

## INTRODUCTION

How has the introduction of smartphones and apps affected consumers in high growth markets? To gain insights into the future consumer scenario with regards to app usage, Ericsson ConsumerLab has conducted qualitative and quantitative research in Russia, India and Brazil.

As consumers begin using new smartphones and start exploring mobile apps, we can expect to see rapid growth and a behavior once reserved for early adopters becoming the cultural norm.

The bulk of these new users will come from high growth markets as the smartphone is poised to provide the primary method of Internet access in markets where there is negligible penetration of fixed line Internet services and hence as the smartphone user base grows, so will app downloads. Can we ultimately see the same sort of development in high growth markets towards an "app" culture as we have seen in the U.S. and in other mature markets?

The research was carried out among smartphone users between the ages of 15 and 54 who accessed internet through their smartphone at least once a week in three key markets; India, Russia and Brazil. The study sample represents smartphone owners using mobile internet across these three high growth markets. The quantitative part of the research consisted of 1,220 online surveys performed in Russia and Brazil and quantitative and on-device measurements in India among 5,000 smartphone users in late 2011.

During the qualitative component of the research, a total of 33 in-depth interviews were carried out in the three markets in order to gain a deeper knowledge of how consumers in high growth markets reason and behave when it comes to their smartphones and the usage of apps.

This report highlights some of the findings from the research.

# ERICSSON CONSUMERLABTHE VOICE OF THE CONSUMER

Ericsson ConsumerLab is a knowledge-based organization, our main offering is insight. We have more than 15 years' experience in consumer research, which involves studying people's values and behaviors, including the way they act and think about ICT products and services. We provide consumer insight to influence strategy, marketing and product management within the Ericsson Group. Our knowledge helps operators develop attractive revenue-generating services.

We gain our knowledge through a global research program based on annual interviews with 100,000 individuals in more than 40 countries and 10 megacities – statistically representing the views of 1.1 billion people. We use both quantitative and qualitative research, and spend hundreds of hours on in-depth interviews and focus groups with consumers

from different cultures. Our research includes general market and consumer trends and in-depth insights into specific areas.

To be close to the market and consumers, Ericsson ConsumerLab has team members in most of Ericsson's market regions. Being part of the Ericsson Group gives us a thorough understanding of the ICT market and business models. This broad knowledge is unique and is the basis for our credibility and integrity. We see the big picture, understand where the individual fits in, and know what this means for future trends and services.

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### HIGHLIGHTS

- > Apps are becoming an emotionally important and integral part of people's daily lives
- > New users are embracing apps at the same pace as existing users
- > Consumers in high growth markets are starting to explore the long tail of apps

Apps and instant connectivity are drivers for smartphone adoption

Among today's users in high growth markets, smartphone adoption is driven by app functionality and a faster Internet experience. The app culture that is emerging reflects a trend similar to that in the U.S. and other mature markets.

The smartphone is perceived as a second brain or a best friend, and apps are becoming an emotionally important and integral part of people's daily lives in high growth markets. Apps make users feel more connected, more updated with what is happening across the world, more independent and more efficient when performing everyday tasks.

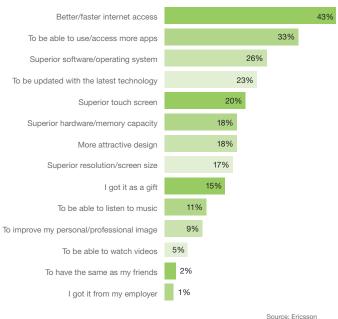
"Before, I would access Facebook once a day. Now, I check it 50 times a day."

Female smartphone user, Brazil

Figure 1: Top ten activities consumers started using after getting a smartphone

- 1. Use smartphone to check in to locations
- Use maps for navigation or traffic info
- 3. Watch internet TV
- 4. Watch movies
- 5 Play online games
- 6 Watch streaming video
- 7 Play games on social networking sites
- 8. Watch live news
- 9. Use Twitter
- 1 Read/write blogs

Figure 2: Reasons for buying a smartphone



# SMARTPHONES ARE INDUCING NEW HABITS

- > Except for connectivity, apps are the number one driver for purchasing a smartphone
- > Apps are becoming an emotionally important and integral part of people's daily lives
- > 20 percent have started using data intensive apps

According to the study, a majority of smartphone users in high growth markets are first-time users who purchased their smartphone during the past six months. Among all respondents, the two most important reasons for purchasing a smartphone were to be able to use apps to access various services, and to have a better and faster Internet experience (figure 2). Consumers tend to have a hard time separating apps from the smartphone itself – for many users smartphones are equal with apps.

Apps are becoming an emotionally important and integral part of smartphone users' daily lives in high growth markets, something that is already evident in developed markets. However, their use differs depending on the country.

In Russia, users have a more rational relationship to their smartphone and use utility apps that benefit the flow of their everyday lives, such as those for navigation and maps, barcode scanners, translators, dictionaries and so on. In contrast, Indians have more of an emotional relationship to the smartphone and relate to it like a family member or a close friend. They focus on apps that help strengthen their identity or could enhance their mobile browsing experience. Although games and social media are most popular, what differentiates Indian app usage is increased interest in live wallpapers, screen savers, themes and browsers.

Smartphone users in Brazil, on the other hand, have a more rational relationship with the smartphone than those in India but more of an emotional connection than those in Russia, and use apps that enhance their social interactions.

In all markets, it is evident that smartphones are inducing new habits among users – on average, 20 percent have started to use data intensive apps related to video, TV, maps and navigation since purchasing their smartphone.

Figure 3: Market patterns when it comes to app usage







#### IVIIAEL

More rational than India, more emotional than Russia



Consumers tend to regard a 3G connection as reliable and good enough



CONNECTION

#### SOCIAL

Enhancement of social interaction is the most obvious adaptation

#### INDIA

#### **EMOTIONAL**

Most emotional:
The smartphone is a close friend

#### GPRS

GPRS is the most common connection in India

#### **PERSONALIZATION**

Screen enhancement and third party browsers in addition to games

#### **RATIONAL**

Most rational:

The smartphone is a vital helper

#### Wi-Fi

Wi-Fi is preferred for app downloads

#### UTILITY

Maps, scanners, dictionaries, barcode, etc. are prevalent

# APPS INTUITIVELY EMBRACED BY NEW USERS

- > New users use nearly as many apps as mature users, and quickly gain pace
- > Willingness to pay for apps increases with app usage

Even though the majority of smartphone users in high growth markets are new users, the usage pattern when it comes to apps is similar to the one seen among mature users. New smartphone users use nearly as many apps as mature users, and the usage rate increases quickly.

In the study, new users were almost as savvy as mature users when it comes to accessing the Internet. Almost half – 45 percent – of all new users in Russia and Brazil indicated that they spend 50 percent or more of all of their Internet time on their smartphone, compared to 53 percent among mature users. In India the percentage was even higher – 68 percent of the new users said they spend at least 50 percent of their Internet time on their smartphone.

Smartphones being embraced by new users is leading this change in behavior. 37 percent of the new smartphone users from Brazil and Russia who participated in the study own an Android or iOS-based phone and are starting to use apps in a manner that is on par with more mature and experienced users. In India, Android users spend almost three times as much time on apps than Symbian owners. Android users also install more apps on their phones than consumers owning a Symbian or a Blackberry. Looking ahead, Android is likely to overtake Apple when it comes to app downloads across all growth markets – a majority of the users who participated in the study say Android is the preferred OS for their next smartphone.

Figure 4: Android users in India

3X

Spend almost 3 times the time spent by Symbian users on applications

Consume 23% more data than their Symbian counterparts

User maturity is an important dimension when trying to understand app behavior. The longer you have owned a smartphone, the more you demand increasingly specific apps, and the more willing you are to pay for them.

According to respondents, the barriers to pay for apps today include low credit card penetration and a lack of trust in card payments.

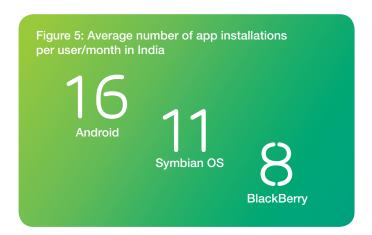
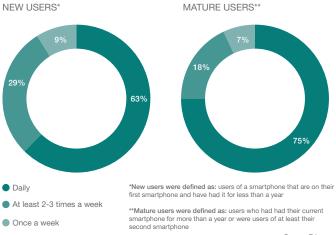


Figure 6: How often new and mature users access the Internet on their smartphone using apps

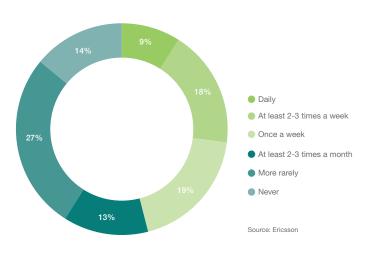


Source: Ericssor

## FEW APPS - BUT FREQUENTLY USED

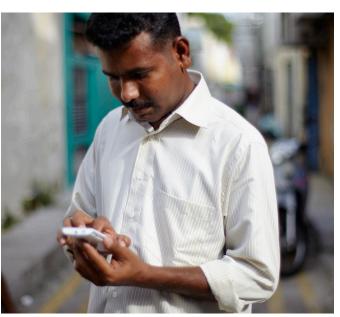
- > Two out of five rarely or never visit an official app marketplace
- > A significant barrier to downloading is the fear of apps which use up data limits without the user's knowledge
- > While 69 percent access Internet using apps daily, almost half do not use more than 5 apps on a weekly basis

Figure 7: How often users visit dedicated market places for downloading apps



The lifecycle of an app can be divided into four phases: discovery, adoption, usage and abandonment. When it comes to the discovery of apps, users have not yet embraced dedicated app marketplaces. Two out of five users in the study rarely or never visit an official app marketplace, but instead sort through third party sites and forums to gain info on new releases and find apps to download onto their smartphone. 60 percent say they use the browser as a starting point to search for apps, rather than app marketplaces.

When choosing which app to download, the main barriers are fears of apps accessing Internet outside user control, lack of native language apps and limited smartphone memory capacity. In the words of one of the respondents in the study: "I can't download just any app I want, I have to think. The smartphone will fill up fast and then I will have problems with the phone not working as fast."



Lack of native language apps is especially a concern among Russian users.

Users have few apps on their smartphones – the majority of respondents have 25 apps or less – but use them frequently. While 69 percent say they access Internet using apps daily, almost half do not use more than one to five apps on a weekly basis.

Abandonment of apps occurs mainly when users dislike the app they have downloaded or simply do not use it as much as they did before. One out of four respondents also stated a full memory as a reason to delete an app – either because they wanted to make room for other apps or because they experienced their smartphone working slower due to lack of memory space.

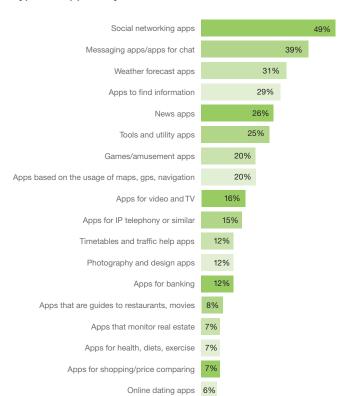
# EXPLORING THE LONG TAIL OF APPS

- > Users in high growth markets are starting to explore the long tail of apps
- > Smartphones and apps will be key in transforming everyday life for people in high growth markets going forward into the networked society
- > This app evolution will be heavily affected by market specific factors

While social media participation is a significant trigger for mobile internet usage in high growth markets, there is a shift towards consumer preference for more specialized apps.

The results of the study indicate that high growth market users are beginning to explore and use apps further down in the long tail of apps. Even though mature users use their apps more frequently than new users, we can see a general evolution toward new users purchasing increasingly specialized apps such as dating services and price comparison right from the moment they get their smartphone. The usage of these specialized apps is almost as high among new as mature users.

Figure 8: Share of respondents who use the following types of apps daily



Source: Ericsson

Users have a strong interest in using apps that enable them to deal with daily challenges and interact with places, people and things in their urban surroundings. Smartphones and apps will be key in transforming everyday life for people in growth markets going forward into the networked society.

The evolution of apps will also be dependent on a number of macro factors, such as the bandwidth available to the user, subscription schemes, OS platform and user maturity. 41 percent of respondents answered that they often or always postpone downloading apps until finding a Wi-Fi connection, 50 percent download apps first to their PC to save on data limits, and two out of five smartphone users still do not download apps on a weekly basis.

Figure 9: Macro factors affecting app evolution in high growth markets

#### MARKET MATURITY

- Subscription plans not encouraging connectivity and app usage
- Fear of unexpected costs induced when connecting

#### **NETWORK MATURITY**

- Operator network that does not offer sufficient speed for annusage
- Operator network that does not provide reliable connection

#### **TECH MATURITY**

- Limited understanding of how to install/use apps
- Battery time
- Type of OS
- Memory space inflicted by app usage

50% 41%

download apps first on PC to save on data limits

often (or always) postpone downloading apps until they have access to a Wi-Fi connection

Ericsson is the world's leading provider of communications technology and services. We are enabling the Networked Society with efficient real-time solutions that allow us all to study, work and live our lives more freely, in sustainable societies around the world.

Our offering comprises services, software and infrastructure within Information and Communications Technology for telecom operators and other industries. Today more than 40 percent of the world's mobile traffic goes through Ericsson networks and we support customers' networks servicing more than 2 billion subscribers.

We operate in 180 countries and employ more than 100,000 people. Founded in 1876, Ericsson is headquartered in Stockholm, Sweden. In 2011 the company had revenues of SEK 226,9 billion (USD 35,0 billion). Ericsson is listed on NASDAQ OMX, Stockholm and NASDAQ, New York stock exchanges.

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