying to be. Twitter IPO was a financial success because they were able to raise about 1.8 billion from the offering, which they put toward acquisitions and operational costs, according to Mashable.com. However, the company ran into confusion after the public offering because they lacked vision for Twitter as a profitable product, and investor concerns put large pressure on the company's CEO when specifically asked how the company would grow its

audience and in what direction they would change. Since 2014, Twitter has become more news related, and has also been a means for celebrities, and even the President of the United States, to communicate with the public. Twitter has become a more mature service since its beginning, and it has, like Facebook, been able to benefit from advertisement revenue. Like Facebook, Twitter also saw an increase in Revenue growth rate slope following their IPO.

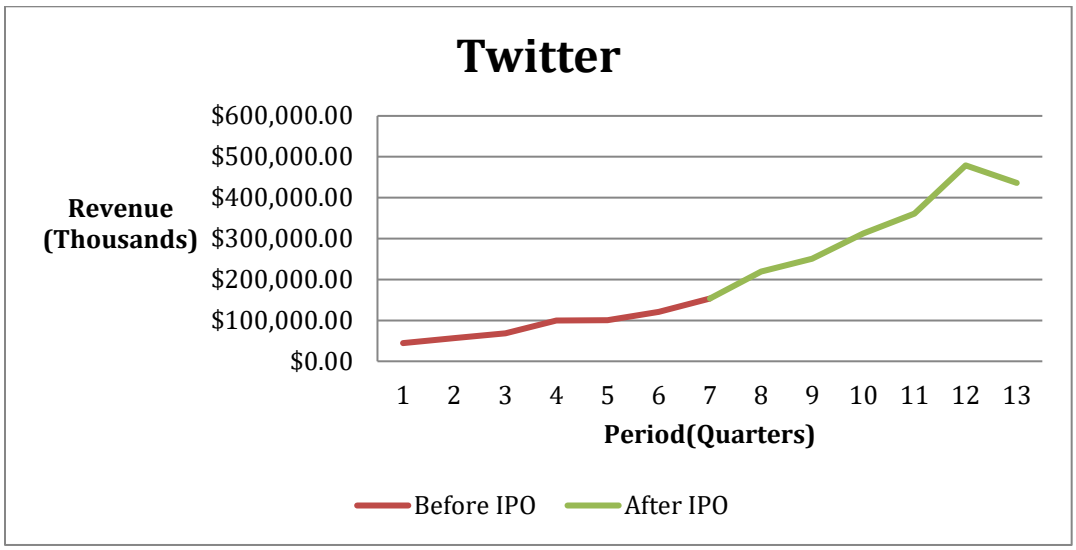


Figure 6: Twitter Data

5.3 Zynga

Zynga, a video game developing company, went public in December of 2011. Unlike Twitter and Facebook, Zynga went public at a time when their user base was declining. According to Business Insider, their revenue had been increasing in the previous quarters to their IPO, but they have been lacking a drive to increase user base. Shortly after their IPO, Zynga's revenue begins to fall, unlike the previous two companies. This indicates that IPO's do not always lead to an increase in revenue, and revenue growth rate for companies. We believe a major reason for their decline was due to their inability to transition to a mobile platform that was crucial during this time period.

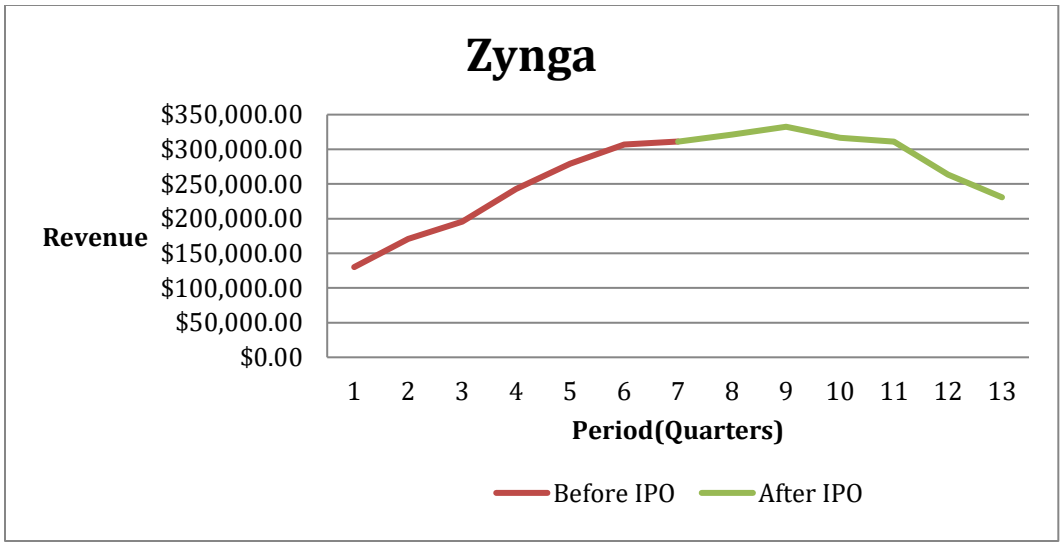


Figure 7: Zynga Data

5.4 Comparison

While both Facebook and Twitter were able to increase their revenue growth rates, and continue their business, Zynga was unable to do so following their IPO. This indicates that going public does not always have a positive impact on a company. It's also important to note that although both Facebook and Twitter had successful IPOs, the major difference between the highly profitable, Facebook, and their lagging competitor, Twitter, was a strong vision for the future of the company. For Mark Zuckerberg, his vision was to take his platform and make it profitable by any means necessary, even if that involved what many consider to be a violation of privacy. Twitter struggled with developing a profitable vision for their company and its led Twitter to struggle as a competitor in the social media arena. Snap, on the other hand has been moving with calculated purpose since the beginning- including the decision to not make revenue until 2014 and the current statement that they do not plan to match their losses with revenue for another few years- and we fully believe that their focused purpose will carry them to be successful after going public.

6 Conclusion: Future of Snap

Based on both our qualitative and quantitative research, we believe that Snap will continue to increase revenue exponentially in the next quarter following its IPO. But on more general terms, we see the

future of Snap as an innovative technology company that will provide services and products in many different sectors of the technology industry. We also believe that the company will be able to increase revenue rapidly over the next quarters to come. Based on the many organizational and operational moves that Snap has made, as discussed in the previous sections, Snap clearly has a strong sense of strategy, which will allow them to be successful in the future. Their focus on international matters, and investment in research and development, give us a sense that they will continue make progress in international user growth, and creating new products.

Snap Inc. has rapidly grown since its beginning, and has morphed from a small mobile app into an international camera company. Snap CEO has a clear vision for the future of the company, even though they have not openly discussed that vision with the public. Through our investigation of Snap, it is clear that Snap's public venture has played a key role in its overall development, and is an indication that the company will become larger internationally and more product-focused.

We believe the future of Snap relies on its ability to continue creating innovative products- both hardware and software- but also in its ability to operate in a way that will allow profitability to fund future growth. In order to become profitable, it is crucial for the company to find a way of advertising that does not go against their moral principles, but still allows them to be competitive when competing with consumer data selling giants like Facebook and Twitter. It will be interesting to see whether Snap Inc. will trend in the direction of Facebook or Twitter, but our estimation is that they'll have a unique approach that could surpass both. Both Facebook and Twitter have increased their revenue numbers almost every year since going public so that seems as if it's a given for Snap. Goldman Sachs estimates they'll do nearly two billion dollars in revenue in 2018. What Facebook has done so well, is create revenue that produces profit, Twitter has struggled with this and so has Snap. The hope is that it is in the vision of Evan Spiegel and Snap Inc. to take their model to a level where revenue finally outruns the costs. We believe that the IPO will be extremely beneficial to the future of this company and will lead to a profitable, and highly innovative company in the next few years.

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Appendix

Table 1: Error Comparison

Forecasting Method:	MSE	MAD	MAPE
Naïve	469,911,363,201,431.00	11,834,428.57	48.14891727
MA	1.62644E+15	21,959,430.54	54.87165071
WMA	1,718,126,301,029,630.00	22,350,789.14	48.68
Exp. Smoothing	506,185,506,939,580.00	12,305,460.33	42.00
Trend Projection	815,675,010,016,607.00	21,162,385.85	0.0
Exponential Growth	2.50	1.28	9.52
Low:	469,911,363,201,431.00	11,834,428.57	42.00
Decision:	Exponential Growth		

Decision: Exponential Growth

Table 2: Exponential Growth Method

Quarter	Period Number	Actual Revenue	ln(actual)	ln Forecast	Forecast Values
2014 Q1	1	310	5.736572297	8.4109	$4,495.86
2014 Q2	2	1,240	7.122866659	9.5444	$13,966.47
2014 Q3	3	31,000	10.34174248	10.6779	$43,387.05
2014 Q4	4	2,635,000	14.78439374	11.8114	$134,782.56
2015 Q1	5	3,920,000	15.18160221	12.9449	$418,704.15
2015 Q2	6	5,300,000	15.48321738	14.0784	$1,300,711.01
2015 Q3	7	16,725,000	16.63241516	15.2119	$4,040,679.16
2015 Q4	8	32,718,000	17.30343594	16.3454	$12,552,433.18
2016 Q1	9	38,798,000	17.47387926	17.4789	$38,994,330.57
2016 Q2	10	71,798,000	18.08936718	18.6124	$121,136,499.53
2016 Q3	11	128,204,000	18.6691333	19.7459	$376,312,435.77
2016 Q4	12	165,682,000	18.92558085	20.8794	$1,169,020,484.06
2017 Q1	13			22.0129	$3,631,580,469.45

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