

## Generational Adoption of Mobile Phones Based on Use Motivations and Demanded Attributes: Results from Focus Groups

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### Abstract

*Mobile communication is an interesting phenomenon, as mobile phones have become a pervasive object and indispensable platform for voice communication and content and services fruition.*

*Based on the double perspective of the Technology Acceptance Model (TAM) and Uses and Gratifications Theory (UGT), the purpose of this contribution is to go deeper into nowadays mobile phone usage and make an in-depth exploration of Italian users' motivations and desired product/service attributes by means of two focus groups composed by individuals belonging to different generations.*

*Based on the focus groups, we find that both theoretical perspectives contribute to explaining intentions to use but with different characteristics and impacts depending on consumers' generational elements. Our results show that while, on the one hand, TAM and UGT are complementary research perspectives and theoretical frameworks when looking at products/services characterized by elements of social consumption, on the other, their interpretative capacity varies according to the specific features of generational cohorts.*

**Keywords:** UGT; TAM; Smartphone; Mobile phone; Mobile communication; Generations

### 1. Introduction

Whether in an emerging or mature economy, mobile devices have become increasingly pervasive, representing an indispensable object and a key feature of modern life (Deloitte, 2017). Over time the use of mobile phones has undergone a relevant evolution. Nowadays they are the most ubiquitous and most-used consumer electronic device worldwide, not simply tools for voice communication but better content and service platforms and key elements in individuals' social relations (Lee et al., 2019).

Also, spending on accessories and apps is flourishing. Though the market has reached its maturity in most developed countries, with smartphone unit sales stabilizing, the broader smartphone economy is flourishing (Lee et al., 2019). The evolution of mobile communication consumption is an overpowering (far from complete) phenomenon, as clearly reported by earlier as well as very recent studies and numerous industry reports (Botelho and Pinto, 2004; Kim and Yoon, 2004; Kim et al., 2004; Hodge, 2005; Deloitte, 2017; Deloitte, 2019; Lee et al., 2019).

Though mobile phones started reshaping human interaction time ago, the addictive and social nature of their usage has had a deep impact during the COVID-19 lockdown (Fasanya et al., 2021). If the use of technology during the lockdown was fundamental to enabling smart working and distance education, supporting the lifestyle change, smartphone dependency caused impaired social relationships (Caponnetto et al., 2021).

Now more than ever, it is manifest that smartphones are having a profound effect on people's lifestyles, changing the way individuals live, work, and learn (De Canio et al., 2016); they have become integral to people's lives and embedded into individuals' daily routines, also because they can enable an ample number of devices (Lee et al., 2019).

Today we live a smartphone-centric life, where the smartphone is at the base of a nascent smart life (with functions related to health, entertainment, information, and shopping, but also extending to the home environment, up to the city).

Smartphones represent the leading mobile device for communication, information, entertainment, and shopping (De Canio et al., 2016). They have become the most used technological device, not only for a series of activities ranging from video calls to entertainment and shopping but above all because it has assumed an increasingly central function in the management of other devices, becoming a fundamental hub inside and outside the home (Deloitte, 2019).

A survey by Deloitte (2017) showed that many consumers check their phone as soon as they wake up in the morning or even during the night. Some people say they check their phones more than fifty times in a single day.

In Italy, data show that the industry is still growing. The smartphone has reached over nine out of ten Italians and has become the most used device among all those making up the technological portfolio of Italians (Deloitte, 2019). In Italy monthly active smartphone users are expected to become 41.88 million in 2025.

In the Italian context, in 2006 Mazzoni et al. (2007) found that – in addition to communication needs – an ample number of consumers widely adopted mobile phones to perform technologically advanced functions and use multipurpose tools. Nowadays these results seem to foresee the increasing importance that services are assuming in consumers' preferences as well as the centrality that mobile phones have assumed in everyday life.

Indeed, since 2006, many relevant changes have been occurring in the mobile market<sup>1</sup>, which have made it a pervasive technology and an inseparable part of daily life: “it domesticates the public sphere, enables liberation and permanent control at the same time, frees children from parental control, facilitates membership in a social network, and disturbs the sanctity of a place” (Luthar and Kropivnik, 2011: 1101).

Taking a step forward, to take account of the changing dynamics in the industry of mobile communication, the purpose of this contribution is to go deeper into nowadays mobile phone usage and make an in-depth exploration of Italian consumers' intentions to use employing two focus groups.

The work is therefore organized as follows. In Section 2 we conduct a literature review on mobile phone usage (2.1), with a focus on the generational elements of consumption (2.2). Section 3 presents the focus group adopted methodology. Section 4 presents research results. In Section 5 we discuss results and in Section 6 draw conclusions.

## **2. Literature review**

### **2.1 Mobile phone usage**

As observed by Calvo-Porrall and Otero-Prada (2020), some theories have been commonly used to examine the use of mobile phones and related services, such as the Technology Acceptance Model (TAM) by Davis et al. (1989) (Rauniar et al., 2014; Wallace and Sheetz, 2014; Munoz-Leiva et al., 2017; Scherer et al., 2019) and the Uses and Gratifications Theory (UGT) by Katz et al. (1973a; 1973b) (Leung and Wei, 2000; Stafford et al., 2004; Smock et al., 2011; Dhir et al., 2017a; Dhir et al., 2017b; Kaur et al., 2020).

The Technology Acceptance Model has been adopted to explore the individuals' perceptions toward the use of different technologies and has often been utilized in many studies to explain the adoption decisions of information technology (Joo and Sang, 2013; Al-Debei and Al-Lozi, 2014; Camilleri and Falzon, 2020); it argues that individuals tend to adopt those technologies which they perceive as being useful and easy to use (Davis, 1989; Joo and Sang, 2013; Calvo-Porrall and Otero-Prada, 2020).

The perceived usefulness (PU) is the extent to which using a certain technology is useful for the aims of an individual, while the perceived ease of use (PEOU) is the extent to which the adoption of a particular technology can occur with no effort (Davis, 1989; Camilleri and Falzon, 2020).

The individuals' PU and PEOU in a direct or indirect way explicate their decision to accept or reject a technology (Davis, 1989; Marangunić and Granić, 2015). According to some researchers there exists a positive relationship between these two dimensions (Davis, 1989; Davis et al., 1989; Liu et al., 2010; Park, 2010; Joo and Sang, 2013; Wallace and Sheetz, 2014; Nagy, 2018; Camilleri and Falzon, 2020); perceived ease of use can be considered a causal antecedent to perceived usefulness as the easier a technology, the higher the possibility that it can be perceived as useful.

Despite its explanatory power, the TAM framework is focused on the technological perspective and does not incorporate the impact of individual or behavioral variables on choices as it pays scarce attention to the antecedent variables that could influence perceived ease of use and perceived usefulness (Wang and Li, 2012; Joo and Sang, 2013; Calvo-Porrall and Otero-Prada, 2020).

<sup>1</sup> The year 2007 marked the beginning of a new era for mobile telephony, following the introduction of smartphones, starting from Apple's iPhone 7.

Moreover, the traditional formulations of the TAM do not include individuals' intrinsic motivations, while users' non-utilitarian gratifications (e.g., enjoyment and entertainment) can influence the intentions to use technologies like those related to mobile devices (Nikou and Economides, 2017; Camilleri and Falzon, 2020). Kulviwat et al. (2007) found that TAM-based models incorporating affect (pleasure, arousal, and dominance) tend to have a better predictive power with regard to consumer acceptance of technology than the traditional TAM framework.

Enjoyment and playfulness, in particular, have been often considered an antecedent for mobile technology and services adoption by several authors (Cheong and Park, 2005; Kim et al., 2007; Ko et al., 2009; Wang and Li, 2012). While PU and PEOU depend on the extrinsic, instrumental benefits generated by the adoption of a specific technology, perceived enjoyment represents the intrinsic benefits users obtain from the use experience and it is independent of the performance consequences resulting from the use (Venkatesh, 2000; Kim et al., 2007; Ko et al., 2009; Wang and Li, 2012).

In an attempt to overcome TAM's limitations, Joo and Sang (2013) integrated the Technology Acceptance Model with Uses and Gratifications Theory to predict the usage intention of smartphones in Korea.

Their work was inspired by Park (2010), who previously combined the theoretical approaches of TAM and UGT to examine factors influencing the adoption and use of computer-based voice over Internet protocol (VoIP) phone service, concluding that the integration of the two different frameworks can be fruitful for understanding user acceptance of communication technologies.

More recently, also Camilleri and Falzon (2020) have proposed integrating the TAM and UGT frameworks to explain the motivations to use online streaming services. Indeed, the UGT has been widely used in communication studies to explain the reasons for the use of different media (Joo and Sang, 2013; Kaur et al., 2020).

From a UGT perspective, Katz et al. (1973b) argued that mass communication is used by individuals for psychological and social reasons, to connect (or sometimes to disconnect) with others by means of instrumental, affective, or integrative relations. According to media scholars, UGT provides a user-centered perspective on the different social and psychological motives behind the use of media (Kaur et al., 2020).

UGT posits that individuals decide to use technologies to satisfy specific needs (Roy, 2009; Dhir et al., 2017a; Camilleri and Falzon, 2020). In particular, they use media for social relations, entertainment, and information access (Calvo-Porrall and Otero-Prada, 2020). Despite this theory was originated in the pre-digital era, scholars recently often adopt UGT in studies related to the Internet and social media platform (SMP) adoption. In the context of SMPs, scholars identify several uses and gratifications (attributable to four broad categories, namely content, process, social, and technology U&Gs) sought by users, including experiencing pleasure, fun, relaxation, socializing and self-status seeking, affection, convenience, social sharing, exposure, information seeking, creating and managing online self-presentation, and escaping from real-life problems (Kaur et al., 2020). As new media and mobile communication technologies emerge, the UGT has been increasingly adopted by researchers to explore and to better understand their uses (Calvo-Porrall and Otero-Prada, 2020; Camilleri and Falzon, 2020).

More in detail, studies suggested that individuals use digital media technologies (including mobile phones) for different reasons (Camilleri and Falzon, 2020):

- satisfy social needs;
- access information/content or share it with others;
- buy products;
- entertainment purposes;
- communicate, build relationships, or seek affection.

With a specific focus on social media, it has been observed that individuals can have informational as well as hedonistic choice determinants, such as narcissism, socialization (socio-cognitive necessities and expression of own feelings), recognition (status), and entertainment (Zillmann, 2000; Bumgarner, 2007; Park et al., 2009; Camilleri and Falzon, 2020).

In particular, media entertainment allows individuals to distract into a better mood, escape from the constraints of routine and from problems, and thus get an emotional release (Katz et al., 1973a; Zillmann, 2000; Knobloch, 2003; Greenwood, 2008; Camilleri and Falzon, 2020).

In this regard, while some studies suggested that escape positively influences usage intentions, others found that escape is not a significant predictor of use intentions of social media platforms (Kaur et al., 2020). This could be explained by the fact that scholars consider different types of uses and gratifications or that the relationship is platform-dependent, thus research results depend on the different platforms considered (Kaur et al., 2020).

## 2.2 Generational elements of consumption

With a focus on the US mobile device use, by means of passively collected data from 3,179 US panellists, RealityMine<sup>2</sup> found that – although the increase in mobile device use is a relevant trend within every age group – there are clear differences in the activity levels, and types of functionality and applications accessed by different generations (<http://realitymine.wpengine.com/realtymeter/>).

Generationalgroupsofferresearchersa useful tooltoinvestigatechanges in consumption phenomena astimeprogresses and thus could be used as a general basis for consumer analysis (Moore and Carpenter, 2008). The first theory of the generational cohort to segment consumers was proposed by Inglehart (1977). A generational cohort can be defined according to the years of birth. To be a generation, an age group should present common characteristics that make itdifferent from others<sup>3</sup>(Nagy and Kölcsey, 2017).

Generational cohorts share the same attitudes, ideas, values, and beliefs based on the fact that individuals were born in the same time period and shared the same social, political, and economic events and contexts (Strauss and Howe, 1991).

Prensky (2001) added the relation to the information society and technology as a relevant element defining cohorts. Generations have had a different exposure and have a different approach to the use of ICTs (Nagy and Kölcsey, 2017).

According to the U.S. Chamber of Commerce Foundation, it is possible to identify the following generational cohorts:

- Silent Generation (1925-1945);
- Baby Boomers (1946-1964);
- Generation X (1965-1979);
- Generation Y (1980-1999);
- Generation Z (2000-)<sup>4</sup>.

For Baby Boomers, though it has entered their daily life, information technology is a recent and modern thing, while on the contrary for Generation Z it is a primary necessity for life (Ramadhan and Syahputri, 2020).

The Baby Boomers got used to television, greatly affecting theirlifestyles. Instead, Generation X is characterized by digital immigrants who saw the computer revolution andthe rise of information technology and the information society (Nagy and Kölcsey, 2017). Generation Y witnessed the explosion of the Internetand is the generation of the information society(Dimock, 2018); this group of individuals started using ICT tools with ease and experienced the Internet as young children, thus they are confident in using digital tools and expressing themselves in the digital world. As a consequence, they treat technology as a friend and present a strong media consumption. They are mobile and develop social interactions both in the real and the digital world (Nagy and Kölcsey, 2017). Generation Y is used to information technology and is inclined to continuously follow technological developments(Bencsik, 2016). They use their mobile phones in a multitasking way to perform multiple and numerous activities, such as social networking, studying, working, travelling, and accessing information (Parment, 2013).

Finally, Generation Z (Facebook generation) met social media in its full and does not even know life without the Internet, wireless networks, and mobile phones. The main communication channel is represented by social media. Individuals do not limit to consuming information but also generate and share digital content. They are multitasking in the use of devices as they use several different channels at once (write blogs, listen to music, follow email and social network messages simultaneously).

As a consequence, their social environment is strongly different from previous generations and completely free from space limitations (Nagy and Kölcsey, 2017). Generation Z prefers to communicate by means of images and is used to share ideas and conduct a digital life (Cape, 2018).

A survey conducted by Deloitte (2019) confirms the leading role of the smartphone, across all age groups of Italians. Through the continuous development and improvement of applications and the implementation of features, as well as connectable objects, the smartphone has become (and will increasingly be) an integral part of everyday life.

<sup>2</sup>RealityMine helps research and marketing professionals achieve unique insights into the mobile and digital lives of consumers through the RealityMeter software, passive metering technology, enabling the tracking of consumers on multiple devices – across all major platforms – providing a holistic view of their daily lives.

<sup>3</sup> “Of course, this does not mean that every single person in a generation will show the same characteristics, only that there is an observable generational pattern” (Nagy and Kölcsey, 2017).

<sup>4</sup> Some authors also identify Generation Alpha (individuals who were born since 2010) (Nagy and Kölcsey, 2017). In the context of our focus groups, we disregarded the Silent Generation and the Generation Alpha as respectively composed of 75-96 and less than 10 years old individuals.

Even the most senior users (65-75 years) cannot resist the call of such a handy and easy-to-use technology anymore. In the meanwhile, younger consumers are starting to use their mobile phones in a new way. Due to the technological development of screens and the improvement of the Internet connection, devices are increasingly used to access content; moreover, the use of the mobile phone is no longer confined to the fruition of short content but has started a path towards the access to medium-long content, such as files or TV series streaming. Again, mainly in younger age groups, it has been observed that IoT encourages individuals to use the smartphone to improve their quality of life and athletic performance thanks to autonomous management of data and information (Deloitte, 2019).

### **3. Research methodology**

To reach our research objectives, we performed exploratory research with the qualitative technique of the focus group<sup>5</sup>.

The choice of a qualitative technique for data collection, such as the focus group, was based on the assumption that qualitative techniques allow a greater understanding of complex social phenomena, such as consumer choices, providing insights that standard techniques, such as surveys on large samples, do not allow (Cataldi, 2009; Acocella, 2015).

The focus group, unlike a questionnaire, guarantees greater fluidity and dynamism in the communication process: respondents are free to interact, communicate, and freely express their opinions, albeit within a predefined list of topics. It was thus possible to take advantage of the richness of the difference, that is the heterogeneity of the participants in the focus group: their knowledge, their skills and, above all, their personal experiences contributed to enriching the investigation, providing us with many alternative points of view from which to observe the phenomenon of mobile communication.

Many authors specify that it is methodologically more correct to refer to the focus group not as a simple group interview, but as a “survey technique based on discussion among a group of people” (Corrao, 2000: 17). It is the interaction among the participants of the focus that favors the understanding of the researcher since through the group discussion it is possible to highlight aspects of the investigated phenomenon that were not considered or were deemed unimportant.

Given the importance of group interaction, the selection of interviewees is vital for the success of the focus. First of all, the participants in the focus must be familiar with the topic being discussed and share a common experience to compare with others.

The number of participants was identified on the basis of the main indications existing in the literature on the subject (Morgan, 1996; Corbetta, 1999; Cataldi, 2009; Acocella, 2015). In this regard, Blumer wrote (1969: 41) “a limited number of individuals – provided they are at the same time well informed and keen observers – gathered together to discuss is far more useful than a representative sample”. Generally speaking, it is advisable to form a group of about ten people because, according to many scholars, it is the ideal number “to see different positions represented, but at the same time [...] to allow interaction between all the participants” (Corbetta, 1999: 422). According to Morgan (1996), the size of the group creates a different degree of emotional involvement of the participants with respect to the issues addressed in the focus. In particular, small groups would be ideal for emotionally charged topics, while larger groups are recommended for more neutral and general topics.

Based on this, we conducted two focus groups, which were composed of a total number of 18 participants selected on the basis of some research-relevant criteria: generational cohort, use of the cell phone (frequency, usage modalities, adopted operating system), social media usage, technological attitudes (such as the propensity for technology), profession.

The first focus was composed of 8 young students between 14 and 17 years old, since we felt that this age group (corresponding to the Z Generation) was particularly sensitive to the use of mobile phones, to the point of deserving a specific study.

This is in line with the observation that smartphone usage has become a fundamental part of everyday life, especially for the individuals belonging to the Z Generation, with a consequent impact on their social life and psychology (Ozkan and Solmaz, 2015). The second focus group, a mixed one (as participants were exponents of Baby Boomers, Generation X and Generation Y), saw the participation of 10 individuals aged between 19 and 52. As previous studies found that age is an important determinant of the symbolic meaning of the mobile phone (Ling and Ytri, 2002; Katz and Sugiyama, 2006; Luthar and Kropivnik, 2011; Ozkan and Solmaz, 2015), the generational elements

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<sup>5</sup> “Methodologically speaking, many of the goals of mass media use can be derived from data supplied by individual audience members themselves – i.e., people are sufficiently self-aware to be able to report their interests and motives in particular cases, or at least to recognize them when confronted with them in an intelligible and familiar verbal formulation” (Katz et al. 1973a: 511).

were considered very relevant for the organization of the two focus groups, being able to affect the meaning and adoption of mobile phones in everyday life.

Going to the aims and the operationalization aspects of the present research, the organization of the focus groups aimed to deepen the knowledge of the characteristics of mobile phone consumption.

The focus groups, in summary, aimed to:

- understand the reasons why people use mobile phone services (use motivations);
- understand on the basis of which characteristics consumers choose their mobile phones (demanded attributes);
- observe any differences in the generational (socio-demographic) characteristics of the participants, trying to understand if, and possibly how, they are linked to the consumption of mobile phones (generational cohorts).

Thus, not only we considered the generational element as a relevant one when selecting the participants for the two focus groups, but we also decided to investigate – at the same time – both consumers' use motivation (concerning consumers' needs) and demanded product/service attributes.

This way, this work concurrently uses different sets of variables or characteristics to conduct the study, thus enhancing the efficacy of the analysis (Wedel and Kamakura, 2003).

As to use motivations, as observed by Katz et al. (1973a) it is possible to study uses and gratifications by means of needs: "In the informational field, for example, the surveillance function may be traced to a desire for security or the satisfaction of curiosity and the exploratory drive; [...] and escape functions may be related to the need to release tension and reduce anxiety".

Thus, in a UGT perspective, use motivations – explaining the reasons why individuals decide to use mobile phones– can be considered an expression of the uses and gratification produced by their adoption.

Going to product/service attributes, our work is in line with the work by Katz et al. (1973b), who – in a UGT perspective –hypothesized a link between media attributes and satisfying social and psychological needs, thus identifying a nexus between use motivations (consumers' needs) and demanded product/service attributes. In the same vein, Wallace and Sheetz (2014), who propose and test a model explaining and predicting the use of software measures based on the Technology Acceptance Model, operationalize the "perceived usefulness" construct according to the "desirable properties of software measures", thus product attributes.

Thus, product attributes, on the one hand – adopting a UGT approach, are an expression of the needs leading to consumption, on the other – according to the TAM, determine the perceived "usefulness" and "ease of use" of mobile phones.

#### 4. Results: Concept maps

Following the focus groups, we conducted a content analysis, which allowed a synthesis of the qualitative textual material collected.

The analysis of the transcriptions made it possible to identify their main contents.

For the content analysis, we started from the themes investigated by the moderator, thus from the initial track for the discussion. Subsequently – through an inductive analysis process – the "basic", the "organizing" and, finally, the "global" themes were identified (Attride-Stirling, 2001) (Table 1).

Table 1. Coding scheme

Investigated topics	Basic themes	Organizing themes	Global themes
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Below we show, as an example, one row resulting from the content analysis based on the aforementioned scheme (Table 2).

Table 2. Example: one row resulting from the content analysis

Investigated topic	Basic theme	Organizing theme	Global theme
How important has the use of mobile phones become in your private life and to study/work ?	"In a certain sense, nowadays you are out of the world without a mobile phone...that is, social life is very much based on social networks, on Instagram. They allow to see what people are doing, have constant information on everything and everyone."	Use of social networks	Use motivations - Sociality

Basic themes are the most basic concepts and were grouped into more abstract principles, namely organizing themes. Finally, the latter have been collected in broader concepts represented by global themes. The global and organizing themes were then transferred into the following concept (thematic) maps. Figures 1 and 2 illustrate the “use motivation” expressed by the participants respectively of the Z and mixed focus groups, while figures 3 and 4 represent “attributes”.

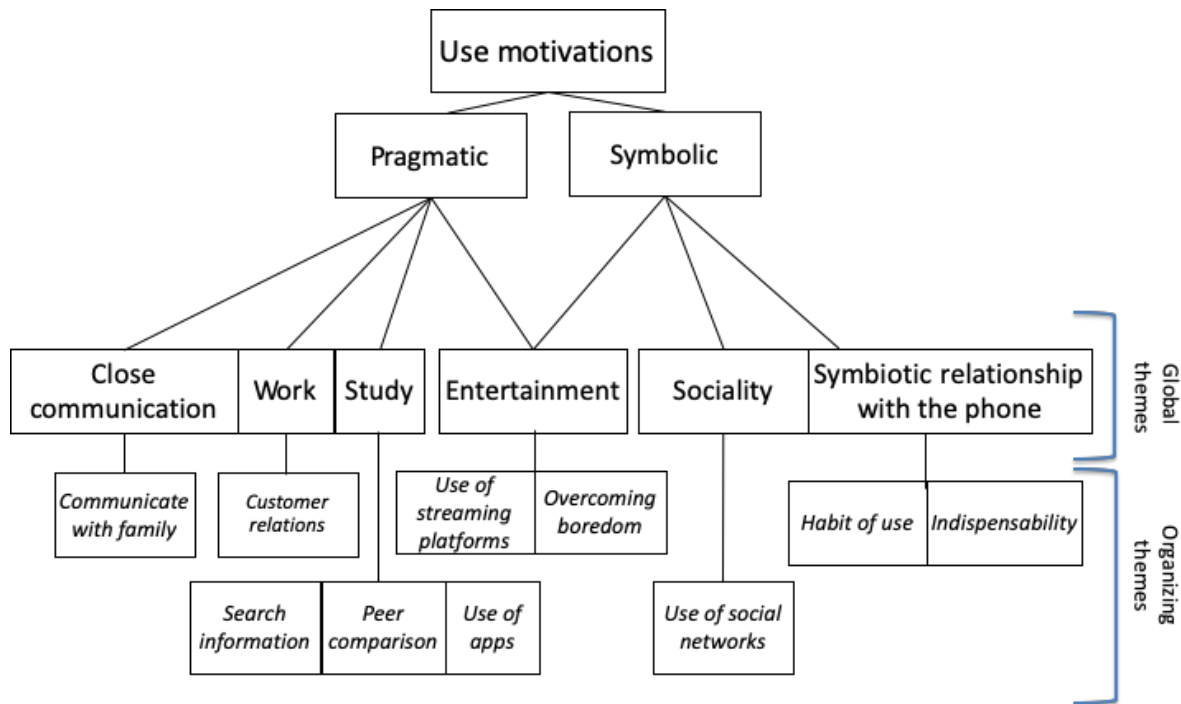


Figure 1. Use motivations – Z focus group

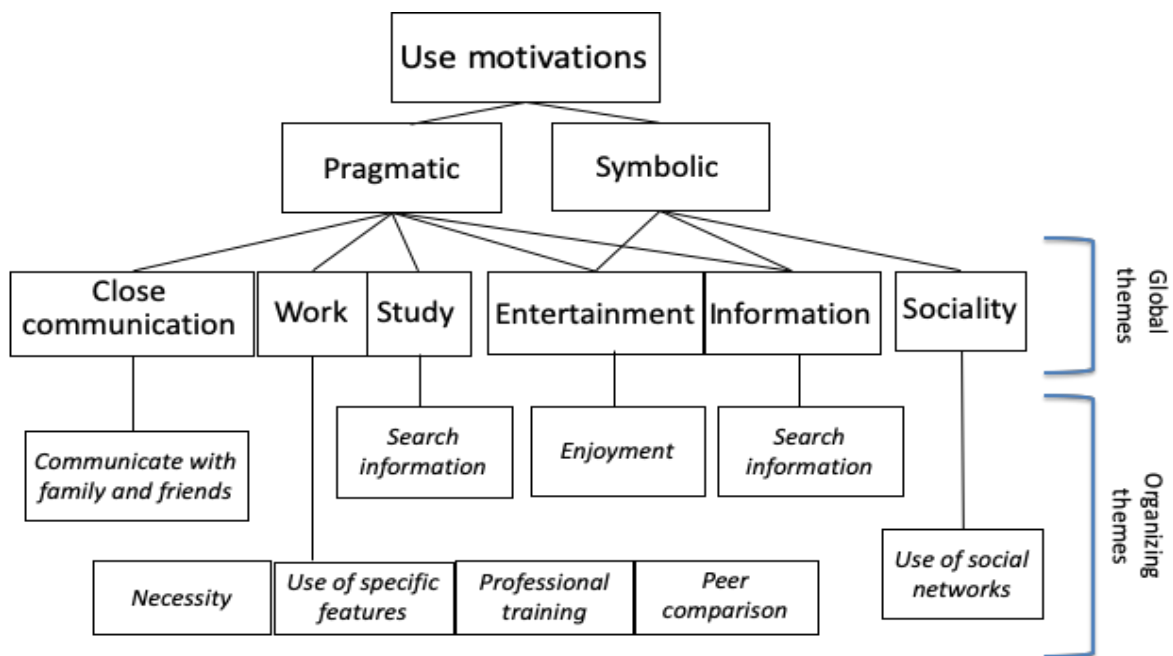


Figure 2. Use motivations – Mixed focus group

As to use motivations, both the focus groups put in evidence that utilitarian and expressive meanings of the mobile phone appear evident in current consumer behaviour. Indeed, participants expressed at the same time pragmatic and symbolic needs inducing purchase (see figures 1 and 2). This is in line with the works by Douglas and Isherwood (1979) and Katz and Aakhus (2002), which respectively distinguish between physical and marking services and explicit as well as implicit use motivations.

This also remarks on the traditional bi-functional view of audience concerns, according to which the media or media content can be viewed dichotomously as predominantly fantasist-escapist-entertainment or informational-educational, leading to the distinction between surveillance and escape uses of the media (Weiss, 1971; Katz et al., 1973a). With a specific focus on smartphone usage, importing the two types of motivations to use media from previous studies, Joo and Sang (2013) distinguished between ritualized and instrumental use motivations.

Ritualized uses refer to diversionary reasons (e.g., companionship, time consumption, relaxation). They serve needs related to friendship, entertainment, personal identity, and escape and thus satisfy abstract needs, such as – for example – curiosity, adventure, advice seeking, and social feelings. Instrumental uses, instead, reflect a utilitarian approach and identify a more goal-oriented use driven by informational need, such as – for example – gaining a financial edge or useful information for business, education, or everyday life (Rubin, 1984; Livaditi et al., 2003; Joo and Sang, 2013).

As shown in figures 1 and 2, in the context of the conducted focus groups, it was possible to identify a pragmatic and strictly instrumental use of mobile phones when employed as a tool to communicate with family and friends (*close communication*), to work (it allows to use specific features, supports professional training, allows peer comparison and/or sustains customer relations) or to study (search information, peer comparison, and/or use of specific apps). The use motivations of the phone expressed by focus participants were equally pragmatic and symbolic when used to get access to information (*information*), for the mere enjoyment stemming from the use of the cell phone itself<sup>6</sup>, to use streaming platforms and/or to overcome boredom by playing games, taking pictures, and listening to music (*entertainment*).

Finally, the focus groups highlighted strictly symbolic use motivations when the mobile phone was said to be adopted to sustain social relations (social interaction, integration, and distinction), maintain and manage social networks (*sociality*), or was considered an indispensable object for everyday life and a habit, something individuals are used to and cannot do without. This highlights that in some cases there exists a *symbiotic relationship with the phone*. Comparing the two different groups of participants, it is interesting to observe that this exclusively characterizes younger individuals (Z focus).

Another difference resides in the entertainment use motivations, as only young participants declared to use the mobile phone to access streaming platforms and to overcome boredom. On the contrary, the “information” use motivation – thus informational needs – are expressed only by older individuals.

Not only symbolic use motivations are more relevant for younger individuals but, as evident from the Gen Z focus group, because smartphones allow getting a sense of perpetual contact by means of frequent (even if short) contact, they are indispensable to get constantly involved in the network of ongoing relations, such that its absence might generate concern about belonging and relations, and a sense of being disconnected and isolated from others (Licoppe and Smoreda, 2005; Rice and Hagen 2010). As a consequence, young individuals can be strongly reliant on and even dependent (addicted) from mobile phones (Leung, 2008; Rice and Hagen 2010).

As observed by most participants in the two focus groups, mobile phones shift the physical, temporal, and social traditional boundaries; they mix public and private spaces and even induce subjects to disassociate with their physical space to move their attention to someone else who is communicatively (online) present though physically absent (Wellman, 2001; Katz et al., 2004; Humphreys, 2005; Turkle, 2008; Rice and Hagen, 2010).

Going to the product attributes, the focus groups highlighted five groups of product/service characteristics (influencing consumers’ choice among the various models and brands in the market), some expression of TAM (economic, physical, technological, and simplifying attributes), and others of UGT (emotional attributes) research perspectives (see figures 3 and 4).

*Economic attributes:* purchase price of the phone, available promotions, and warranty.

*Physical attributes:* duration (i.e., solidity overtime of the mobile phone), hardware components – such as signal reception, battery life, battery charge time, screen visibility, and for the younger individuals, also the speakers (which is consistent with their intention to use the mobile phone to access streaming platforms), possibilities of personalization (by means of covers, etc.).

*Emotional attributes:* brand loyalty, design and aesthetics (which highlights that the mobile phone by someone is considered as a self-extension, an aesthetic object, a technological fetish, used to express one’s personality), privacy, and reliability.

<sup>6</sup> “Not just using or using up something, but also the pleasure of having an artefact, of gathering information on the product, browsing and touching. In short, it involves the artefact as a meaningful thing, whose meaning is established, appropriated, negotiated, or subverted at different stages of its existence (production, promotion, consumption)” (Luthar and Kropivnik, 2011: 1095).



*Technological attributes:* hardware components (such as the camera, biometric security systems, dual sim, recorder, Ram size, and storage capacity), software components (integration with other ICT devices, operating system, smartwatch, system update, performance, cloud storage, applications, Internet connection speed, system update, overall speed of the phone), data transfer.

*Simplifying attributes:* habit, switching costs, ease of use, which are very relevant for young individuals.

From a TAM perspective, economic, physical, and technological attributes contribute to product usefulness, while simplifying attributes are directly or indirectly related to the ease of use of mobile phones.

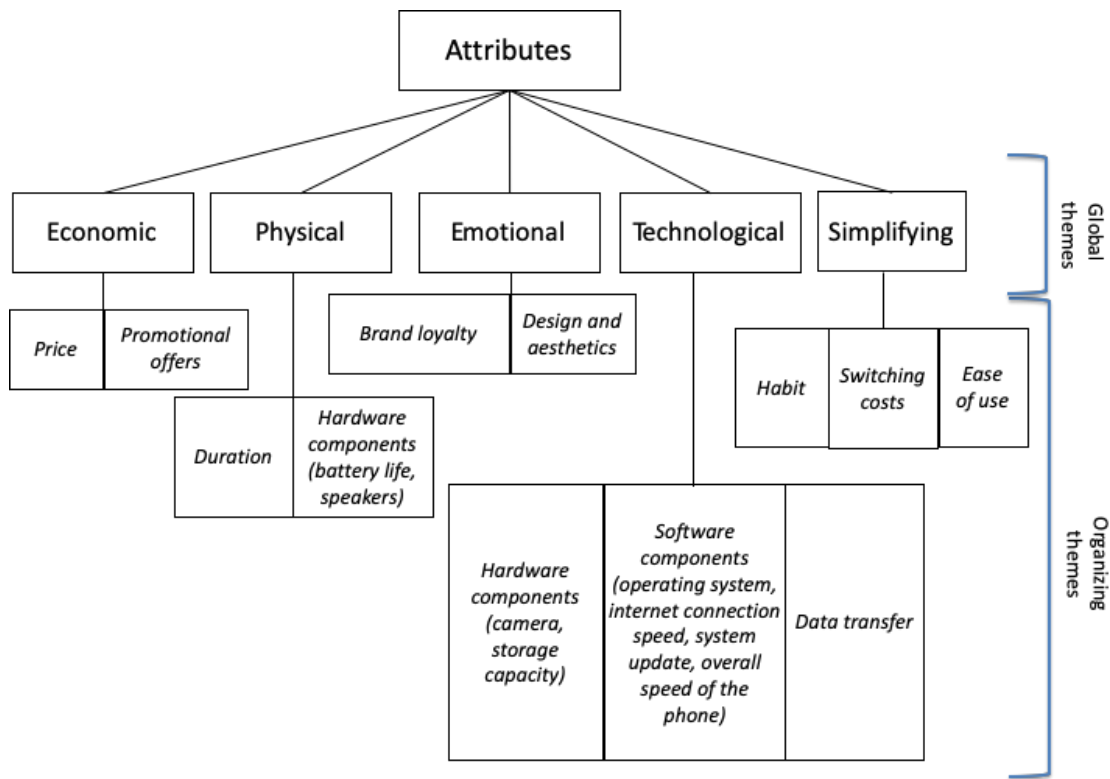


Figure 3. Attributes – Z focus group

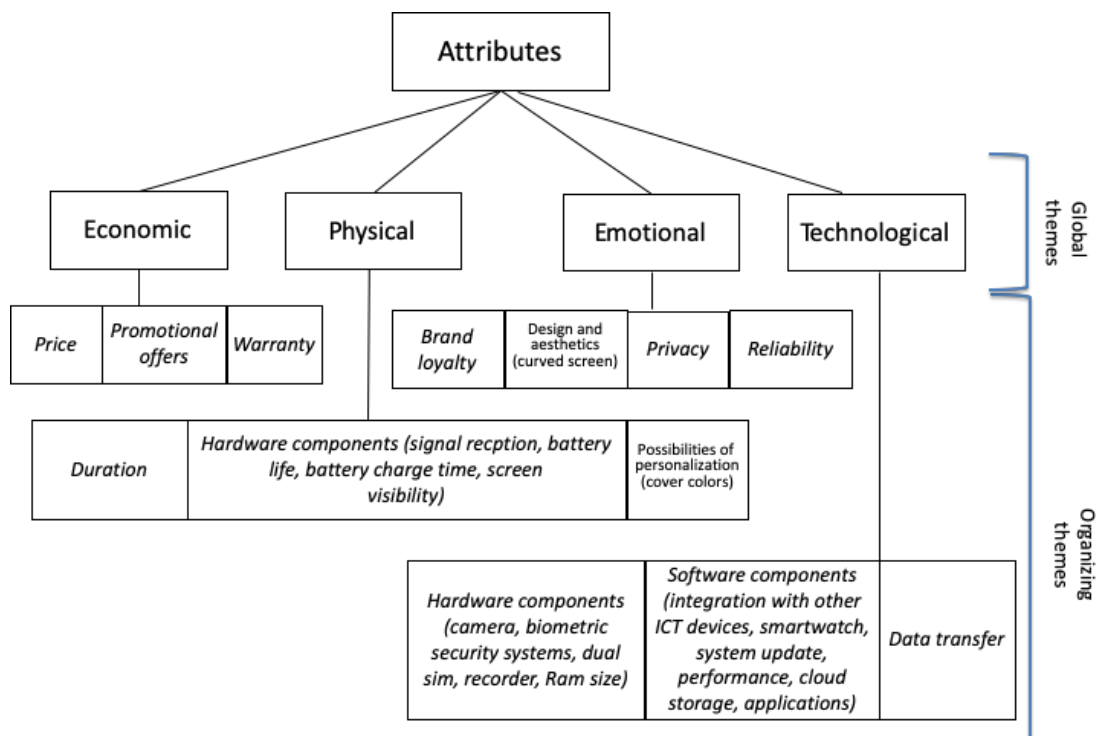


Figure 4. Attributes – Mixed focus group

Here again, it is possible to observe similarities but also some differences between the two focus groups. Participants in the mixed focus declared to pay attention also to mobile phone warranty among economic attributes, which did not appear relevant in the context of the Z focus group.

Moreover, as to physical attributes, while product duration and battery life are of common interest, Gen Z appears mainly interested in phone speakers (useful to listen to audio-music, movies, and so on), while screen visibility and the possibilities of personalization are relevant product attributes for the mixed focus group participants.

It is also interesting to observe that, in the context of emotional attributes – corresponding to a UGT perspective – independently from their generation, focus group participants share the attention to product brand and aesthetics, confirming that the mobile phone is not merely a means of communication, but it is also considered a personal device, strongly related to the individual and even performing an aesthetic function (Luthar and Kropivnik, 2011). “Reliability” and “privacy” are emotional attributes demanded in addition to brand loyalty and design and aesthetics when extending the focus group to older generations.

As to the technological product attributes, while Gen Z demands the overall speed of the phone and, in particular, of the Internet connection, older generations are mainly interested in the integration with other ICT devices and in the ample performance of the phone. For all participants, the camera is a relevant technological hardware component but in the context of the mixed focus group attention towards security systems and some other additional elements is also evident.

Finally, in the only context of the Gen Z focus group it is possible to identify a group of “simplifying” attributes including habit, switching costs, ease of use of the cell phone, interestingly contributing to explain the choice of a specific mobile phone.

The focus groups show that economic, physical, and technological product attributes, thus technology usefulness, are relevant for all the generations, but simplifying attributes, expressing ease of use, appear strongly relevant for the Z Generation.

## 5. Discussion

The first consideration is that today mobile phones are a key element of social life.

In line with the UGT, both the focus groups highlight that there exist complex psychological and social needs behind the adoption of mobile phones, which have assumed a relevant social role (Silverstone and Hirsch, 1992; Luthar and Kropivnik, 2011). Results show that mobile phones play at the same time utilitarian, relational and symbolic (involving beliefs) functions, labelled by Schiffer (1992) as “technofunction”, “sociofunction” and “ideofunction” (Luthar and Kropivnik, 2011).

Sociality is the main need expressed by mobile phone users.

As previously seen (Section 4), the symbolic use motivations are mainly relevant for young individuals (Z Generation), as mobile phones are able to increase social cohesion.

Mobile phones foster a sense of perpetual contact by means of a pervasive, personal, and portable communication (in the sense of potentially continuous interaction, whether wanted or not), thus impacting social connectivity and control, both from an individual perspective (constructing one’s identity) and a group perspective (fostering or changing relations and displaying them, blurring public and private space, engaging privacy and surveillance, etc.) (Rice and Hagen, 2010).

In line with previous studies (e.g., Luthar and Kropivnik, 2011) we found that the symbolic meaning of the mobile phone is affected by generational elements, which is also consistent with available results from earlier research on the use of mobile phones among young people (Ling and Yttri, 2002; Katz and Sugiyama, 2006; Ozkan and Solmaz, 2015).

Our focus groups put in evidence that the symbolic use motivations of mobile phones are mainly evident for the Z Generation, which even expresses a symbiotic relationship with the product that turns out to be an extension of the self.

This could be explained by the central role of social relations for young individuals. Peer relations (and the creation of multiple and extensive friendships) are especially relevant in the teenage years, and especially college, as individuals make the transition from childhood to adulthood, from parent-defined to peer-defined self, from parents to one’s own identity, and thus have to deal with insecurity and the management of new contexts (Ling and Yttri, 2002; Rice and Hagen, 2010). As to product attributes, in a TAM perspective, the focus groups show that both usefulness (represented by economic, physical, and technological attributes) and ease of use (represented by simplifying attributes), are relevant for consumers but the latter assumes relevance only for younger individuals.

Moreover, from a UGT perspective, participants share the same interest in emotional attributes, which highlight the role of mobile phones as fashion objects in identity creation and maintenance, a way of expressing the sense of self and perceiving others (Katz and Sugiyama, 2006).

In summary, from the above research results and discussion, four main propositions emerge (figure 5).

Proposition 1 (P1): From a UGT perspective, both pragmatic and symbolic mobile phone use motivations can explain intentions to use.

Proposition 2 (P2): From a UGT perspective, the emotional product attributes contribute to explain intentions to use.

Proposition 3 (P3): From a TAM perspective, the economic, physical, technological, and simplifying attributes contribute to explain intentions to use.

Proposition 4 (P4): The specific characteristics and impact of TAM and UGT use motivations and product/service attributes on intentions to use are mediated by consumers' generational elements.

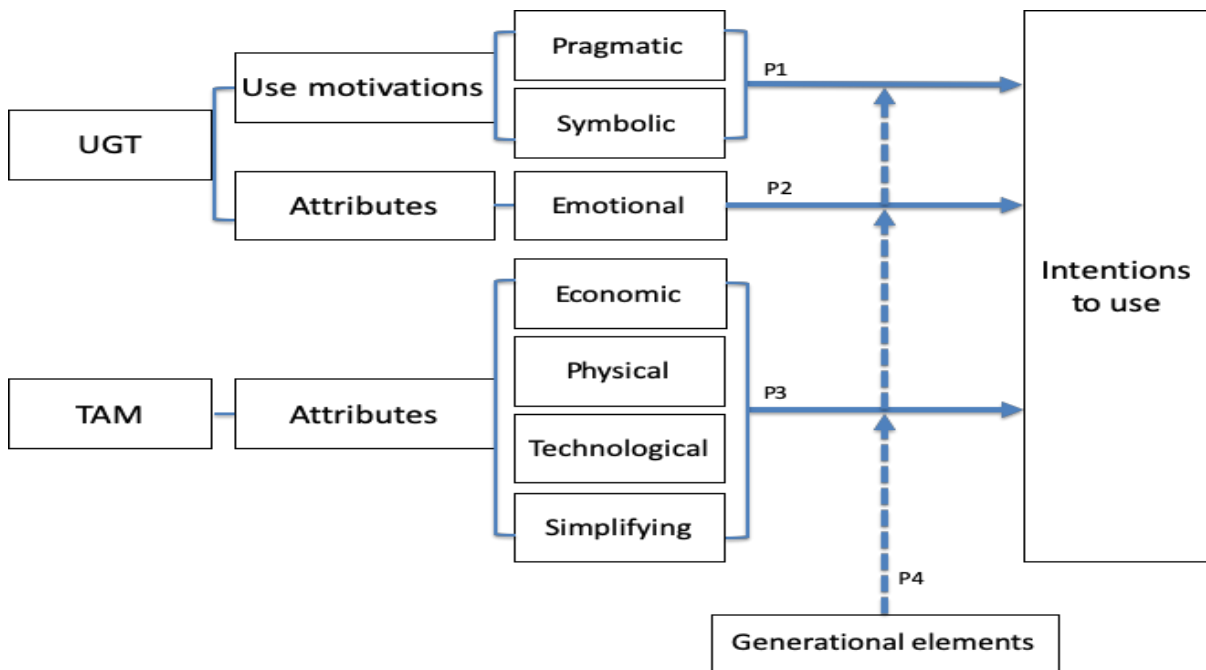


Figure 5. Proposed theoretical model

### 6. Conclusions

In the present work, based on the two research perspectives of the Technology Acceptance Model (TAM) and the Uses and Gratifications Theory (UGT), we go deeper into nowadays mobile phone usage in Italy by means of two focus groups. One was composed of individuals belonging to different generations (Baby Boomers, Generation X, and Generation Y), the other only of Gen Z participants.

The content analysis of the transcripts of the two focus groups, synthesizing all the qualitative textual material collected, led to the identification of participants' use motivation (i.e., needs) and demanded product/service attributes. Based on the focus groups, from a UGT perspective, it was possible to recognize that there exist not only pragmatic but also implicit/symbolic reasons for mobile phone usage, as maintaining and establishing sociality are main needs expressed by users. This is true for all generations, but the aspect assumes a great relevance for young individuals (Z Generation).

Still, from a UGT perspective, we found that emotional product/service attributes (such as brand loyalty, design and aesthetics, privacy, and reliability) influence consumers' choice among the various models and brands in the market. Again, in a TAM perspective, users belonging to different generations, in the same way, declared to be interested in technology usefulness stemming from specific economic, physical and technological product attributes. Only Gen Z users also highlighted the importance of simplifying attributes, directly or indirectly related to the ease of use of mobile phones. In this context, conducted focus groups also allowed us to observe that the specific types of demanded attributes, though conducting to a same category, are not all the same for the different generations.

Thus, from our research, on the one hand, TAM and UGT appear complementary research perspectives and theoretical frameworks when looking at products/services characterized by elements of "social consumption" (Fitzmaurice and Comegys, 2006). On the other, both theoretical perspectives contribute explaining intentions to use but with distinctive characteristics and impacts depending on consumers' generational elements.

This shows that the two adopted theories can have different interpretative capacities depending on the characteristics of generational cohorts, which is in line with Katz et al.'s (1973a) observation pertaining to the UGT that, in the mass communication, needs and choices depend on audience characteristics. In this perspective, we found that generational groups offer researchers a useful tool to investigate changes in consumption phenomena as time progresses, representing a useful basis for consumer analysis when looking at mobile phone usage.

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