

The Metamorphosis of Internet based Utilities Converts Users into Consumers

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Abstract

The internet is a virtual realm or space inhabited by 3.5 billion individuals who are empowered with the ability to surf from location to location, instantaneously at their personal discretion. These locations are in the form of websites offering services and information. The services offered are comprehensive and cater to all facets of daily living. Services in terms of entertainment, banking, commerce, networking and other need based provisions. Thus internet users are spoilt for choice, in terms of consuming these services. But this population of internet users amounts to more inhabitants than the most populated country in the world, China. This bank of 3.5 billion individuals provides a lucrative opportunity for investors, businesses and companies to innovate and provide a variety of services.

Hence the article tries to establish the following findings. Firstly the increase in the number of internet users has attracted various innovative services to be established as an offering or internet destination. Secondly, there has been diffusion of these innovations amongst the internet populace who have transformed into consumers of the services provided, over a periods of time, thus establishing the furtherance of the Diffusion of Innovation theory of mass communication. Thirdly the diffusion of innovations have taken place at differential rates at different parts of the world, given the different culture, social structure and other such parameters as has been established with the application of the Individual Difference theory of Mass communication. Thus the financial growth of some similar internet based companies, have been different on this basis.

Key Words – Utilities, Diffusion of Innovation, Individual Difference.

Objective

The technology of this world is in a constant state of furtherance that has ensured the fast paced progress of its inhabitants. The advancements, innovations and breakthroughs are ensuring that the world is in a state of constant change. Futuristic trends that were considered unrealistic and impossible have been overtaken by innovations that have not just transformed beliefs, but the lives of the people altogether. The objective of this paper is to evaluate the behavioral change among the rising number of consumers of internet based applications and services in India and also from a global perspective. It is also intended to identify the changing trends and direction, that the internet based companies are showcasing in terms of a transformation from entertainment based services to utility based services.

Introduction

The present surge in technology that has recently transformed the world is in the form of internet based applications and services. In this age of connectivity, a plethora of services and utilities have swarmed the public sphere and are furthermore, constantly innovating. The diffusion of these innovations have revolutionized age old processes and given birth to a global village where everyone is interconnected as part of a vibrant network. The nature of websites and other online services have evolved over the past few years, comprehensively. As more and more people get included into the online realm, the scope for commerce and industry is ever expanding. The competitive environment has induced greater quality and intelligent innovations.

India has an advantage over the rest of the world, due to a youthful demographic profile that is expected to adopt innovations at a faster rate. It is thus the third most attractive investment destination in the world, for technology transactions as it steadily arrives at becoming a leader in industrialization and technological development.

India has more than 375 million internet users which is the second largest user base in the Asia Pacific region. This is despite a minuscule 28 percent Internet penetration.

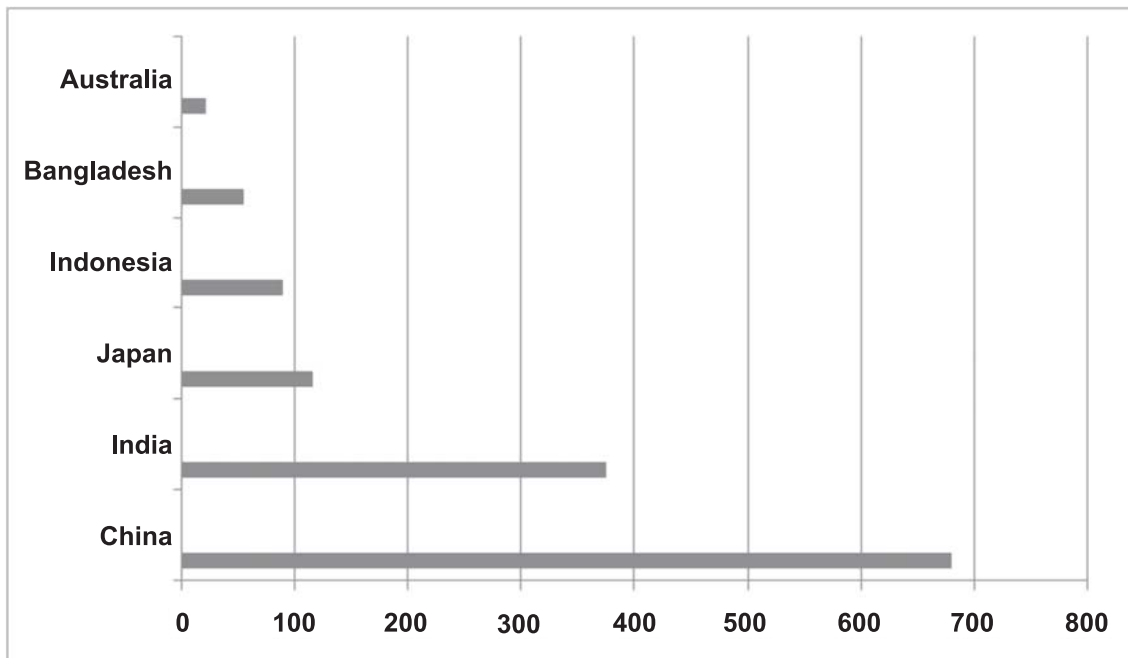
Research Methodology

In this paper, quantitative analysis and evaluation has been conducted upon secondary data availed from 'statista.com' in the following three broad criteria. First, in terms of the growing number of internet users over a recent period of time and on the growth in terms of business, due to a steady surge in the number of consumers of internet based services that has been culled from the above source. Second, the increase in the financial profits of two leading online companies has been comparatively evaluated based on the data available from the above source on the parameters of

demographic internet accessibility and trends of innovation. Third, the scope for success giving birth to various utility based internet companies and the metamorphosis of the utilities and services provided by internet based companies, has been further established by evaluating the leading online applications and global and Indian websites offering internet based services.

The following Reference Table is a showcase of the number of internet users in the given countries as of January 2016, in millions: (Source: www.statista.com)

Country	Number of Internet Users in Millions
Australia	21.18
Bangladesh	53.94
Indonesia	88.1
Japan	115
India	375
China	680



The following bar chart is a showcase of the number of internet users in the Asia Pacific region as of January 2016, in millions: (Source: Based on the above table).

Figure 1

The above figure shows the surge in the number of internet users. This has fuelled the rise in the number of consumers of internet based services, thus leading to the success and growth of online based industry. To showcase this, the above analysis has been substantiated by the case study of Facebook, a leading online service provider.

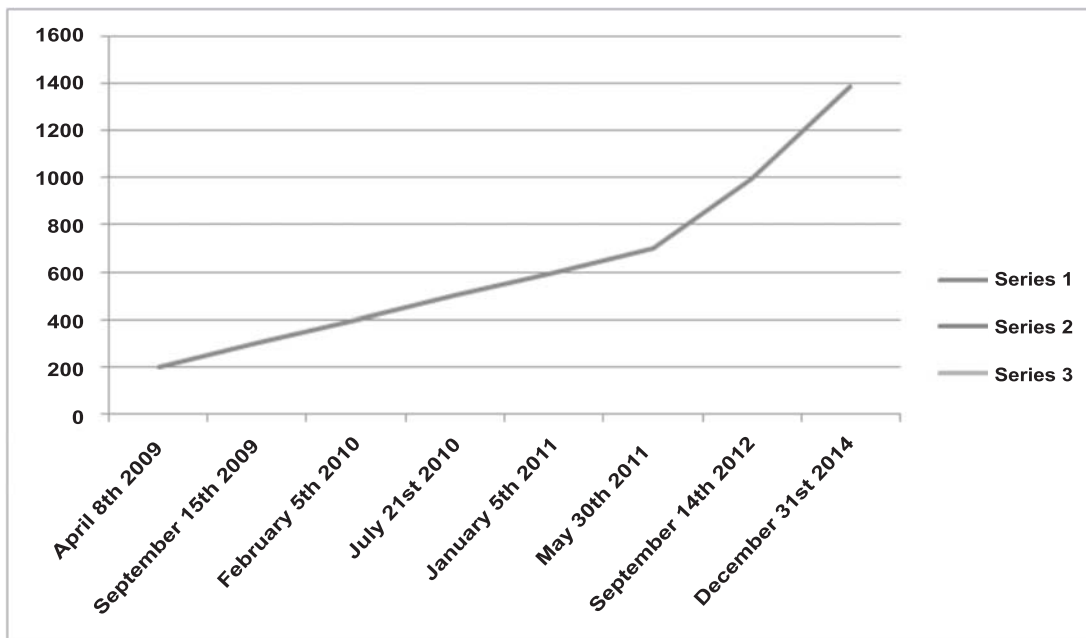
Case Study

'Facebook' is a social networking site that has transformed the world into a global village, by

bringing people together. Founded by Mark Zuckerberg along with his college roommate and Harvard alumni Eduardo Saverin, 'Facebook' was launched in February 2004. The concept of coming together on an online social platform spread like wildfire and propelled the company into a 190 billion dollar company. The following is a chart that showcases the steady growth of 'Facebook' users over the years. 'Facebook' has constantly enhanced its innovative features in terms of utility and user-friendliness and is also available as a mobile phone app.

Table showcasing the growth of 'Facebook' in terms of **consumers**. (Source: www.statista.com)

Date	Users in Millions
February 4 th 2004	0
August 26 th 2008	100
April 8 th 2009	200
September 15 th 2009	300
February 5 th 2010	400
July 21 st 2010	500
January 5 th 2011	600
May 30 th 2011	700
September 14 th 2012	1000
December 31 st 2014	1390



Graph Showcasing the Growth of 'Facebook' in terms of Consumers. (Source: Self Created) Figure 2.

The above chart shows that the rapid increase is a showcase of the adoption of the innovative measures of internet based social networking site establishing the Diffusion of Innovation Theory. As postulated by Everett M. Rogers, he defines diffusion as 'the process by which an innovation is communicated through certain channels over time among the members of a social system'.

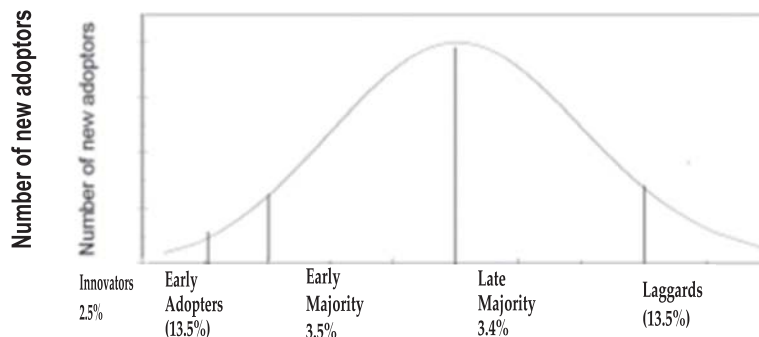
The 'Diffusion of Innovation' is a showcase of the tendency, of new products, trends and ideas to disseminate among people, in a step by step process over a period of time, during which the innovation is adopted in the following order of consumer classification.

1. **Innovators** - These are people who want to be the first to try the innovation. They are the adventuresome and interested in new ideas.

- These people are very willing to take risks.
2. **Early Adopters** - These are people who represent opinion leaders. They enjoy leadership roles, and embrace change opportunities. They are already aware of the need to change and so are very comfortable adopting new ideas.
 3. **Early Majority** - These people are rarely leaders, but they do adopt new ideas before the average person.
 4. **Late Majority** - These people are skeptical of change, and will only adopt an innovation after it has been tried by the majority.
 5. **Laggards** - These people are bound by tradition and very conservative. They are very skeptical of change and are the hardest group to bring on board.

The following diagrams are a representation of the above.

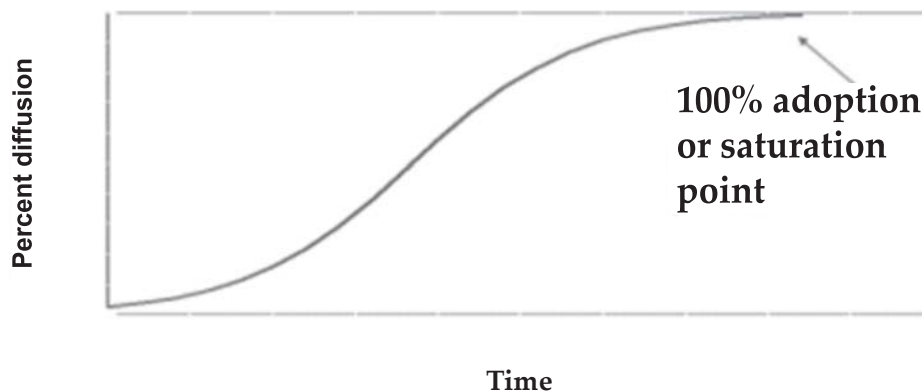
Adoption of Innovations Over Time



(Source: <http://www.consumerpsychologist.com>) Figure 3.

The bell shaped curve is a showcase of the rate of adoption of a new product. Cumulative adoptions are reflected by the S-shaped curve. The **saturation**

point is arrived at, when the maximum proportion of consumers likely to adopt an innovation, is on board, as is showcased in the following diagram.



(Source: <http://www.consumerpsychologist.com>) Figure 4.

On comparison of the postulated 'Diffusion of Innovation' curve in application (Figure 2), as is presented in the case study of 'Facebook', along with the original graphic representations of the conceptual model (Figure 3 and Figure 4), we find that there is once again a successful application of the model yet again, as is evident from the similarities.

On the similar logic, other social networking applications have established themselves such as 'Watsapp', 'Snapchat' and 'Hike Messenger'.

Indian Perspective

India's presence in the world scenario as an integral market with large prospective, has attracted immense investments and attention. The Indian Government has successfully implemented significant policies to further strengthen the economic image and credentials of the nation, to transform it into one of the leading economies of the world. India is genuinely becoming a home to start-up companies that focus on areas with a high growth rate such as e-commerce, mobility and other specific services and solutions. This is leading to the creation of new trade markets and is encouraging innovation.

Mobile internet access is an integral area which has developed across the world in recent years. In the year 2012, 22.40 percent of the population accessed the internet using a mobile browser or an installed application. One year later, this figure grew to 25.90 percent of the population. This rate is expected to rise further on a yearly basis, until 2018 in the least. This trend has enhanced the scope for internet based commercial growth manifold and is expected to break new barriers in the near future.

Simultaneously trending innovations linked to each other have given rise to upgraded marketing methods and techniques. The façade of the fundamentals of marketing have changed considerably with the arrival of the internet. Consumer behavior can be evaluated more accurately and thus the target audience for any campaign can be easily identified and catered to.

The overall favorable climate for the growth of internet based services and utilities have attracted a large number of investors to India and this has resulted in the generation of web based attitudes amongst the masses that are conducive to online commerce and industry. The ecosystem of Indian startups has progressed immensely riding the potent influx of foreign capital. Thus thousands of popular websites and mobile applications have positively changed the lives of the people. Basic needs and

necessities are fulfilled using mobile applications related to transport, healthcare, finances and more.

The following are the top Internet based Indian companies:

'**Flipkart**' was founded by Sachin Bansal and Binny Bansal in 2007. It is a shopping destination located on the world wide web. It is presently valued at USD 11 billion. Although incorporated in Singapore, all of the entity's operations are based in India. Until now, it has received funding worth 2.5 billion dollars through 11 rounds, from 16 investors from international companies such as 'Tiger Global', 'Naspers', 'Baillie Gifford', 'DST Global' and others. Flipkart has acquired some other companies as well, such as, 'Myntra', 'LetsBuy.com', 'weRead', 'Chakpak' and 'Mime360'.

'**Snapdeal**' was founded in 2010. It started as a deal offering site and later transformed into an e Commerce marketplace. It is presently valued at 2 billion dollars. Founded by Kunal Bahl and Rohit Bansal, the company has secured funding worth 1.1 billion dollars through 8 rounds from 16 investors that include 'Bessemer Venture Partners', 'Indus Ventures', 'Nexus Venture Partners' among others.

'**Paytm**', which is owned by One97 Communications, is a web based and mobile platform for digital financial transactions. Its value stands at 1.5 billion dollars. Paytm's parent company secured a total capital of 610 million dollars from investors that include 'Ant Financial', 'SAIF Partners', 'Intel Capital', 'SAP Ventures' and 'Silicon Valley Bank'. It was founded in 2010 by Vijay Shekhar Sharma.

The online cab booking service '**Olacabs**' was founded in 2010 by Bhavish Aggarwal and Ankit Bhati. It is currently worth 1 billion dollars. The company has acquired funds worth 276.8 million in 5 rounds from 9 investors which include 'Tiger Global', 'Soft Bank', 'Sequoia Capital', 'Steadview Capital', 'Matrix Partners' and others.

Global Perspective

As we evaluate the global scenario in terms of the growth of internet based companies and their innovativeness in terms of the services provided, we are presented with an insight into the changing likes and dislikes, uses and their gratification and that of demand and supply.

The face of online services has changed considerably. The dotcom bubble of the late 90s and the early 2000, laid the foundation for the modern internet. Earlier

the utilities that were popular amongst the masses were entertainment based. Music in the form of Mp3, videos of different types and the ability to communicate through Email revolutionized the lives of the people.

Websites such as 'Napster' explored communication models based on sharing. This made the general communication process, a lot more interpersonal. Napster was one of the earliest music file sharing websites. It had to face various lawsuits and finally had to shut shop after being purchased out by 'Roxio' followed by 'Best Buy' and after its merger with another company called 'Rhapsody'. Co-founder Sean Fanning went on to construct various failed ventures such as 'Snowcap', 'Rupture' (2006) and 'Path' (2010), until finally reuniting with Napster co-founder Sean Parker to build 'Airtime', a live video website. Parker had also been associated with 'Plaxo', 'Spotify' and 'Facebook'.

'Yahoo' is a market giant that originated in the nineties and continues to be a commendable force in the world of the internet. 'Yahoo' was founded by Jerry Yang and David Filo in 1994, entrepreneurs and philanthropists, none the less. Yang eventually left the company and went on to found more than fifty startups through his company 'AME Cloud Ventures'. David Filo still is a part of the governing board. He is very active in his charitable efforts like the Stanford Interdisciplinary Graduate Fellowship, K12 Start Fund and the Yellow Chair Foundation. 'Yahoo' is all set for a revamp after it was announced recently that its core business would be sold to Verizon for the amount of 4.8 billion dollars.

'Geocities', the web hosting service was founded in 1994 by David Bohnett and John Rezner in 1994. It was made open to the public in 1998 and was taken over by 'Yahoo'. Bohett is presently furthering his philanthropic efforts through his charity 'David Bohett Foundation' and invests in new companies through his fund 'Baroda Ventures'. Rezner consolidated 100 million dollars after the sale of 'GeoCities' and is presently one of the board of directors at 'Acesis', a web based healthcare platform.

'Altavista' was one of the first search engine platforms on the internet. It was created by Louis Monier and Michael Burrows in 1995. In a year, 'Altavista' was supplying all the results to searches, for 'yahoo.com'. As 'Altavista' eventually lost ground to 'Google', it was acquired by 'Yahoo' in 2003 and finally shut down in 2013. Burrows moved to 'Microsoft' and then to 'Google' where he is still associated. Monier also

associated himself with 'eBay' and 'Google' and went on to co-found 'Qwiki', a video sharing startup which was taken over by 'Yahoo' in 2014.

In 1996, 'Google' began as a research project by Larry Page and Sergey Brin, both PHD students at Stanford university. According to the Forbes list of the most valuable brands of the world, as of May 2016, Google comes in second place with a brand value of 82.5 billion dollars with a total number of 53,600 employees.

'YouTube' was founded by Chad Hurley, Steve Chen and Jawed Karim, who were all employees of 'PayPal', an online payment gateway. 'Youtube' was activated in February 2005 and the first video called 'Me at the Zoo', was uploaded that year in July and featured co-founder Jawed Karim. In the year 2006, 'Youtube' was one of the fastest growing websites. It was recorded that more than 65,000 new videos were uploaded accumulating 100 million views per day. This was far more than the popular entertainment sites of those times, such as 'Myspace'. In 2006 'Youtube' was purchased by 'Google' for 1.65 billion dollars in stock.

Although entertainment remains a primary service provided by internet based companies, over the past few years, there has been a surge in the E Commerce industry that has witnessed the rise of business giants such as 'Alibaba' and 'EBay'.

'EBay' was founded in 1995 and opened to the public in 1998. 'eBay' platforms are available across the globe. **'eBay' operates its primary platform as ebay.com. Its other sites around the world are localized in terms of its URL. For example – Platforms such as 'eBay.de', 'eBay.in' and 'eBay.co.uk'. Also, the 'eBay' mobile application is available in 8 languages across 190 countries.**

'Alibaba' was founded in 1999 and opened to the public in 2014. Alibaba substantially receives all of its revenue, from China. It is not in the least as global as 'eBay'. **The following retail marketplaces are operated by 'Alibaba', for consumers in China:**

'Taobao Marketplace' which is China's largest online shopping destination.

'Tmall Platform' which is China's largest third-party platform for brands and retailers.

'Juhuasuan' which is China's most popular group buying marketplace by its monthly active users.

Also, apart from these, 'Alibaba' offers its services as 'Alibaba.com', a global wholesale marketplace,

'1688.com', a Chinese wholesale marketplace and 'AliExpress' a global consumer marketplace.

Comparative Study

On comparison, it is evident that the strategy of the two world's leading e-commerce platforms, 'Alibaba' and 'eBay' share similar business strategies but the results differ manifold on the basis of extraneous parameters. Both the 'Alibaba' and 'eBay' strategy models have the following, in common. Both have built platforms that connect prospective buyers with sellers. These web markets enable individuals, entities

and organizations to purchase and sell online, just like a real marketplace where both entities must be physically present. None of the companies provide the service of online inspection and transaction, and thus do not hold the goods and products in an inventory, unlike Amazon. Revenue is primarily generated from the transactions and also from the marketing services offered.

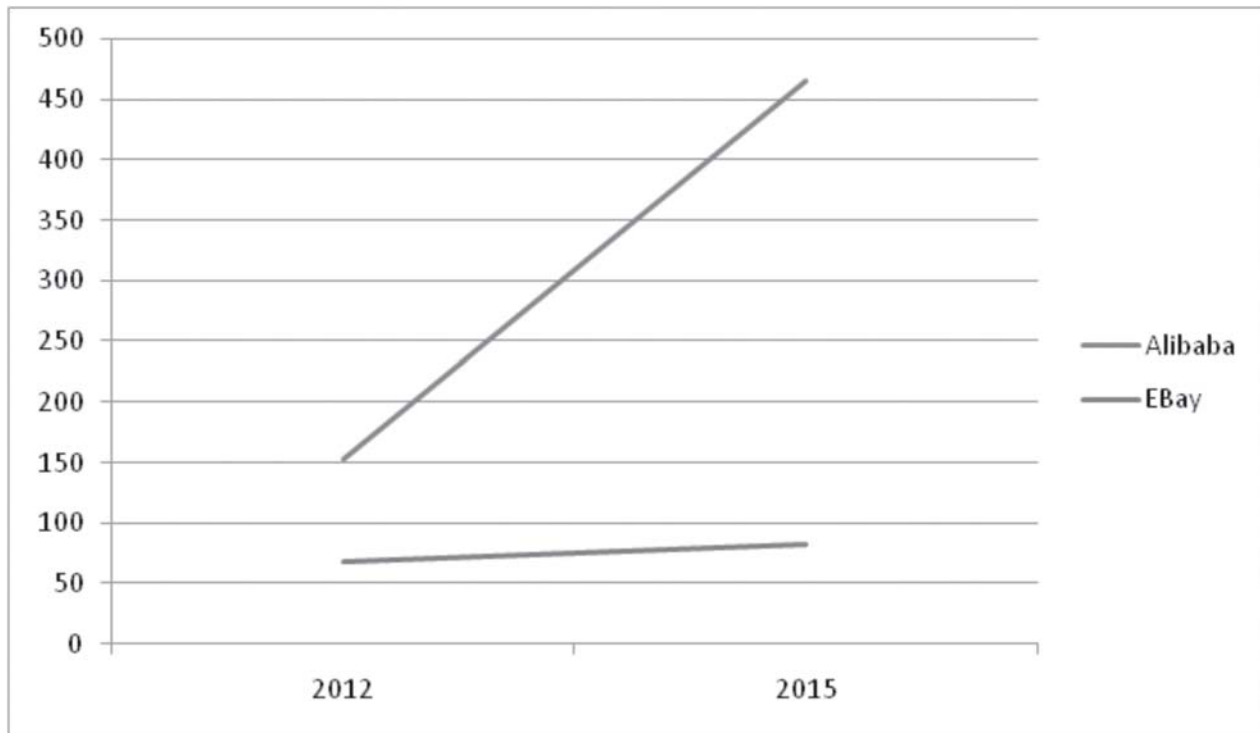
A comparative study between the two internet giants provides a reference to the growth trends of similar service providers operating in two different parts of the world.

Comparative showcase of Gross Merchandise Volume Valuation in dollars over time (Source: www.statista.com).

	Alibaba	Ebay
2012	1530000000	680000000
2015	4660000000	820000000
Percentage Increase	67.1%	20.5%

"Gross Merchandise Volume or GMV is defined as the comprehensive value of confirmed orders or closed transactions over their marketplace based platforms, regardless of whether the buyer and the

seller actually complete or settle the transaction". Thus GMV is a parameter that measures the volume of commerce enabled by the platform.



Comparative Gross Merchandise Volume Valuation in dollars (Source: Self created). Figure 5.

The growth in terms of the GMV of 'Alibaba' was much faster than that of 'eBay', from 2012 to 2015. In 2012, the GMV of 'Alibaba' was 153 billion dollars and that of 'eBay' was 68 billion dollars. So, **in the year 2012, the GMV of Alibaba was 2.3 times more than the GMV of eBay.** In the year 2015, the GMV of Alibaba climbed to 466 billion dollars, whereas the GMV of eBay reached 82 billion dollars. So, **in 2015, the GMV of Alibaba was recorded as 5.7 times more than the GMV of 'eBay'.**

Thus, the growth rate of the two companies, providing similar service and sharing similar business strategy, is different due to reasons which are extraneous parameters such as individual differences in the pool of prospective consumers, as is postulated in the **Individual Difference Theory of Mass Communication** that establishes that, individuals respond differently to the mass media according to their psychological needs, and that individuals consume the mass media to satisfy those needs. Individuals representing different demographics and geographical area react differently to a similar stimulus. Thus the stimulus in case of 'Alibaba' and 'eBay' may be the same, but adoption of innovation, as a reaction, happens at a different rate.

Conclusion

The gigantic increase in the market size, purchasing power, and the concept of consumerism has thus contributed comprehensively to the transformation of the world that stands in its present day fuelled considerably by an information, entertainment and utility based digital network, that has furthered the possibilities of life and living, considerably. This research paper henceforth showcases the following outcomes.

Firstly, it has been established that the online population or rather the number of users of the internet, is presently, a large mass of individuals from all over the world. Hence there is no dearth of users' awareness of the social media service.

Secondly, it has been established that the large online populace, who are prospective consumers have

attracted industry in terms of various innovative internet based utilities and services. Such innovative services are increasing by the day and their success is further inspiring other innovations.

Thirdly, the transformation of internet users into consumers who are adopting internet based innovations in the prescribed manner has been identified and has been justified using the Diffusion of Innovation Theory of Mass Communication.

Fourthly, a comparative study of two leading similar services showcases that the growth and success is also influenced by individual differences as is justified by the Individual theory of Mass Communication.

With the advent of smart phones and mobile applications, the digital system is on the brink of a massive leap that shall further revolutionize life as we know it. This is nothing less than the scientific evolution and metamorphosis of an entity, which is a human construct. With greater internet speed and with the transcendence of the internet from computers to smart phones, the world is all set to change further and uses and their gratification shall completely be revolutionized. We are on the verge of a major step towards the global advancement into a virtual world, as has been explained in this research paper.

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