

CONSUMERLAB



ERICSSON

SMARTPHONES CHANGE CITIES

18 services driving
satisfaction with city life

An Ericsson Consumer Insight Summary Report
October 2013

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METHODOLOGY

In 2011 and 2012, Ericsson ConsumerLab conducted 2 online surveys across a total of 27 major cities around the world. We asked consumers about a combined 30 areas of satisfaction with city life, including education, crime, and garbage collection. Although mobile coverage was revealed as a strong driver of satisfaction, qualitative work indicated that the smartphone itself has the potential to further enhance satisfaction with many other aspects of city life.

In order to better understand how smartphone-related services influence satisfaction with the most positive and negative aspects of city life, a follow-up study was carried out in September 2013. The study was conducted online with 7,500 iPhone/Android smartphone users aged 15–69 in São Paulo, Beijing, New York, London and Tokyo. The study is representative of 40 million citizens.

KEY FINDINGS

> Rapidly changing city life

Mass demand for new ICT services has the potential to change city life beyond recognition in only three years. Consumers see these services as primarily being driven by their relevant industry – not only the ICT sector.

> Services expected soon

Smartphone owners expect that in just a year, market availability of the services we have tested will treble. In three years, they believe availability will be five times what it is today, turning all tested concepts into mass-market services.

> Serving the majority

Almost 80 percent of smartphone owners believe that mobile reservations, restaurant guides and same-day delivery services will be generally available to all citizens.

> Easing traffic every day

In the survey, 20-30 percent state that they would use any of the new service concepts on a daily basis, with 40 percent saying they would use traffic-related services every day.



THE VOICE OF THE CONSUMER

Ericsson ConsumerLab has close to 20 years' experience of studying people's behaviors and values, including the way they act and think about ICT products and services. Ericsson ConsumerLab provides unique insights on market and consumer trends.

Ericsson ConsumerLab gains its knowledge through a global consumer research program based on interviews with 100,000 individuals each year, in more than 40 countries and 15 megacities – statistically representing the views of 1.1 billion people.

Both quantitative and qualitative methods are used, and hundreds of hours are spent with consumers from different cultures. To be close to the market and consumers, Ericsson ConsumerLab has analysts in all regions where Ericsson is present, which gives a thorough global understanding of the ICT market and business models.

All ConsumerLab reports can be found at:
www.ericsson.com/consumerlab

CHANGE ACROSS ALL INDUSTRIES

The 6 aspects of life that city dwellers are most/least satisfied with, and 18 service concepts that will enhance them

SATISFACTION



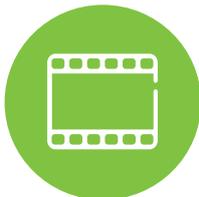
SHOPPING

- > Same-day delivery online and in stores
- > Mobile goods navigation which tells users what items are in stock in their vicinity
- > A situational shopping recommender that lists recent purchases by others



RESTAURANTS/CAFÉS

- > Mobile menus and table reservations to pre-order food
- > A restaurant ingredient checker to see detailed information about the food being served
- > A social restaurant guide that uses friendship networks to recommend restaurants



LEISURE FACILITIES

- > Mobile leisure reservations that let you book event tickets and sports activities while mobile
- > A virtual play connector that allows you to share leisure activities with friends in other virtual centers in different locations
- > A digital real-time trainer/assistant who analyzes your performance during sport, dance or art activities, and gives advice

CHILD DAYCARE/ELDERLY CARE

- > A connected food and medicine service that provides consumption updates to families with children or elderly relatives in care centers
- > A social care network which enables easy communication with extended family members all day via any device
- > An online near-care system that locates care centers and coordinates visits and pick-up times



AUTHORITIES' COMMUNICATION

- > An online city service that makes all public info available for smartphones and PCs
- > A contextual mobile city service that provides location-based information
- > A 24/7 online hotline city chat which gives real-time answers to questions about public services



TRAFFIC

- > A personal navigator that provides travel information for all modes of indoor and outdoor transport, from walking to driving
- > A self-driving/parking car that allows you to disembark and let the car park itself
- > A minimal day-travel scheduler that optimizes your calendar to minimize need for travel



DISSATISFACTION

The fast global uptake of smartphones was a market transformation. But smartphone owners have now entered a phase of rapidly diversifying use where they look for apps across all industries. In just three years the mass market will be unrecognizable compared to where we are today. Cities will also need to evolve to accommodate the demand for connectivity, leading to fundamentally different environments in which we live and work.

Previous ConsumerLab research highlighted key areas of city life that citizens are satisfied with, including: shopping, restaurants/cafés, and entertainment/leisure. It also pinpointed areas that they are dissatisfied with, such as care, communication with authorities, and traffic.

In this report, we focus on understanding what role ICT plays in satisfaction and dissatisfaction with city life. We developed 18 service concepts, as shown to the left, in order to study how consumers predict future growth patterns for ICT across all key areas.

ICT AS A DRIVER OF SATISFACTION

Examining popular service concepts

The aspects of city life that people are most satisfied with are shopping, restaurants and leisure. We tested three new service concepts for each area to see how these areas of satisfaction will be influenced by ICT services in the future.

In New York, London and Tokyo, satisfaction with city life is higher than in Beijing and São Paulo. Figure 1 reveals that smartphone users in Beijing and São Paulo show higher interest in satisfaction-related service concepts with a range of 38 to 81 percent, compared to 18 to 57 percent in New York, London and Tokyo. However, Beijing and São Paulo are mainly prepaid smartphone markets, whereas New York, London and Tokyo are primarily postpaid, and this may impact future service uptake.

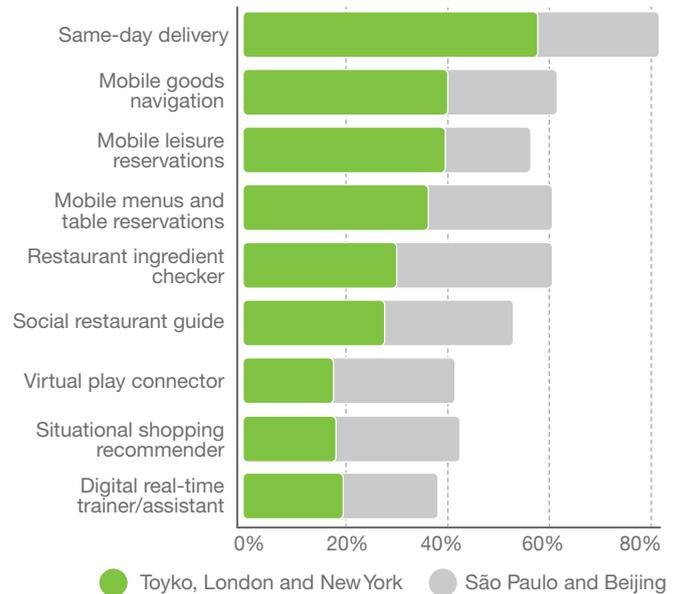
Users expect to see big changes

Smartphone owners expect the satisfaction-related concepts we tested to become available very quickly. They predict that in just a year, market availability of these services will have almost trebled. In 3 years, availability will be 4.6 times what it is today, turning all tested concepts into mass-market services. The availability of the restaurant ingredient checker service is expected to increase the most. Just 8 percent think it is available today, and 61 percent expect it within 3 years.

Industry owners will lead the way

Figure 2 shows that for shopping, restaurants and leisure services, around half of consumers believe that joint retailers, restaurants or leisure facilities will be the prime drivers in enabling availability. Internet companies are also favored. Around 35 percent of people think mobile operators will succeed in driving leisure-related services, being just as influential as individual facility owners.

Figure 1: Interest levels in satisfaction-related concepts

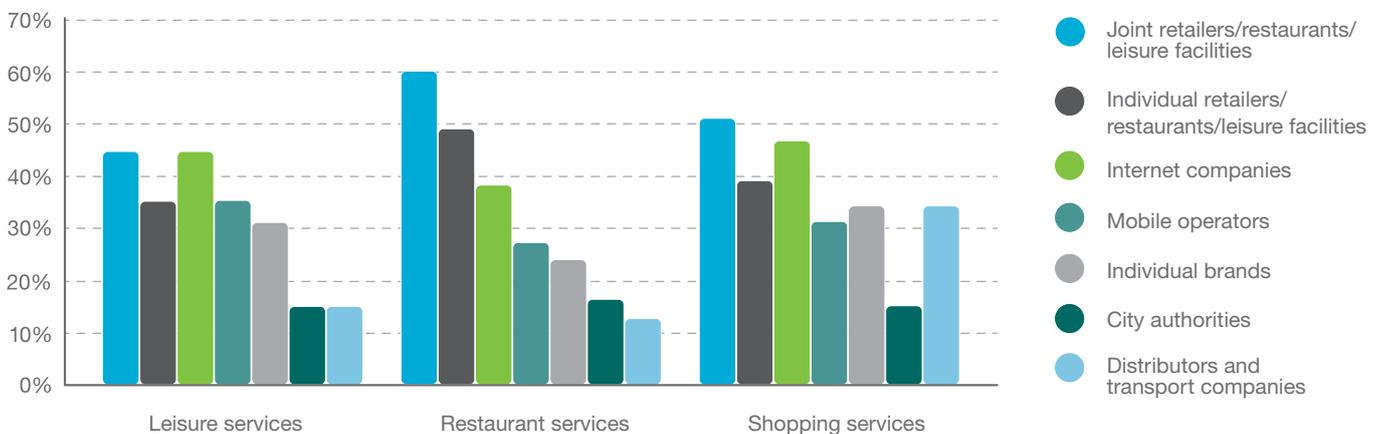


Source: Ericsson ConsumerLab Analytical Platform 2013. Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo



By 2016, consumers expect availability of satisfaction-related services to be almost five times what it is today

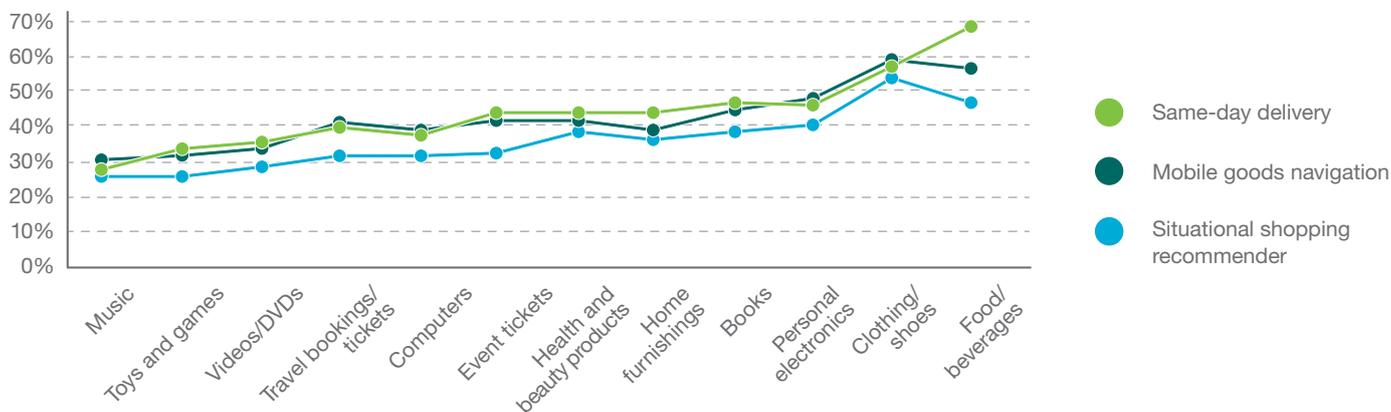
Figure 2: Smartphone owners predict who will play the most important role in enabling these services



Source: Ericsson ConsumerLab Analytical Platform 2013
Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo

SHOP 'TIL YOU DROP

Figure 3: Smartphone owners predict what type of goods the services would be used for



Source: Ericsson ConsumerLab Analytical Platform 2013
 Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo

Citizens love to shop

The two most popular concepts in the satisfaction areas were shopping related, with 67 percent of people saying they want a same-day delivery service that works online and in stores. Almost 50 percent of users also want a mobile goods navigation service that lets them know what items are in stock in their vicinity, allowing them to plan trips and minimize travel. A situational shopping recommender that lists recent purchases by others proved to be the least popular service idea.

Grocery shopping set for drastic change

Same-day delivery has the potential to fundamentally alter the retail industry. Not only is it very popular, but both stores and online retailers can use it.

Figure 3 shows that grocery shopping will change radically, with 69 percent of respondents saying they would use same-day delivery for food and beverages. Clothing and shoe retail is also set for major change, as more than 50 percent of people are interested in using all 3 service concepts for these types of goods.

New roles for internet companies

In the future, alternative retail ecosystems will develop. Around 50 percent of respondents believe partnerships will be formed to provide new services. Figure 4 shows how consumers believe that to enable same-day delivery services, retailers will work alongside distribution and transport companies. Respondents also think that retailers will team up and work with internet companies to enable both mobile goods navigation and situational shopping recommender services.

Figure 4: Percentage of smartphone owners who think retailers will partner with others to enable shopping-related services

Source: Ericsson ConsumerLab Analytical Platform 2013
 Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo



RESTAURANTS TO GROW ORGANICALLY

A more informed dining experience

Throughout our ConsumerLab studies, the availability of a wide variety of restaurants, cafés and pubs has consistently been the second highest area of satisfaction with city life. In this study, 46 percent say they like the mobile menus and table reservations concept, which lets them pre-order food so that they do not have to wait when arriving at a restaurant. When there, 42 percent said they would be interested in seeing detailed information about the food being served using a restaurant ingredient checker on their smartphones. A social restaurant guide that uses friendship networks to recommend restaurants was also popular, with 37 percent saying they would use it.

São Paulo favors restaurant services

Although the restaurant-related concepts we have tested show the lowest projected daily use, there was variation among the different cities. In Figure 5, we see that São Paulo showed the highest levels of interest, with 40 percent saying they would use the restaurant ingredient checker every day. That is almost twice as many as in London, and four times as many as in Tokyo. In São Paulo, mobile menu and table reservation services were also popular, as was the social restaurant guide, with 31 percent showing interest in using both daily.

The right ingredients

Of all the concepts tested in this study, the restaurant ingredient checker has the highest projected growth rate. On average, 8 percent of people believe it is already available in some form, and 61 percent think it will be generally available in their cities within 3 years. Although the overall projected availability of these services is higher in the prepaid smartphone markets, growth patterns are very similar for all cities. Despite being the least popular of the restaurant concepts, on average 79 percent of respondents believe the social restaurant guide will be generally available within 3 years, making it the service with the largest projected mass-market availability.

Restaurants will provide their own ICT services

Consumers believe that restaurants will either team up to deliver the restaurant-related concept services we proposed, or that restaurants will deliver them individually. Consumers also think that internet companies will have an important role to play, with 44 percent believing they will deliver the social restaurant guide.

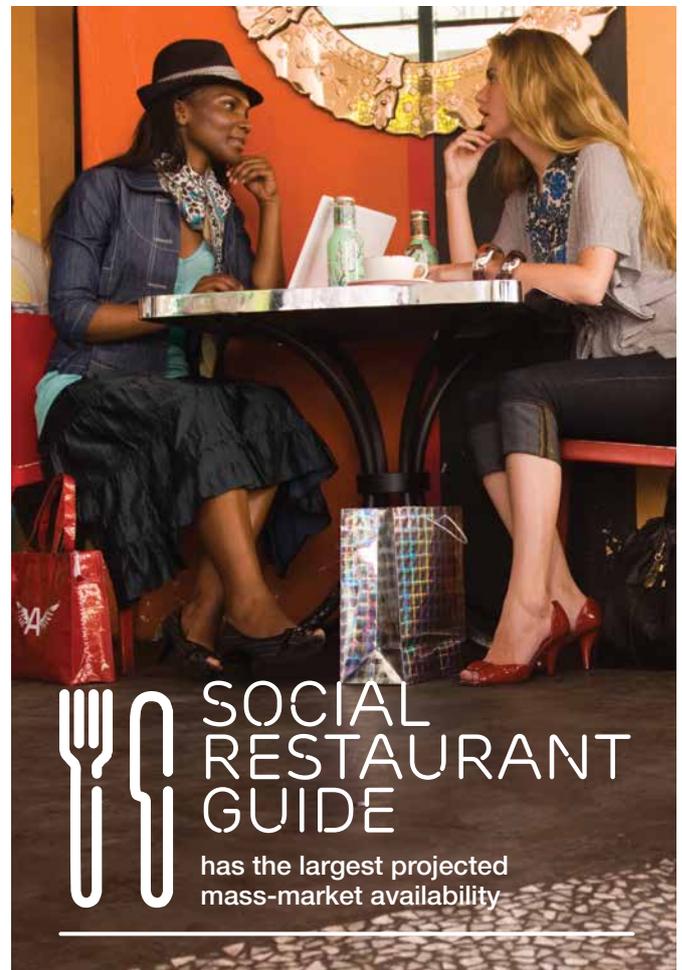
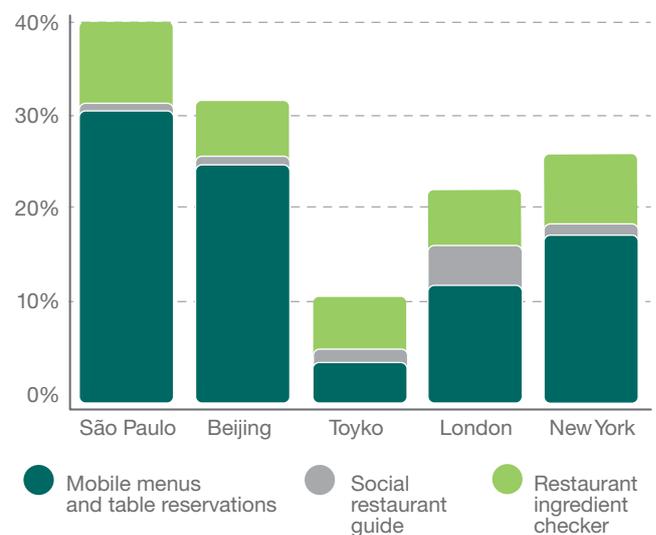


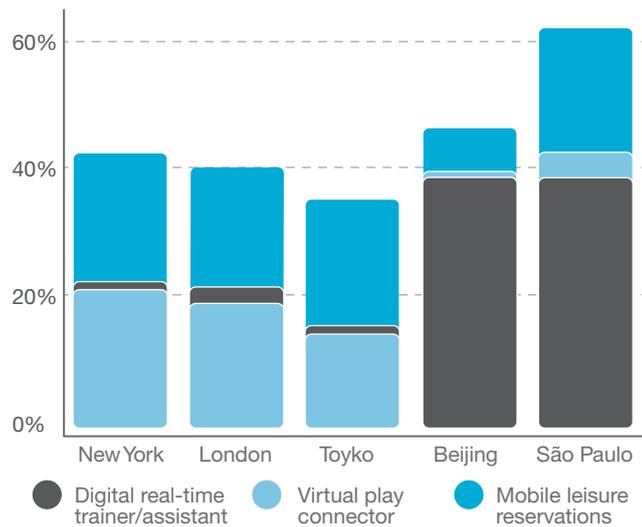
Figure 5: Percentage of respondents who will use restaurant-related concepts on a daily basis



Source: Ericsson ConsumerLab Analytical Platform 2013. Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo

LEISURE FACILITIES GO MOBILE

Figure 6: Levels of interest in leisure-related concepts



Source: Ericsson ConsumerLab Analytical Platform 2013. Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo

Mobile reservations prove popular

In this study, and as with previous research, the availability of leisure facilities such as clubs, movie theaters, concert halls, etc. ranked third as a driver of satisfaction with life in cities. This could explain why 47 percent of respondents are interested in mobile leisure reservations that will let you book everything while mobile, from movie and concert tickets to sports activities. Another 28 percent of respondents also liked the idea of using a virtual play connector that will let you share leisure activities within a community. Rather than traveling to meet people, you simply visit a neighborhood virtual play facility where you

can take part in sport, watch a movie, workout or just talk with friends who are in a similar virtual facility.

Finally, 27 percent showed an interest in the digital trainer/assistant, who analyzes your performance during sport, dance or art activities, gives real-time advice on how you can improve, and helps you to develop a training program.

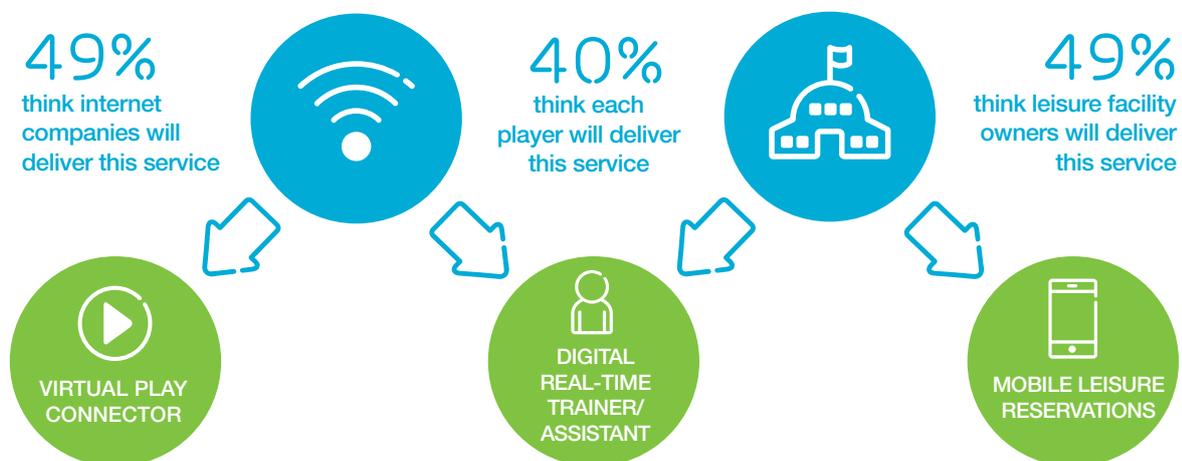
Meeting global leisure needs

Not only is the mobile leisure reservations service popular, but city-dwellers in this study also think it has the second highest mass-market potential overall, with 79 percent believing it will be generally available within 3 years. Figure 6 shows that in São Paulo, 62 percent of citizens like the idea of mobile leisure reservations. In Tokyo, the concept is liked by 35 percent of people, which is high considering that only 14 percent are interested in the virtual play connector, and only 15 percent are interested in the digital real-time trainer/assistant.

Enabling online leisure

Figure 7 shows that internet companies will play an important role in enabling the type of leisure-related service concepts we have tested. Almost 50 percent of people believe internet companies will provide the virtual play connector and 40 percent think they will be key in providing digital real-time trainer/assistants. But 49 percent believe it will be the leisure facility owners working together who will provide mobile leisure reservations. Mobile operators may also contribute here, with 41 percent of respondents believing they will be driving the service.

Figure 7: Who will play the most important role in enabling these service concepts?



Source: Ericsson ConsumerLab Analytical Platform 2013
Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York & São Paulo

● Players ● Services

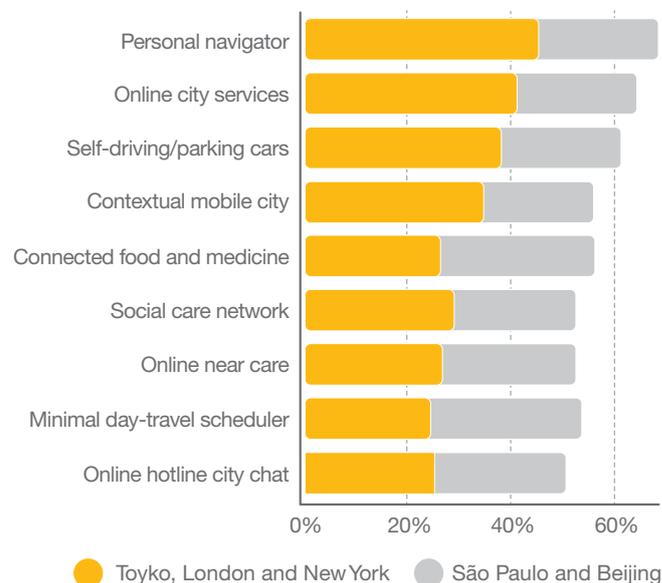
ICT CAN ALLEVIATE DISSATISFACTION

Greater potential in prepaid smartphone markets

The three key areas of dissatisfaction in city life are traffic, communication with city authorities and child/elderly care. In the mainly prepaid smartphone markets of Beijing and São Paulo, levels of dissatisfaction with city life are higher than the primarily postpaid markets of New York, London and Tokyo.

This could explain why in São Paulo and Beijing, between 50 and 68 percent of smartphone users showed interest in the 9 service concepts related to areas of dissatisfaction, as seen in Figure 8. In New York, London and Tokyo, interest in these same concepts ranged from 24 to 45 percent. However, the types of concept that proved most popular were similar among all cities, with personal navigation, online city services and self-driving/parking cars coming top.

Figure 8: Interest levels in dissatisfaction-related service concepts



Source: Ericsson ConsumerLab Analytical Platform 2013. Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo



MASS-MARKET SERVICES

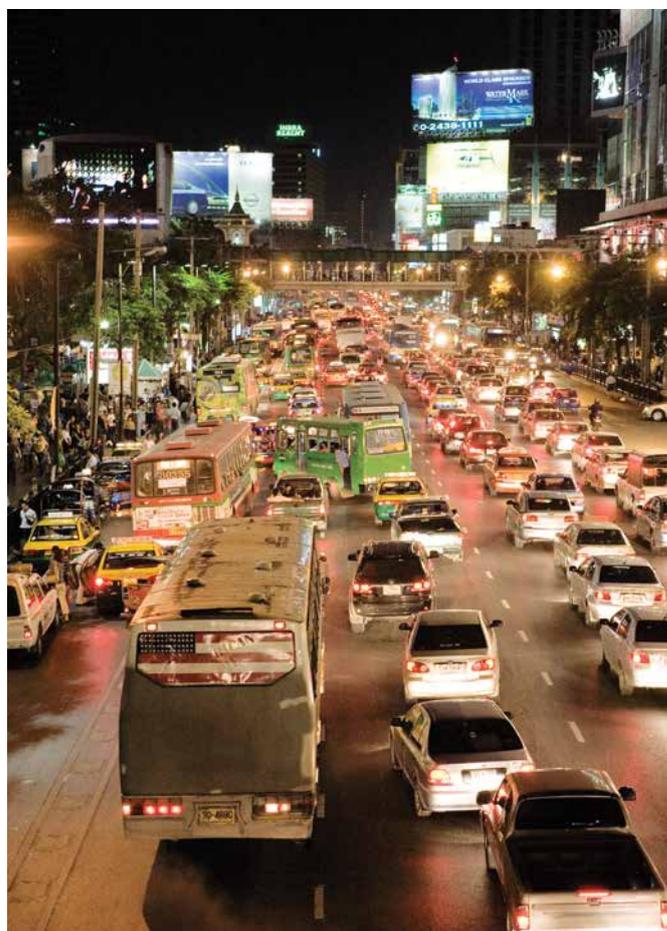
In three years, availability of dissatisfaction-related services is expected to be more than five times what it is today

High expectations

Smartphone owners predict that within a year, the availability of the dissatisfaction-related concepts we tested will have more than trebled. In 3 years, availability will be more than 5 times what it is today, turning all tested concepts into mass-market services. The availability of the minimal day-travel scheduler service is expected to increase the most. Only 8 percent of people believe it is available today, and 58 percent think it will be available within 3 years – 7 times more than today.

Services to be delivered by main stakeholders

Smartphone owners believe that care givers will be the primary drivers of care services, with the help of internet companies. City authorities will also need to take responsibility for communication services if they are to influence citizens' satisfaction with city life. Vehicle makers will develop self-driving/parking cars, and public transport will provide services for traffic information.



CARING FOR ALL GENERATIONS

Connected care

In previous research, childcare was a greater source of dissatisfaction than elderly care. But in some cities such as Tokyo, population pyramids are shifting towards the elderly, and the quality of elderly care is becoming a great source of frustration. So for the purpose of this study we have combined service concepts to address both older and younger citizens.

Interest levels are quite similar for all the three care-related service concepts tested. Over 40 percent of people are interested in the connected food and medicine service. It offers real-time food and medicine consumption updates, accessible on any device by family members with children or elderly relatives in care centers. Another 40 percent would like to see a social care network, which enables easy communication with extended family members all day via any device. 39 percent are interested in an online near-care system, which locates care centers and coordinates visits and pick-up times using a daily schedule.

Young couples and parents need services most

When analyzing how often people would use these services, the social care network has proven the most popular. Young



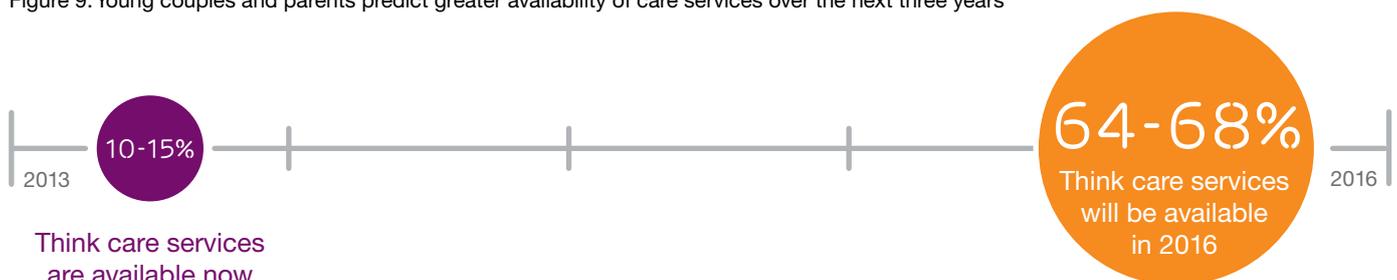
couples and parents have high levels of projected daily use for all 3 concepts, with around 40 percent saying they would use the connected food and medicine or social care network services every day. This is because they already use childcare and are beginning to think about care for elderly parents.

In terms of availability, Figure 9 shows that young couples and parents predict fast growth for ICT care services. Between 10 and 15 percent of them think services of this type are already available in their cities now, but 64-68 percent believe they will be widely available in 3 years.

The care industry will team up for apps

Respondents believe care givers will team up to be the primary providers of child/elderly care service concepts. They will have to work with internet companies to encourage the use of the social care network and to enable connected food and medicine services. City authorities may also have a role in providing online near care.

Figure 9: Young couples and parents predict greater availability of care services over the next three years



Source: Ericsson ConsumerLab Analytical Platform 2013

Base: Young couples and parents who are iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo

OPENING THE LINES OF COMMUNICATION

The best opportunity for authorities

Communication with authorities is the second highest source of dissatisfaction among city dwellers. Our research shows that in order to improve satisfaction with city life, authorities need to make some major improvements, and ICT could be the most effective way forward. Public transport and other city information may already be online, but simply having a web page is no longer enough. City dwellers need up-to-date information that puts developments such as road construction and city planning into context, to help them understand how these changes are relevant to their lives.

Up-to-date service information

Of the three concepts within authority communication, 50 percent of respondents want to see an online city service that will make all public service information available online for smartphones and PCs. This service proved to be a popular concept, with 70 percent of respondents expecting it to be available within 3 years.

Over 40 percent of smartphone owners would like a contextual mobile city service which will provide up-to-date, location-based information, and enable police or ambulances to locate citizens. Another 35 percent are interested in a 24/7 online hotline city chat which gives real-time answers to questions on public services.



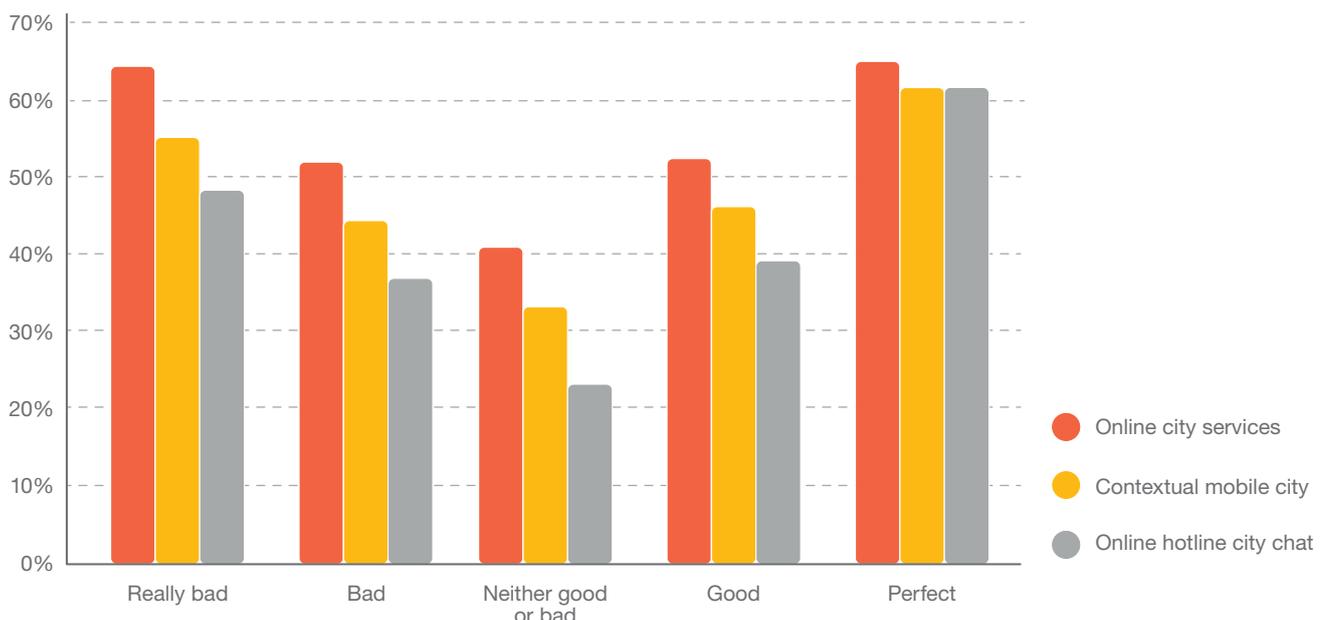
Often you are able to go to a website and while you can get some of the information needed, it's not always up-to-date."

Female, 42, New York

Respondents expect city authorities to control these services themselves, meaning a far smaller role for internet companies. Mobile operators may have an opportunity to provide the contextual mobile city service.

Interestingly, Figure 10 shows that interest levels in the authority communication concepts are polarized. Smartphone owners show higher interest in the services if they think that city authorities are either really bad or perfect at handling communication with citizens today. This means that if authorities were to implement services of the type we have conceptually tested here, they could both reduce complaints and confirm their capabilities with already satisfied citizens.

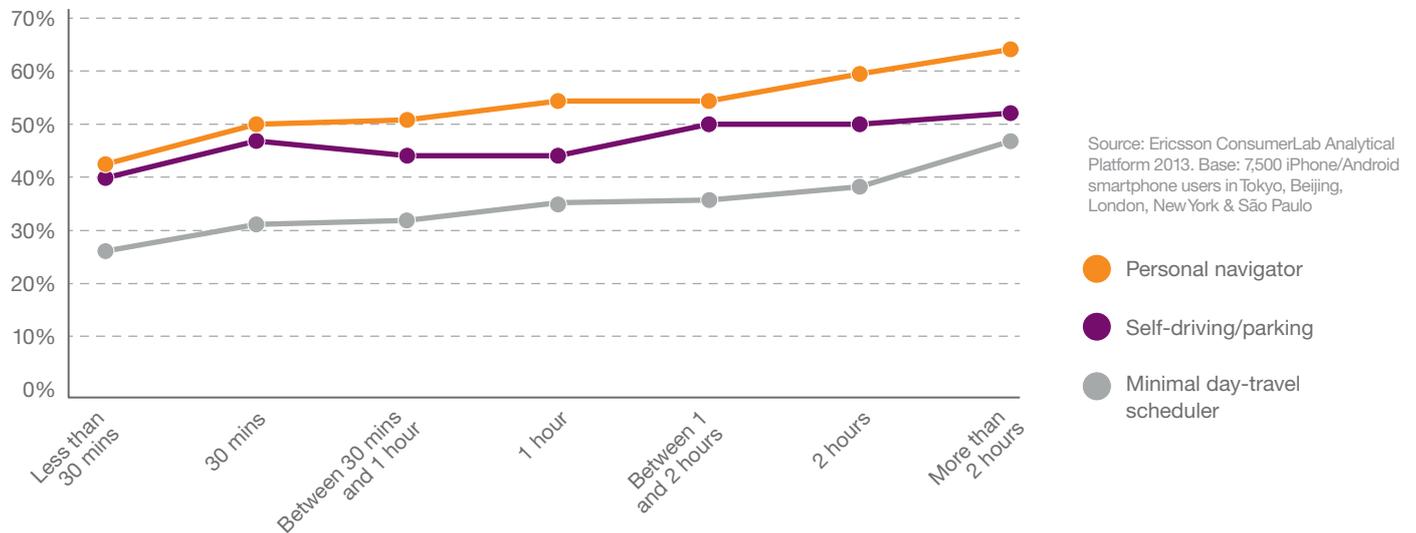
Figure 10: Interest levels based on respondents' opinion of current communication with city authorities



Source: Ericsson ConsumerLab Analytical Platform 2013
 Base: 7,500 iPhone/Android smartphone users in Tokyo, Beijing, London, New York and São Paulo

EASING THE FRUSTRATION OF TRAFFIC

Figure 11: Interest levels in service concepts compared to how much time is spent commuting each day



Smoother navigation

According to our research, traffic is the number one source of dissatisfaction with city life.

As many as 47 percent of smartphone owners were interested in a personal navigator that provides the best travel information for all modes of indoor and outdoor transport, from walking to driving. Over 40 percent would use it every day. Over 70 percent think they will be able to use the personal navigator within three years – the highest number among the service concepts related to dissatisfaction.

Having a self-driving/parking car that allows you to disembark and let the car park itself appealed to 47 percent, and 43 percent would use it every day.

Only 35 percent wanted a minimal day-travel scheduler that optimizes your calendar to minimize need for travel. But of those interested in the service, 40 percent would use it on a daily basis.

In aid of weary commuters

Figure 11 shows that the longer the amount of time spent commuting each day, the more interest people show in the traffic concepts. 64 percent of respondents who commute for more than 2 hours a day are interested in using the personal navigator, and over 50 percent are interested in using the self-driving/parking car.

The traffic concepts appeal more to those who commute by car compared to those who travel by other means. Interestingly, those who think public transport and the traffic system are bad have a higher interest in all three concepts than those who think they are good.

Seizing an opportunity

In the survey, 47 percent of smartphone owners predict mobile operators will enable the personal navigator concept. Out of all 18 concepts tested in this study, it offers mobile operators the biggest opportunity to enable ICT services. Car manufacturers will unsurprisingly be the ones leading the way with self-driving/parking cars. When providing the minimal day-travel scheduler, 46 percent of respondents perceive public transport to be the most important player.



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We are more than 110,000 people working with customers in more than 180 countries. Founded in 1876, Ericsson is headquartered in Stockholm, Sweden. In 2012 the company's net sales were SEK 227.8 billion (USD 33.8 billion). Ericsson is listed on NASDAQ OMX, Stockholm and NASDAQ, New York stock exchanges.

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