Disruptive Innovation: A Case Study Of Uber

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Abstract: Clayton Christensen introduced the idea of “disruptive innovation.” He used this phrase as a way to think about successful companies not just meeting customers’ current needs, but anticipating their unmet or future needs. His theory worked to explain how small companies with minimal resources were able to enter a market and displace the established system. The objective of this case-based study is to test the theory of disruptive innovation proposed by Christensen for the case of Uber Technologies Inc. Uber is a ride sharing company which connects riders and drivers through a digital platform. The paper suggests that the new ecosystem of ride sharing services created by Uber has been able to create a dent into the otherwise “hard to crack” taxi industry. The author concludes that Uber is not a disruptive innovation but has caused digital disruption in the taxi industry. It has been stated that further research to study the impact on Uber with the advent of new competition in the ride sharing industry needs to be conducted.

Keywords: Clayton Christensen, Disruptive Innovation, Ride sharing, Uber

1. Introduction

Since the birth of civilization there has been a continuous race for improved quality of life. The various scientific discoveries and inventions have helped the society to address multiple issues such as mobility, health, governance, communications and fashion. The world has seen growth of organized businesses. To regulate the growth of various business and to provide effective governance platform to initially control and later decontrol; Governments have taken major policy decisions through regulatory as well as administrative reforms. One of the biggest inventions leading to the several subsequent discoveries was the invention of wheel. The wheel led to multiple and diverse products of Mobility; be it cart, steam engines driven automobiles and railways systems or airplanes. In the nineteenth century, Railways became a stable mode of transport for goods as well as passengers. This improved land connectivity. With the discovery of Internal combustion engines, the automobile Industry has risen to unimaginable heights. The communication systems in the form of Wireless systems, Telephones further integrated the world. Improved connectivity helped in faster dissemination of best practices across the world. The swift growth of Information Technology has united the world in real-time. As a result, the gap between adoption of new technologies across the world has shrunk. The 2G, 3G, 4G and 5G technologies are live examples of narrowing gap in adoption of new technologies. The term disruption has been misinterpreted in the business world through decades. Any change that comes along in the market is termed as a disruption. Traditionally, there has been of ambiguity regarding disruption and innovation. Individuals tend to confuse the two which leads to wrong interpretation of a change taking place in the market. Innovation is a process by which an already existing service is made better. It simply improves a prevailing value offering. Merriam Webster, “disruption is to cause something to be unable to continue in the normal way; to interrupt the normal progress or activity of something.” With the above definition in place, any successful business entering the market can be termed as disruptive. How can one tell if a business is disruptive or not? Clayton Christensen, also known as the father of theory of business disruption states, “In business, a disruptive innovation is an innovation that creates a new market and value network and eventually disrupts an existing market and value network, displacing established market-leading firms, products, and alliances” [1]. His theory changed the way business disruption is viewed. Understanding when a business is actually disruptive is essential in realizing the benefits. With the advent of new technology, business disruptions have increased in frequency. Numerous start-ups have managed to create services that not only make our life simpler but also contribute heavily towards economic progress. As a result of faster growth, the World has become one platform with lesser barriers. However, what has become relevant is the pace at which the changes are sought to take place by one and all. However, the gaps remain in which there remains a huge scope for services sector. The focus is on usage of technology to bridge these gaps. The busy life styles due to new cultural shifts has increased demand for online real-time services, with full access to information of the processes. The world has become a swift changing competitive world with new entrants trying to win the game from the established players. Some of such players have been able to succeed in their mission, while others have failed. Over the years, the new entrants have been looking to make an entry into the market. These incumbents look for the gaps that exists in society, find the reasons for such gaps and look for the opportunities that have not been tapped by the others to fill the gaps. Before launching their business idea, they also find if there are regulations, that create barriers, find out regarding the existing barriers and try to work out a model to negotiate these barriers. The most important area of focus for any new start-up is to make a strong implementation plan, create sustainable models, organize adequate funding to survive till the idea matures and becomes a sustainable business model and create a work plan to ward off competitors for initial period. One such start-up which ultimately resulted into the distortion of the existing taxi business is Uber. Uber Technologies Inc. was founded in 2009 by Travis Kalanick and Garett Camp [2]. To passengers, Uber is essentially synonymous with taxis, and to drivers, it’s basically a referral service [3]. An app connects riders with drivers. A passenger in need of a ride can simply book a cab via his or her mobile phone. The payment for the ride can be made through credit card, promoting a cashless economy. Uber has changed the world’s opinion of the taxi industry. But this is not enough information to decide whether Uber indeed is a disruptive innovation or a sustaining innovation. The paper tries to
provide an answer to the above by testing the working of Uber in accordance with the theory of disruptive innovation suggested by Clayton Christensen.

2. Theoretical Background

A paradigm shift can be seen between now and how businesses used to be operated earlier. Many factors have contributed and are responsible for this shift. Though all businesses grow and change overtime, the ones that have successfully understood and correctly interpreted the demands of population have succeeded the most. Understanding population thus becomes imperative. It means gaining knowledge of social, economic, political factor of a particular region which are likely to influence the people the most. Demographic profiling helps companies/businesses to know their customer better. Demography is a statistical image of population covering factors like age, gender, occupation, education level, income level, religion etc. and how it changes over time. Millennials or generation Y is considered to be the most impactful group in the current period as compared to groups namely generation X and Z [4]. This group is typically characterized by their increased familiarity with digitalization, need of communication and social consciousness among other things [5] For businesses to improve some form of improvisation is required in the product or service being offered. A better product or better service is needed. Essentially it means that the current value chain needs enhancing. All changes made, to add to the existing value chain creates something that is more efficient and futuristic. This could be achieved by innovation or disruption. Webster defines innovation as introducing new idea or methods as a natural progress and disruption means to bring radical change from the old traditional ways by introducing new ideas or methods. On one hand where innovation is considered to take the market with it, disruption works by displacing the old market ...old technology, in an attempt to make businesses serve customers better. People argue that innovation is rational and disruption irrational [6]. Clayton argues that they both are two faces of the same coin. According to him, all intrusions by which the existing market, industry, technology is displaced by something more worthwhile is creative as well as disruptive [1]. When something gainful is created it should be termed as disruptive innovation and not just disruption. Dru JM coined the term creative disruption to explain the radical but purposeful changes in the market [7]. Almost all the times disruptions or rather disruptive innovations happen because they are required. the changing pace of technology has affected many such disruptions. Some disruptions are powerful enough to destroy a particular industry and forces a need to make changes at the institutional level. They redefine how society operates. Not just, new rules and regulations governing changes are required, but society as a whole has to go through a learning curve. Disruption theory of Clayton suggests that the new entrant always starts at the bottom of market providing services that are just enough to satisfy the customer. This market has been left behind by the companies who in their constant desire to improve their service or product make the product/ service costly and automatically out of reach of the regular customer. For the disrupting company the niche is available to exploit. Disrupter tries to occupy this market with a marginal profit-making strategy and makes a stronghold. The more sophisticated customers of the same market also are captured with passing time [1].

Digitalization has become the new buzzword. Use of information technology in businesses is instrumental in creating new opportunities and avenues for entrepreneurs and forming new business models for business growth [8]. Advance in technology has affected the way one conducts themselves. The use of internet of things, smart phones, social media and ways of amalgamation of technology and digitalization has eventually transformed the way people can think about conducting businesses. The traditional ways of doing business are getting challenged. New digital technology has brought the world closer, remodeling businesses to approach and satisfy the technology savvy consumer. According to Kelly K., “Uber, the app that helps people find rides in nearly 500 locations across the globe, has disrupted the taxi industry” [9]. The author further writes that these digital native companies are using technology to redefine the customer experience, making it difficult for the existing companies to cope. [9]. Which also means that business leaders of today will have to develop a foresight to keep up with the technological impact in their respective field. Peter Drucker explained “What a company gets paid for” is more than just knowing the service or product a business wants to offer. It should get involved in intimately knowing customers and the dynamics of the business environment [10]. Every business model has to evolve with time. Dynamism of business models only can guarantee incremental earnings. At the best, every business model is required to answer certain pertinent questions: Namely Identifying the target customer ‘which would mean to know where and what type of customer the company wants to approach and how should it be doing it; secondly, what is the company planning to offer to the customer which means the form and nature of service or product which it believes is the need of the customer; thirdly, to what extent the usage of the given service or product will satisfy the user or be of value to the customer; fourthly, How the business or company plans to make money out of the created value chain [11]. Digitalization has helped the vendor and the customer to have a direct transaction thereby eliminating the need of intermediate party or a middleman, also known as Peer to Peer model (P2P). Uber with its app is successfully using the P2P model, bringing the consumer in direct contact with the provider. At the same time working in P2P market comes with its own challenges [12]. According to Kelly K., Uber has disrupted the taxi industry using digital technology [9]. In fact, with digitalization Uber has been able to form a huge market by providing quick and easy transport solution to consumers. Disruption usually works on the principle of simplicity. Uber’s value addition has been simple and cheap and perceived easier than from hailing or renting taxis. It has also adopted a simple model for Business promotion that is, by using current customers who get promotional codes on their smartphones and pass them to their acquaintances. [13]. Uber has created enough stir in the aggregator sector in both America (where it started) and India (where it has largest market outside America) [14]. Where we say that Uber has digitally disrupted the taxi market, it actually has managed to generate multi fold employment and going by the basic business objectives it is able to provide more value to the existing customers. Researchers vary in their opinion about Uber being a disruptive innovation. The following sections discuss this debatable issue and try to find a logical answer for it.
3. Method

This paper “Business Disruption: A case study of Uber” aims to study the impact the Uber Technologies Inc. has had on the existing ride sharing industry. In less than a decade, Uber has transformed the ride sharing sector not only in the United States of America but throughout the world including India and China. In 1995, Clayton Christensen wrote the book ‘The Investor’s Dilemma’ which contained the theory of Disruptive Innovation. The objective of the study is to test the business case of Uber Technologies Inc. on the principals propounded by Clayton Christensen on disruptive innovations. The Journal Article tries to answer the following questions:

1. Is Uber a Disruptive Innovation?
2. How has Uber led to the transformation of ride sharing services?
3. How digitalization has contributed to the success of Uber?

The research conducted in this study is secondary in nature. The methodology used in this paper is a case-based approach, where the journey of Uber Technologies Inc. is studied in depth. The Scope of this study is restricted to the United States of America and India. Uber was a start-up launched in San Francisco, USA in the year 2009. After stabilizing its operations, it entered into other countries with improvised business models based on the learning. This study focuses on the initial period of Uber as a start-up in USA and India only.

4. Case Study

Uber technology Inc., founded in 2009, is the world’s largest personal transport provider. With its headquarters in San Francisco, California, Uber operates in 65 countries, covering over 600 cities [14]. The effective peer-to-peer business model employed by Uber connects those who need the service, in this case transportation, with those who can provide the service. The service is digitally provided, where in, a taxi can be summoned via an Uber App available both on Android and IOS. With a valuation of 72 billion dollars [15] [16], Uber completes over 15 million trips daily and provides employment to over 16000 people [14]. The basic philosophy of Uber was to increase asset utilization. To make the model more sustainable, there was a need to increase the number of drivers and cabs. This would reduce the waiting time per customer and make the model more dependable. Only by increasing the reliability of the system, the demand for it could be increased. The company had a business plan and an IT backing but to make the model scalable, funding was required. Many investors including Google ventures helped finance the company. The list of investors has been provided below.

Table 1: Funds received by Uber from various investors

<table>
<thead>
<tr>
<th>Date</th>
<th>Funding Amount (USD)</th>
<th>Investor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 8th, 2009</td>
<td>$0.2 million</td>
<td>Garret Camp, Travis Kalanick</td>
</tr>
<tr>
<td>October 15th, 2010</td>
<td>$1.25 million</td>
<td>First Round Capital</td>
</tr>
<tr>
<td>February 14th, 2011</td>
<td>$11 million</td>
<td>Benchmark</td>
</tr>
<tr>
<td>December 7th, 2011</td>
<td>$37 million</td>
<td>Menlo Ventures</td>
</tr>
<tr>
<td>August 23rd, 2013</td>
<td>$363</td>
<td>Google Ventures</td>
</tr>
<tr>
<td>June 6th, 2014</td>
<td>$1.4 billion</td>
<td>Fidelity Investments</td>
</tr>
<tr>
<td>December 4th, 2014</td>
<td>$1.2 billion</td>
<td>Glade Brook Capital</td>
</tr>
</tbody>
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The increase in funds allowed Uber to pump in more money to attract drivers and also provide discounts and take other initiatives to attract the customers. Even after attaining new heights of success, Uber is still in losses, but with the massive increase in demand their scale of operation has increased. The model can now be called sustainable. The company has slowly withdrawn the initial incentives it offered to both the drivers and the customers. It is now up to the driver to make more money by driving more. With rising demand, drivers tend to accept more rides and hence generate more income. The success of Uber can be easily explained by studying its business model. The business model of Uber can be structured according to “the magic triangle” proposed by professors at the University of St. Gallen [11]. Uber offers its service to two types of customers namely, drivers or providers, and people who want a ride or users. Any individual with a driving license, a clean criminal record, a well-maintained car and a mobile phone can work as a driver for Uber. To order a cab, a person simply needs to download the Uber App, register and provide their credit card details. Many countries in Europe, for example Austria do not except payment in cash, on the other hand, in India, cash payment in also accepted. The App is customized according to the demography of the region. The company makes the job attractive for drivers by allowing them to work flexible hours. It was up to the driver to decide how many hours he wants to drive. Similarly, being able to avail rides at a faster pace and cheaper price, knowing the exact location of the driver and hassle-free payment system (credit/debit card) all contribute towards the increase in demand for Uber. The business model of the company helps save on both fixed and variable costs internally. Uber has an inventory light model. Uber doesn’t own any cars, it doesn’t have to bear any servicing and maintaining costs of taxis. Uber doesn’t have to pay parking fees or rent. Uber provides an ecosystem for the drivers and passengers to interact without the need of a third party. This helps them save on call center agents fees and administration costs. Uber saves a large amount by employing individuals who are already skilled in driving. The company doesn’t need to spend on recruiting and training drivers or issuing permits. Uber makes money by charging a commission under 30% from the drivers. In India the commission charged is 20% which includes GST [18]. According to the changes in the demand supply for cabs in the market, Uber adjusts the price by using an automated algorithm. As a result, when the demand for cabs is high, the fares are significantly higher than usual. Before the establishment of Uber Technologies Inc., intra-city commuting market was heavily dominated by city taxis. These taxis were limited in number due to the restrictions imposed by the existing drivers. For example, the number of Auto drivers in India have increased by a marginal amount in the past 5 years. Existing Auto drivers threaten the
government by going on strikes as increasing the number of drivers, raises the supply leading to a reduction in fares. Limited taxis made availing the service costly for customers. Even after paying such a high fee, the quality of services received were poor. The result was that consumers started to avoid taking taxis and use their own personal vehicles. This opened up an opportunity in the market to be exploited by one of the start-ups. Uber managed to seize this opportunity by providing a better transportation service than city taxis. Uber’s biggest advantage in USA was using private cars. This helped the company avoid, commercial insurance, commercial registration, commercial plates, special driver’s licenses, background checks and commercial vehicle inspections. The practices of Uber are not uniform across the different cities and countries it operates in due to the different laws and regulations. E.g. in India, Uber is allowed to use private cars for ride sharing. The complexity of the problem gets compounded due to the fact that in most countries’ road transport is not a federal subject. Therefore, every state creates unique regulations depending upon the progressive attitudes as well as pressure of existing taxi lobbies. For example, in Karnataka, Uber has been asked to comply on fix tariffs, whereas in West Bengal there is a regulation mandating cabs to be fitted with CCTV cameras for safety reasons [19] [20]. The state of Maharashtra has asked the cab aggregators to have a composition of 30% of their taxis in luxury segment [21]. A similar scenario can be observed in America. For example, in Seattle the council has imposed restrictions on ride sharing services to protect the already existing taxi drivers. A cap on the number of cars and the number of driving hours was levied [12]. To maintain the quality of services, Uber also provides both the driver and the customer the chance to rate rides and give feedbacks according to their experiences. The App also offers a feature to share one’s ride with others making passengers feel safe and secure. These features have positively impacted the demand. Uber continues to introduce innovations in existing ideas which lead to better asset utilization. The introduction of Uber POOL reduced the per person cost. This helped Uber expand its market to the lower end of the population who couldn’t afford calling an Uber before. The company also encourages the system where 2 to 3 drivers drive the same car. Such a technique allows a single car to be used 24 hours a day, resulting into maximum asset utilization. Uber has also diversified the services it offers. The company has expanded its business to the food delivering sector by creating an App called UBER eats. UBER FREIGHT is a free app that matches carriers with shippers, where the shippers can instantly book the loads they want to haul [22]. Due to upfront pricing, carriers always know how much they’ll get paid. Uber is also working rigorously on changing the future of autonomous transportation technology. An advanced technologies group is dedicated to building safe, reliable, and cost-effective self-driving technologies. In all, Uber has managed to introduce a successful business in the market based on a simple idea, “How would you be able to request a trip from your phone?”

5. Analysis and Discussion

Uber, in less than a decade has managed to expand significantly. Founded in 2009, the company witnessed fantastic growth. The demand for Uber has increased exponentially in the past few years. Countless start-ups have imitated Uber’s business plan. These include; Ola, mytaxi, DiDi and many others. The company has transformed the taxi business throughout the world, but is Uber disrupting the taxi business? The answer is debatable. Few researchers consider that any combination of a trivial technology, with a trivial yet effective business model will lead to disruption. According to the view point above, Uber is a disruptive innovation, as digitalization (a trivial technology) has been combined with a peer-to-peer model (a trivial yet effective business model) to create a dynamic start-up that has changed the perception of the taxi business. Another way of explaining the effect of Uber on the society can be that even though the services provided by the company have distorted the functioning of the taxi business, it has not disrupted it. This view point is in harmony with the theory of “disruptive innovation” proposed by Clayton Christensen, a renowned American academic. According to the theory, the company’s financial and strategic achievements do not qualify for it to be termed as disruptive. This is because of two reasons:

1. As per Christensen, Disruptive innovations originate in low-end or new-market footholds [1]. Disrupters try appealing to the lower end or unserved markets which are usually over-looked by incumbents. Lower end markets exist because incumbents, with the aim of increasing profits in mind, cater to customers who highly demand their products and almost ignore the less-demanding customers. Sometime, incumbents over-shoot the demands of the low-end of the market. This opens up a market for disrupters by initially focusing on the low-end customers and providing services that are “good enough”. New-market disruption occurs when a market is created for non-consumers. Put in simplistic terms, this type of disruption targets not consumption.

It is difficult to say that Uber fulfills either of the two bases. It cannot be said with guarantee that Uber started at the lower-end of the taxi market, the one which supposedly got left behind when the taxi market, overtime tried to add features in order to improve its offer to existing customers, inevitably making use of taxi more expensive or beyond the means of a regular taxi customer who could not afford the high rates and keep up with the natural innovation in the taxi market. This was not the case. When Uber was launched in San Francisco, it was already a well serviced market by taxis [1]. Uber’s target customers were people who were already in the habit of travelling by taxis. Hence, it cannot be said with conviction that Uber initially formed a business focusing on non-consumers.

2. Disruptive Innovations don’t catch on with mainstream customers until quality catches on up to their standards [1]. According to Christensen, disruptive innovations start at the bottom of the market. The services they offer are initially not up to the mark and therefore, customers are not inclined towards availing these services even at a low price. Over time, the quality improves enough to satisfy the customers. The once inferior product, now with advancement is accepted in the market. A disruptive innovation is a process, there is more to it than just introducing a product or service.

Uber leans more towards what one calls a sustaining innovation. Uber has helped sustain the already existing taxi
business rather than disrupt it completely. Services provided by Uber from the start have lived up to the demands of the customers. The product is hardly ever described as inferior to the existing taxi business. The myriad of features provided by the company has made getting rides so easy as compared to when taxis had to be hailed on the streets. The quality of services provided by Uber is maintained through the fantastic rating and feedback features available on the Uber app to both the customers and drivers. Uber at the time of launch had all it takes to target the main stream customers. Uber has changed the dynamics of the taxi industry. The revolutions brought in by the company has transformed and distorted the existing taxi business but, it cannot be considered as a disruptive innovation. Uber was the first company to offer ride sharing services using a digital platform. Even though, Uber cannot be terms as a disruptive innovation due to the above explained points, it has definitely caused a digital disruption in the transportation market. Uber has managed to generate value by improving the taxi procure ability of the consumer in terms of saving on time money and simplicity of the operating procedure. Disruptive is the technology that it has used which helped Uber to create a massive consumer base. It has improved the ride sharing services.

5.1 Comparative analysis - Uber v/s Airbnb

Both Uber and Airbnb are high impact start-ups yet only one of the two is considered disruptive. Airbnb would allow to even book a couch in someone’s living room just like booking a hotel room. Airbnb’s early users were not the regular hotel users. It attracted an untouched section of population for outstation stays. Whereas Uber in its initial days did not target a new set of customers but focused on providing a better alternative for existing taxi customers. The disruptive products always go after non-consumers that have been priced out of the market. Based on two standpoints of theory proposed by Christensen, Uber cannot be correctly called disruptive innovation.

6. Conclusion

World over, the taxi drivers have been able to create a very strong pressure group. This pressure group has deep-routed local support from the policy makers as well as politicians. The result has been that due to the strong influence exercised by the taxi lobby, citizens have often been left in lurch. The focus of the government policies has often eluded the citizen centric approach. This led to a situation where the taxi market remained restricted, mostly unavailable, inaccessible, unsafe, unaffordable with inconsistent service level to the customers who found it convenient to shift to private mobility than to rely on the existing taxi industry. There was a wide gap available waiting to be bridged in ride sharing services. Uber grabbed this opportunity with detailed planning and meticulous implementation to meet the expectations of the consumers, there by winning back the trust of the existing customers as well as attracting the new ones. Capitalizing its strength in IT applications, Uber has been able to develop systems which exploit the full potential of the assets (cars), resulting in lower cost and high turnover, thereby resulting in benefits to the customers as well as the drivers. The new ecosystem of ride sharing services created by Uber has been able to create a dent into the otherwise “hard to crack” taxi industry. Uber has universally transformed the taxi industry. The company has managed to restore the confidence of consumers in ride sharing services. Uber changed the dynamics all together by making it possible to order cabs digitally. Uber has surely caused a digital disruption but due to the high quality of services provided from initial phases and its target customers, Uber cannot be called a disruptive innovation.

7. Future Research Directions

Venture funds have played a significant role in helping Uber continue with its expansion while making cash losses. With multiple competitors such as, Didi and Ola, it will be a challenge for Uber to seek more funds and retain its dominance in the ride sharing market. This will directly impact future fund flow. This might necessarily force Uber to go for force corrections in its strategies across the globe without losing its drivers as well as consumer base to keep a healthy top line. Sustainability of business models on long term bases remains unproved as nowhere across the globe has Uber turned profitable. It will be interesting to map the future growth of Uber in further studies.

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Author Profile

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