Opportunity Calling: The Future of Mobile Communications

September 22, 2010
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Introduction

Today, mobile service providers operate in a dynamic market – and face exponentially increasing requirements for network bandwidth, growing competition from non-traditional service providers, and sophisticated consumer demands for superior service and killer content.

Against this backdrop, Oracle launched the Opportunity Calling: The Future of Mobile Communications report, surveying more than 3,000 mobile phone users around the world* to examine:

- Global use and perceptions of mobile phones
- Interest in new mobile technologies, such as mobile advertising and purchasing capabilities
- Expectations for the next generation of mobile communication

*Mobile phone users 18 and older from North America, Europe, Asia Pacific, Latin America, and the Middle East
Executive Summary

• Mobile customers are generally happy with their service providers, but the market is ripe for competition
  ✓ While 82% of customers believe their current provider is doing a good job**, 77% would be willing to switch to a provider with better pricing
  ✓ Additionally, 83% of all customers say they would be willing to consider a non-traditional (non-telecom) company (such as Google, Sony, or Facebook) if it offered similar pricing and quality as their current mobile phone provider

• Mobile customers around the world are using their phones for much more than voice
  ✓ While almost all customers say they use their phone primarily as a communications device, 35% use it as an entertainment device, and 28% use it as a mini computer*
  ✓ 88% have sent a text message using their phone, 49% have read or sent an e-mail, and 21% have updated their status on a social media Web site

• Providers must overcome privacy concerns before they can take full advantage of new mobile opportunities
  ✓ 64% of customers say they would be willing to listen to or watch advertisements on their mobile phone in exchange for a 5% credit on their monthly bill
  ✓ But, just 33% say they would like to receive specific ad content based on their location – the majority of those who were not interested in this option expressed privacy concerns

*Percent of respondents who indicated they used their phone in this way by selecting 6-10 for each on a scale of 1-10, where 1 was “not at all” and 10 was “completely”
**Percent of respondents who gave their provider a 6-10 on a scale of 1-10, where 1 was “very bad” and 10 was “very good”
***Somewhat or very comfortable
The Mobile Landscape

- In 2010, the number of mobile subscriptions is expected to reach five billion globally.* Analysts also predict that within five years, more users may connect to the Internet from mobile devices than from desktop PCs**

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What we are seeing:

<table>
<thead>
<tr>
<th></th>
<th>Average rating mobile phone users give their current service provider, on a scale of 1-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

| 59% | Percent of users that use one mobile phone |

| 41% | Percent of users that use two or more mobile phones |


Take Away: Mobile Needs Will Trigger Rapid Change, Growth

Men are more likely than women to carry multiple phones – 47% vs. 33%
What’s It To You?

• While nearly all mobile phone customers use their phone primarily as a communications device, younger customers also use their phone as an entertainment device and sometimes as a mini computer.

How do you use your phone?*

<table>
<thead>
<tr>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Communications</td>
<td>95%</td>
<td>96%</td>
<td>97%</td>
<td></td>
</tr>
<tr>
<td>device</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment</td>
<td>88%</td>
<td>39%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>device</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mini-computer</td>
<td>6%</td>
<td>17%</td>
<td>32%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Younger mobile phone customers are significantly more likely to use their phone as an entertainment device and a mini computer.

Take Away: Younger Users = New Multimedia Demands

*Percent of respondents who indicated they used their phone in this way by selecting 6-10 for each on a scale of 1-10, where 1 was “not at all” and 10 was “completely”
Beyond the Call

• “Communications device” may mean more than it used to, as customers now communicate via texts, e-mails, videos, and social media sites

*Which of the following have you done using your mobile phone?*

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>88%</td>
<td>Sent a text message</td>
</tr>
<tr>
<td>85%</td>
<td>Taken a picture</td>
</tr>
<tr>
<td>60%</td>
<td>Listened to music</td>
</tr>
<tr>
<td>49%</td>
<td>Read or sent e-mail</td>
</tr>
<tr>
<td>41%</td>
<td>Watched a video</td>
</tr>
<tr>
<td>23%</td>
<td>Opened a word processing document or spreadsheet</td>
</tr>
<tr>
<td>21%</td>
<td>Updated status on a social media Web site</td>
</tr>
<tr>
<td>18%</td>
<td>Accessed online banking</td>
</tr>
<tr>
<td>9%</td>
<td>Purchased an item online</td>
</tr>
</tbody>
</table>

Take Away: Voice Important, but a Smaller Slice of the Pie

*Respondents asked to select all that apply*
Purchasing Habits
What Customers Look For

- Mobile phone customers value reliability and price over innovation

Most important qualities in a mobile service provider:

- 85% Reliability (call and data service)
- 81% Price (phones and plan options)
- 75% Ease of use (services, billing methods, plan options, etc.)
- 70% Responsiveness (sales, customer, and technical support)
- 49% State of the art technology (phones, apps, etc.)

Based on this criteria, 82% of customers said their provider was doing a good job.

Mobile phone users in Europe and North America are the most satisfied with their service providers; users in the Middle East are the least satisfied.

Take Away: Focus on Brass Tacks Before Bells and Whistles

*Percent of respondents who rated each attribute a 8, 9, or 10 on a scale of 1-10, where 1 was “not at all important” and 10 was “very important”

**Percent of respondents who gave their provider a 6-10 on a scale of 1-10, where 1 was “very bad” and 10 was “very good”
Motivations for Change

• While customers rate reliability as the most important quality of a provider, they are more likely to change providers because of price

Which of the following would most motivate you to switch mobile phone service providers?*

- Better price: 77%
- Better network: 50%
- Better customer service: 33%
- Better phone: 31%

83% of customers say they would be willing to consider purchasing mobile phone services from a non-traditional (non-telecom) provider. Top choices:*  
- 51% Google
- 48% Sony
- 44% Apple
- 15% Facebook
- 15% American Express

*Percent of all respondents willing to consider service from named company. Respondents were asked to select all that apply

Take Away: Price Can Tip the Market and Open a Door for New Providers

*Respondents asked to select all that apply
Bundling Communication Services

- Less than a third of mobile phone users currently bundle their mobile phone bill with other communications services*, but nearly all of those who do not would be interested in the option.

66%
Do not currently have any bundled products

and...

88%
Say they would be interested in bundled products

#1 Motivator: Overall Cost Savings

Take Away: Consumers are Willing to Buy More to Save

*Asia-Pacific customers were most likely to report bundling
Adding Apps

- Mobile phone users, particularly those in Gen Y, are using their phones to access a wide variety of applications or “apps”

App Use by Generation:

<table>
<thead>
<tr>
<th></th>
<th>Gen Y</th>
<th>Boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid for an app</td>
<td>26%</td>
<td>12%</td>
</tr>
<tr>
<td>Downloaded a free app</td>
<td>54%</td>
<td>26%</td>
</tr>
</tbody>
</table>

What will users pay for?*

- 40% Songs
- 34% Ringtones
- 28% Driving directions
- 27% Books
- 23% Movies
- 20% News
- 15% Video clips
- 14% TV shows

Take Away: App Market Still Young; Opportunity for Providers

*Respondents asked to select all that apply
Pay-for-Play

- Mobile phone users want unlimited access and say they are willing to foot the bill

When considering your current mobile phone plan, how much extra would you be willing to pay for the following features?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percent of mobile phone users willing to pay for feature*</th>
<th>Percent of bill increase that users would be willing to pay**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlimited data access</td>
<td>61%</td>
<td>7%</td>
</tr>
<tr>
<td>Unlimited text messaging</td>
<td>59%</td>
<td>5%</td>
</tr>
<tr>
<td>Faster data access</td>
<td>58%</td>
<td>6%</td>
</tr>
<tr>
<td>Bundle of 50 app downloads</td>
<td>42%</td>
<td>5%</td>
</tr>
</tbody>
</table>

*Of those who do not currently have the feature **Respondents asked, “When considering your current mobile phone plan, how much extra would you be willing to pay for the following features?”

Take Away: Data is in Demand
What’s Next?
All-in-One Expectations

- More than half of mobile phone users expect their phones to replace their GPS systems, MP3 players, and/or digital cameras by 2015

**Five years from now, do you think your mobile phone will replace any of the following?**

- 54% GPS
- 54% iPod or MP3 player
- 52% Digital camera
- 31% Credit card
- 27% Personal computer
- 27% Video recorder
- 24% Car keys
- 22% e-Reader
- 18% Personal identification card
- 16% Television

**Take Away: What WON’T it do?**

*Respondents asked to select all that apply*
Please Swipe Your Phone

• 58% of users said they would want the ability to make purchases with their mobile phone instead of using cash or a credit card

How comfortable would you be making a purchase using your mobile phone?

- 22% Very comfortable
- 39% Somewhat comfortable
- 27% Not very comfortable
- 12% Not at all comfortable

Gen Y is more comfortable* with this concept than Boomers – 69% to 52%. Males are also more comfortable than females – 68% to 53%

Take Away: Consumers Interested in, but Cautious of, Mobile Payments

*Very or somewhat comfortable
Opportunity for Mobile Ads

- While older mobile phone users are reluctant to accept ads on their phones in exchange for credits or services, younger users show interest in the trade.

**Percent Interested in the Ad Exchange:**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>76%</td>
<td></td>
<td>48%</td>
<td></td>
</tr>
</tbody>
</table>

*Aside from a credit, what would Gen Y want in exchange for these ads?*

- #1 Mobile Internet access (35%)
  - or
  - Additional calling minutes (35%)
- #2 Additional texts (18%)
- #3 Free app downloads (12%)

*Respondents asked to consider if they did not have these features and select the one option they would most want.
Location-Based Services

- Despite some interest in mobile advertising, users are hesitant to trade privacy for localized content.

Younger customers are significantly more interested in this service than older customers – 40% of Gen Y would like this feature, vs. just 24% of Boomers.

I would like to receive relevant content based on my location 33%

I am unsure how I feel about this capability 23%

My personal location is private and I do not want my mobile provider tracking me 44%

Take Away: Service Providers Have Opportunity to Educate
Privacy Concerns

- Users say they are willing to try new technologies such as mobile advertising and purchasing capabilities, but privacy concerns may hold them back.

**Of all mobile users:**

- **64%** would be willing to receive ads on their phone in exchange for a 5% credit on their mobile phone bill.
- **61%** would feel comfortable* making a purchase using their mobile phone.

**But**

Just **33%** would like to receive relevant ad content based on their location – the majority of those who were not interested in this option expressed privacy concerns.

**Take Away:** Providers Must Address Privacy, Security

*Very or somewhat comfortable*
On the Horizon

• When thinking of future mobile phone features, users express the greatest interest in the ability to monitor and manage their home's electricity use.

Which of the following features that are new or "on the horizon" would you want?

| #1 | Ability to monitor my home’s electricity use and turn lights or appliances on and off | 22% Would pay for | 67% Would want |
| #2 | Ability to chat via video | 17% Would pay for | 60% Would want |
| #3 | Ability to unlock and/or remotely start my car | 19% Would pay for | 54% Would want |
| #4 | Ability to view content I purchase on multiple screens (mobile phone, TV, computer) | 12% Would pay for | 52% Would want |
| #5 | Ability to scan barcodes with my mobile phone to access relevant online content | 10% Would pay for | 49% Would want |

Take Away: Providers Should Consider Value-added Services
Recommendations

• **Build on the Basics:** Mobile customer loyalty hinges on service reliability and price. Don’t sacrifice fundamentals for fads.

• **Know your Customer:** Build and analyze customer data repositories to understand and meet consumer needs more quickly.

• **Provide Seamless Service:** Customers want a multi-purpose device and bundled communications services. New industry players are accelerating competition while demand for cutting-edge services grows. Content partnerships will be critical – but service activation, delivery, and billing must be seamless and fast.

• **Barter with Customers:** Customers say they will listen to or watch advertisements in exchange for credits or service discounts, but are not yet fully on board with location-based services. Learn more about customers’ privacy concerns, promote benefits of personalized data, and roll out pilot programs to test.

• **Plan for the Future:** Customers expect future phones to include video, scanning, and even purchasing capabilities. Work with your technology providers and partners to ensure your network and back-end systems are scalable, securely open to developers, and integrated across services.
Methodology

• Oracle conducted the online survey of more than 3,000 mobile phone users around the world* in June 2010. Respondents were asked to answer each question based on their primary phone

Respondent Profile

Location:
- 20% North America (U.S. and Canada)
- 20% Europe (U.K., Germany, France, Finland, Sweden, Poland, Czech Republic, and Russia)
- 20% Asia Pacific (China, Japan, South Korea, Australia, and New Zealand)
- 21% Latin America (Brazil and Mexico)
- 19% Middle East (United Arab Emirates)

Year Born:
- 5% Before 1946
- 27% 1946-1964
- 32% 1965-1976
- 36% 1977-1992

Gender
- 56% Male
- 44% Female

Employment Status:
- 9% Student
- 5% Unemployed
- 6% Full-time parent
- 11% Employed part time
- 60% Employed full time
- 9% Retired

Margin of Error:
- ±1.75% at a 95% confidence level for the full sample (N = 3,138)
- ±3.99% at a 95% confidence level for each region (N = 604+)

*Mobile phone users 18 and older from North America, Europe, Asia Pacific, Latin America, and the Middle East
Thank You

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- North America 25
- Europe 27
- Asia Pacific 29
- Latin America 31
- Middle East 33
North America

26% of adult mobile phone customers in North America use two or more mobile phones.

Mobile phone use:
- 96% use their phone as a communications device
- 20% use it as an entertainment device
- 22% use it as a mini computer

What have you done with your phone?
- 78% Sent a text message
- 42% Read or sent e-mail
- 21% Updated status on a social media site

What’s next:

Five years from now, what will your mobile phone replace?
- 40% Digital camera
- 18% Credit card
- 13% Personal computer

Additionally –
- 84% Would be willing to switch to another service provider if they offered better pricing
- 77% Would be willing to consider a non-traditional (non-telecom) company if they offered similar prices and quality as their current provider
- 54% Would be willing to listen to or watch mobile advertisements in exchange for a 5% credit on their monthly phone bill

*Percent of respondents who indicated they used their phone in this way by selecting 6-10 for each on a scale of 1-10, where 1 was “not at all” and 10 was “completely”

**Respondents asked to select all that apply
North America

How do North American mobile phone customers differ from the rest of the world*?

They are:

• Less likely to use their phone as an entertainment device – 20% to 39%

• Less likely to have read the news on their phone – 27% to 45%

• More likely to value their providers’ data and service reliability – 92% to 83%

• Less likely to say their phone will replace their credit card by 2015 – 18% to 34%

North American Demographics:

11% Born before 1946
35% Born 1946-1964 (Baby Boomers)
24% Born 1965-1976
30% Born 1977-1992 (Generation Y)

46% Male
54% Female

*Average of customers in Europe, Asia Pacific, Latin America, and the Middle East
Europe

41% of adult mobile phone customers in Europe use two or more mobile phones

Mobile phone use:

- 97% use their phone as a communications device
- 33% use it as an entertainment device
- 22% use it as a mini computer

What have you done with your phone?

- 92% Sent a text message
- 39% Read or sent e-mail
- 14% Updated status on a social media site

What’s next:

Five years from now, what will your mobile phone replace?

- 42% Digital camera
- 25% Credit card
- 16% Personal computer

Additionally –

- 80% would be willing to switch to another service provider if they offered better pricing
- 73% would be willing to consider a non-traditional (non-telecom) company if they offered similar prices and quality as their current provider
- 57% would be willing to listen to or watch mobile advertisements in exchange for a 5% credit on their monthly phone bill

*Percent of respondents who indicated they used their phone in this way by selecting 6-10 for each on a scale of 1-10, where 1 was “not at all” and 10 was “completely”

**Respondents asked to select all that apply
Europe

How do European mobile phone customers differ from the rest of the world*?

*Average of customers in North America, Asia Pacific, Latin America, and the Middle East

They are:

- Less like to want the ability to monitor their home’s electricity use from their phone – 53% to 70%
- Less likely to want the ability to unlock and/or remotely start their car from their phone – 32% to 60%
- Less likely to want the ability to chat via video on their phone – 45% to 63%

European Demographics:

- 7% Born before 1946
- 28% Born 1946-1964 (Baby Boomers)
- 26% Born 1965-1976
- 39% Born 1977-1992 (Generation Y)
- 50% Male
- 50% Female
Asia Pacific

26% of adult mobile phone customers in Asia Pacific use two or more mobile phones

Mobile phone use:

- 94% use their phone as a communications device
- 38% use it as an entertainment device
- 29% use it as a mini computer

What’s next:

Five years from now, what will your mobile phone replace?

- 49% Digital camera
- 34% Credit card
- 30% Personal computer

Additionally –

- 73% would be willing to switch to another service provider if they offered better pricing
- 78% would be willing to consider a non-traditional (non-telecom) company if they offered similar prices and quality as their current provider
- 66% would be willing to listen to or watch mobile advertisements in exchange for a 5% credit on their monthly phone bill

What have you done with your phone?

- 81% Sent a text message
- 47% Read or sent e-mail
- 18% Updated status on a social media site

*Percent of respondents who indicated they used their phone in this way by selecting 6-10 for each on a scale of 1-10, where 1 was “not at all” and 10 was “completely”

**Respondents asked to select all that apply
How do Asia Pacific mobile phone customers differ from the rest of the world*?

*Average of consumers in North America, Europe, Latin America, and the Middle East

They are:

• More likely to bundle two or more of their communications services – 42% to 26%

• More likely to have used their mobile phone to purchase an item online – 14% to 7%

• More likely to report having the ability to chat via video on their phones – 11% to 6%

• More likely to be interested in receiving free app downloads in exchange for listening to or watching advertisements on their mobile phone – 13% to 7%

Asia Pacific Demographics:

3%  Born before 1946
25%  Born 1946-1964 (Baby Boomers)
29%  Born 1965-1976
43%  Born 1977-1992 (Generation Y)

48%  Male
52%  Female
Latin America

50% of adult mobile phone customers in Latin America use two or more mobile phones

<table>
<thead>
<tr>
<th>Mobile phone use:*</th>
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<tbody>
<tr>
<td>96% use their phone as a communications device</td>
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</table>

<table>
<thead>
<tr>
<th>What’s next:</th>
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</thead>
<tbody>
<tr>
<td>Five years from now, what will your mobile phone replace?**</td>
</tr>
<tr>
<td>68%</td>
</tr>
<tr>
<td>41%</td>
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<tr>
<td>39%</td>
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<tr>
<td>95% would be willing to consider a non-traditional (non-telecom) company if they offered similar prices and quality as their current provider</td>
</tr>
<tr>
<td>84% would be willing to listen to or watch mobile advertisements in exchange for a 5% credit on their monthly phone bill</td>
</tr>
</tbody>
</table>

What have you done with your phone?**

| 90% Sent a text message |
| 47% Read or sent e-mail |
| 17% Updated status on a social media site |

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*Percent of respondents who indicated they used their phone in this way by selecting 6-10 for each on a scale of 1-10, where 1 was “not at all” and 10 was “completely”

**Respondents asked to select all that apply
Latin America

How do Latin American mobile phone customers differ from the rest of the world*?

They are:

• More willing to pay for the ability to scan barcodes to access additional content with their mobile phone – 20% to 7%

• More willing to pay for the ability to change the channel on their television with their mobile phone – 16% to 6%

• More willing to consider a non-traditional (non-telecom) company for mobile services – 95% to 79%

• More likely to listen to or watch more than 15 mobile advertisements each month in exchange for a 5% credit on their monthly phone bill – 13% to 7%

Latin American Demographics:

2% Born before 1946
23% Born 1946-1964 (Baby Boomers)
39% Born 1965-1976
36% Born 1977-1992 (Generation Y)

62% Male
38% Female

*Average of consumers in North America, Europe, Asia Pacific, and the Middle East
Middle East

62% of adult mobile phone customers in the Middle East use two or more mobile phones

Mobile phone use:

- 98% use their phone as a communications device
- 32% use it as an entertainment device
- 39% use it as a mini computer

What’s next:

Five years from now, what will your mobile phone replace?

- 58% Digital camera
- 36% Credit card
- 34% Personal computer

Additionally –

- 69% would be willing to switch to another service provider if they offered better pricing
- 88% would be willing to consider a non-traditional (non-telecom) company if they offered similar prices and quality as their current provider
- 58% would be willing to listen to or watch mobile advertisements in exchange for a 5% credit on their monthly phone bill

What have you done with your phone?

- 97% Sent a text message
- 70% Read or sent e-mail
- 33% Updated status on a social media site

*Percent of respondents who indicated they used their phone in this way by selecting 6-10 for each on a scale of 1-10, where 1 was “not at all” and 10 was “completely”

**Respondents asked to select all that apply
How do Middle Eastern mobile phone customers differ from the rest of the world?*

*Average of consumers in North America, Europe, Asia Pacific, and Latin America

They are:

- More likely to use two or more mobile phones – 62% to 36%
- More likely to use their mobile phone as a mini computer – 39% to 25%
- More likely to have used certain features on their phones:
  - Sent a text – 97% to 86%
  - Taken a picture – 93% to 84%
  - Looked up a phone number or address – 75% to 54%
  - Read or sent an e-mail – 70% to 44%
  - Obtained driving directions – 34% to 21%

Middle Eastern Demographics:

- 1% Born before 1946
- 26% Born 1946-1964 (Baby Boomers)
- 40% Born 1965-1976
- 33% Born 1977-1992 (Generation Y)
- 72% Male
- 28% Female