

GEN X AND Y GO MOBILE – EXPLORING THE FACTORS AFFECTING THEIR ADOPTION AND USAGE

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ABSTRACT

It is a Meta analysis study, which is to investigate the adoption and usage of mobile phones among Generation X and Y customers. The recent growth of mobile phone usage is an observable fact that crosses all age and gender boundaries. Generation X and Y have taken different purchase decision, especially the product mobile. Meta analysis study helps to analyze review and identify the overall trends in adoption and usage of mobile phones among generation X and Y. The reviews are collected from the past eight years data (2000 - 2009) since it is only during these years the mobile phone users have spread widely. [The mobile phone users were 0.5 billion in 2000 and are expected to increase to 1.5 billion in 2010]. This study aims to provide a framework for understanding how Social, Demographic, cultural and technological factors change overall trends in adoption and usage of mobile phones among generation X and Y customer segment.

Keywords : *Meta Analysis, Mobile, Customer Segment*

1. INTRODUCTION

The mobile phone has become part of our lives and part of our identity. The device itself, the ring tone, the screen images and the assortment of accessories all help define who we are to the outside world. Mobile phones nowadays are not luxury items anymore but necessities because of the various benefits and advantages the mobile phones offer, they became a very important part of society. Mobile phones have become a part of everyday life for many individuals and some could not even manage to last an hour without them. This is also the fashion trend nowadays. Mobile phones have even become the timepieces as people are more likely to check the time in their handsets. This device calculates, wakes people up, and reminds them of all occasions and appointments.

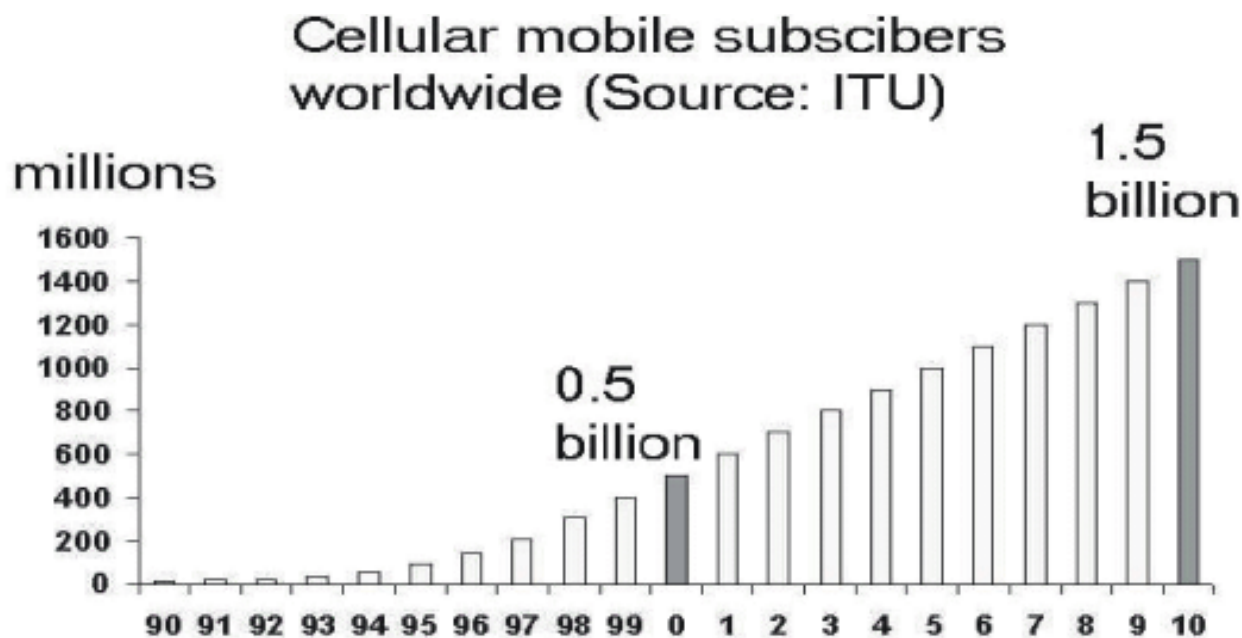
The rapid adoption and usage of mobile phones around the world has changed the way people communicate, interact and socialize with one another. *Overall, consumers are choosing mobile phones over landlines. In fact, more than four out of five U.S. adults (85 percent) own a mobile phone (i.e., cell phone and/or smart phone), compared to only about seven in ten (71 percent) who have a landline or home phone. (SAN FRANCISCO, June 26 /PRNewswire/ — Ingenio, Inc., Copyright PR Newswire Association LLC Jun 26, 2007)*

2. OBJECTIVE

The focus is to ascertain the influencing attributes that will affect the behavior of the consumers in the long run, highlight the differences due to market evolution and observe the specific socio-economic, personal, cultural and technological variables among mobile phone customers in Chennai city. From the above discussion it is clear that there should be great interest in researching the consumer behaviour in connection with mobile phone adoption and usage on the part of Generation X and Y customers in the city of Chennai. These two generations needs to be sufficiently researched so as to increase the understanding of the attitudes and behaviour of the people towards mobile phones. This is necessary in order to devise an effective way to market to this group. It is important to investigate this group because Generation X and Y, as opposed to the general population of Chennai, exhibits different attitudes and behaviours towards, and an acceptance of the mobile phone. To summarise the problem statement is to determine the behaviour patterns of Generation X and Y consumers as they are a growth market, and not enough is known about their consumer behaviour patterns regarding the adoption and usage of mobile phones in Chennai.

63 percent of mobile phone users agree that their phones are very personal to them and 44 percent believe that their phones have strengthened their personal relationships. (SAN FRANCISCO, June 26 /PRNewswire/ — Ingenio, Inc., Copyright PR Newswire Association LLC Jun 26, 2007). Younger mobile phone owners are especially likely to feel that their phones have strengthened their personal relationships (60 percent of those ages 18-34 vs. 37 percent of those

ages 35+). (SAN FRANCISCO, June 26 /PRNewswire/ — *Ingenio, Inc.*, Copyright PR Newswire Association LLC Jun 26, 2007). While nearly one-half of mobile phone owners (49 percent) currently use their phones for more than just making and receiving phone calls, the study finds that, in the next three years, 57 percent of mobile phone owners anticipate using their phones for more than just making and receiving phone calls.



(Source: Wireless Mobile Telephony – Dr. Arian Durrezi, 1998)

(SAN FRANCISCO, June 26 /PRNewswire/ — *Ingenio, Inc.*, Copyright PR Newswire Association LLC Jun 26, 20072010: *A Mobile Odyssey.*)

2.1. Generation X Statistics

In India the term, Generation X (born between 1961 to 1981) is used for the younger generation of people who present a hip image. They are westernized, upwardly mobile and against the old Indian traditions of their parents. They are career minded and value money. They are not involved in social issues and have no ideals, except that of getting ahead.

- During the past three months, 69 per cent of Generation Xers have shopped online and 65 per cent used online banking—more than any other group
- 21% of Gen X are now reading a blog once per month compared to 15% last year
- 61% of mobile subscribers text compared to 49% in 2007

(TMCnet Editor - Forrester Report Details IT Use Among Gen X, Y Members – By Michael Dinan July 21, 2008)

2.2. Generation Y Statistics

Generation Y (born between 1980 to 1994) is not a homogeneous group, rather made up of three distinct groups: Generation Y kids, teens and adults. It comprises of two specific groups: Generation Y kids and teens as one group and Generation Y adults comprise the second group. The rapid adoption and usage of mobile phones around the world has changed the way people communicate, interact and socialize with one another. It helps to identify the need to market to both of these groups in their own distinct manner.

- 90% of Gen Y own a computer and 82% own a mobile phone
- 72% of Generation Y mobile phone users send or receive SMS messages
- They spend more time online than they do watching television, with 42% watching online video at least once per month

(TMCnet Editor - Forrester Report Details IT Use Among Gen X, Y Members – By Michael Dinan July 21, 2008)

Hulme and Peters (2001:2) find that “the mobile acts on many levels, as a fashion statement, as a communicator, as a badge of identity and as a decoder.” Furthermore according to Leps (2003) the “mobile me” ethos has become so established amongst youngsters that regularly updating their mobile phone profiles has become second nature; from the look and feel of the handset (bright colours and funky patterns) to how the mobile phone sounds, the graphics it displays and how it helps users organise their lives on the move are just a few of the profiles used by the youth.

Economists have slashed Indian economic growth forecasts for this year and the stock market is in the doldrums. There is no sign of a slowdown yet: figures to be released later are expected to show that new subscriptions in January 2009 reached a record 11 million. (Eric Bellman Feb 9, 2009)

“Gen Y is the audience that most companies are struggling to understand right now because it’s key to their future revenue growth,” (Charles Golvin July 22, 2008)

“One of the questions that is been asked most frequently is the difference between Gen Y and Gen X, and this year’s data clearly shows the distinction. Gen Xers use technology when it supports a lifestyle need, when it intersects with a personal need or fulfills a desire. While technology is so deeply embedded into everything Gen Yers do that they are truly the first native online population.” (Jennifer Netherby July 24, 2008)

3. THE ORITICAL BACKGROUND

Various factors that influence mobile phone usage have been identified over time [Davis, 1989; Venkatesh et al., 2003; Rogers, 2003]. The following determinants of mobile phone adoption and usage have been identified;

3.1. Social factors

A customer’s buying behaviour is also influenced by social factors, where People use technology to satisfy social needs. Social interactions are the focus of human existence and therefore, in order to be successful, technology must eventually support socialization [Ark and Selker, 1999]. Cell phone has brought some social changes and be able to stay in touch with family and friend is one of the foremost social advantages the cell phone is providing. As [Schofield and Sithole, 2006] say, “it has become quicker to communicate with friends and relatives.”

In the context of social factors, Campbell and Russo [Campbell and Russo, 2003] distinguish between technological determination and social constructivism as two perspectives in viewing technology, and describe them as follows:

- Technological determinism maintains that macro-level changes in the social order are primarily caused by new technologies, which then exert micro-level influences on how people perceive and use technology.
- Social constructivism maintains that humans shape technology and not the other way round.

Campbell and Russo reject technological determinism in the favour of social constructivism but acknowledge a reciprocal relationship between people and technology by saying: “just as new technologies influence the ways people live their lives, the ways people live their lives influence how they think about and use technologies.”

Mobile phones are often seen as fashion items [Green et al., 2001] where fashion is a form of communication as well as an indicator of status and power [Katz and Sugiyama, 2005]. Some user groups even create their own language as a playful, creative expression of personal style [Page, 2005]. The location-free nature and huge growth of mobile phone usage have established a new social order that can be described as a shift from place-to-place communication to person-to-person communication [Khalil and Connelly, 2005a]. [Geser, 2004] states that mobile phones do not cause worldwide convergences and homogenization in social behaviour, as stating that “by supporting rather traditional and particularistic social settings, mobile phones are more likely to accentuate differences rather than communalities between various population segments, social institutions or ethnic culture”.

3.2. Demographic Factors

This section deals briefly with some of the demographic factors that have been found to influence mobile phone usage. Age has been the most widely applied demographic variable characterising differences in the adoption of mobile end-user services [Kwon and Chidambaram, 2000; Pedersen, 2003; Kleijnen et al., 2004]. The needs of people vary according to their age group [Coen et al., 2002]. Teenagers use mobile phones for accessibility, display and entertainment [Ling, 2001; Gilbert and Kendall, 2003], and socialisaion [Ling, 2001]. Parents use mobile phones to coordinate family activities and to check on their children’s safety [Campbell and Russo, 2003], while older people use them for safety and security purposes [Ling and Haddon, 2001; Coen et al., 2002].

[Wilska, 2003] also found gender-related differences in mobile phone use. For example, ‘addictive’ use of the phone with heavy spending and a trendy, are connected to the female gender, while technology enthusiasm and trend-consciousness is linked to ‘hard’ values, a ‘trendy’ consumption style and the male gender. Gender difference is also supported by a study by [Wei et al., 2006] who found that women rely on mobile phones to show affection to their families while men tend to use them predominantly for information-seeking purposes. The findings of the study by Nickerson and Isaac [Nickerson and Isaac, 2006], concerning the influence of gender on mobile phone use was inconclusive and therefore it seems as though the issue of gender influence has not been resolved. It has also been found that young people are increasingly using and adapting mobile phones not only to interact with their own words, but to create and structure their worlds [Spero and Stone, 2004:154].

Mobile phone usage is also influenced by education and income levels [Ho and Kwok, 2003; Bina and Giaglas, 2005], and national culture has been identified as a moderating factor that may influence mobile phone use [Nickerson and Isaac, 2006]. Better-educated people were found to use mobile phones more frequently and have a more positive attitude towards using a mobile phone [Bina Giaglis, 2005; Adomi, 2006].

[Kleijnen, Wetzels et al., 2004] investigated the effect of computer skills, mobile technology readiness, and social influence on technology adoption and found them all to be relevant in mobile phone usage. [Cheskin, 2001:9] notes that “Technology has become a great facilitator of teen and young adults’ social needs, building on their peer fixation and enhancing their ability to communicate with one another.”

3.3. Cultural Factors

Culture is the most fundamental determinant of a person’s want and behaviour. Cultural factors have a significant impact on customer behaviour. The context of mobile user includes user culture and the influence of culture on mobile phone use [Urbaczewski et al., 2002; Teo and Pok, 2003a; Jones and Marsden, 2005a]. This necessitates a review of culture as an essential part of understanding users and the factors that influence mobile phone usage.

[Ford, 2005] defines culture in the context of Human-computer interaction (HCI) as ‘the patterns of thinking, feeling, and acting that influence the way in which people communicate among themselves and with computers’. This definition is also applicable to mobile interaction and he consequently adapted it for the purpose of this study to consider culture as ‘the patterns of thinking, feeling, and acting that influence the way in which people communicate among themselves and use mobile devices’. [Judy van Biljon and Paula Kotzé, 2008] supports the fact that culture influence mobile phone adoption and usage.

The mobile device market has widened to a global scale and consequently mobile devices are distributed throughout the world [Kim and Lee, 2005]. As the use of mobile phones pervades the world, the globalization of mobile device user interface is becoming more crucial to business success and building a loyal customer base. Communication technologies are entirely dependent on a social network for adoption and use, and therefore the diffusion of these technologies within a culture should be studied [Urbaczewski, et al., 2002]. According to [Palen et al., 2000] deployment of mobile telephony varies dramatically internationally and even among western countries. In general, usability studies aim to make technology more useful. Cultural usability goes further and aims to make technology fit in with the user’s lifestyle [Sun, 2004]. In order to be effective, designers therefore have to understand and be aware of the cultural priorities and the value system of users, i.e. they must identify factors that are relevant and sensitive to cultural differences.

Hofstede proposed a model with international variables to show subjective culture affects human mental programming [Hofstede 1995]. Hofstede further encompassed this model within the pyramid metamodel that comprises of three levels [Hoft 1996; Hofstede 2001]

- Human nature is common to all human beings, it is inherited and not learned.
- Culture is specific to a group of people and is learned, not inherited.
- Personality is attributed to an individual and this attribute is both learned and inherited

3.4. Technological Factors

Technology adoption involves the user, the technology and the context [Humphreys, 2005]. Various models for understanding technology adoption have been proposed. [Pedersen, 2003] list Roger’s innovation diffusion model, the domestication model and the technology acceptance model (TAM) as the three most commonly applied.

- Roger's innovation diffusion model is founded in sociology but also has been applied to the world of marketing where users are seen as economic entities, the world provides an approach to understanding how a particular population adopts innovations [Rogers, 2003].
- [Silverstone and Haddon, 1996] proposed the domestication model where users are seen as social entities and the model aims to provide a framework for understanding how technology innovations change and are changed by their social contexts.
- The technology acceptance model was developed by [Davis, 1989] to explain the determinants of computer acceptance and usage behaviour.

While Rogers' innovation diffusion model focuses on marketing and sales processes, the domestication approach deals with a more global analysis of adoptions ex post facto and the TAM focuses on technology adoption in organisations [Ling, 2001].

TAM postulates several conceptually independent determinants of a person's attitude toward using new technology (Davis, 1989; Davis, Bagozzi, & Warshaw, 1992). The determinants are as follows:

- Usefulness: Usefulness was defined as the extent to which an individual perceives that using a mobile phone is beneficial to their lives [Davis, 1989].
- Ease of use: Ease of use was defined as the extent to which a person believes that using the system will be free of effort [Davis, 1989].
- Pleasure of use: Pleasure of use was defined as the extent to which users believe that using a mobile phone is pleasurable in its own right [Davis et al., 1992]. This construct includes hedonic qualities of mobile phones such as attractiveness, aesthetics, and entertainment.
- Association with satisfaction: Traditionally, HCI research and other disciplines adopted "satisfaction" as a subjective measure of the product quality, defined as an affective state that is the emotional reaction to a product or service experience [Oliver, 1980; Spreng, MacKenzie, & Olshavsky, 1996]. User satisfaction has been recognized as a key measure of system success in the information systems area [Bailey & Pearson, 1983; Baroudi, Olson, & Ives, 1986]. Therefore, user satisfaction can be used as a surrogate measure for overall mobile phone quality.

[Balaji et al., 2005] itemize four components of a successful mobile product: Business model that fits the service's natural usage pattern; mobile phone that deliver new features aimed at customer needs; device-level applications that leverage the new features; and the mobile content designed for utilization within mobile usage scenarios. According to [Ali-Vehmas and Luukkainen, 2005], the most influential factors determining service adoption include: complexity of the product and the service (including usability and configurability), compatibility with other relevant services and relative advantage of the new service compared to the original ways of doing the similar tasks.

4. DISCUSSION

The findings of the study support the fact that influencing factors [Social, Demographic, Culture, and Technology], affects the behavior of the Generation X and Y in adoption and usage of mobile phones.

First, this study put forward the fact that Generation X are influenced in a great degree by social factors since mobile phone satisfies their social needs, as social interactions are the main focus of human existence and mobile phones allow them to keep in touch with their family and friends. Then the other major factor that influence this generation is the demographic factor where Generation X, which is composed of 29- to 42-year old people use mobile for safety and security purpose of their children's and themselves. Generation X are also influenced by technological factor, where these generations choose to adopt a technology only when it fits in with their personal need or desires. Some of the determinants that affect Generation X's attitude towards using new technology are 'usefulness' (the extent to which an individual perceives that using a mobile phone is beneficial to their lives) and 'ease of use' (the extent to which a person believes that using the system will be free of effort).

Second, the study confirms that Generation Y the other major group of this study are influenced to a greater extent by social factors taking into considerations the fact that these generations see Mobile phones as fashion items which indicates their status and power. Next, age has been the most widely applied demographic variable where the needs of people vary according to their age group. Generation Y is a generation of 18- to 28-year olds, which mainly consist of

teenagers and young adults who mainly use mobile phones for accessibility, display and entertainment. The next important factor that plays a crucial role in influencing Generation Y is technology as this generation sets the pace for technology adoption. While technology matures, ring tones, cameras, GPS features, music, and multiple other features will be added to the hardware, the software on phones will progress to include easier web access, advertisements, news downloads, and easier chat and email features which makes the mobile phone a mini-computer. The other determinant of the technological factor that influence this generation is 'pleasure of use' where Generation Y feels, using a mobile phone is pleasurable in its own right.

In general, both Generation X and Y are commonly influenced by certain determinants, such as social factors in usage of mobile phones as it enables social interactions, which is a main focus of human existence. Since almost both the generations are literates mobile phone adoption is also influenced by education and income levels which is one of the main dimensions of the demographic factors that have been found to influence mobile phone adoption and usage. Cultural factors have a significant impact on these generations as cultural usability aims to make technology fit in with the user's lifestyle. Since mobile phones do not cause worldwide convergences and homogenization in social behaviour, it is more likely to emphasize differences rather than communalities between various population segments and ethnic culture, which makes culture as an essential part of understanding users and the factors that influence mobile phone usage. The other main dimension of technological factor, which affect generation X and Y in common, is 'association with satisfaction' where user satisfaction has been recognized as a key measure of system success in the information systems area and therefore, user satisfaction is used as a surrogate measure for overall mobile phone quality.

5. CONCLUSION

Based on the findings of the study it is clear that, Generation X and Y consumers will most probably exhibit different mobile phone usage patterns. This is in view with the fact that they are influenced by different factors but they are similar to one another because of globalization. Generation X and Y are the most important demographics shaping the landscape of consumer behaviour. The findings will indicate that this research will be a viable model for the study of consumer behavior as it relates to mobile phones.

This study on knowing the factors that affects the adoption and usage of mobile phones between Generation X and Y will enable marketers and advertising agencies to have a good rapport with these segments of population in a personalized way to yield enormous results and more business opportunities. Understanding the way in which Generation X and Y consumers have incorporated the mobile phone into their everyday lives will be of relevance for all future applications. Mobile Phone companies will ultimately succeed if they custom design their products and services in order to serve these unique segments of the market and if they tailor their companies around the Generation X and Y consumers. The growing number of studies finds cross-cultural similarities in mobile phone use by these generations

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