



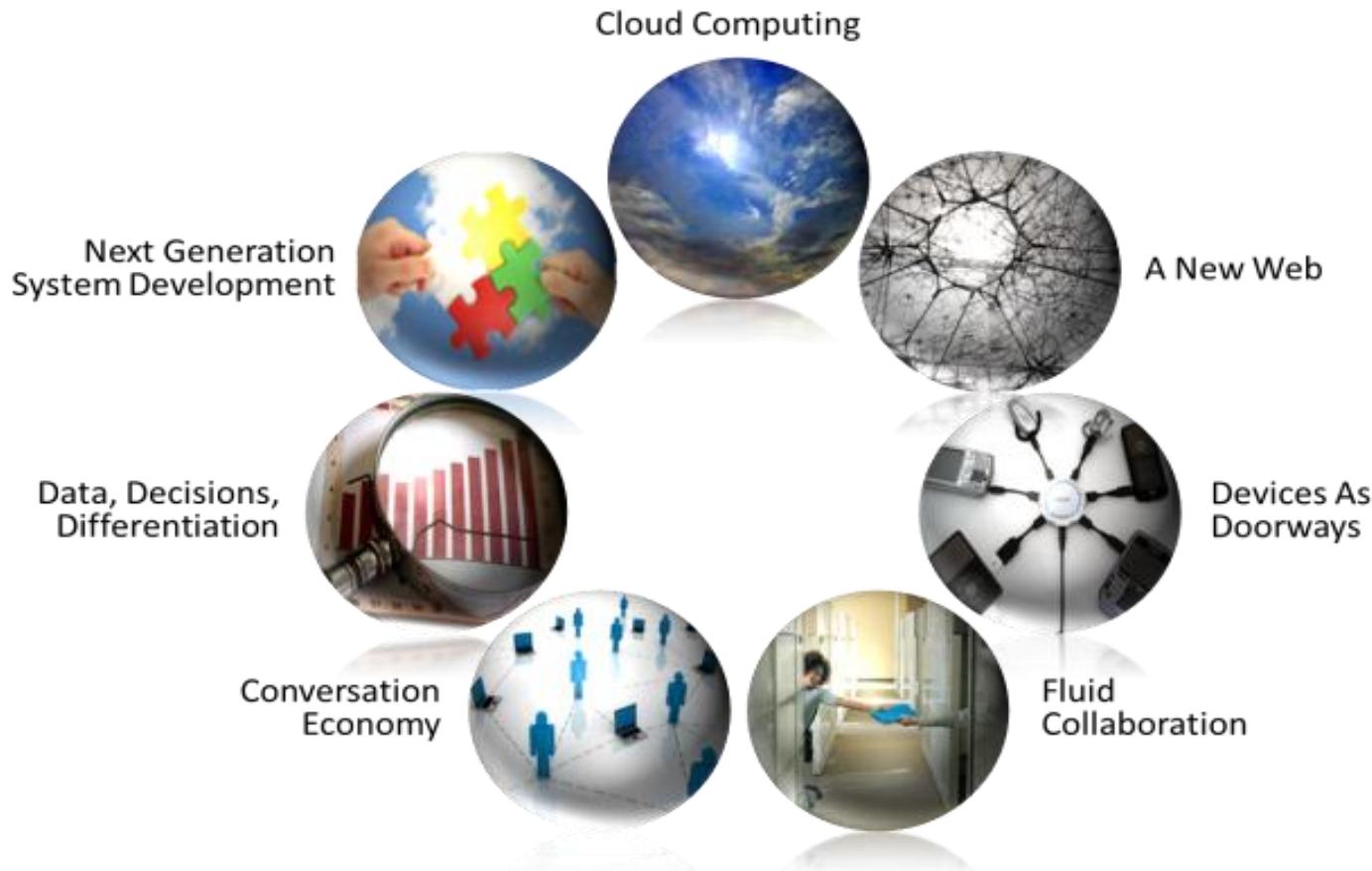
accenture

High performance. Delivered.

Mobility Trends

Accenture Technology Labs, 2013

We started last year's technology vision 2012-2015 stating that there were seven new trends for the following years



Focusing in two of them, we said that there is a new web, with it's core changing...



Navegadores



Protocolos



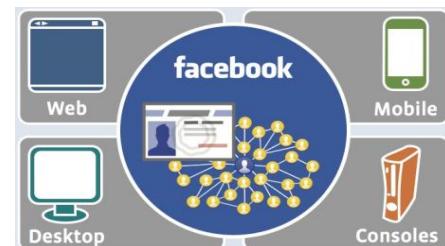
Velocidad



Fuentes



Integración



Movilidad



Experiencia



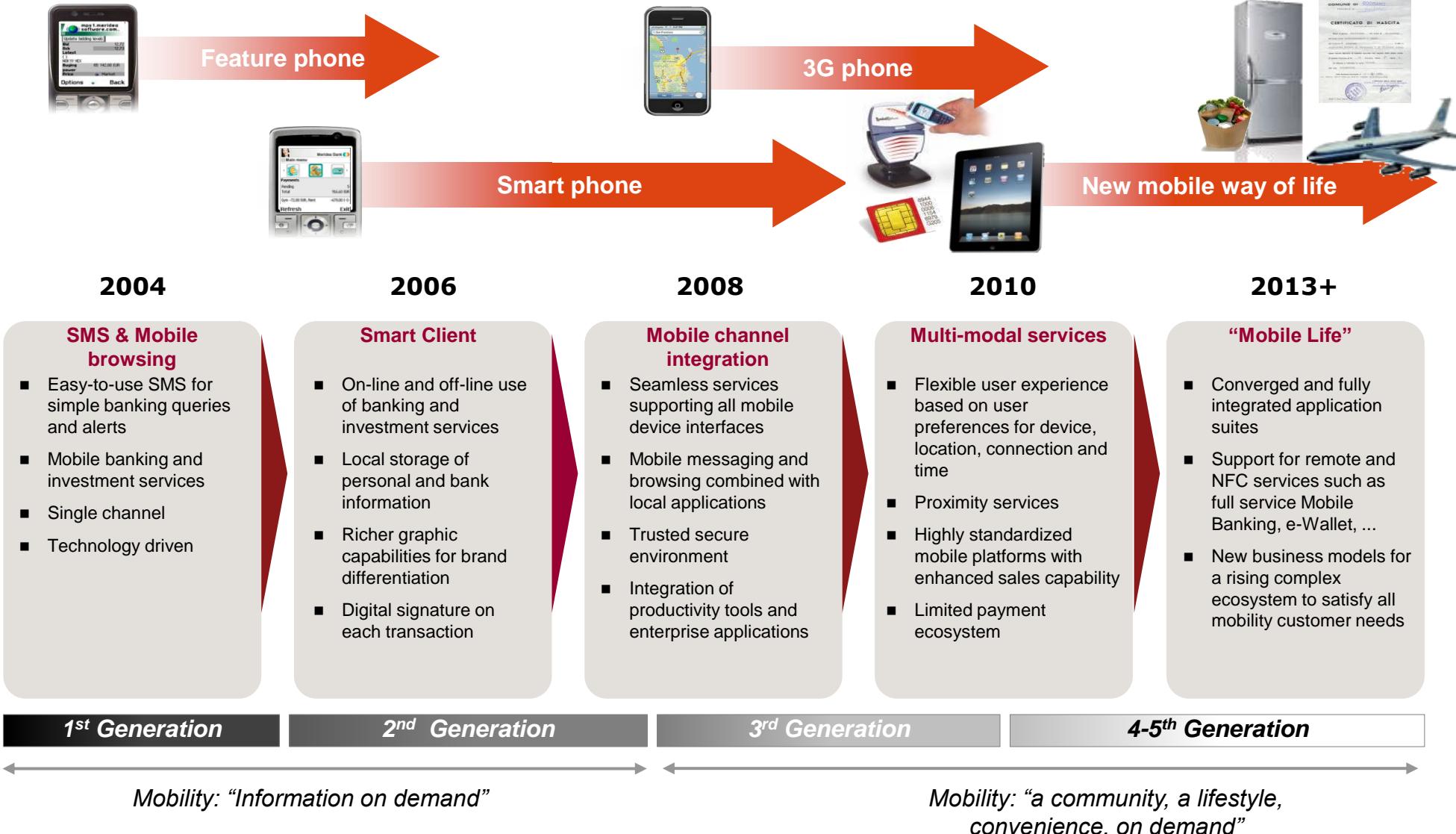
..and a new set of devices with state of the art technology are being used as doorways to get into enterprise applications...



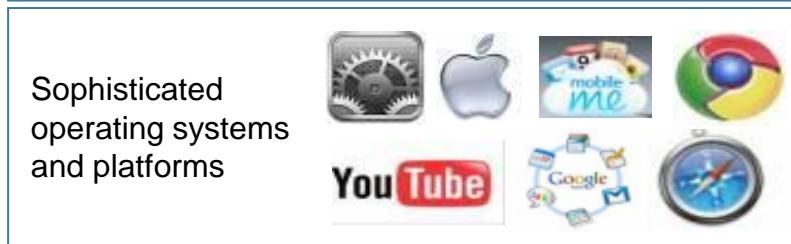
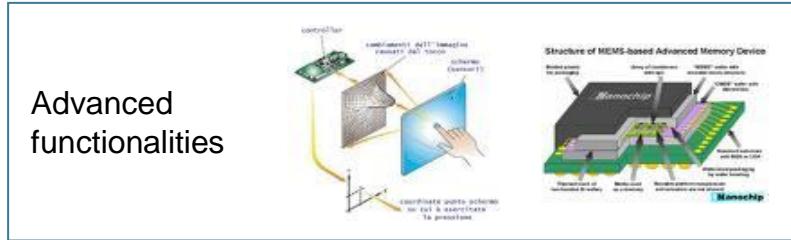
Evolution of mobile services

Device Evolution

Application Features



..making “m” the new “e”, bringing new opportunities for banking and payment services...

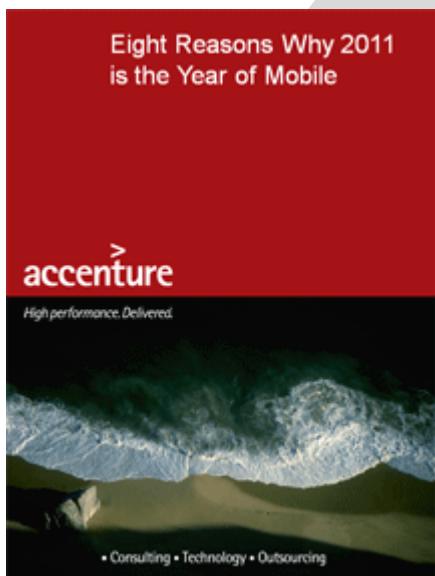


Mobile devices as the day-to-day remote control



- Access to people
- Access to data
- Social networks
- Purchases and Payments
- Localization services
- Real world interactions
- Games
- Personal feedback
- Usability and design

...as a whole set of trends are emerging, making 2011 a key year in the evolution of mobile services...

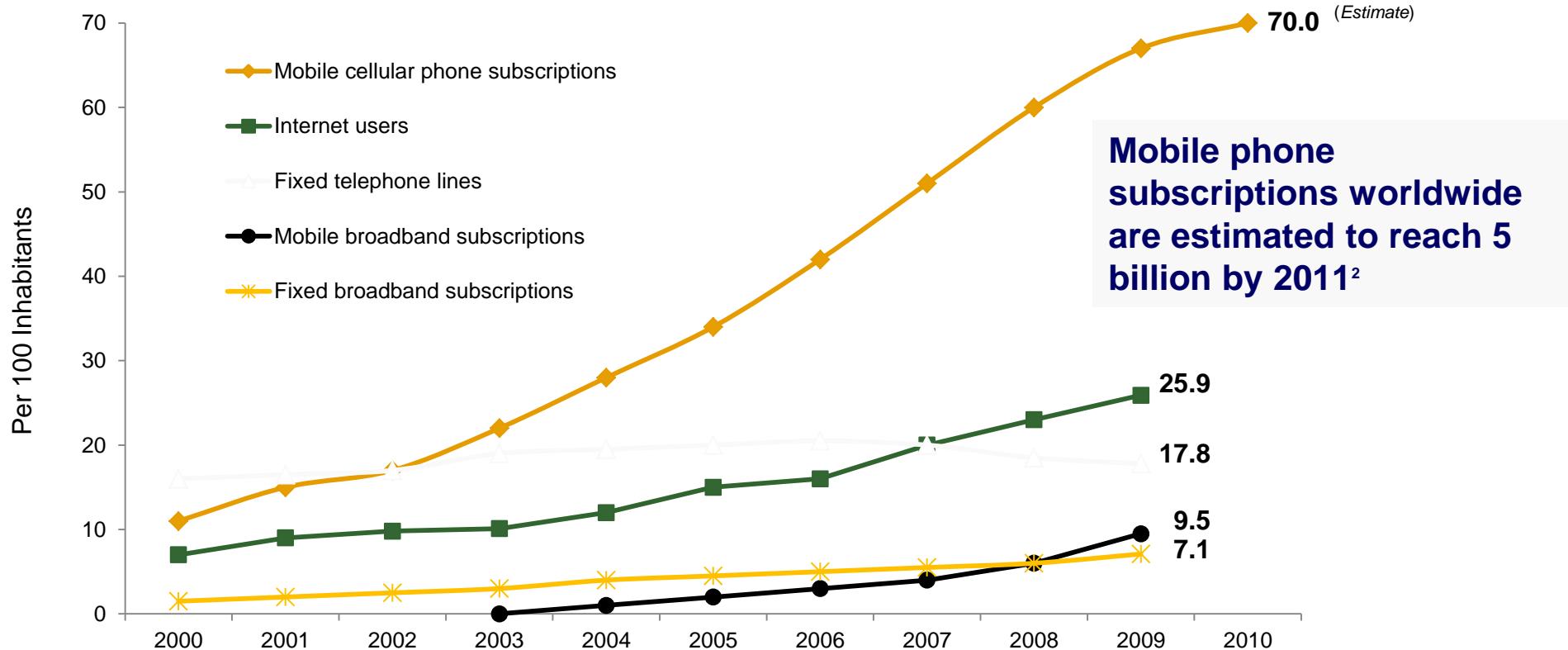


- **Near Field Communication (NFC)** – Nexus S, iPhone (?), Blackberry
- **Apple's iPhone 6** – upgrade to m-wallet, and purchase of additional services/products
- **Mobile Wallets** – ability to handle funds on mobile – fun & entertaining
- **Mobile Vouchering** – targeted & topical marketing
- **Affordable mobile solutions for retailers** (i.e. link with CRM, existing systems)
- **Niche vertical solutions** (i.e. advent of travel & entertainment solutions going live in 2011)
- **VC Investment** – increased interest resulting in dot-com demand
- **Looking forward** – positive outlook from retailers; defensive play from telcos; disruptive new players

While the world gets more and more connected...



Worldwide Telecommunications Subscriptions



Source: ITU World Telecommunication/ICT Indicators Database

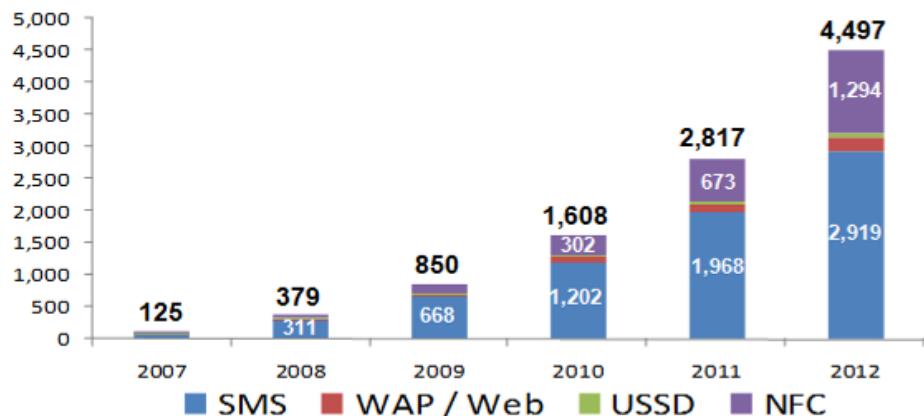
^{1,2} ITU World Telecommunication/ICT Facts and Figures 2009

... and Mobile Payments are expected to grow fast...



m-Payment market trends

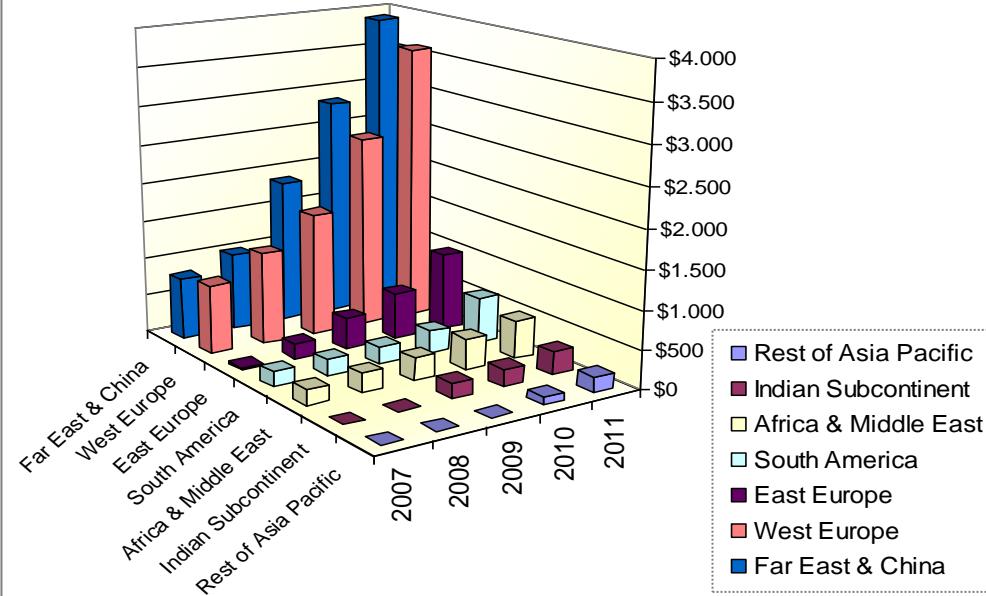
Number of global m-Payment transactions
(in million)



- **Mobile payments will grow** significantly over the next years, with SMS payment solutions accounting for the highest volume of mobile transactions
- **NFC** is projected to be the fastest **growing m-Payment technology**

Source: Gartner DataQuest Insight: Mobile Payment, 2007-2012

Total remote m-Payment transaction value
(Regional Forecast 2007-2011, in USD M)



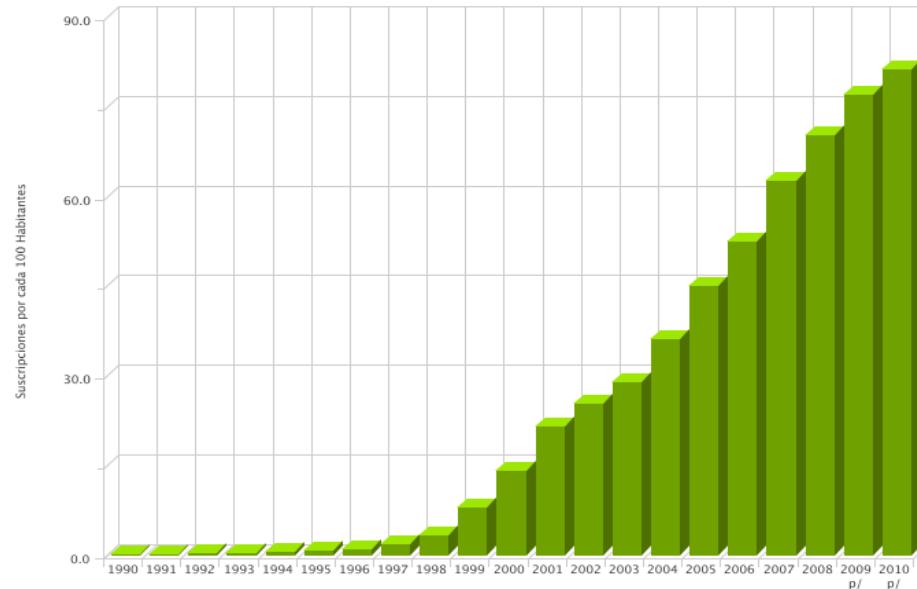
- **Remote m-Payment users** will increase globally from 75 M to 151 M by 2011
- **The Far East & China** are expected to be the biggest market in 2011, followed by **Western Europe**

Source: Juniper research

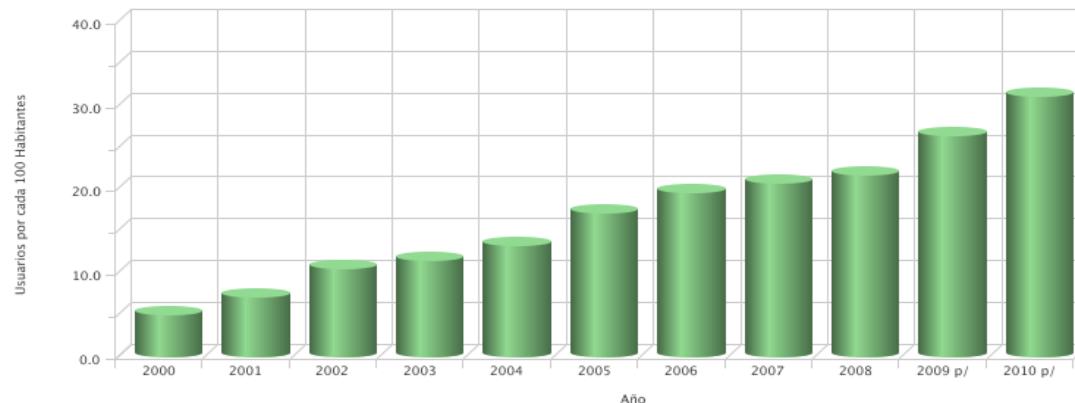
...in Mexico the users of internet and mobile communications have been raising for the past years...



Suscripciones a teléfonos celulares móviles por cada 100 habitantes. Serie Anual.



Acceso a internet por cada a 100 habitantes. Serie Anual.



Source: COFETEL

...but the offer remains plain-vanilla in most cases for the Mexican banks, with focus on Stage 1 Banking and almost nothing on mPayments

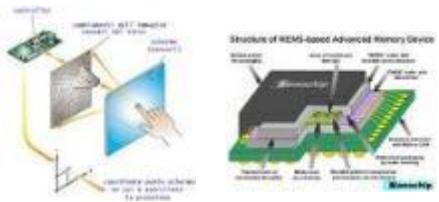


Servicio	Banamex	Bancomer	Banorte	HSBC
Comprar tiempo Aire	✓	✓	✓	✗
Varias Compañías Telefónicas (Telcel, Movistar, Iusacel, Unefon y Nextel)	✗	✓	✓	✗
Móvil ChipTelcel	✓	✓	✓	✗
Consulta: de saldos y movimientos	✓	✓	✓	✗
Transferencias entre cuentas propias	✓	✓	✓	✗
Transferencias a cuentas de otros bancos	✓	✓	✓	✗
Pago de servicios: teléfono, luz, TV	✓	✓	✓	✗
Consultar los diez movimientos más recientes en tu cuenta	✗	✓	✗	✗
Pago de tarjetas	✓	✓	✓	✗
Configuración donde podrás realizar el Cambio de tu Contraseña	✓	✓	✗	✗
Software Especializado	✓	✓	Blackberry/ iphone / Android	✗
Celular Compatible con Java	NA	✓	NA	✗
Sin costo		✓	✓	✗
Contar con un teléfono celular Telcel con versión de tarjeta SIM/CHIP 4.1 o superior	✓	✓	✗	✗

Fuente

http://www.banamex.com/es/personas/servicios/banca_electronica/banamex_movil.htm
http://www.bancomer.com/minisitios/Sitio_bancomerMovil_3/index.html
<http://www.banorte.com/banortemovil/ayuda.html>
<http://www.hsbc.com.mx/1/2/>

Driving forces behind the emerging mobile computing platform



Advanced Design Capabilities



Sophisticated Platform Capabilities



Wireless Bandwidth Growth

Booming Application Marketplace



Mobile Experience

Immediacy:

immediate use of data and facilities
in every possible situation

Attractiveness:

the image of the product captures the interest of the user

Quickness:

faster and faster connections

Simplicity:

an intuitive, pleasant and effective service

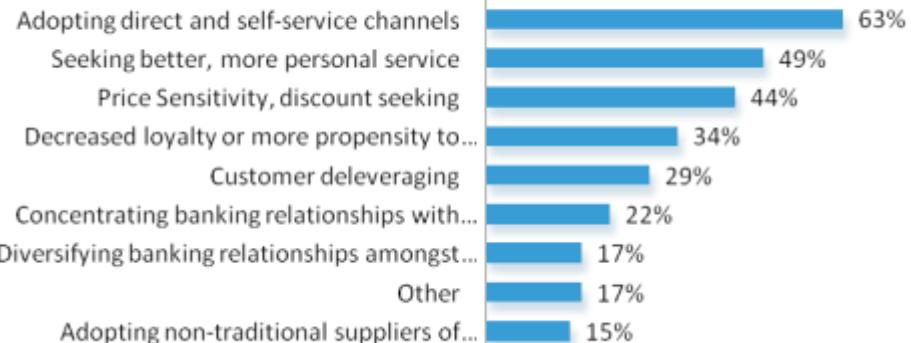
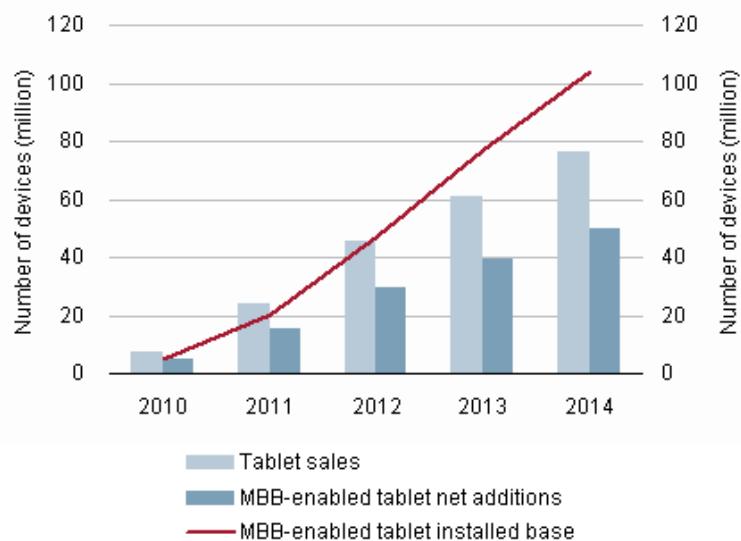


New Customer behaviors and trends

Emerging Customer Behaviour

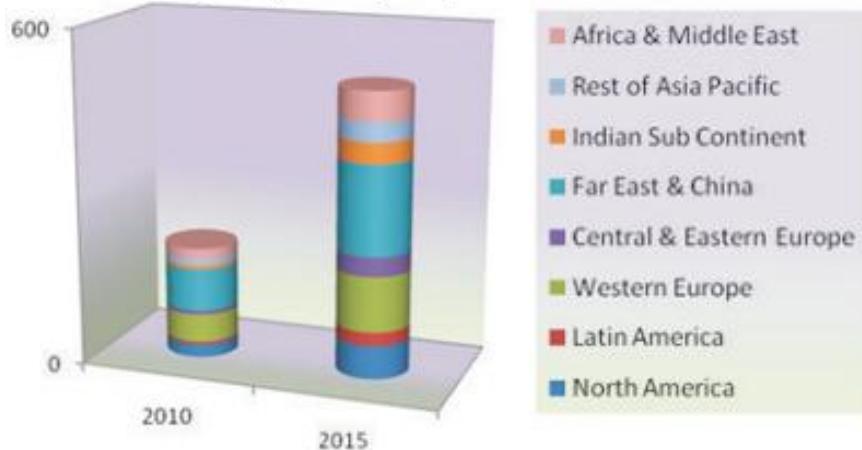
A new **self-directed** customer is placing increased importance on **value for money, simple unbundled products** (which are transparent and easy to compare), **multiple access points, direct self-serve channels** and a customer service and experience which is **responsive and personalised**.

Almost 80 million tablets are forecast to be sold by 2014



Source: Accenture Customer 201 Bank Executive Interviews, 2010

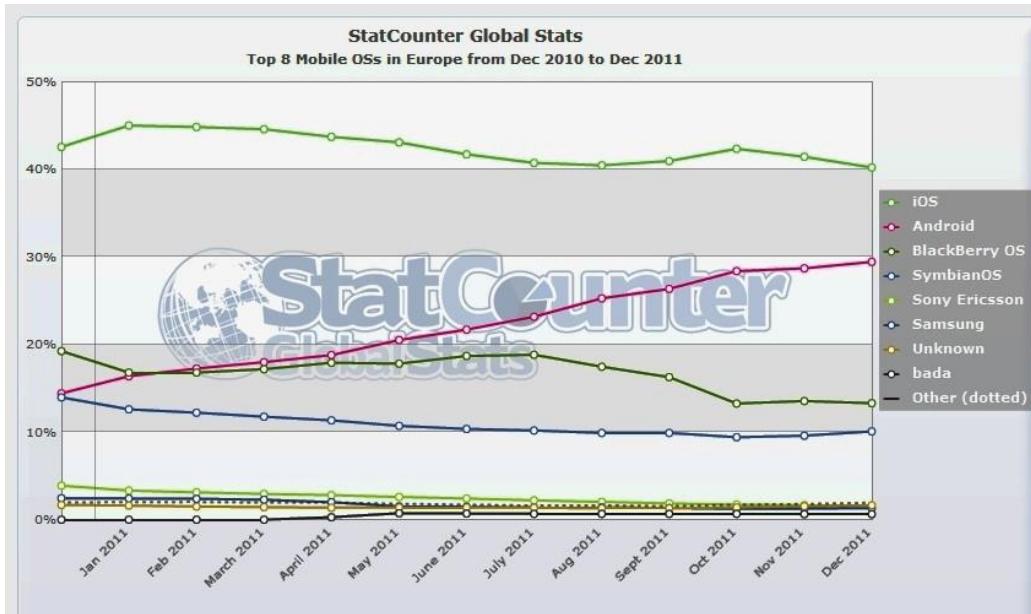
Total Mobile Users (m) who use Mobile Banking Information Services - Split by 8 Key Regions 2010 & 2015



In parallel, a number of key trends may be observed regarding the use of Mobile OSs



Mobile OS trends



OS	2010	2011	2012	2015
Symbian	111,577	89,930	32,666	661
Market Share (%)	37.6	19.2	5.2	0.1
Android	67,225	179,873	310,088	539,318
Market Share (%)	22.7	38.5	49.2	48.8
Research In Motion	47,452	62,600	79,335	122,864
Market Share (%)	16.0	13.4	12.6	11.1
iOS	46,598	90,560	118,848	189,924
Market Share (%)	15.7	19.4	18.9	17.2
Microsoft	12,378	26,346	68,156	215,998
Market Share (%)	4.2	5.6	10.8	19.5
Other Operating Systems	11,417	18,392	21,383	36,133
Market Share (%)	3.8	3.9	3.4	3.3
Total Market	296,647	467,701	630,476	1,104,898

Source: Gartner (April 2011)

- **iOS** and **Android** are estimated as achieving 70% of the market share as at end-2011
- Gartner forecasts **Windows Mobile** to grow steadily, once handsets appear on the market, to a 20% market share by 2015, where iOS, Android and Windows are estimated at over the 75% mark
- **RIM** undergoing a steady decline, possibly accelerated by poor service performance issues in late-2011
- Emergence of **new standards** (HTML 5.0, WAC, ...) over 2011-2013



Towards “mobile Life” ...

From...

1

Mobile Banking

Access to home banking through mobile channel (e.g. account balance, transfer, trading)

2

Mobile Payment

Pay for product and services, transfer money directly from customer mobile phone (e.g. parking, ticketing, shopping)



... to

3

Mobile Life

Progressive fulfillment of daily customer needs through their mobile phone

Financial and Insurance services

Services to access property information and prices, demographic data and mortgage conditions (with potential “augment reality” logics)



Apps to acquire real time information about customer drive behavior in order to update related insurance quotes

Health Care services

Mobile devices for real time communication of clinical patient values to health care centre in order to activate examination or emergency transport



Communication



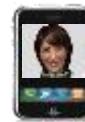
Access through mobile phone to social network sites to share geo-referred information for locations and events

Geo-referred Marketing



Customer Care

Personalized customer care accessible via mobile phones



Apps for interest points search



Mobility in Financial Services is an opportunity for both the customers and the workforce



Connecting with my bank anytime
and everywhere



Clients



Mobile applications: wealth management, claims, location-based services, ATM & Branch locator, OTA payments, P2P payments, contactless payments, etc.

Being mobile and efficient in all situations



Digital Pen & Paper



iPad



Smart phones, 3G, etc.



Tablet PC



Risk experts, mobile sales force, IFA, etc.

Mobility in 2012 – Recap of The Year That Was (1/2)...



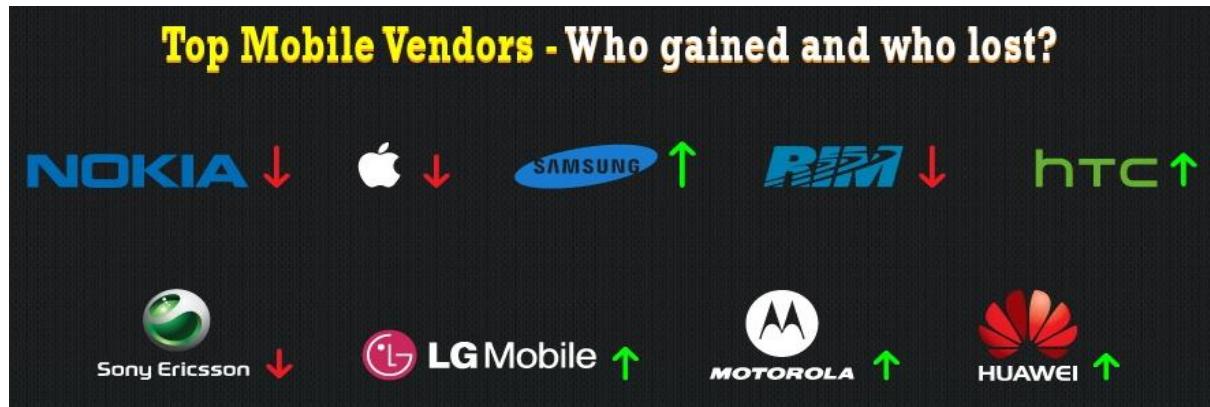
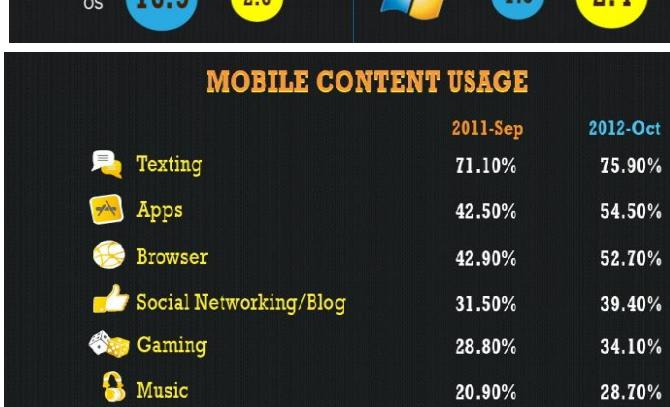
The below infographic illustrates key developments which happened during 2012 in the Mobility space.





Mobility in 2012 – Recap of The Year That Was (2/2)...

The mobile phone market was in turmoil. Market share numbers over the past year have changed massively with some household names now struggling for survival, whilst other new entrants struggle to keep pace with sales.



Mobile Applications for the workforce



A wide range of Mobile Devices

- Mobile devices are changing rapidly making it difficult to select a single device for a long-term solution.
- Application requirements define platform and device types.
- Requirements, supporting the business case, will drive built in vs. external peripherals for connectivity and data capture
- Device limitations must be known, tested and addressed (battery power constraints can be solved with charging hardware in the vehicles).
- Additional elements to take into account: security, quality of service, wireless networks, bandwidth, etc.

App distribution: Enterprise Apps



Apple has provided new tools for enterprises with the release of iOS 4: **Wireless app distribution without the AppStore** and Mobile Device Management (MDM). As result of these new features, **enterprises can continue to use the consumer App Store for consumer-facing apps**, but **they also can use their own Enterprise App Catalog** for internal employee-facing apps.



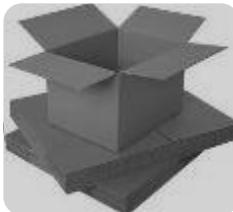
Enterprise

*Consumer
Applications*

*Employee
Applications*



Apple
App Store



Enterprise
App Catalogue



Users devices



Augmented View: Galaxy Tab Augmented Service App.

Augmented Service is an Android application developed for the Samsung Galaxy Tab that shows you how to use a tablet device to consume in a new way the information on the go by leveraging the Augmented Reality capabilities. It's possible to recognize a product for which an augmented service is available and provide the user with proper instructions.





Augmented View: Galaxy Tab Augmented Place App.

Augmented Place is another Android application developed for the Samsung Galaxy Tab. With Augmented Place is possible to recognize a place with the camera and the sensors in order to get more information on the offered services.



Point the camera on the place to recognize and take the picture with a click.



The place will be recognized and will highlight the identified zones.



Now the user can display the Retail banking products of the branch or can Access the content on social networks or make status updates or check-ins .



Where the mobile growth opportunities lie...

Where high-speed wireless broadband goes, smartphones and tablets will follow



- The graphic above - showing which emerging markets are expected to grow the fastest -- is taken from Qualcomm's Nov. 15 Analysts

Case #1 “m-PESA” by Safaricom



“Send money to your loved ones”



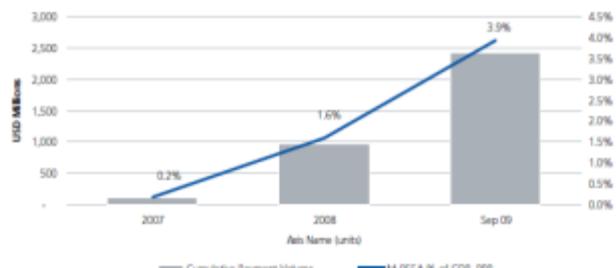
Safaricom



Mobile Banking services



m-PESA demonstrates the potential of Mobile Payments in developing markets



Source: Safaricom, World Bank, CIA World Fact Book

Highlights

- **Kenya is the first country** in the world to use the M-PESA service in partnership with Safaricom-Vodafone
- **Services:** with the M-PESA application installed on SIM card customer can access to:
 - Deposit cash to your account
 - Send (transfer) money
 - Withdraw money (agents and ATMs)
 - Pay Bills
 - Manage your M-PESA Account
 - Insurance premiums payment
- **Market:** all Safaricom subscribers (8 M people), even unbanked, can use this service through a FREE registration. The **cumulative value of money transferred** from person to person (P2P) by September 09 **the 4% of Kenya GDP**
- **B2X Payments** (e.g. salary disbursements, social benefits distribution)

Case #2 Bankinter



“Mobile money transfer easy like sending an SMS”



Bankinter

bankinter.

Mobile Banking services

Mobile banking screens



Hal-Cash geo extension



Highlights

- **Hal-Cash** is a service offered by **Bankinter** to send **money instantaneously** (no charges, no CA needed by the receiver) from mobile phone, telephone-banking, and internet, **to the mobile phone** of anyone you want
- The **cash withdrawal** can be made from **any of the ATM's** of the 12 banks associated to HAL, in any place in Spain, Ecuador or Morocco (extension planned also in USA and Poland)
- **Steps to carry out** a transaction with Hal-Cash by mobile-banking are:
 - The sender applies through his mobile banking: beneficiary's mobile number, amount to send, secret code
 - An SMS is sent to the beneficiary with the amount sent and code to enter in the ATM
 - The beneficiary carries out the transaction in an ATM by typing his mobile number and the secret code

Source: Company website

Case #3

Akbank



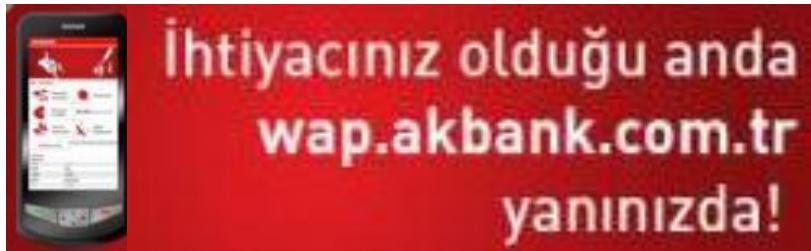
“A world of financial services on your mobile phone”



AKbank

AKBANK

Mobile Banking services



*Standard
service.*



Mobile Loan.



SMS Loan.

Highlights

- Akbank transforms the **mobile phone** into the **access point** for a whole set of **financial services**
- **Traditional services:** Cell Agent (SMS alerts to notify transactions), Cell Wallet (to transfer money from your account and withdraw from closest ATM), Cell Accounts (to get info about the account balance), Cell Phone Line (to access the call center without entering user ID)
- **Innovative services:**
 - “**MobileLoan**”: via a phone call, you can apply for a loan (Car loans, mortgages, personal loans), giving only 10 pieces of information, with a financing decision in 2 minutes
 - “**SmsLoan**”: you can request a personal loan by sending an SMS

Case #4

Isbank



“Innovative mobile banking services”



Isbank



Mobile Banking services

Interactive Video and
Voice Response



Location based
service



Cardless cash
withdrawal



Highlights

- Isbank offer to its customers both **banking site** optimized for **mobile** and **application** to be download and installed
- Innovative **mobile banking** services:
 - **Interactive Video and Voice Response:** Isbank enables customers to connect video call center agent for complex transactions
 - **Location Based Service:** information about the nearest Isbank ATM & Branch to the customer
 - **Mobile Security:** mobile signature and mobile token (e.g. cardless cash withdrawal in ATMs, internet banking)

Case #5 Garanti



“NFC-enabled SIM cards”



Garanti



Mobile Payment



“We aim to quickly equip 100,000 customers”

Yalin Ozcan, product Manager, Garanti Bank.

Source: Company website

Highlights

- Turkey's Garanti Bank is partnering with local **MNO Avea (11.8 million subscribers by the end of 2009)** to launch in next July **mobile contactless payment and ticketing services**
- The services will be launched in main cities in Turkey where contactless infrastructure already exists (**around 80 cities**) thank to specific NFC-enabled SIM cards that can be used within all kind of mobile phones (iPhone excluded)
- The plan is to issue 100,000 customers with an NFC SIM and antenna solution that will allow them to make payments with their mobile phones at more than 15,000 retailers in Turkey this year
- This solution **avoids the need to be equipped with NFC handsets**. All the devices are designed, developed and supplied by **Gemalto**. The application developed by MasterCard (Paypass) and Garanti Bank is stored on the SIM card

Case #6

Jibun Bank



“A joint venture between telco and bank creating a Mobile Bank”



Jibun Bank

じぶん銀行

Mobile Banking services



Screen Images of Jibun Bank



[Top Menu]



[Account Details]



[Monthly Results]



[Balance Trends]

“Mobile phone penetration levels in the bank’s active customer base are near 100 percent”

Takeo Tohara, president and CEO

Highlights

- Jibun Bank Corporation has **established as a Mobile Bank** through a joint venture between KDDI (Telco) and the Bank of Tokyo- Mitsubishi UFJ, Ltd.
- **Mission:** become customers’ most familiar bank, by providing high-quality financial and payment services and **operating only on the mobile channel**
- **Unique Jibun Bank products:**
 - Quick account opening
 - Jibun Bank Passbook
 - Mobile phone number bank transfers
 - Jibun Bank payment service
 - Charging electronic money
 - E-mail notification service
 - Jibun Bank loans

Case #7

Sumitomo Mitsui Financial Group



“Over 10 million mobile wallet subscribers”

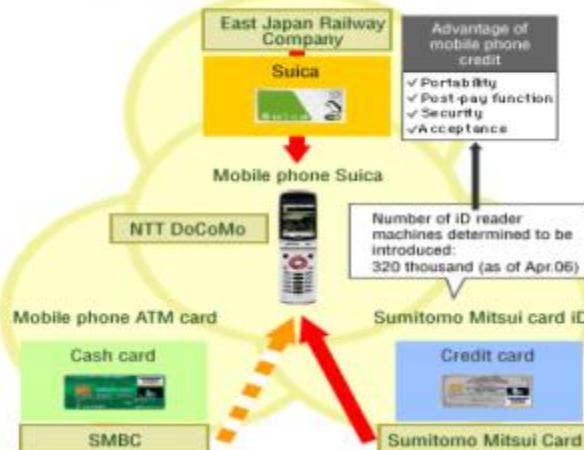


Sumitomo Mitsui Fin. (US)



Mobile Banking services

- Installing various functions into mobile phone



Highlights

- The key element in DOCOMO Osaifu-Ketai or mobile wallet is a wireless smart card chip, which was developed by Sony and Philips**
- Performance:** after 36 months to start-up, approx 10 million mobile wallet subscribers (2009)
- Services:** money withdrawal and credit card payments
- Diffusion:** as of July 31, 2009, there were approx 420,000 iD readers/writers nationwide; iD is used for shopping at convenience stores, electronics retailers, and for paying fast food restaurants and taxis
- Security:** each phone is authenticated and verified before a payment is authorized

Case #8

Commonwealth Bank



“Home Financing iPhone application”



Commonwealth Bank



Mobile Life



“The application is a significant milestone in our 2013 vision of banking, bringing virtual reality property search to customers right here, right now”

Mark Murray, General Manager Consumer Marketing

Highlights

- Building on **Commonwealth Bank's vision of banking in 2013** the Group is announcing its next **digital innovation** with the release of its **iPhone augmented reality application** for anyone **buying or selling a home**, or simply **looking to keep on top of the property market**
- The core functionality of the application utilizes '**augmented reality**' where rich data including **past sales history, current property listings** and **recent sales**, is mapped on to a real world view through the iPhone's camera.
- Users can also switch to a list or bird's eye view to pull in insights on properties matching their search criteria

Source: Company website

Case #9 Nationwide



“Accident toolkit for iPhone”

Value proposition

Provide a prompt and ready-to-use customized assistance

- **Nationwide**, one of the US largest insurance and financial services companies (\$157 billion in assets), offers a free **Accident Toolkit for iPhone** aimed at guiding its customers after a car accident
- The application can help users by providing **useful phone numbers or information and directly connecting them with the services** they need (e.g. call emergency service, connect with a towing service, locate Nationwide agents nearby, help start the Nationwide claims process)
- The toolkit also makes use of the iPhone features in order to allow users to **take and store accident photos**, to **store their insurance and vehicle information** and to **use the phone as an handy flashlight**

A promotional graphic for the Nationwide Mobile App for iPhone. It features the Nationwide logo at the top left. Below it is a blue banner with the text "Introducing the Nationwide® Mobile App for iPhone". To the right of the banner are two images of an iPhone displaying the app's interface. One screen shows a camera view of a car accident scene, and the other shows a list of options like "Record accident info", "Take pictures of accident", "Call for a tow truck", and "Start a Nationwide auto claim". A hand is shown interacting with the phone's screen. The overall design is clean and modern.

... simplifies procedures and minimizes problems for its customers after a car accident

Date: September 2009

Target: current and prospect customers

Case #10

USAA



“Mobile check deposit”

Value proposition

*Deposit check through mobile phone
by taking a picture of both check sides*

- **USAA**, US Fortune 500 financial services company for US military people and families, introduced “**Deposit@Mobile**” a new **check deposit** feature **via iPhone** and **Google Android** application
- Customers can **take pictures of both sides** of their **checks** (using iPhone/Android cameras) and **send the images** as **attachments** to USAA for approval as deposit
- With this app, the check approval **pending time** is strongly **reduced** as USAA is able to **deposit check amount instantly**
- The app can also **indicate** where to find the nearest **ATM** if customers want to **deposit checks** in the “**old-fashioned way**”



USAA Deposit@Mobile

Deposit checks no matter where you are

- Use your iPhone™ or Android™ phone to deposit checks from wherever you are
- It's free, secure and as easy as snapping a picture
- Your deposit will be credited to your account instantly¹



*... reduced checks deposit pending times
through innovative app for iPhone and Android*

Date: August 2009

Target: mobile banking users

Case #11 PosteMobile



“PosteMobile”



Poste Mobile

The advertisement features the Poste Italiane logo in yellow at the top left. Below it, the text "Mobile Banking services" is centered. The main title "Poste mobile" is displayed prominently in blue. To the left, there are icons for various services: a telephone for Telepark, a document for Bollettino, a yellow envelope for Telegramma, a banknote for Bonifico, a SIM card for Ricarica, and a bank card for Conto Corrente. To the right, a large call-to-action text reads: "Associa la tua SIM PosteMobile al Conto BancoPosta o alla Postepay e scopri gli innovativi Servizi Semplifica!" Below this text is a yellow button labeled "Guarda la demo".

Highlights

- **Performance:** after 15 months to start-up, active **1.200.000 Mobile Banking users** (September 2009)
- **MVNO:** Poste Mobile represents the first MVNO initiative created by an Italian Financial Institution
- **Banking services:** online banking users can check the account balance, pay bills, transfer funds, send telegram, recharge prepaid card, Money Transfer P2P
- **Payments Services:** m-Commerce, Telepark, Ticketing, Betting, International Remittance, Proximity Payment, Payments towards Public Administration (e.g. fines, post slips)
- **Security:** Poste Mobile has developed pioneering service designing a specific SIM that allows to execute financial service with full security

Advancements in mobile technology continue to drive banking innovations enabling an enhanced customer experience online



Device Evolution



Feature Phone



Smart Phone



3G Phone



Tablets

2004

SMS & Mobile browsing

- Easy-to-use SMS for simple banking queries and alerts
- Mobile banking and investment services
- Single channel
- Technology driven

2006

Smart Client

- On-line and off-line use of banking and investment services
- Local storage of personal and bank information
- Richer graphic capabilities for brand differentiation
- Digital signature on each transaction

2008

Mobile channel integration

- Seamless services supporting all mobile device interfaces
- Mobile messaging and browsing combined with local applications
- Trusted secure environment
- Integration of productivity tools and enterprise applications

2010

Multi-modal services

- Flexible user experience based on user preferences for device, location, connection and time
- Proximity services
- Highly standardized mobile platforms with enhanced sales capability
- Limited payment ecosystem

2012+

“Mobile Life”

- Converged and fully integrated application suites
- Support for remote and NFC services such as full service Mobile Banking, e-Wallet, ...
- New business models for a rising complex ecosystem to satisfy all mobility customer needs

Application Features

1st Generation

2nd Generation

3rd Generation

4-5th Generation

Mobility: “Information on demand”

Mobility: “a community, a lifestyle, convenience, on demand”

NFC is likely to act as a paradigm shifter and enabling disruptive behavior from established non-banking players



Potentially Disruptive Retail NFC Value Chains



- PayPal as issuer, network, and acquirer
- Extends online merchant payments to offline retail payments, through prepaid reloadable card in selected markets
- Launch in October 2011 of X.Commerce (open ecosystem) – together with announcement that by end 2011 eBay mobile app to transact **over USD 5 B**



- Announced partnership with MasterCard and Citigroup, with Google planning to generate Ad revenues in physical world
- Traditional Value Chain applies, although **no fee** charged to merchants
- Google subsidizes POS signature pad upgrades for retailers
- Retailers run all advertising through Google Ad Network



- Apple as issuer, network, and acquirer or in partnership with merchants
- Extends online payments to offline retail payments
- Belief that next generation iPhone will have NFC capabilities, matched to iTunes enabled to operate as a mobile-wallet (patents appear to have been filed for both)



- Founded in 2004 with over 500 M active users, allows for products, advertising and games to be available through the site
- Understood to be entering ID provision/certification services play, and strengthening social commerce capabilities;



- Open marketplace – offering products (Amazon/other merchants), and recently launched Kindle Fire
- Offers value-added services to merchants (fulfillment) and others (cloud services)
- All transactions conducted using Amazon's e-wallet
- Strong insight/analytics capabilities matched with ecosystem-driven feedback (i.e. merchant ratings)

Google, MasterCard & Citi are marking out territory in the NFC ecosystem. Amex and Visa just joined



Disruptive NFC players – Google

- Google, MasterCard and Citi teaming up to go head-to-head with the ISIS joint venture, in the NFC ecosystem
- This would allow Google to offer retailers more data about their customers and help them target ads and discount offers to mobile-device users near their stores
- Google Wallet passes payment information over existing payment protocols (incl. MasterCard PayPass & Visa PayWave)
- Non-payment information including coupons, gift cards & loyalty information are passed over MIFARE
- The Nexus S smartphone – which Google developed with Samsung, launched end 2010 – is already enabled for NFC transactions
- Google teamed up with Amex and Visa for the Google Wallet



"Google sees mobile, especially NFC, as something to bridge the online and offline worlds so that they can extend the advertising platform to the physical world" (Sandy Shen, Gartner)

Mobile Banking: convergence between contactless payments, mobile payments and mobile banking



Contactless



- Barclays contactless debit: 1m Mar 2009, 3m Dec 2009, 16m 2012
- Barclays One Touch: 8,000 outlets Mar 09, ~ 300k by 2012
- Oyster (London Transport): 18m cards issued, 6m used daily
- Paypass (MasterCard): 50m issued as of Dec 08

Mobile Banking

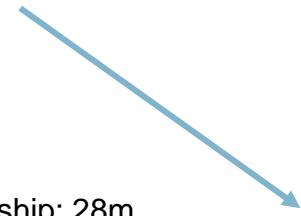


Mobile NFC



- Barclays/Orange partnership: 28m combined customer base
- Payez Mobile – France
- NTT DoCoMo - Japan

Mobile Remote Payments



Mobile FS Mass adoption



- Monetize: Africa, India, UK, USA
- Poste Mobile: 700K users within 6 months
- Safaricom: Mpesa in Kenya

Mobile Banking and Mobile Payments: NFC overview



- Created by Philips, Sony and Nokia in 2002. Standardized in 2008
- Combines an RFID **reader** and a **multi-application smartcard** into 1 **commonly used device** operating at short-range. Compliant with Philips MiFare (ISO 14443A) and Sony FeliCa standard
- Allows for both:
 - **contactless transactions** and **proximity services** (via fixed infrastructure)
 - **Over-The-Air transactions** (via Mobile Network)
- Adds a **user interface** (keyboard and screen) to each smartcard application
- **Compatible with already deployed contactless infrastructures** (payment / transport etc.)
- Challenges in finding the right ecosystem: banks, telcos, manufacturers, retailers, transport companies,...



Evolution of Contactless Payment Options



Contactless
Cards

Go Tag

TwinLinx

NFC

Mobile devices becoming the interface to the world: m is the new e



Mobile Banking and Mobile Payments: NFC use cases



Get information by touching smart posters



Set up your wireless home office with a touch



Get on the bus by waving your NFC phone



NFC Consumer Device



Use your NFC phone as an event ticket



Print from your camera by holding it close to the printer



Share business cards with a touch



Pay for goods with a tap of your NFC phone

Mobility for workforce: 3G video-enabled call center



- A car repairer needs to evaluate car damages with assistance from an expert
- Car repairer calls an expert with his 3G mobile phone to get help and remote expertise using video streaming between the phone and the expert's application
- The expert, from a remote location can guide the car repairer to move around the car to evaluate damages thanks to the video feedback



Mobility for workforce: mobile and remote collaboration scenario



- A mobile agent is trying to sell and explain a complex insurance product to a client (life)
- The agent ‘calls’ an expert over video-conference (3G) to explain the product and answer questions from the client
- The expert can take control of the agent’s TabletPC (or Laptop) to run simulations, push documentations, etc. (collaborative browsing)

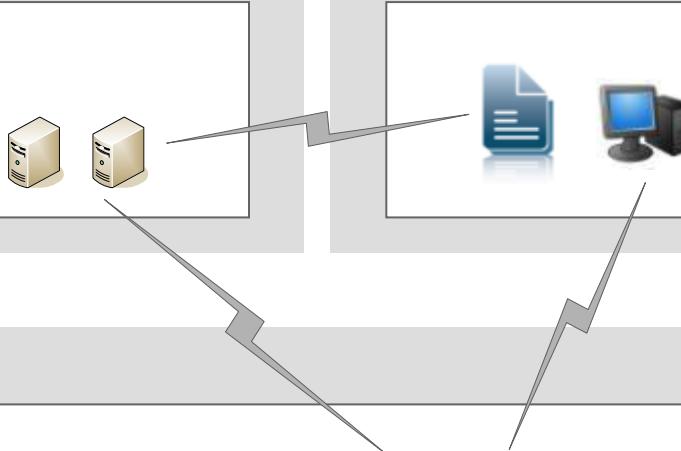


The screenshots illustrate the 'collaborative browsing' feature. The top screenshot shows a video conference between an agent and a client, with the client's video feed displayed on the screen. The bottom screenshot shows a detailed insurance policy form, likely being reviewed or edited by both parties simultaneously.

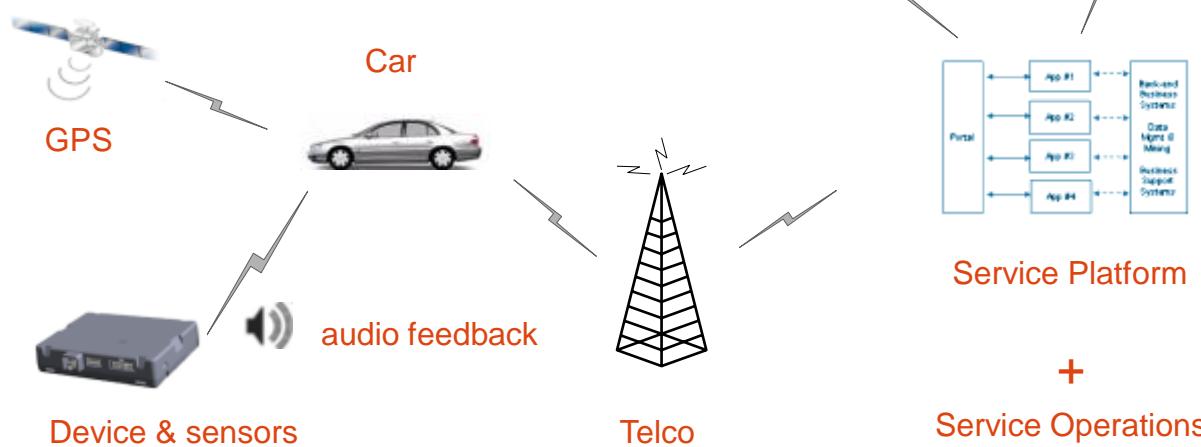
Mobile Applications and Telematics: Onboard data capture and risk analysis coupled with location-based services



Insurance can outsource service development and operations



Customer receives detailed invoice and can check info via portal



>
accenture

Accenture runs the "CUBISM" system as a **service provider** offering an end-to-end solution to insurances ("Solution as a Service")

Mobile Applications and Telematics: Context-sensitive real-time driver coaching and value-added services



Real-time driver coaching



Value added services



Acoustical notifications



Accident zones

Speed violations

Traffic zones



Vehicle theft tracking



Emergency services



Collision response



Off board navigation



Driver log book



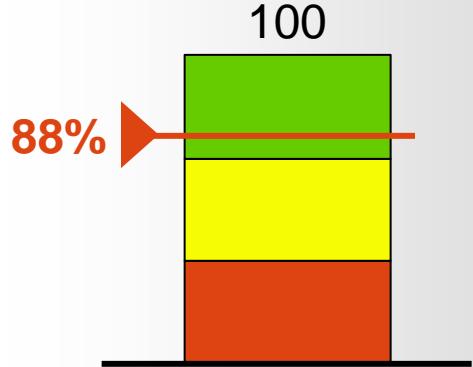
Hands free calling

Mobile Applications and Telematics: Onboard monitoring and analysis of the driving behavior while protecting privacy



Analysis of driver's behavior using only pre-aggregated data protecting privacy.

Measurement of aggregated speed violations:



„Soft“ Facts



11% City
8% Interstate
4% Highway

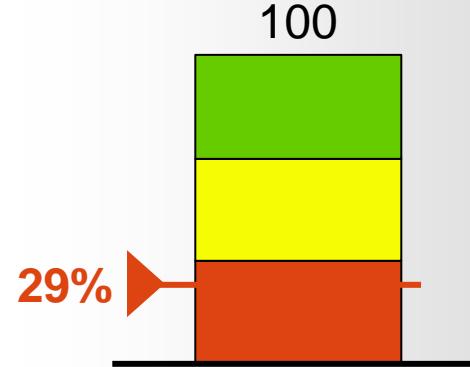
„Hard“ Facts

130 12.11.08 14:14 Uhr,
+46km/h (Lat/Long)
50 08.02.08 14:19 Uhr,
+32km/h (Lat/Long)

Accumulated marginal speed violations

Significant speed violations

Measurement of ecological driving behavior:



„Soft“ Facts



31.03.08 22:14 Uhr,
+12,6 m/s²



13.07.08 09:23 Uhr,
+14,7 m/s²



26.10.08 13:17 Uhr,
Stuttgart

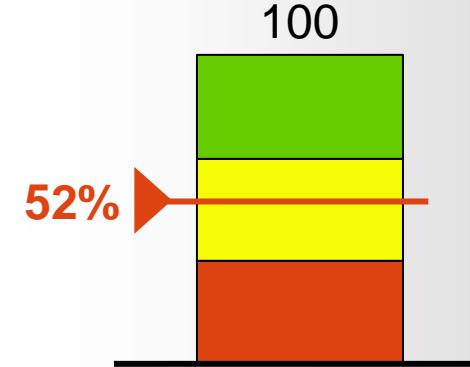


28.10.08 05:04 Uhr,
Mannheim

Driving acceleration behavior

Driving into eco zones

Measurement of driving time and street category:



„Soft“ Facts



01.03.08 21:34 Uhr,
Ice



14.02.08 20:12 Uhr,
Interstate



12.05.08 22:14 Uhr,
Night drive



21.10.08 02:14 Uhr,
Highway

Driving at daytime and season

Driving at street categories

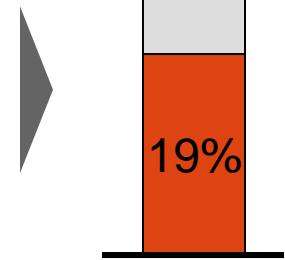
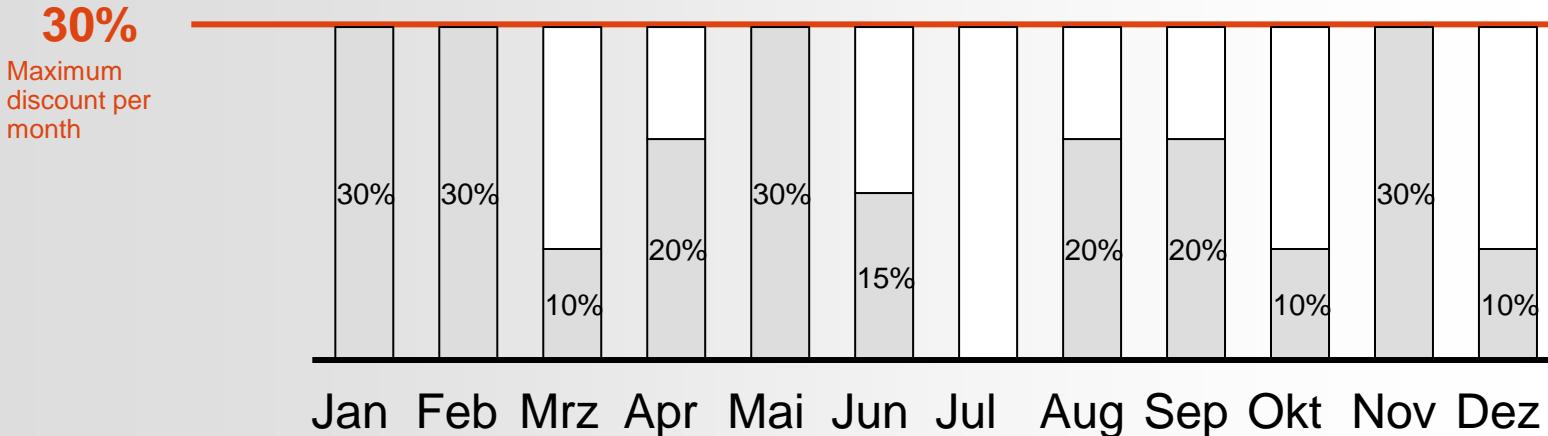
Mobile Applications and Telematics: Onboard monitoring and analysis of the driving behavior while protecting privacy



Award for safe and ecological driving

Index

ILLUSTRATIVE



Total

Year
225 €* premium
discount per year

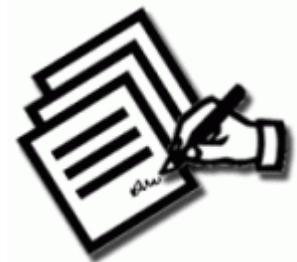
1 „Speed-Index“



2 „Green-Index“



3 „Risk-Index“



Mobile Applications and Telematics: Onboard monitoring and analysis of the driving behavior while protecting privacy



 **GPS monitoring (external antenna)**



Acoustical real-time coaching (buzzer)



Speed violations recognition (map based)



Onboard data encryption



GSM/GPRS data transmission to backend



Index based data analysis (speed, eco, risk)

Benefits for driver

- pays less fees due to premium discount (up to 30% on average)
- drives safer and reduces personal accident risk
- improves driving style and is able to monitor ecological impact
- benefits from value added services (e.g. emergency call, breakdown call, etc.)

Benefits for insurance

- improves the risk pool by attracting “good risks” only
- gains insight in drivers’ driving patterns resulting in better risk calculation and management
- reduces average damage ratio (up to 30%)
- differentiates in the market with different target groups (teenagers, business, etc.)
- attracts new customers from competition



 Target
Mobile users

 Trend
Ubiquity

 Innovation Typology
Process

 Sweden

Main Purpose

- Swedish start up **iZettle** introduced a more secure solution to enable **p2p payments and b2c commerce through mobile devices**

Description

- **iZettle creates services for person-to-person and business-to-consumer commerce**
- Main services are a free iPhone app for payments and a mini chip card reader that lets anyone take card payments
- **iZettle card reader is a “chip and signature” device that is more secure than its main competitor “Square”**
- **iZettle chip-card reader and app are free and the company only charges per transaction €0.15 + 2.75%** (price varies among countries)
- **24/7 users will have a temporary unlocking code** to remove their bikes from docks and **annual members will get physical keys**
- **iZettle for iPad lets users create their own product library** making multiple product processing even faster and easier
- The service is now available also for **Android** devices and in all the **Nordic** countries and **UK**





 Target
Smartphone users

 Trend
Ubiquity

 Innovation Typology
Channel

 England

Main Purpose

- **Barclays**, in February 2012, launched **Pingit**, a new service that allows customers to send and receive money by using a mobile number

Description

- In order to use **Pingit**, customers have to **download the app** and then **register their Barclays current account and UK mobile number**
- When customers register to **Pingit**, **Barclays directly links the account details to the UK mobile number**, so that other users can send them money by simply using their mobile number
- Then, in order to make a payment using the app, customers have to: **choose who they want to pay** from the phone's contacts or type in their number, **select how much they want to send** and **confirm the payment**; then the receiver will get a text message telling him how to access money (with no charge for the sms)
- At the moment, **non-Barclays customers can only receive payments** but Barclays claims that soon they will be able to send money too
- The **Barclays Pingit app** is downloadable for **free** and available for **iPhone, Android and BlackBerry**





 Target Merchants

 Trend Ubiquity

 Innovation Typology Channel

 United States

Main Purpose

- Palo Alto-based company **Shopkick**, recently launched an **app** aimed at allowing merchants to **stimulate in-store traffic**

Description

- Shopkick** gives consumers **rewards and offers** (known as "kicks") for **walking into stores, checking in and scanning products**
- Rewards include **gift cards, vouchers, movie tickets and products**
- The app **incentivizes users to walk into stores**, therefore increasing in store-traffic
- Unlike apps like Foursquare, **Shopkick tells retailers when users are inside**, not just near a store
- Users also have the **option to donate "kickbucks" to charity**
- In order to boost its usage, the company, together with partner merchants, organized the **Black Friday 2** events to **transform ordinary days** into big shopping days for walk-ins, **distributing higher rewards**

First Results and Planned Developments

- The app has been used by **3 million active users**, with over 5 million walk-ins and 12 million product scans in 2011
- During **Black Friday 2** merchants registered **+7% in walk-ins** if compared to the real Black Friday day



HIGHLY
INNOVATIVE



 Target
Apple users

 Trend
Ubiquity

 Innovation Typology
Channel

 United
States

Main Purpose

- **Apple** unveiled the new **Passbook app**, an innovative application that really looks like a mobile wallet

Description

- **Passbook**, launched along with iOS 6, is available for **iPhone** and **iPad**
- Passbook's features include the ability to **store card information, airline boarding passes, coupons or concert tickets** replacing their plastic counterparts and providing an Apple-approved way **to get consumers paying at checkout with their mobile phones**
- Moreover, Passbook uses **geo-location technology to display targeted offers** to the user in a much more integrated way than other existing applications
- An example of this feature the company gave is a Passbook user going to a **Starbucks** and opening the app, where the user would then see the **Starbucks membership card** to scan





 Target
Mobile users

 Trend
Ubiquity

 Innovation Typology
Product

 United
States

Main Purpose

- Lemon introduced **Smarter Wallet**, a pocket-sized multifunctional service helping users to **track spending, save money** and stay more secure

Description

- The **Smarter Wallet** allows users to turn the iPhone into a digital back-up of their wallet, **organizing** and storing **cards, receipts, coupons** to be accessed in a more convenient way
- Users simply have to **scan their cards** through the app, and **create a secure four-digit PIN**, then they can see their cards whenever they want in an aggregate view
- The app also allows customers to **keep track of their spending**, recording the amount spent simply snapping a photo of the receipts via the iPhone
- With a simple touch, the app provides a **credit or debit card balance** or quick access to **spending reports** showing where every dollar was spent each month
- The **Smarter Wallet** is so a **money manager**, showing exactly how much money someone has, how much he spends and showing tips on **how to spend in a smarter way**





Target
Mobile users

Trend
Ubiquity

Innovation Typology
Process

South
Africa

Main Purpose

- **FNB**, the leading FS player in South Africa, has added a new **geo payment feature** to its app, set for iOS, Android and BlackBerry devices, to **facilitate sending and receiving money**

Description

- The new app allows FNB individual customers to **make payments to anyone** (also non FNB customers) **nearby** with a compatible mobile device
- The **user making the payment is asked to enter his online banking password to confirm payment** and does not need to share banking info (authentication through app interface)
- If the receiver is a FNB customer, he simply has to **accept the payment via the app** linked to his current account and the money is **automatically transferred** on the account
- If the receiver isn't a FNB customer, he needs to download the app for free, enter his phone number and an e-wallet will be automatically created; the received payment will be stored within the e-wallet for 30 days
- Non customers can easily **withdraw the money from any FNB ATM** with a cardless transaction, simply calling a dedicated phone number and following basic instructions

First Results and Planned Developments

- The app has **160,000 active users** with a goal of 330,000 users by the end of 2012
- FNB plans to **extend the solution to Small Business accounts**

