#### Fitbit - An Underappreciated Opportunity for Patient Investors

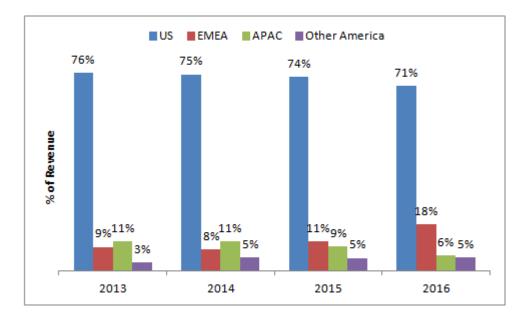
March 14 2017

When a market leader with a first mover advantage experiences a decline for the first time while the industry is still growing, it is natural to wonder whether it is a beginning of an end or just a bump in a road for the leader. After few years of doubling the number of units sold and revenue, right now, Fitbit Inc (NYSE: FIT) is at that crossroad. Not only its impressive growth has slowed down, in 2017, but it is also expecting revenue to decline, generate a loss and negative free cash flow. The company is blaming its woes on excess inventory in the channel; US market saturation and its struggles to impress Chinese. Let us take a closer look at this company.

#### Overview

Fitbit is the market leader in wearables. It is a relatively young company and was founded in 2007. It offers devices that automatically track users' daily steps, calories burned, distance traveled, active minutes, sleep, heart rates, etc. It offers a number of different fitness devices that range in features and sophistication of display. While all of its fitness devices track physical activities and calories burned, some offer features such as such as GPS, heart rate monitoring, sleep tracking, automatic recognition of selected different workouts, smartphone notifications, etc. The company also offers a platform which allows its users to see trends and achievements, access motivational tools such as virtual badges and real-time progress notifications, and connect, support and compete with friends and family. Its platform combines connected health and fitness devices with software and services, including an online dashboard and mobile applications, data analytics, motivational and social tools, personalized insights and virtual coaching through customized fitness plans and interactive workouts.

It sells its products through its website and a variety of retail partners such as electronics retailers like Best Buy, e-commerce giant Amazon, departmental stores such as Kohl's, Macy's, home goods retailers like Bed Bath and Beyond, wholesale clubs such as BJs, retail chains such as Targets, Wal-Mart, etc. While the company is generating the majority of its revenue in the US, it is trying to expand its global presence.



Source: the Company's SEC filings and author's analysis

#### The current situation

Top Five Wearable Device Vendors Year-Over- Year Growth											
	1Q 2015	2Q 2015	3Q 2015	4Q 2015	1Q 2016	2Q 2016	3Q 2016	4Q 2016			
Fitbit	129.4%	158.8%	101.7%	52.8%	25.4%	28.7%	11.0%	(22.6%)			
Apple						(56.7%)	(71.0%)	13.0%			
Garmin	133.3%	40.0%	72.5%	48.2%	36.5%	106.7%	12.2%	(4.0%)			
Samsung	100.0%	(25.0%)		65.0%			89.9%	37.9%			
Xiaomi			815.4%	258.5%	41.8%	2.5%	4.0%	96.2%			
others	123.1%	119.2%	88.8%	123.7%	98.2%	59.3%	26.1%	32.1%			
Total	200.0%	223.2%	197.6%	126.9%	43.9%	26.1%	3.1%	16.9%			

Source: IDC and author's analysis

The last quarter, while the industry grew, Fitbit experienced a drastic decline. However, it is not the first company to experience slowness while the industry grew. The decline can be attributed to many factors such as the timing of new products released by a company as well as by its competitors, changes in consumers' taste, changes in competitive market dynamics, etc. Even though the company is blaming the decline on the market saturation in the US, it has experienced a decline in most other markets too. While focusing too much on a quarterly result is not a right strategy for the long-term, one needs to assess the situation to determine whether it is due to

short-term challenges and whether the company still possesses competitive advantage or if the company is losing its first-mover advantage.

During 2016, the company released three new products and one of its products Flex 2, didn't meet the company's internal expectations. While the sleek-looking Flex 2 can track sleep and different workouts, its display is very basic. Even though the LED display excited consumers just a few years ago, the wearable industry has evolved very rapidly and maybe now, consumers like trackers that have bit more advanced display. Even though it already offers smartwatches, it is further strengthening its capabilities to offer smartwatches through acquisitions. It has acquired Vector to strengthen its smartwatches' battery life and Pebble to offer development platform for third-party apps development.

The company lost some sales due to supply constraints. When a company misses sales due to supply constraints, there is a lost opportunity cost associated with that. Especially when the competition is intensifying, the lost opportunity cost might be higher.

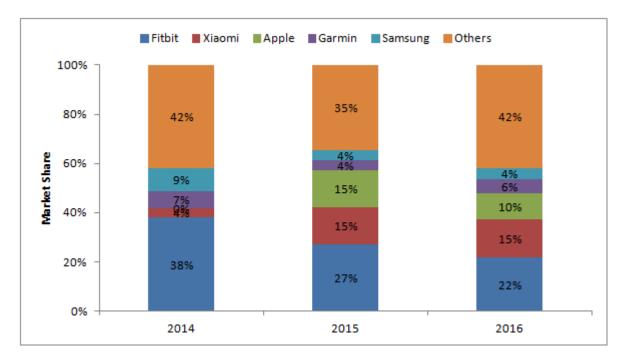
The company has blamed its gross margin decline on higher warranty costs. High warranty costs are usually associated with faulty products. Faulty products impact the brand image negatively, especially for the brand that emphasizes quality. While this might be the reason for some of Fitbit's decline in sales, the company is trying to strengthen its operations and has hired a new head of operations. As it is streamlining its product portfolio, it has discontinued some of its products.

Technology is complex but not an impossible barrier to break. Apart from that, technology advancements in sensors and Bluetooth LE that enabled Fitbit to enter this market are also helping others. Consumer products have low switching cost, so the competition is intensifying. Distinctions between fitness trackers and smartwatches are narrowing. Apple Watch 2, which was released in Sep 2016 may have taken the market share from Fitbit. Since the switching cost is extremely low, any new competitor can gain market share relatively easy, especially if that competitor is Apple.

Top Five Wearable Device Vendors Global Market Share												
	1Q 2014	2Q 2014	3Q 2014	4Q 2014	1Q 2015	2Q 2015	3Q 2015	4Q 2015	1Q 2016	2Q 2016	3Q 2016	4Q 2016
Fitbit	45%	30%	33%	44%	33%	25%	22%	30%	25%	25%	23%	19%
Xiaomi			6%	6%	22%	17%	17%	10%	19%	14%	17%	15%
Garmin	8%	9%	7%	5%	6%	4%	4%	4%	5%	7%	6%	6%
Samsung	8%	14%		7%	6%			5%	4%		5%	6%
Jawbone	5%											
Apple			0%	0%		20%	19%	15%	8%	7%	5%	14%
BBK							3%		4%			
Lifesense										5%		
others	34%	46%	55%	38%	33%	33%	35%	37%	37%	42%	46%	40%

Source: IDC and author's analysis

Even though the company is trying to increase its customer loyalty through its social fitness network, its active users to register users' ratio is on the decline.



#### The industry is evolving, and competition is intensifying

Source: IDC

A few years ago, the wearables market was in its infancy. Wearables were a must-have product for consumers. Strong consumer demand has ignited a rapid industry growth. Fitbit was one of the early players and the leader. The rapid growth has attracted many players, and the competition has intensified. The market and the technology are rapidly evolving. Companies from a variety of backgrounds have entered this market, and they are trying to focus on their strengths and find a niche. The early wearables were fitness trackers that tracked steps, distance, calories burned. Now they have become more advanced and offer GPS, smartphone notifications, guided breathing and measure biometrics such as sleep, heart rate, etc

While Fitbit founders were trying to use sensors to monitor physical activities, Pebble founders were trying to notify a watch when a smartphone receives a text message and created smartwatch. It is natural for smartphone makers such as Apple and Samsung also to offer smartwatches, and they do. Since both products compete to be on consumers' wrist, their functionality merged. As consumers' appetite for wearables grew, watch sales declined. So, watch companies such as Fossil and Michael Kors started entering the wearables market to defend their market share. As competition intensifies, companies are trying to find their niche in this crowded space. For example, fashion icon, Fossil doesn't want to compete directly with

technology leaders such as Apple but wants to defend its market share by emphasizing on its strength that is offering stylish luxury watches. So it is offering hybrid watches which maintain a traditional watch look and feel, but also provide other features such as fitness tracking, GPS, notifications, etc. Apart from hybrid watches, Fossil is offering fitness trackers with GPS and music capabilities. As Fossil is trying to defend its market share, it is doubling on its wearables this year and planning to introduce more than 300 wearables. However, as competition is intensifying, consumers' appetite for wearables is slowing down.

While most emerging technologies generate tremendous hope and hype, a few deliver that hope. Some vanish without a trace while others do find some stability. In 2010 when a 3D provider RealD filed for an IPO, there was a buzz about 3D taking over everyone's family room. While 3D didn't take over every family room and everyone is not watching only 3D movies, in 2017, 56 3D movies were released vs. five films in 2005. As the wearables market growth is slowing, the question is, is it just a fad?

### Where is the market headed?

If consumers would have become more active and healthy by just wearing a fitness tracker, if wearing a fitness tracker would have replaced doing exercise, then it would have become a musthave consumer product. The reality is, that is not the case. It merely measures the users' activity levels. Even though it is a well-known fact that physical activities improve overall health, in reality, gym memberships go up in January and fall as everyone settles back to their original habits. If wearable technology at least helps consumers change their physical activity habits, if it motivates consumers to stay active and helps them sustain those habits, then fitness trackers won't be a fad.

One way to improve total populations' physical activity level and improve their health is by offering financial incentives to do so.

## Who would be interested in doing so?

According to CDC, 86% of US healthcare costs go to treating chronic diseases such as diabetes, heart problem, obesity, etc. Through diet and exercise, chronic diseases can be prevented. So, healthcare costs can be reduced by improving total population health. Irrespective of healthcare policies, health insurance companies can increase their profit by focusing on improving the health of the population they manage. Health insurance providers can use fitness trackers to incentivize consumers to stay active. For example, last year one of the largest insurers, UnitedHealthcare, launched a pilot program called UnitedHealthcare motion which offered private brand fitness trackers to its participants to track activities and offered financial incentives to achieve goals. This year, UnitedHealthcare has expanded that program to 40 states and has partnered with Fitbit. However, this program is in its infancy, and right now not many

employers are offering this. Apart from that, customized Fitbit Charge 2 is not the only tracker that is integrated into this program.

Whether employers have self-funded health insurance or not, most health care costs are borne by employers. They want to improve productivity and reduce healthcare costs by improving their employees' health. Health and wellness companies such as Tivity Health, Virgin Pulse, etc., have wellness programs to improve total population health. Health insurers offer discounts to employers who spend on corporate wellness programs which leads to many employers spending money on these programs. Typically, these corporate wellness programs offer biometric screenings, on-site blood drives, flu shot clinics, on-site fitness centers, offer discounts on gym memberships, etc. These programs are often plagued with low participation rates, and now fitness trackers can be used to incentivize employees to stay active and improve participation rates. For example, Virgin Pulse's corporate wellness programs provide fitness trackers to participants to track activities and offer financial incentives to achieve goals. Recently, Virgin Pulse has partnered with Fitbit and will be using Fitbit trackers as recommended fitness trackers. According to Virgin Pulse, fitness trackers are helping the company to improve its corporate wellness programs' participation rates

It seems like there is a future for fitness trackers in healthcare. However, that doesn't necessarily mean there is a future for Fitbit because it is not the only company that is going after this market. Apart from that, wellness programs are focused on improving participation rates and are going after Bring Your Own Device (BYOD) model. Fitbit needs to improve its switching cost. That can't be attained just by integrating its trackers to other programs. The company needs to offer integrated solutions. The company is making slow progress towards that goal. It is going after large employers directly and providing hardware, software, and services. For example, Target is offering free or discounts on Fitbit trackers to its employees as part of its corporate wellness program. Target is hosting Fitbit challenges to improve communications between employees and also increase participation rates. There are, however, privacy concerns. Employees don't want their employers to know about their lifestyle, such as sleeping habits, etc. Fitbit is aware of this and to protect users' privacy it lets employers access total population data, not individual employee information.

Large employers are not necessarily lining up to sign up to use Fitbit's fitness trackers in their corporate wellness program. They want to reduce costs, not add, so they may be waiting for more research data to see whether trackers are helpful or not. Apart from that, sales channel for enterprise solutions is different from consumer products. It is direct and time-consuming. For example, Enernoc, which offers demand response to enterprises, is struggling to sell energy efficiency software (EIS) to the same customers because the decision maker to the EIS is different. Fitbit management talks about going after the healthcare market but doesn't mention the challenges it is facing. The company hasn't acquired any new large enterprise customers after it signed up Target a year ago. Partnering with Virgin Pulse might be an indication of its struggle.

# Trackers might be able to help doctors treat patients better

If doctors can access patients' biometric data, physical activities, food habits, etc., they might be able to treat the patients better and reduce healthcare costs by avoiding repeat admissions. Integrating patients' data can also help with medical research. As healthcare is making progress towards integrated digital health, many doctor's offices and hospitals are digitalizing patients' data and trying to integrate. Apple is going after this market with its HealthKit, a framework designed for developers to create apps that can gather and share medical information about its users.

Apple's dominance arose from its need to be an innovative company that offers quality products. This dominance had led to Apple not playing well with others, instead focusing on trying to set the gold standard that other firms try to live up to and partner with Apple. Now Fitbit has decided to buck the system by not integrating with either Apple Healthkit or Google fit. However, just refusing to play with others is not what makes a company a leader in their given industry. Especially in an industry that already has alternative trackers that integrate with Apple Healthkit, loyal Apple customers may be willing to abandon a brand that doesn't. Any company that doesn't want to be confined to being just another player in the market and wants to assert its dominance in the industry needs to determine a method to improve its switching costs. The recent acquisition of Pebble, as well as Fitbit's CEO's admiration for Pebble's development platform, has indicated that Fitbit intends to offer its integrated solutions to the healthcare market.

#### Can it be successful?

Doctors need to determine whether sorting through all the medical data they might receive is worth the time, effort and investment. The exchange of medical data needs to be safe and secure and need to gain doctors' and patients' confidence. Apart from these, the medical community has concerns over the accuracy of heart rate monitored by trackers. The healthcare industry moves slowly, and it won't be an overnight success for any player. Apart from that, hospitals are very fragmented and reaching these customers can be challenging and expensive. To gain traction, apart from having quality solutions, one needs to have patience and disciplined approach. Fitbit was a fast growing consumer products company, and its increased SGA expense doesn't shout disciplined approach, but the company's claim that it took almost ten years for the company to gain some traction in healthcare indicates its patience.

## Medtronic partnership might boost its credibility

It is not a secret that there is a correlation between diet, exercise, and health. Now technology is being used to establish that correlation and help consumers manage their health conditions. For example, Medtronic's glucose monitors (CGMs) integrate with Fitbit trackers to simplify type 2

diabetes management. A new mobile app called "iPro 2 myLog" collects data from the CGMs and trackers and gives meaningful data and insights about how different levels of activity can affect users' glucose levels throughout the day. Even though Fitbit often boasts about its heart rate monitoring capability helping patients, the medical community is a bit apprehensive about the accuracy of Fitbit trackers' heart rate measurement and is concerned about the risk associated with recommending non-FDA approved devices. This concern from the medical community is casting serious doubts about Fitbit's ability to play a significant role in integrated health care. Medtronic integration might be offering Fitbit the required credibility boost among medical professional.

### Going after recurring revenue

To combat the intensified competition, and the declining number of active users versus registered users, the company is trying to offer more software and services to help its users achieve their health and fitness goals and generate recurring revenue. While the company has added certain features such as guided breathing, alert users to move, etc. to its devices, it is offering tailored exercises to premium customers and generate recurring revenue. Its premium customers can get these workouts on any devices, anytime and anywhere. Countless YouTube channels and apps offer anytime, anywhere workout videos. So, it is an extremely crowded market and the barrier to entry is nearly none. Even though many are offering personalized workouts, Fitbit has access to users' biometric data, and it can personalize offerings much more effectively. Right now, the company is generating less than 1% revenue through its recurring revenue offerings.

Our overall health depends on many factors such as diet, exercise, daily habits, etc. The company is hiring biomedical engineers and data scientists to establish that correlation. It is also partnering with other health and fitness companies such as WeightWatchers, Habit, Peloton, etc. and integrating different types of exercises, calorie intake, etc. However, these are not exclusive partnerships. Competitors are also doing the same. Even though these integrations won't provide a competitive edge, without these, the company will lose its competitive advantage.

Just by tracking sleep, Fitbit users are not improving their sleep. If a tracker establishes a correlation between sleep and users' daily habits and offers insightful suggestions to improve sleep, then it can help consumers improve their overall health. The company's recent product, Fitbit Alta HR, establishes this correlation and offers insights to users.

# Trying to leverage its social network

Fitbit users can communicate with each other, challenge each other, share experience and support one another. According to the company, users with one or more friends on the platform are more likely to stay active. Since it is the market leader in wearables and has the most extensive network of users, there is a high probability of a new user finding at least one friend or a family member. While its network is motivating users to stay active, it is helping the company

grow its active user base. However, it is not a unique feature. Competitors are also offering similar features, and in this social media age, users have other means to connect. As the company's active users versus registered users percentage are on the decline, it is trying to strengthen its network by offering more features, such as enabling users to communicate with other users that they don't know and form a community based on shared interests, search for workouts near their area, etc. These enhanced offerings might help corporate wellness users and also improve employee communications in large companies.

Human beings are social animals. Myspace started the concept of socializing online. In a very short period, its user base exploded and provided a sneak peek at the power of social networking. Its rapid decline and the rise of Facebook and other social networking sites such as Instagram, SnapChat give an insight that customer loyalty can also be short-lived, and they can be easily swayed.

#### Can it be successful in China?

Fitbit is focusing on growing its market share in China. Just because China has a large population or because the majority of Chinese are health conscious, the company is not able to penetrate that market. It doesn't want to be a luxury brand; instead, it is focused on appealing to the middle-class consumers. The majority of US consumer brands that penetrate Chinese and Japanese markets are luxury brands. It is hard to believe that Fitbit can gain market share in those markets. However, Fitbit's approach to China and Japan is to understand those markets' meaning of health and appealing to that. It is yet to be seen.

Fitbit's Selected Financials											
	2010	2011	2012	2013	2014	2015	2016				
Revenue (in Millions)	\$5	\$14	\$76	\$271	\$745	\$1,858	\$2,169				
EPS				(1.32)	0.46	0.69	(0.47)				
Revenue growth %		179%	428%	255%	175%	149%	17%				
Profit Margin %	(27.6%)	(29.9%)	(5.5%)	(19.0%)	17.7%	9.5%	(4.7%)				
Operating Margin %	(26.4%)	(29.8%)	(4.9%)	(3.3%)	21.2%	18.7%	(5.2%)				
Gross Margin %	32.0%	36.2%	34.9%	22.2%	48.0%	48.5%	39.0%				
SGA Expense %	9.3%	12.9%	13.4%	9.9%	15.0%	17.9%	22.6%				
FCF % sale				9.5%	(1.0%)	4.2%	1.4%				
Asset Turnover	0.6	0.7	1.5	1.2	1.2	1.2	1.2				
Debt to Asset	5%	3%	16%	5%	21%	0%	0%				
Devices Sold (in thousands)	58	208	1,279	4,476	10,904	21,355	22,295				
Active Users / Registered											
Users %				73%	61%	58%	46%				

## Restructuring

For a company to be successful innovation is essential, so is a great business model and execution. When there is a strong demand for a company's products, it can be profitable with a mediocre business model.

Retailers' sales expense is usually a fixed cost and one season fashion miss can impact margins. Fitbit does not have that problem. It mainly sells through retail partners, and the majority of its sales expenses are attributed to marketing and advertising costs. Marketing is essential to strengthen and sustain its brand equity. However, a drastic increase in sales expenses doesn't necessarily scream a good business model.

Now the company is planning to restructure, and 2017 will be a transition year for the company. In general, companies emphasize improving efficiency when they are facing challenges. There are certain supply chains efficiencies can be attained only during a downtime. For example, when oil prices declined, oil producers cut costs by passing through the supply chain. Even though, competition is intensifying this is not the case with Fitbit. So, it is yet to be seen whether the company can improve its efficiency.

By successfully implementing just in time inventory, Dell became the poster child for the success story of lean inventory. Last quarter, Fitbit's gross margin has declined more than 50% to 22%, and the company has blamed that on inventory mismanagement. Every company wants to forecast precisely, but in reality, there are too many variables, and companies need to manage what they can control. Improving supply chain is one such factor, and Fitbit needs to do so.

Without investing in R&D, technology innovation can't be attained. However, companies need to increase R&D productivity, not just increase R&D expenses. As the company is trying to increase its penetration in smartwatch category, integrated healthcare, and software and services, it needs to invest in R&D. So, invest in R&D is essential to facilitate its future growth, but success depends on its R&D productivity.

## Strong balance sheet

The worst-case scenario for any company is to end up in a bankruptcy court. Right now, that is not the case with Fitbit. It has a strong balance sheet, no debt, and a strong cash position. It accumulated a majority of its cash through IPO, and theoretically, it is possible for a company to burn cash. Even though in 2017, the company is expecting to generate a loss and negative free cash flow, it does have innovative products, expanding its target markets and partnering with key players in the healthcare.

## Conclusion

The company is facing challenges, but it is innovating and offering quality products. Its recent product, an elegant looking Fitbit Alta HR, which has received good customers' reviews, is an indication of that. It is going after the healthcare market and has partnered with one of the largest healthcare providers, UnitedHealthcare. Medtronic integration is boosting the company's credibility among the medical community. It has a strong cash position and a balance sheet. So, it is worth considering for the long term. There might be a bumpy ride ahead of you, but at least the company is offering trackers to help you manage your stress by measuring your heart rate and guiding you with your breathing during this bumpy ride.