

A woman with blonde hair, wearing a white lab coat, is shown in profile, looking down at a silver smartphone she is holding in her hands. She is standing on a train platform. In the background, a high-speed train is blurred as it passes. The platform has a curved, arched glass and steel roof structure. The lighting is bright, suggesting an indoor or well-lit outdoor station.

# Mobile Banking Case Studies

October, 2010

# Understanding the economics of mobile banking through a series of case studies



Background, purpose, methodology

Ten case studies of implementations of mobile banking were researched, with a particular focus – where possible – on the economics of these implementations, enabling a better understanding of the potential for gain, the business case, and the attributes of successful implementations.

The case studies were developed by TowerGroup using a data request followed by an in-depth telephone interview with the appropriate bank executive; finally, banks were asked to validate all information in the case study and provide their approval for release. The period of interviews were from July to September 2010.

Banks and executives agreed to participate on condition of the case studies being blinded.

# Key observations from the study

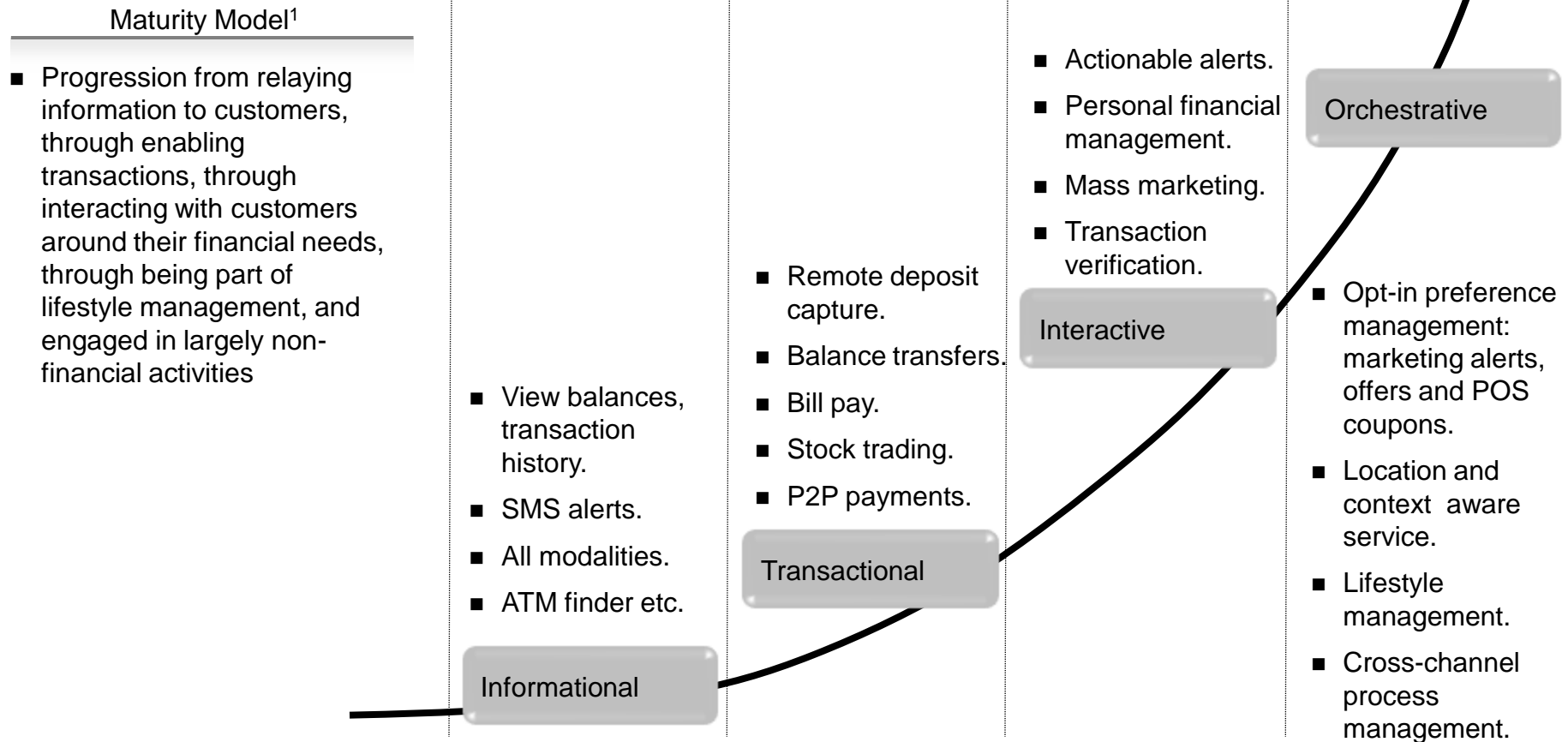


- 1. Mobile banking investments have very high ROIs – into the multiple hundreds of percent – when largely successful (by way of customer impact, cost, adoption.) There is a fall-off in the performance of less-successful implementations, which potentially have negative ROIs when adoption is very low.**
- 2. Measurement matters – the most advanced banks in mobile generally had the best sense of mobile’s effect on customer behavior:**
  - Measuring outcomes is the key to the development of impactful future initiatives;
  - Channel economics are important, but understanding the economic impact on the entire customer relationship is critical;
  - Measurement enables stakeholdering, which avoids the risk of mobile being seen as cost-only or generating pressure to generate revenues from mobile banking fees (which ultimately stifle usage.)
- 3. Minimizing fees drive greater engagement from customers, which will be critical for future opportunity capture:**
  - Cross-selling of both financial and non-financial products;
  - Reaching the underbanked, the next generation of mobile users, who otherwise may not ever become bank customers;
  - Orchestrative lifestyle management – preferences, content, information.
- 4. Banks can be successful being technologically strong, or functionally strong – but the pacesetters are both. Leaders continually monitor and leverage handset functionality evolution.**
- 5. The mobile channel is still early in its maturity, but must be recognized as an integral delivery channel, with dedicated, passionate support structure.**
- 6. Staff engagement widely cited as critical, and a far better investment than in external marketing.**

# We used the four-step mobile banking maturity model<sup>1</sup>



## Mobile banking sophistication (illustrative)



# The ten case studies



1. A Middle East/Africa Region pacesetter bank, penetrating deep into orchestrative functionality with value-added services.
2. A Middle-East/Africa Region bank approaches mobile as “the right technology at the right time with a customer centric approach.”
3. A major Western bank with high mobile adoption only after 2.5 years of offering mobile services
4. A European bank with a focus on technology innovation becomes a mobile banking pacesetter.
5. A recent Middle East mobile banking entrant rapidly moving towards becoming a future “pacesetter” through a focus on registration and evolving functionality.
6. A South Asia bank with an extensive history of mobile banking accelerates customer acquisition, and moves into orchestrative functionality.
7. A European bank focuses on meeting the needs of a demanding customer base through excellence in delivery of mobile banking services.
8. A recent Pacific Rim mobile banking entrant up-shifting from its initial mobile entry into a significant expansion of capability.
9. A Western bank with no mobile functionality undertakes a low-investment introduction of new capability.
10. A Western bank with no mobile functionality undertakes a conservative introduction of new capability – and measures the effects.

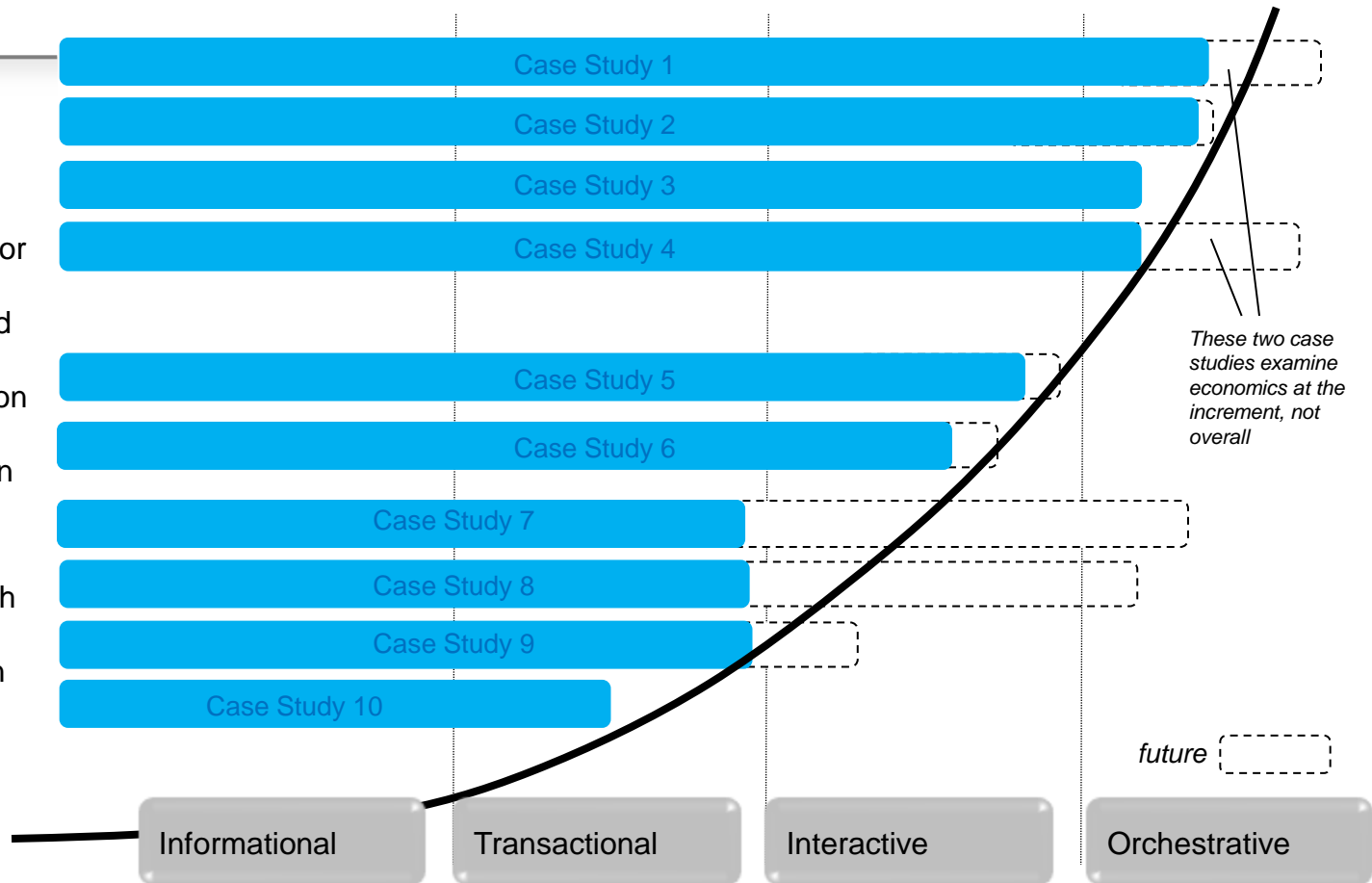
# The ten implementations were reviewed relative to this maturity model



## Extent of the case study implementations

### About The Case Studies

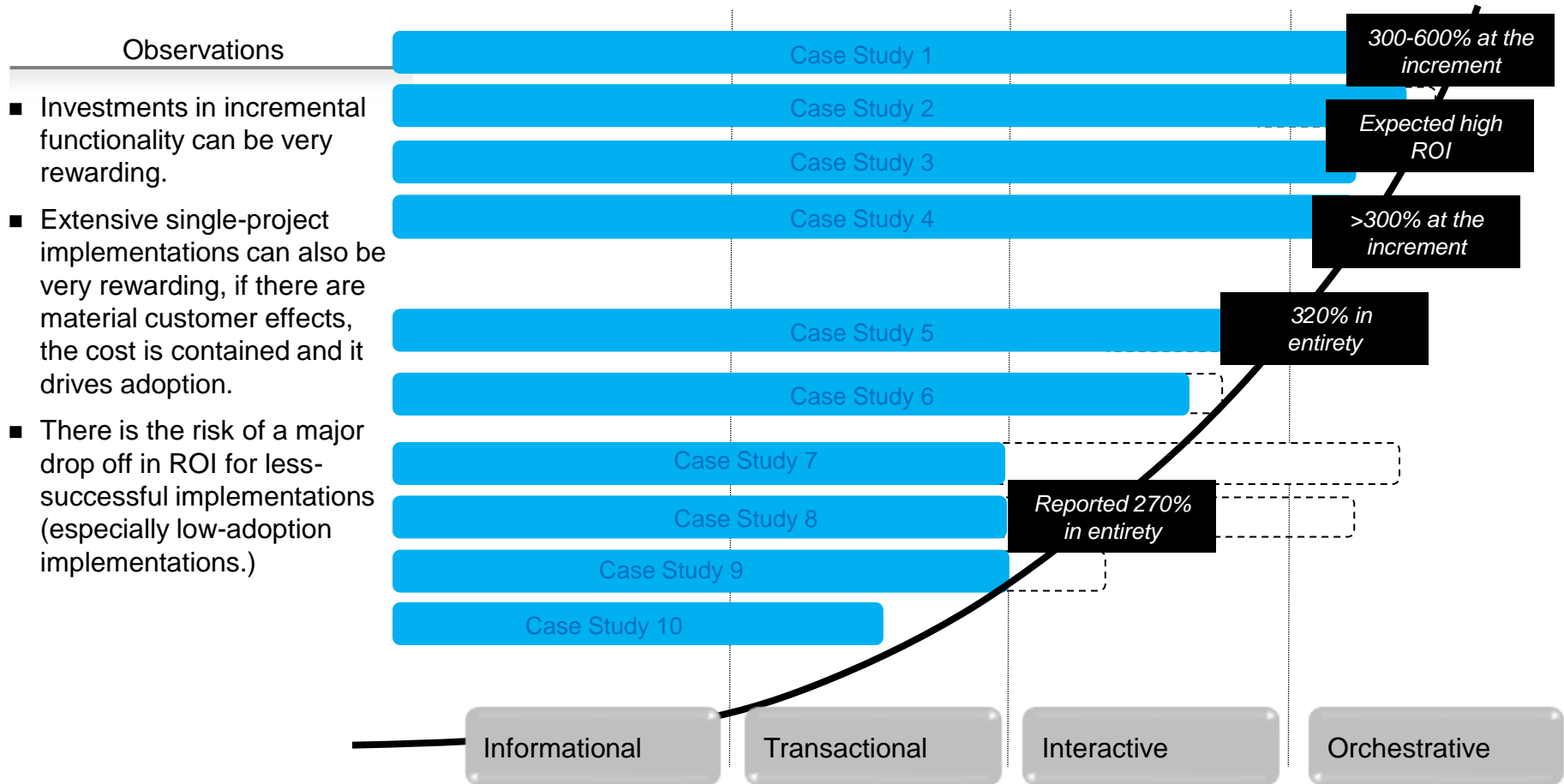
- The case studies bifurcate between single-step implementations which generally reflect mobile banking services in place for 1-5 years) and two case studies (case studies 1 and 3) that reflect incremental functionality development on top of an existing infrastructure that has been in place for 8-10 years.
- We also examined future plans of these banks, which often reflect material increases in functionality in the near future.



# We examined ROI vs. the extent of the implementation



## ROI vs. extent of implementation



# We explored the case study ROIs and the main drivers of mobile banking ROI



Case	Key Driver Performance (acquisition, attrition, usage, channel migration, new revenue)	Implementation Cost <sup>1</sup>	Adoption Across Customer Base <sup>2</sup>	ROI <sup>3</sup>
1	<b>Pacesetter</b> implementation of mobile banking (at the level of each new, incremental function added.) TowerGroup estimates core mobile banking ROI at around 66%.	<b>Low</b> – due to sunk costs (sunk cost removed from ROI.)	<b>High</b> – 54% secure SMS and 19% non-SMS mobile banking.	<b>High</b> – 300% to 600% depending on functionality.
2	<b>High</b> – not disclosed, but observed channel migration cost savings, reduced fraud increased retention, some new revenue streams.	Not disclosed (but likely medium/high based on team size.)	<b>Very High</b> – >25%	Not disclosed, potentially very high.
3	Not disclosed, but observed channel migration	Not disclosed	<b>High</b> 18-19%	Reported as <b>high</b> .
4	<b>High</b> – 10% reduction in call center volume only driver metric cited. Successful introduction of cross-sell offers. Estimation of up to 75% increase in customer profit.	<b>Medium</b> – US\$1.3MM over 3 years.	<b>Very High</b> – 80% SMS and 38% mobile internet.	<b>High</b> – estimated at >300%.
5	<b>High</b> – attrition “eliminated”, branch use dropped 15% , ATM up 31%, 24% increase in balances, small annual fee and some commissions. Just starting cross-sells.	<b>Medium</b> – US\$2.8MM over 3 year plan.	<b>Medium</b> – 2% after 12 months, annualized growth rate of ~150%.	<b>Med-High</b> - 320% as reported by bank.
6	Not disclosed.	Not disclosed (but likely medium/low based on team size.)	<b>Very High</b> – 60% of customers.	Not disclosed, potentially very high.
7	Not disclosed.	Not disclosed.	<b>Low</b> – 0.6-1%	Not disclosed, potentially low.
8	<b>Unsure</b> – difficulties in complete reporting, but bank convinced of channel and retention benefits, and making order of magnitude higher investment in Phase 2.	<b>Medium</b> – US \$1.3MM over 3 years.	<b>High</b> – 12-15%.	<b>Med-High</b> – 270% reported for entire implementation.
9	<b>Low</b> – very little change observed, may be reporting issue.	<b>Low</b> – US\$2.1MM over 18 months.	<b>Medium</b> – 7%.	Not disclosed, potentially low.
10	<b>Med-High</b> – very positive responses: 20-40% reduction in attrition in group, 3.5 additional debit card transactions/month, balances increase over 500%. Indicated 25% increase in customer profit.	<b>Low</b> – as reported by bank, figures not available.	<b>Low</b> – 5.5%.	Not disclosed, potentially low.

1. Low = <US\$1MM over 3 years. Medium = US\$1-3MM over 3years. High = US\$3-5MM over 3 years

2. Low = <6%. Med = 6-12%, High = 12-20%. Very high = >20%.

3. Undiscounted costs and benefits, usually over a 3-year period.



## Case Study 1

*A Middle East/Africa Region pacesetter bank, penetrating deep into orchestrative functionality with value-added services.*

# Case study #1: a pacesetter bank, penetrating deep into orchestrative functionality with value-added services



## Case Study #1: introduction

### Country profile

- Middle East and Africa.
- GDP/Capita: >US\$5,500.

### Bank profile

- Not disclosed.

### Mobile starting point

- Introduced 2000. Bank now leverages past investments with new/ incremental functions.

### Mobile end point

- Menu-driven-experience Secure SMS, WAP, with scaled back USSD version for mass-market. Menu driven enabling structured dialogue.
- Balance, mini-statements, Money transfers. Bill & Beneficiary pay. Business Dual authorizations, Mobile top-up. Utilities payment. Loan and life Insurance product leads.
- Full P2P within the banking system and unbanked segments (can send money to a person with no bank account, who can withdraw it from an ATM via a cardless transaction).
- Financial and content offers, appealing to different demographics/customer interests.

### Key partners

- Proprietary software development.

### Narrative

- Bank goal of comprehensive functionality, introduced slice-by-slice. Integrated with the rest of the bank's infrastructure, and not standalone.
- Customers addressed differently based on their modality: blend of informational functionality, transactional and value-added.
- Focus on customer education and showing how to access and use services.
- Incremental increase in service complexity, taking customer along on journey.
- Bank conceives "market specific use cases" that introduce value-added services to customers, both content and financial services.
- Drive to build out suite of services that are relevant to customer segments – building share of wallet in services such as Pre-Paid Airtime, Pre-Paid Electricity.

# Evolving competitive advantage sought from mobile banking



## Case Study #1: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- Simple, uncomplicated banking. Value for money. Stability. Convenience. Superior customer service.
- Contemporary feel for bank.
- Closely integrated into other bank channels and services.
- Common user experience across channels.
- Low cost of deployment through leveraging shared services.

Current areas of competitive advantage that are driving evolution

- Strong on the ground customer education programme, including demonstrators.
- Driving economics through value-added services.
- Card plus phone made easy.
- Products and interactivity spanning all mobile devices and market segments.
- Target products where handset capabilities are likely to be present in the future.

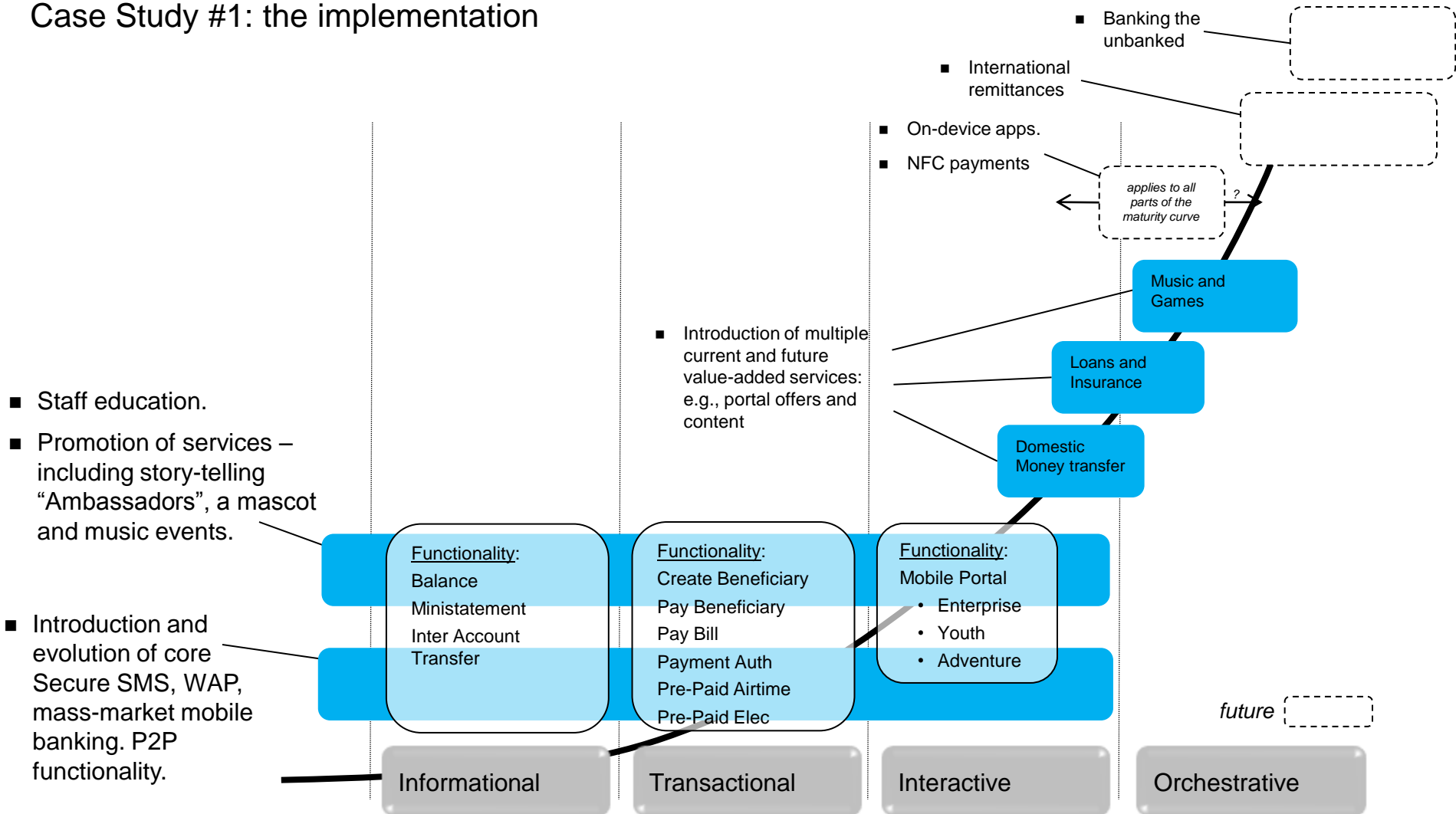
Current focus of activity to realize competitive advantage

- Integration into Mass Transit applications for value re-load and account information.
- NFC payments commercial model exploration.
- International remittances.
- Driving additional value-added services.
- Expansion of services to support on-device applications and next generation devices.
- Leverage regulatory environment to bank the unbanked via mobile .

# The implementation has been a series of functionality and value-added increments over ten years



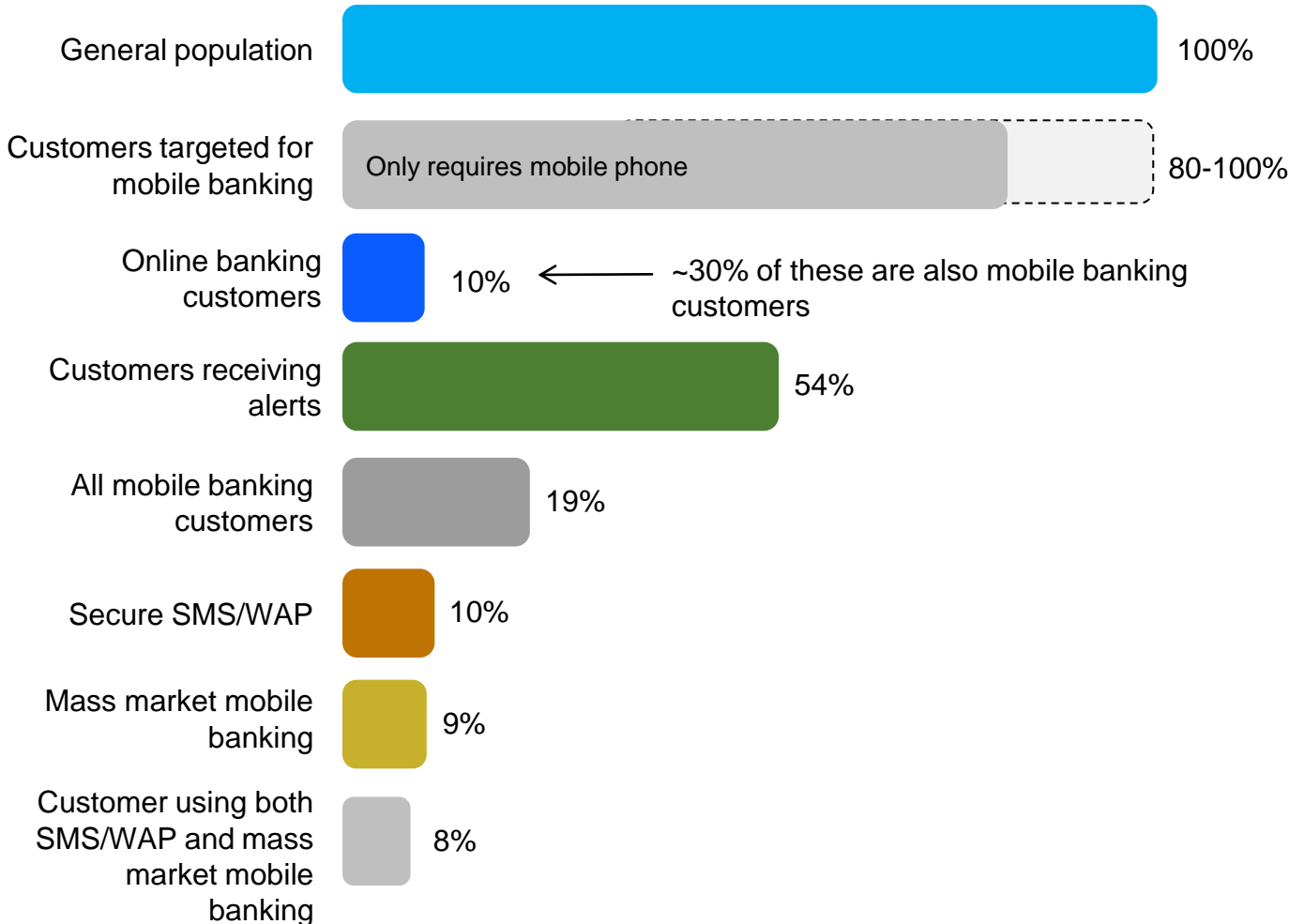
## Case Study #1: the implementation



# Impacting the customer base



## Case Study #1: customers targeted and conversion rates



### Key Observations

- Around 80% of adults in this country have access to a mobile phone – although for bank customers this is expected to be close to 100%.
- Online banking. Online penetration in country overall ~10%. Bank has penetrated around 60% of its internet-enable customer base, and online banking customers are ~10% of bank's customer base.
- 7-8 million mobile transactions/month.
- 50 million transactional sms alerts sent per month.

# We examined the key outcomes associated with mobile banking at the institution



## Case Study #1: key economic outcomes

Customers impacted	19% of bank population. 54% of bank population receive alerts.
Benefits	For new functionalities and services. ROI assessed as 300% to 600% (amounts not discounted) IRR of 100%+. Payback usually in around 24 months For mobile channel overall: ~0.6 cost to income ratio.
Costs	For new functionalities and services: Around US\$250-500,000 development cost. Ad hoc budget requests, based on identified development needs. Costs usually split around 50% internal, 50% external (consultant.) Software is proprietary, no license fees. For mobile channel overall: US\$270,000/year marketing budget. For maintenance, bank leverages existing infrastructure and support as far as possible.
Implementation details	For new functionalities and services: Typically 7 month duration; typically beat this by 1 month. 12 staff, including PM, BA, digital channel representative and developers and testers.

# ...and compared this to the business case going into the implementation



## Case Study #1: outcomes relative to the original business case

	<i>Outcome beats business case</i>	<i>Outcome worse than business case</i>
Customer base impacted	<p>Take up in early formative years restricted by lack of customer knowledge and experience. Required significant customer handholding and education, now take up exceeds expectations due to well aligned multichannel strategy and increasing customer acceptance / adoption of mobile device as a banking mechanism.</p> <p>Over 6m customers registered for Transactional Alerts, and over 2m registered for full functionality Mobile Banking.</p>	-
Benefits	<p>Platforms have dealt with increasing volumes and scale.</p> <p>Structured menu interaction allows for instant self promotion of new services added into menu.</p> <p>Mobile Channel transaction migration from traditional channels – reducing costs.</p> <p>Strong revenue focus on services deployed.</p>	-
Costs	Benefits of scale being achieved, and as number of users increase, business cases for new Value Add Services becomes easier.	
ROI	<p>Ahead of business case.</p> <p>Over 80m customer initiated transactions to the value of US\$1 Billion per annum</p>	-
Implementation	Typically beat a 7 month implementation by 1 month	-

# Additional observations: mobile versus online, customer pricing and value-added services



## Case Study #1: additional observations

- While mobile is “core” the bank operates with the philosophy that mobile is very different from online – that the cellphone “is not an intuitive financial vehicle”:
  - Mobile Banking requires significantly more customer education and handholding;
  - Bank has observed significant differences in user behaviors between mobile and online (e.g., avoiding long lines at ATMs.)
- Bank offers customers different pricing options: pay-as-you-go, low fixed cost, bundled premium service.
- At the bank’s mobile portal, customers can find free and paid content tailored to their interests (ring tones, music, games, ticketing) on some of which the bank takes a commission; plus appropriate financial offers (e.g., insurance products.)
- Bank has introduced an ATM and branch locator, using GSM triangulation to advise customers of nearest facility (can be used with any handset type.)
- The bank’s mobile systems are built for scale, and require little incremental enhancement

# What's next in mobile banking for this bank?



## Case Study #1: what's next?

- Integration into mass transit applications for value re-load and account information.
- NFC payments commercial model exploration.
- Driving additional value-added services.
- Expansion of services to support on-device applications and next generation devices.
- Leverage regulatory environment to bank the unbanked via mobile.



## Case Study 2

*A Middle-East/Africa Region bank approaches mobile as “the right technology at the right time with a customer centric approach.”*

# Case study #2: A Middle-East/Africa bank approaches mobile as “the right technology at the right time with a customer centric approach”



## Case Study #2: introduction

### Country profile

- Middle East and Africa.
- GDP/Capita: >US\$5,000.

### Bank profile

- Not disclosed.

### Mobile starting point

- Introduced 2005 with SMS, followed quickly by USSD.

### Mobile end point

- SMS phased out in 2009 in line with evolving user usage. USSD menu-driven now preferred channel. WAP introduced 2008 – same transactions with a GUI, plus some additional functionalities.
- Informational, transactional functionality, including purchases of pre-paid airtime, pre-paid utilities, and pre-payments of virtual services. Cross-selling banking products.
- Bank allows certain low value and low risk transactions without having to register for mobile banking.

### Key partners

- Bank introduced electronic wallet – allowing cell number to be account identifier; funds can be sent phone to phone, and value stored, used for virtual purchases, withdrawn at ATM. For the unbanked, safeguard and spend money without a traditional account.
- Internal build with some 3<sup>rd</sup> party software..
- Initially (2005) 40 staff, Now over 200 staff involved, inclusive of 3<sup>rd</sup> party software staff, marketing and operations.

### Narrative

- Business case developed in 2005.
- Established a highly skilled internal development team.
- Bank grasped the importance and proliferation of the mobile as a communication device in the early 2000s which led to the development of relevant tools. Bank now sees itself as a leader in terms of mobile banking.
- Cellphone banking business has a project office that manages all new developments and enhancements.

# Evolving competitive advantage sought from mobile banking



## Case Study #2: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- Increased customer service, (via real time notifications.)
- Cellphone banking offered free of charge on launch (and is currently still free for most transactions)
- Convenient and simple channel offering for customers.
- Lower operating costs for bank.
- Offer alternative to branches (especially in low population areas), provide digital channels despite lack of Internet connectivity in the country.

Current areas of competitive advantage that are driving evolution

- The areas of competitive advantage cited “become even more relevant as eChannel volumes increase – transaction costs decline, whereas in the traditional channels the costs go up each year.”
- Cellphone banking is a contributor to customer stickiness
- Ongoing development of new transactions and virtual value added services
- Expansion of services to foreign subsidiaries

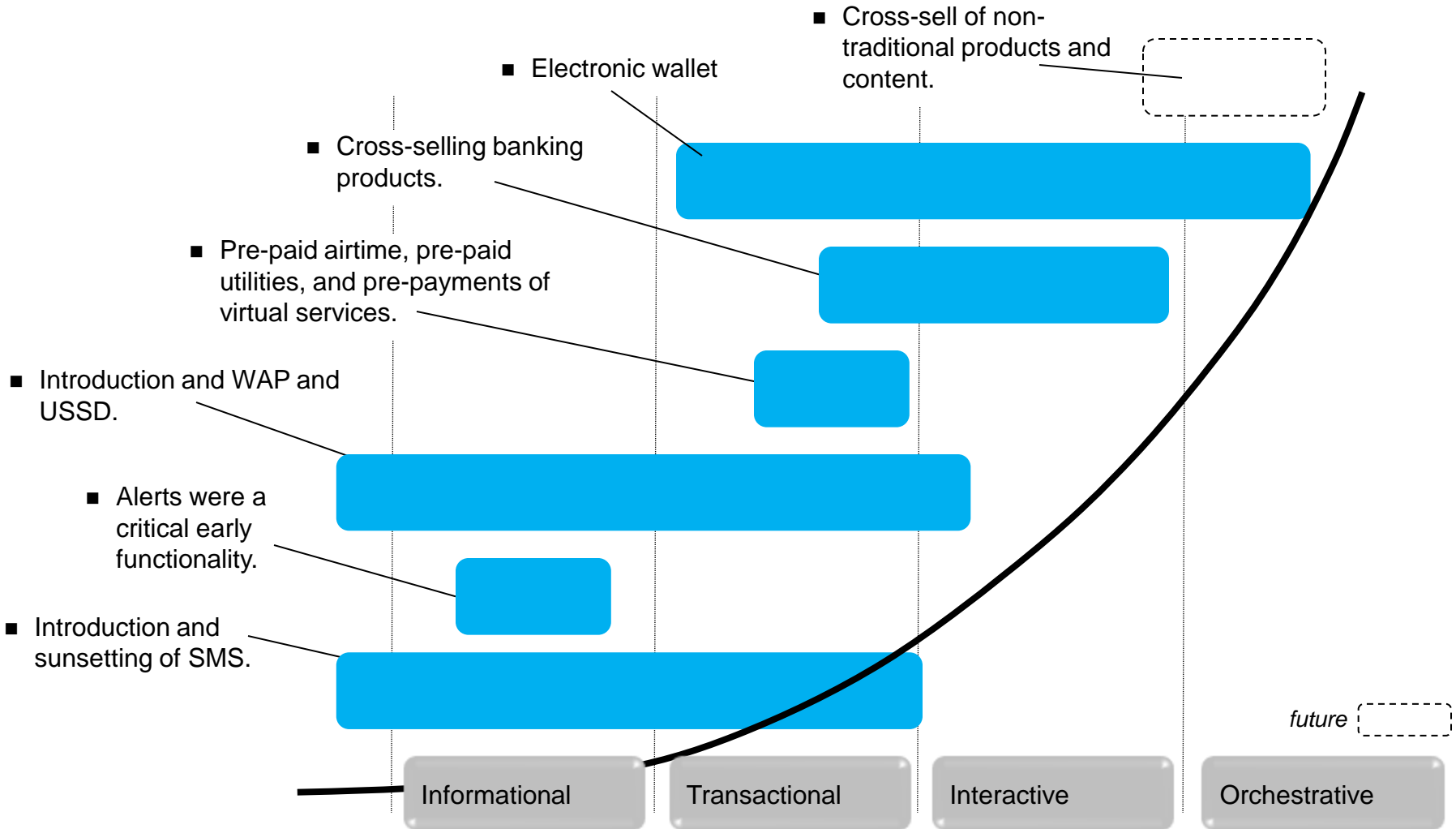
Current focus of activity to realize competitive advantage

- Increase the variety of transactions available on the electronic wallet
- Exploit phone applications and WAP to enhance user interface and functionality
- Develop alternative points of presence to supplement existing banking infrastructure
- Develop cross border functionality via the handset
- Develop broader m-commerce offering

# The implementation is accelerating into becoming more orchestrative



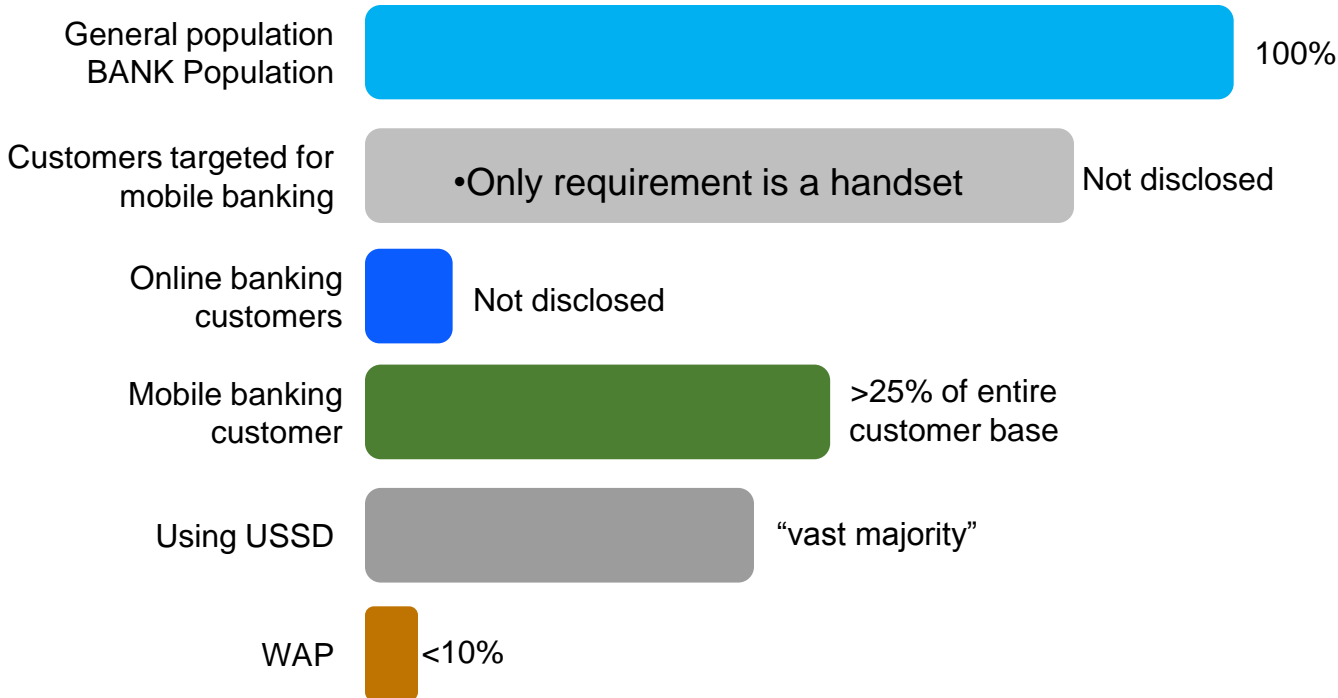
## Case Study #2: the implementation



# Impacting the customer base



## Case Study #2: customers targeted and conversion rates



### Key Observations

- Service is predominantly free – a strong value proposition.
- Virtual services are available on all channels including Cellphone Banking, ATM's and Internet Banking.
- Ensured that login process was as simple as possible.
- Early introduction of notification of transactions on the handset , "connected the cellphone in the customers mind to the bank account." A lite offering with no registration allowed customers to perform limited transactions and familiarize themselves with the channel. Registration was thereafter encouraged in order to migrate clients to a fuller offering.

# We examined the key outcomes associated with mobile banking at the institution



## Case Study #2: key economic outcomes

Customers impacted	>25% banks population
Benefits	<p>Customer service, convenience and cost have positively impacted the bank's profitability through customer retention and channel cost drivers (actual changes not disclosed)</p> <p>"Added huge value to customers" based on "strong" positive feedback</p> <p>"Huge impact on stickiness" (specifics not disclosed.)</p> <p>Commissions and fees from providers of virtual services (such as airtime enhance the economics.)</p> <p>Fraud reduction through information alerts that let customer s know exactly what is happening with their accounts.</p>
Costs	Not disclosed
Implementation details	Not disclosed.

# Additional observations: some key success factors



## Case Study #2: additional observations

- Established a highly skilled internal development team – noted by the bank as an important success factor.
- Notification tool provided to customers created a connection that enhanced relationships, led to greater retention rates. These also familiarized the customer with the Cellphone as a banking mechanism.
- Bank focused on “the right technology at the right time with a customer centric approach” (for instance, initiated its service using sms but adapted to USSD in response to customer price sensitivity, ease of user interface.)
- USSD bearer channel found to provide higher adoption and engagement than SMS due to its simple, menu-driven, transactional interface. USSD is mobile network operator and handset agnostic, allowing any phone to transact over any network

# What's next in mobile banking for this bank?



## Case Study #2: what's next?

- Need to continuously advance and improve the offering for customers, as the novelty factor of cellphone banking lessens over time
- Explore other functionality offered by the phone as mCommerce mobile related services continue to grow
- Expand offering into other territories
- Bank indicated it needs to be cautious around what products and content it gets into – especially where products/content is not under bank control.



## Case Study 3

*A major Western bank with high mobile adoption only after 2.5 years of offering mobile services.*

# Case study #3: A major Western bank with high mobile adoption only after 2.5 years of offering mobile services



## Case Study #3: introduction

### Country profile

- Western hemisphere.
- Population: >50 million.

### Bank profile

- >5MM customers

### Mobile starting point

- Offered mobile banking in late 2007 with WAP site, then evolved to iPhone app, then 2-way texting for balances and credit card balances and charges, then Android and Blackberry apps.

### Mobile end point

- WAP, SMS and Apps for iPhone, Android, Blackberry.
- SMS alerts, balance inquiry, transfers, bill payment. Investments and trading. Ability to research and select non-deposit financial products. Early provider of mobile deposit capture.
- No P2P, but looking at for future.

### Key partners

- In-house development for all applications.
- 3<sup>rd</sup> party provider for WAP solution, but viewed this as more appropriate for a smaller bank.
- SMS development in-house, but use an aggregator to manage mobile carriers.

### Narrative

- Introduction of mobile banking in late 2007 followed by rapid release of increasing functionality oriented around iPhone apps, including mobile deposit capture and enabling non-deposit transactions.
- Piloted first marketing campaigns on education customers on functionality, not on cross-selling.
- Responsibility for mobile operations with one executive, and strategy and new initiatives with a different executive (who has strategy responsibility for all channels.)

# Evolving competitive advantage sought from mobile banking



## Case Study #3: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- The iPhone changed the landscape for this bank, and opened up the investments.
- Looking to be a fore-runner in the mobile space: a “mobile financial institution.”
- Innovation and stretching the envelope – bank would have “missed the mark if it hadn’t made the investments it made at the point in time it did.”

Current areas of competitive advantage that are driving evolution

- Bank cited investments as increasing, not decreasing.
- Bank is very conscious of the evolution of the mobile world and how people will function in the future:, including...
- Shift from *mobile* to *mobility*.
- Anticipating lower use of online sites, and that users may never go back to the online sites.
- iPad as the next revolution, and touch computing will revolutionize laptop/PC.
- Devices will be 3-4X more powerful and 4g mobile networks more widely available soon.

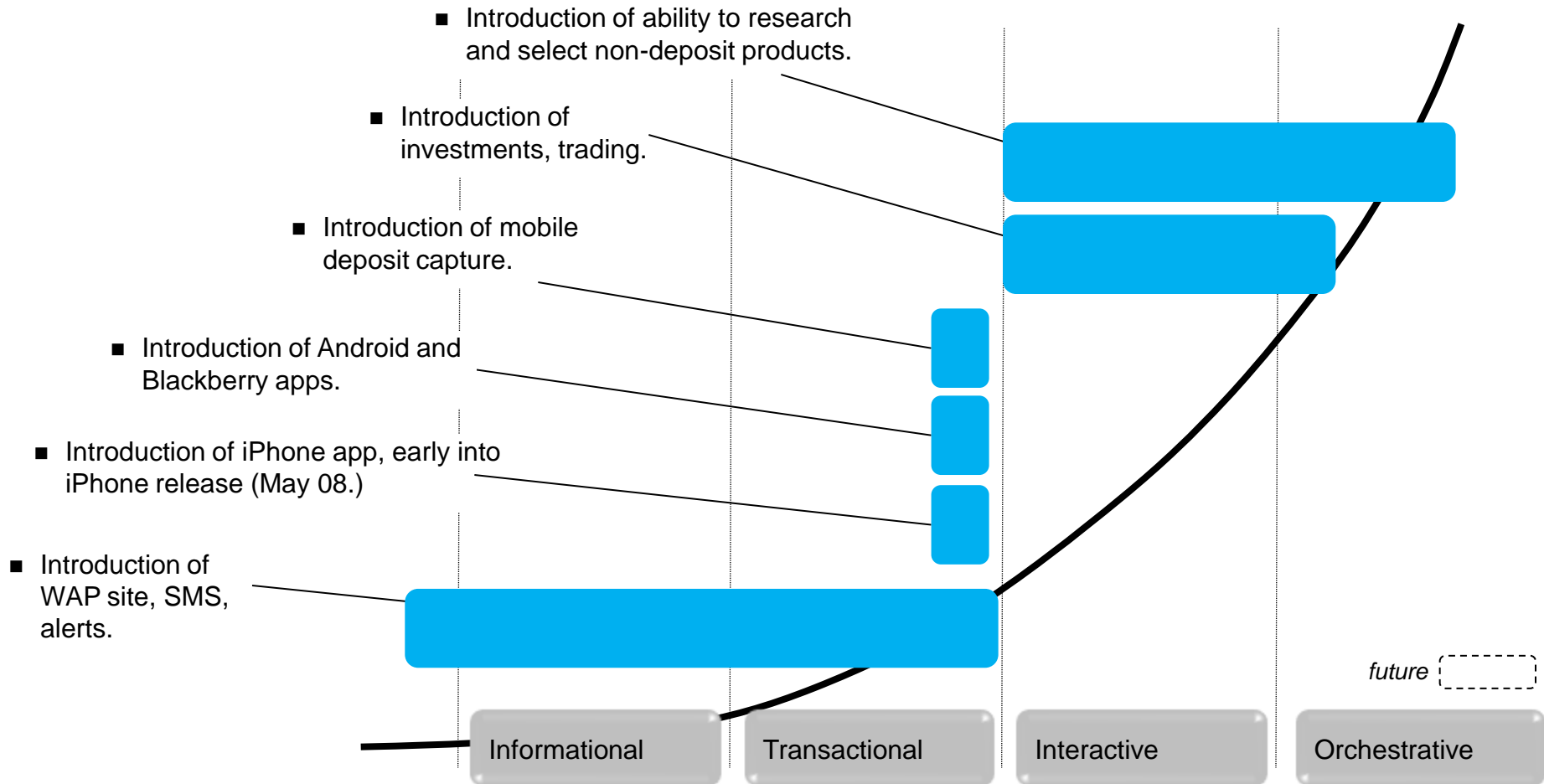
Current focus of activity to realize competitive advantage

- Declined to reveal specifics.
- Bank sees future in more intelligent marketing and cross-sell to consumers – a 9-inch iPad screen makes consumers more open to marketing invasion of the screen’s real estate.
- Bank is cautious on situational cross-selling, and does not yet believe that the “experience is there.” While this has “great potential” it has to be done right or consumers will switch it off. Doesn’t want to do to mobile what happened with all the spam/rubbish on email.

# The bank progressed functionality very quickly, and into orchestrative activities



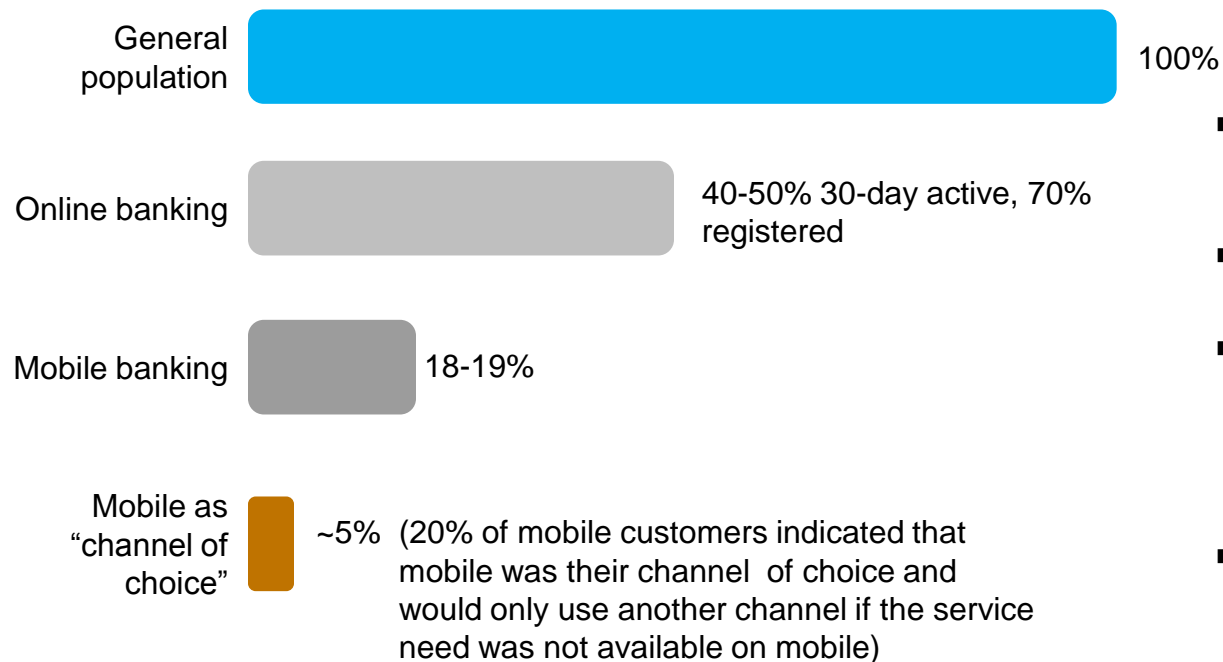
## Case Study #3: the implementation



# Impacting the customer base



## Case Study #3: customers targeted and conversion rates



### Key Observations

- Do not require mobile banking customers to be online customers – can register online or via the call center.
- Marketing campaign had very little impact in driving adoption.
- Early adopters onboard early, now focus is on later adopters, but banks feel the “whole industry needs to be talking about mobile” to drive adoption of these customers.
- Poor adoption by Blackberry users with the app store being a “cumbersome experience” for them.
- Inquiry is dominant; customers start with inquiry, then usage expands to transactions and they find they can bank “walking down the street.”
- Almost every week sets a new record for activity.

# We examined the key outcomes associated with the implementation...



## Case Study #3: key economic outcomes

Customers impacted	18-19% adoption across entire customer base.
Benefits	<p>Bank sees the ROI as “through the roof” even under reasonable assumptions on call center migration (e.g. if only 1% of mobile transactions diverted agent calls). Management have observed (though not correlated) a reduction in call center activity.</p> <p>Bank build a volume/activity dashboard rather than a business case, with high-level importance given to customer satisfaction.</p> <p>Satisfaction in mobile channel not yet as high as in online channel, but continuously gaining ground.</p> <p>No delta observed in customer satisfaction between mobile and non-mo bile customers, but bank may need more in-the-moment satisfaction capture</p> <p>Bank indicated measurement of benefit as “challenging” especially in determining channel migration – questioning whether the mobile transaction really did eliminate a high-cost transaction.</p> <p>Eventually expect to see reduction in online usage as this shifts to mobile.</p>
Costs	Not disclosed.
Implementation details	<p>From decision to go forward rolled out as part of normal project approach.</p> <p>First release took a little longer than expected but fell into a standard project pattern, with a very high-frequency of releases (each month new releases.)</p>

# ...and compared this to the business case going into the implementation



## Case Study #3: outcomes relative to the original business case

	<i>Outcome beats business case</i>	<i>Outcome worse than business case</i>
Customer base impacted	Exceeded expectations, especially around usage of Mobile deposit capture.	
Benefits	Not disclosed	
Costs	Not disclosed	
ROI	Not disclosed.	
Implementation	<p>“Easier than anything we’re ever done” partly though some online services that could be leveraged, but bank clearly differentiating mobile banking experience.</p>	<p>First release took a little longer than expected.</p> <p>Disappointed with Blackberry – hard to program, issues with software development kit, low adoption, need to make the app store intuitive and easy. “Not worth the investment”</p>

# Additional observations: bank's approach to the future of mobile banking



## Case Study #3: additional observations

- Bank looks at design in terms taking a specific marketplace transaction and designing how they would do it differently relative to the call center or online or a branch.
- Bank continually “re-imagines the future” of increased access, bandwidth and how that will affect “how people will function in the future.”
- Bank emphasized the dominance of iPhone and Android.
- WAP shows highest mobile usage for the bank, but applications are making a big dent in it, as the native experience is so much better. SMS still shows a lot of growth with high usage from younger people.
- Bank sees mobile payments as starting to come together, although it may be a few more years. That it will be a wow factor when people see other users tap-and-go (like the card replacing the checkbook) and then expect to see customers migrate much faster than is generally expected. Bank expects the next iPhone will have an NFC chip.



## Case Study 4

*A European bank with a focus on technology innovation becomes a mobile banking pacesetter.*

# Case study #4: a European bank with a focus on technology innovation becomes a mobile banking pacesetter



## Case Study #4: introduction

### Country profile

- Europe, single country focus.
- GDP/Capita: >US\$30,000.
- Population: >40 million.

### Bank profile

- Assets: >US\$50 billion.
- Branch, ATM range: <600, <500.

### Mobile starting point

- No mobile banking services.
- Started mobile banking investments in 2002.

### Mobile end point

- SMS, mobile internet, apps and SIM cards (or SIM cards) for customers free mobile data between bank and customer, free SMS, free money transfers.) Brokerage app.
- Interactivity: offers and P2P.
- Orchestrative: opt-in offers based on activity.

### Key partners

- Did not use partners (except for SIM).
- Company strategy is to develop internally as far as possible for uniqueness and competitive advantage. Technology and innovation are key strategic pillars for this bank.

### Narrative

- Born out of the bank's innovation department. At inception, no requirement for a return on amounts budgeted for mobile, but this is "different today" for mobile banking.
- Started charging mass market customers in last 18 months, with a per-message cost and with free credit and debit transactions for larger purchases.
- Have achieved 80% penetration of SMS banking into the user base after "8 years of hard work."

# Evolving competitive advantage sought from mobile banking



## Case Study #4: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- Multi-channel strategy – increasing reach, offer same experience across all touchpoints, transparency through all channels.
- Coverage for customers out-of-footprint, enabling same experience whether in or out of footprint.
- Technology and innovation as a strategic pillar.

Current areas of competitive advantage that are driving evolution

- *Same drivers as for original case, plus...*
- Enhance user experience.
- Enhance user interface.
- Building value-added services off the SIM.
- Going beyond the mobile phone handset.
- Quality perception from customers, especially relative to competition.
- Press mentions.

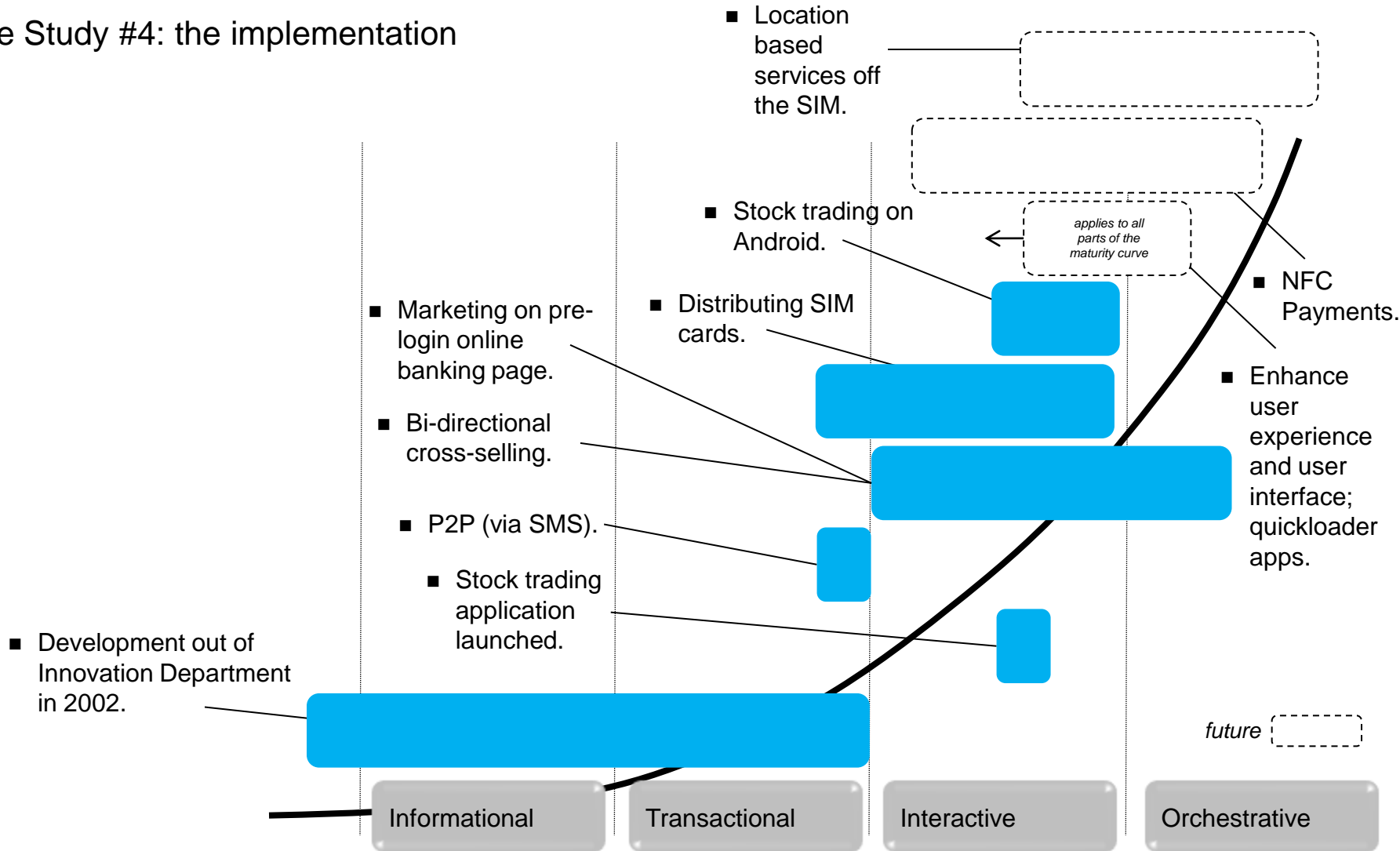
Current focus of activity to realize competitive advantage

- Stock trading on Android.
- Quickloader apps for iPhone, Android and Blackberry
- NFC merchant payments.
- Location based services off the SIM.
- Experience and hardware/content mix for eBook readers, iPads.

# The bank has evolved to become increasingly “orchestrative” over eight years of implementation and evolution



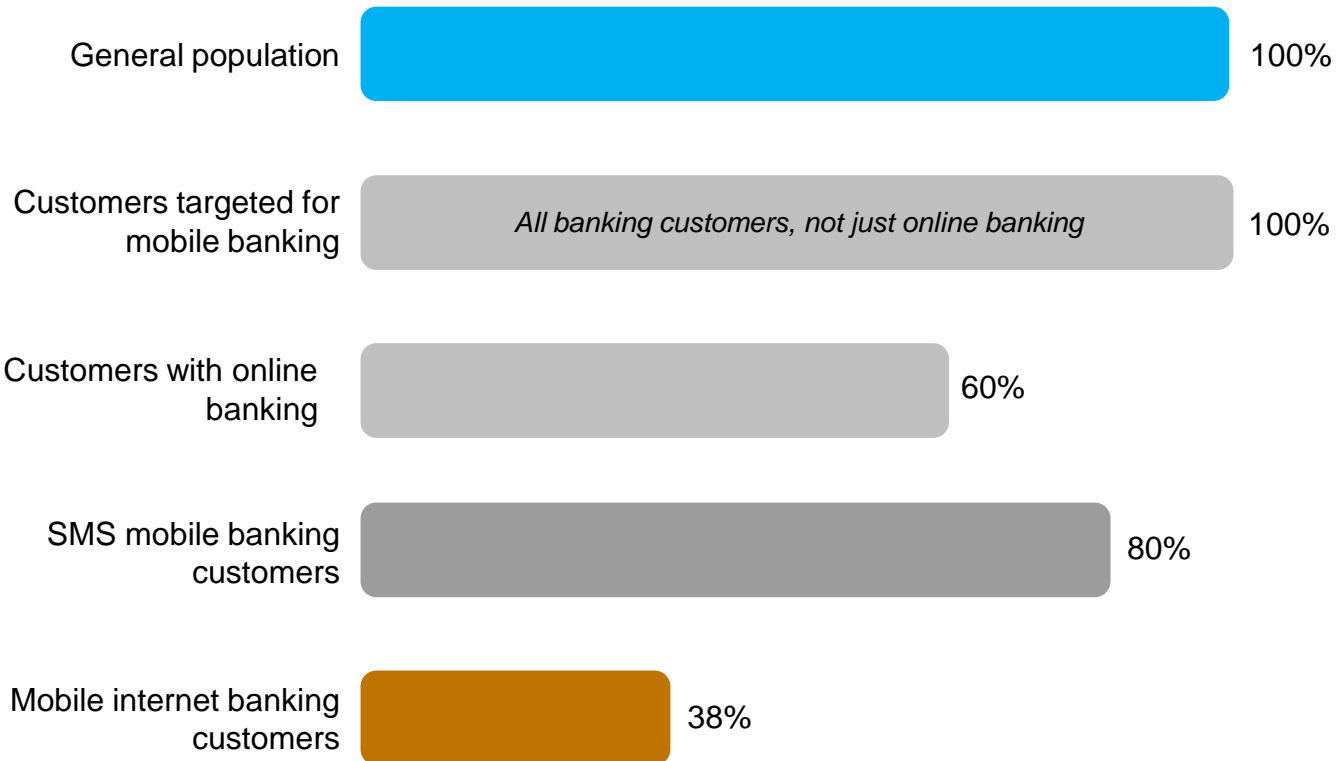
## Case Study #4: the implementation



# Impacting the customer base



## Case Study #4: customers targeted and conversion rates



### Key Observations

- “Always available to everyone.” Customers don’t need online banking, but need a universal remote banking agreement.
- Free mobile data, free SMS to and from the bank, free money transfers (for SIM customers.)
- Some targeting towards high net worth individuals (service is provided free).
- Started charging mass-market customers in last 18 months, without a material change in attrition. Quality measured indicated “some” reduction in perceived quality.
- Mobile banking customer base growing at 60% yr./yr.

# We examined the key outcomes associated with the implementation...



## Case Study #4: key economic outcomes (1 of 2)

Customers impacted	80%.
Benefits	<p>Benefits seen in four areas:</p> <ol style="list-style-type: none"> <li>1. <u>Direct gains</u> from cross-sell and upsell: have initiated SMS cross-sells where card users will be offered installment financing on major purchases (1.25% acceptance rate), medical or accident insurance when cardholder use card sufficiently far from home location (acceptance rates of 0.11%, have seen lower rates with other offers – with virtually no cost to the cross-sell offer.)</li> <li>2. <u>Debit and credit card fraud reduction</u>: where cards blocked by customers, reduced costs by 93% versus call center US\$4.00/call, for less than 0.5% of mobile customers. Indexed fraud loss rate (loss as an indexed percentage of dollar volume) fell from 100 in 2002 to 44 in 2007 returning to 80 currently.</li> <li>3. <u>Channel migration</u>: 93% savings on migrated call center transactions, with estimated 400,000 less calls in a calendar period, a 10% reduction in call volume (reduction of 0.66 call center transactions per customer/year.) Of customers that used to call to verify a direct deposit, 10% have ceased calling. Other channel impacts indicated as: <ul style="list-style-type: none"> <li>• Internet transactions (53% of all bank transactions) – growing.</li> <li>• Telephone (5%) – decreasing.</li> <li>• Branch (35%) – decreasing.</li> <li>• Mobile (4%with a 50-50 split between SMS and mobile internet banking) – increasing.</li> <li>• ATM (&lt;1%) – not significant.</li> </ul> <p style="margin-left: 40px;"><i>Transaction mix</i>: mobile traffic 80% directed to account and mobile brokerage views, 8% to detailed account actions, 2.5% to P2P transfers and 9.5% other views and transactions.</p> </li> <li>4. <u>Intangible gains</u>: consistent rankings above peers in terms of perceived quality, assessed for both product and channel, with mobile scoring ~10 points higher than the overall bank score. Highly positive ranking based on press coverage; and potential to be cited in “innovation list” of a major publication.</li> </ol>

# We examined the key outcomes associated with the implementation...continued



## Case Study #4: key economic outcomes (2 of 2)

ROI/Payback	No full benefits analysis undertaken. Payback assessed as being in year 3 (investment by that point up to US\$1.3MM.) Indicated that a customer shifting from 1 to >3 channels utilized increases customer profit by 2.5X (implies increase in customer profit of up to 75%.)
Costs	Budgeted ~US\$1.3MM over first 3 years. Subsequent years costs of ~US\$130,000/year.
Implementation details	Emergued from Innovation Department. Solution was built in-house. 7 FTE in first 3 years of development, 3 business and 4 IT. Maintenance by part-time staff of 2-3 that increases with the development of new functionalities.

# ...and compared this to the business case going into the implementation



## Case Study #4: outcomes relative to the original business case

	<i>Outcome beats business case</i>	<i>Outcome worse than business case</i>
Customer base impacted	Exceeded, but “8 years of hard work.”	-
Benefits	Expectations not set within a business case.	-
Costs	-	Overrun of <10% in first 3 years.
ROI	Not calculated.	
Implementation	First 3 years of implementation in line with expectations.	-

# What's next in mobile banking for this bank?



## Case Study #4: what's next?

- Stock trading on Android, iPhone and iPad.
- Delivery of notifications via Blackberry messenger and push notification technology.
- NFC Payments.
- Enhance user experience and user interface for mobile web banking.
- Location based services via SIM.



## Case Study 5

*A recent mobile banking entrant rapidly moving towards becoming a future “pacesetter” through a focus on registration and evolving functionality.*

# Case study #5: a recent mobile banking entrant rapidly moving towards becoming a future “pacesetter”



## Case Study #5: introduction

### Country profile

- Middle-East & Africa.
- GDP/Capita: >US\$500-1,000.
- Population: >150 million.

### Bank profile

- Assets: >US\$5.5 billion.
- >1,000 branches, >500 ATMs.

### Mobile starting point

- Launched mobile banking mid 2009.

### Mobile end point

- SMS, WAP/GPRS. Handset and telco agnostic, access through any mobile phone and use over conventional Internet.
- Informational: balance, mini-statement. Check amounts due. Transactional: Bill pay, for self or others. Pre-paid mobile top-up. International remittances. Pay bills from bank, such as mortgage. Charitable donations. Block card.
- Interactivity: P2P interbank funds transfer (to account, for ATM withdrawal, or to mobile phone account.)
- Orchestrative: starting to cross-sell insurance.

### Key partners

- Hosted by 3<sup>rd</sup> party solution provider, with a per-user annual charge to the bank.

### Narrative

- Very fast to market: planned implementation of 6 mos realized in 4.
- Focus on registration process, incremental functionality, initiatives, measurement leading to insight, marketing.
- Service launched focused on vastly increased individual accessibility to the bank.
- Service priced to consumers with very low fees (less than US\$0.01/day) and with free transactions.

# Evolving competitive advantage sought from mobile banking



## Case Study #5: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- Convert existing customers to mobile banking: customer time savings and experience.
- Drive economics through fee income, commissions (from utilities and telcos for bill pay), low-cost deposits spread versus high discount rate in country, new customers, increased retention.

Current areas of competitive advantage that are driving evolution

- *Same drivers as for original case, plus...*
- Capture unbanked population. Capture unbanked rural population.
- Drive increased engagement/transactions with the bank.
- Beat out commission-based services, or those that charge transaction fees.
- Provide exclusive product offers via mobile device.
- Build success before partnering with Telcos.

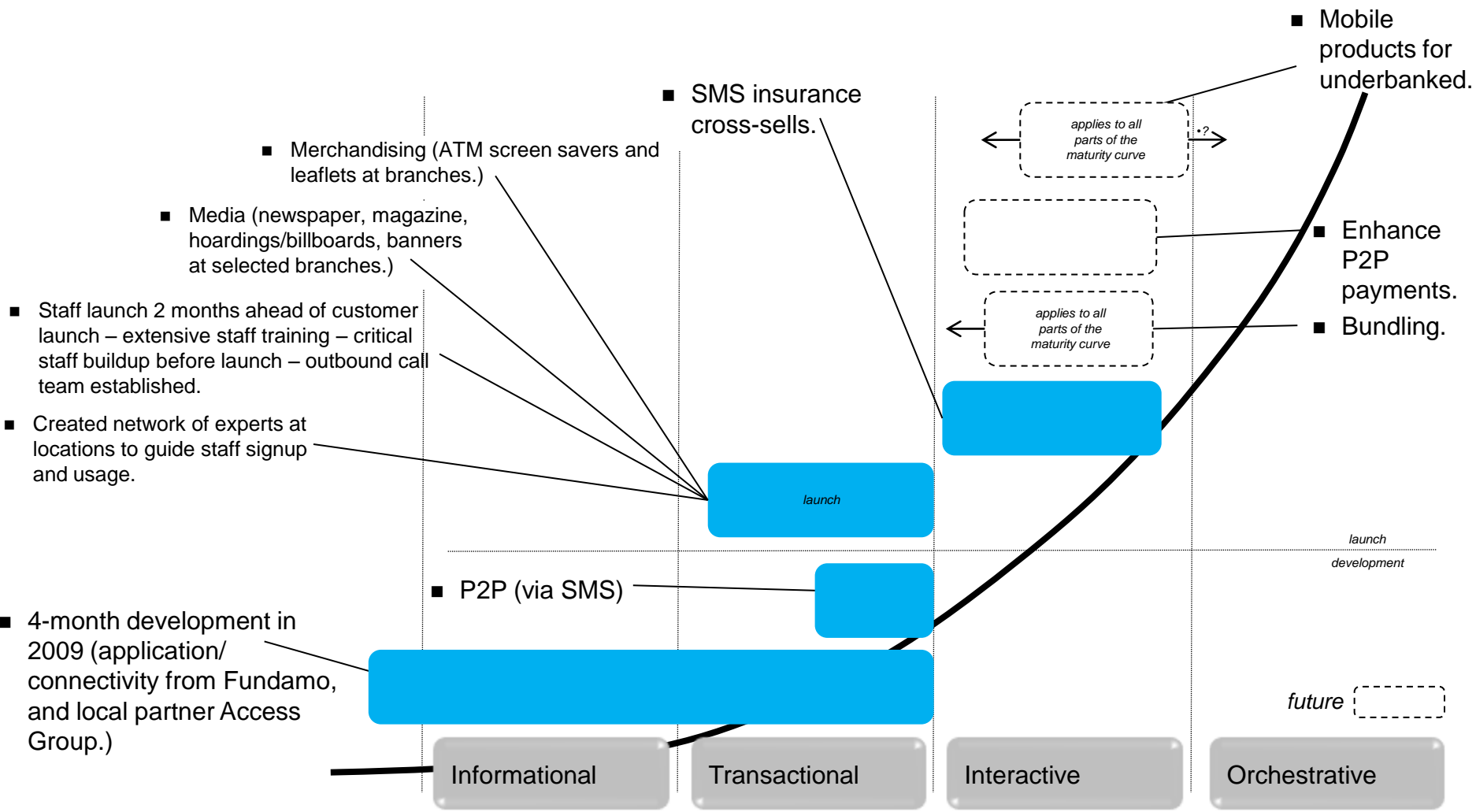
Current focus of activity to realize competitive advantage

- Account opening bundling.
- P2P payments to individuals outside the bank's network.
- Underbanked bank products centered on mobile.
- Further staff adoption.
- Expand marketing and selling products exclusive to mobile

# The bank has very rapidly moved into being interactive, and has starting to push into being orchestrative



## Case Study #5: the implementation

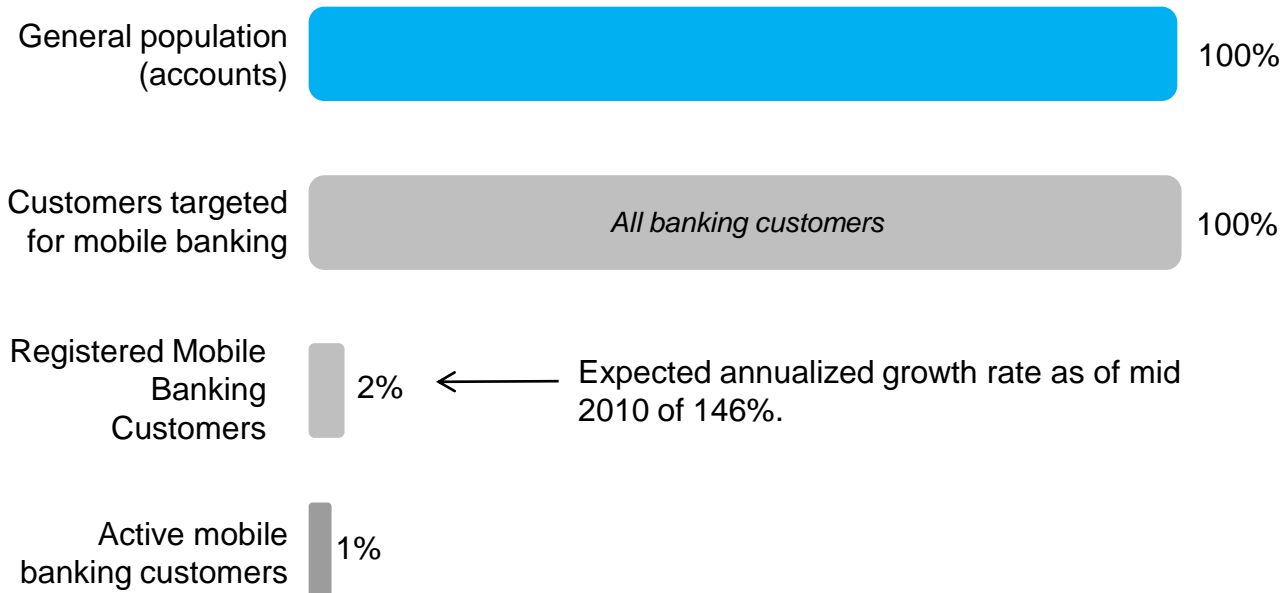


# Impacting the customer base



## Case Study #5: customers targeted and conversion rates

### Key Observations



- Country context:
  - Country population is less than 20% banked, 30 million with online access, but close to 100 million with mobile devices.
  - 50% of population are literate, but essentially 100% are numerically literate (role of scratch cards.)
- Primary focus on young salaried professionals and self-employed.
- All non-branch channels organized under single manager, with these channels working to make mobile a success.
- Able to register customers through ATM, through branch (special POS device), and call center – with processes accelerated if mobile phone number is in bank System of Record.
- Offer special rates on bank products to drive customers to mobile channel

# We examined the key outcomes associated with the implementation...



## Case Study #5: key economic outcomes (1 of 2)

Customers impacted	100,000 registered, of which around 50% are active Launch: over 10,000 leads generated in first 5 days of launch, over 3,000 customers registered in first week.
Benefit Areas	<ol style="list-style-type: none"> <li>1. Bank charges relatively nominal <u>annual fee</u> to subscribers to mobile banking, with three-month free trial. Bank charges US\$0 for all other mobile transactions between customer and bank (but regular product fees still stand, e.g., wire transfer fees).</li> <li>2. Benefit from <u>float of additional balances</u> (from existing and new customers) on account, discount rate over 10%, and from cross-sells. Increase of 24% in average account balances (slightly higher at 30% for low transactor segment.)             <ul style="list-style-type: none"> <li>• “This is like what the blackberry did for email” – transactions increase, size of transaction decreases, money stays in account, less cash in pocket, money is consolidated to that account.</li> </ul> </li> <li>3. Mobile carriers pay bank <u>commission</u> for top-ups; utilities pay bank for bills paid.</li> <li>4. <u>Channel migration</u>. Mobile banking customers branch use dropped 15% over 6 months, which ATM usage rose 31%. With P2P, customers are starting to not carry cash and to use other people as an ATM, rather than go to an ATM.</li> <li>5. <u>Reduced attrition</u> (bank has lost just 2 mobile banking customers since launch (“they have either left the country...or left the world.”))</li> <li>6. <u>Acquisition</u> of additional customers. No numbers cited by bank.</li> <li>7. <u>Cross-sells</u> (bank is just starting these.)</li> </ol>

# We examined the key outcomes associated with the implementation...



## Case Study #5: key economic outcomes (2 of 2)

ROI/Payback	320% ROI (undiscounted benefits from future years, first 3 years of plan of which bank is at beginning Year 2.) Payback early in Y2. Breakeven assessed as occurring in month 9 of rollout.
Costs	Budgeted ~US\$2.8MM over first 3 years in total costs (bank is at beginning of Y2 of a 5-year plan). Subsequent years costs of ~US\$25-50,000/year (development, not maintenance, maintenance included in software license fees.) Costs included for partnering with marketing and creative agencies.
Implementation details	Solution fully hosted by 3 <sup>rd</sup> party provider (Fundamo/Access.) 6 months planned for implementation. Implementation: 4 dedicated resources and 2 shared resources. Post implementation: 2 dedicated resources and 3 shared resources.

# ...and compared this to the business case going into the implementation



## Case Study #5: outcomes relative to the original business case

	<i>Outcome beats business case</i>	<i>Outcome worse than business case</i>
Customer base impacted	Bank targeted 50K active customers (customers using the service) with 90K customers registered (Customers enrolled into the service) in the first year. Have achieved target per business case.	-
Benefits	Revenue stream in the first year was as per budgeted numbers. Bank has already accumulated revenue of US\$129K and is targeting US\$317K by year end, which bank feels will be achieved with the current trend.	-
Costs	Bank stayed very close to the costs in the business case, and did not have major investments upfront to execute the project.	-
ROI	The cited ROI of the project is based on the fee income per active customer, transactional income (commissions from billing partners) which was quantified. Bank felt the ROI was further improved by decreased attrition and float/interest revenue from the increase in customer deposits. Bank is working to quantify the impact of these contributors, and a “month on book” concept has been introduced to study customer behavior and the impact on account balances and spending patterns.	-
Implementation	planned 6 months for implementation, achieved this in 4 months. Bank set aside 2 months for a staff registration drive before opening the service for all customer base.	-

# Additional observations: adoption, economics, measurement and functionality



## Case Study #5: additional observations

- Driving adoption:
  - Bank offers special rates through mobile channel to drive adoption – matched with ability to start registration process in call center for customers interested in these special rates who call in.
  - “Mobile channel cannot be a silo, cannot be a sideshow.”
- Economic philosophy:
  - Bank views charging customers for transactions as counterproductive, reducing behavioral change;
  - Bank makes transactions free or virtually free, especially given incremental cost on infrastructure is close to zero.
  - Bank allows payments to be a loss-leader (as they are in some other instances) and make it up on the deposit spread and fee.
  - Bank is conscious of the channel's profitability, but also that of the entire customer relationship.
- Measurement, insight and communications:
  - Bank measures mobile by segments and uses the insights to develop new products and services, targeting new segments such as the underbanked.
  - Bank examines data on segments daily.
  - Bank releases (internally) a new “claim” (tagline, insight, finding) every 15 days to the Board of Directors.
- Functionality:
  - “No single functionality more important than the registration process...this is where most banks fail...this is where the focus has to be.”
  - Bank focuses on building functionality incrementally.

# What's next in mobile banking for this bank?



## Case Study #5: what's next?

- Continue to use insights to drive functionality.
- Additional staff adoption.
- Commodity bank products specifically aimed at the underbanked, leveraging large branch network for depositing cash, with mobile and card as “cash out” points.
- P2P payments to individuals outside the bank's network.
- Account opening bundles incorporating mobile.



## Case Study 6

*A South Asia bank with an extensive history of mobile banking accelerates customer acquisition and moves into orchestrative functionality.*

# Case study #6: a bank with an extensive history of mobile banking accelerates customer acquisition and into orchestrative functionality



## Case Study #6: introduction

### Country profile

- South Asia.
- GDP/Capita: >US\$1,000-2,000.
- Population: >300 million.

### Bank profile

- Not disclosed.

### Mobile starting point

- Launched mobile banking in 2002.

### Mobile end point

- Independent application works with all handsets, interactive and menu-driven.
- Post-ATM-usage alerts to mobile phone to warn of fraud.
- Transactions include funds transfer, bill payments, purchase select products.
- P2P transfers within banking system.

### Key partners

- Design, process, application development all custom. Development partner, no software partners.

### Narrative

- Launched mobile banking in 2002 with ability to request information.
- Evolved to menu-based mobile banking, leveraging the WAP site of the mobile operators.
- Developed custom application to enable GPRS and SMS transactions.
- Created own WAP site.
- Enabled for iPhone, then expanded to all handsets, all operators.

# The bank has become increasingly focused on acquiring new customers



## Case Study #6: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- Channel migration from branch.
- Convenience for customers.
- Build the infrastructure to enable customer acquisition.

Current areas of competitive advantage that are driving evolution

- *Same drivers as for original case, plus...*
- Acquisition of new customer segments.

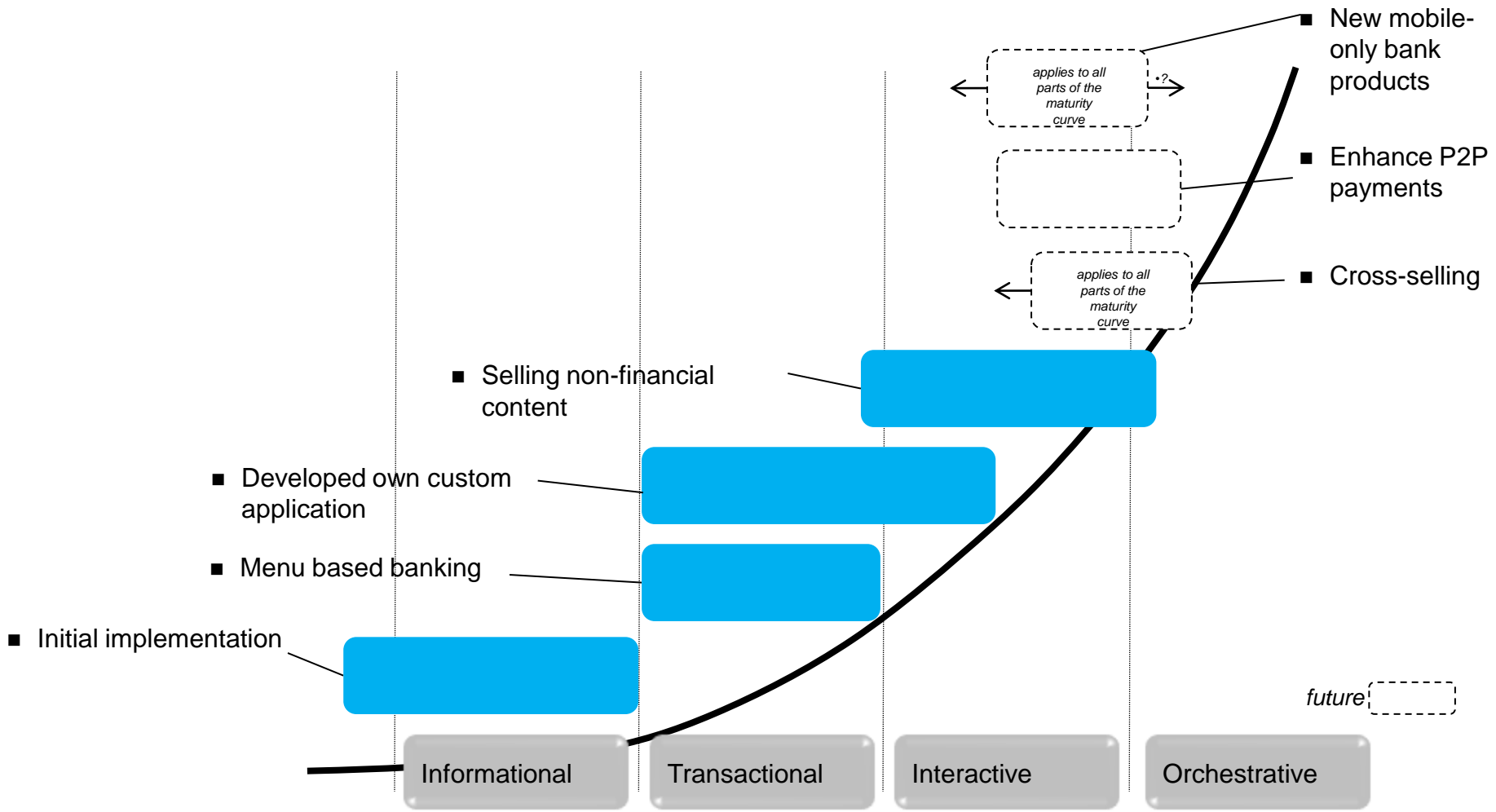
Current focus of activity to realize competitive advantage

- Future complete (but lower priced) banking product only for mobile users, accessing a wider customer base.
- Expanded P2P payments functionality
- Cross-selling.

# Over 8 years the bank has advanced further into interactive capabilities, and is now starting to penetrate orchestrative capabilities



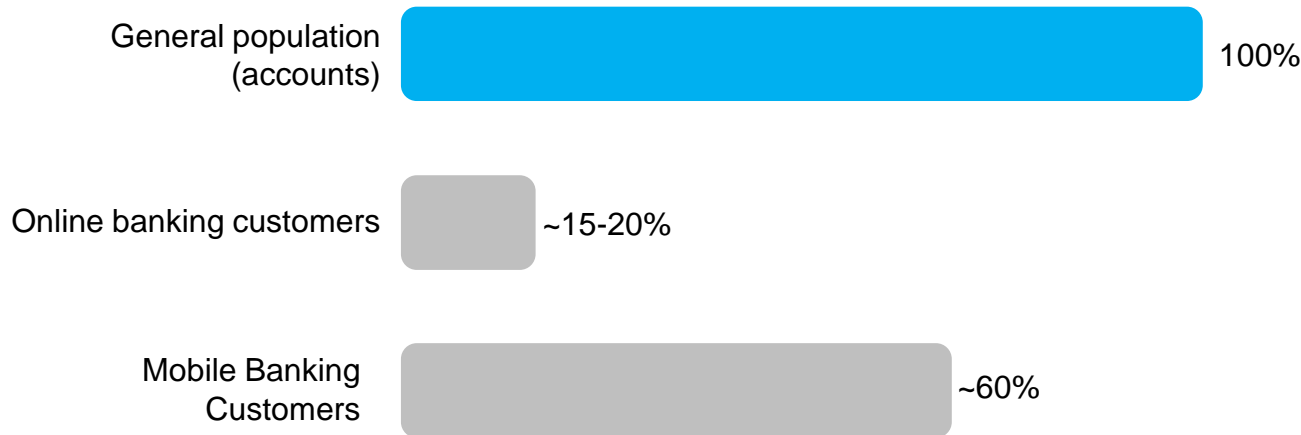
## Case Study #6: the implementation



# Impacting the customer base



## Case Study #6: customers targeted and conversion rates



### Key Observations

- Early adopters were online users, and bank sought to win their trust.
- Focused on customers with salaries (direct deposit) who would appreciate the convenience of not having to go to branches or ATMs – “good for them, good for us.”
- Bluetooth distribution of application at corporate campuses meant customers didn’t need to get the application over the web.
- Senior management and staff were very supportive, and important in pushing mobile banking out to customers.
- Found that the custom application developed by the bank had a “wow” factor – customers only had to use it once to be hooked.
- Currently value of mobile transactions is increasing at 15-20% per month.

# The (disclosed) key outcomes associated with the implementation



## Case Study #6: outcomes

Customers impacted	Since launch in 2002 around 60% of customer base are mobile banking in all modalities.
Benefit Areas	<p><u>Channel migration</u>: while part of the original business case, this has not been measured in detail, due to the effect of newly acquired customers.</p> <p><u>Customer acquisition</u>. No statistics given for impact of mobile banking on customer acquisition. Introduction of mobile-banking-only product will likely allow for better measurement of customer acquisition.</p> <p><u>Retention</u>. No statistics given.</p>
ROI/Payback	ROI: not cited. Payback period: not cited
Costs	Cost to develop custom application: US\$ not cited.
Implementation details	<p>10-12 month design/development cycle for bank to develop custom application. Team included ~15 staff from the bank as the core team, with feedback and input from a wider team. Bank used an external software development company to code the application.</p> <p>Implementation was complicated by existing infrastructure, and by offering additional information, such as credit card information.</p> <p>Internal testing followed by staff rollout (which involved migration from existing processes) and then customer rollout.</p>

# What's next in mobile banking for this bank?



Case Study #6: what's next?

- **Banking products for customers who use only mobile as channel.**
- **Expanded P2P payments functionality, to allow payments to a mobile number, and payments outside the country's banking system.**
- **Cross-selling.**



## Case Study 7

*A European bank focuses on meeting the needs of a demanding customer base through excellence in delivery of mobile banking services.*

# Case study #7: a bank focuses on meeting the needs of a demanding customer base



## Case Study #7: introduction

### Country profile

- Europe.
- GDP/Capita: >US\$20,000.
- Population: >10 million.

### Bank profile

- Assets: >US\$100 billion.
- 4MM customers.
- >900 branches.

### Mobile starting point

- Introduced mobile banking via SMS in 2001, with low adoption. In 2010 introduced applications for iPhone and Blackberry.

### Mobile end point

- Fully native applications for iPhone and Blackberry, working off-mode and online.
- Balance inquiry, alerts on transactions and balances, transfers, bill payments, mobile phone top-up, pre-paid card top-up.
- P2P payments from account to account.

### Key partners

- Development in-house, https, all services being reusable. External development assistance for screen cosmetics.
- Partnership with a mobile operator to provide subsidized handsets to customers, prospects.

### Narrative

- Bank focused on remote banking for customers who are urban, self-directed who appreciate value-for-price, dislike cross-selling and price negotiation.
- Focused on “mastering remote banking” through all remote channels.
- Focused entirely on delivering Financial Services through mobile, avoiding cross-sells and non-financial content/activities.

# Evolving competitive advantage sought from mobile banking



## Case Study #7: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- Enabling self-banking.
- Reduce branch cost through channel migration.
- Drive greater customer loyalty.
- Strictly banking services – experiment with web shopping ~ a decade earlier had not been a success.

Current areas of competitive advantage that are driving evolution

- “Completely the same” drivers, but with evolution in delivery...(see following:)
- Increasing speed of transactions for greater customer ease.
- Looking to reduce the number of difficulties from the many configurations of blackberrys.
- Increased transparency and control of transactions on an account.
- More activities in real-time – the bank see real-time information/action as critical.

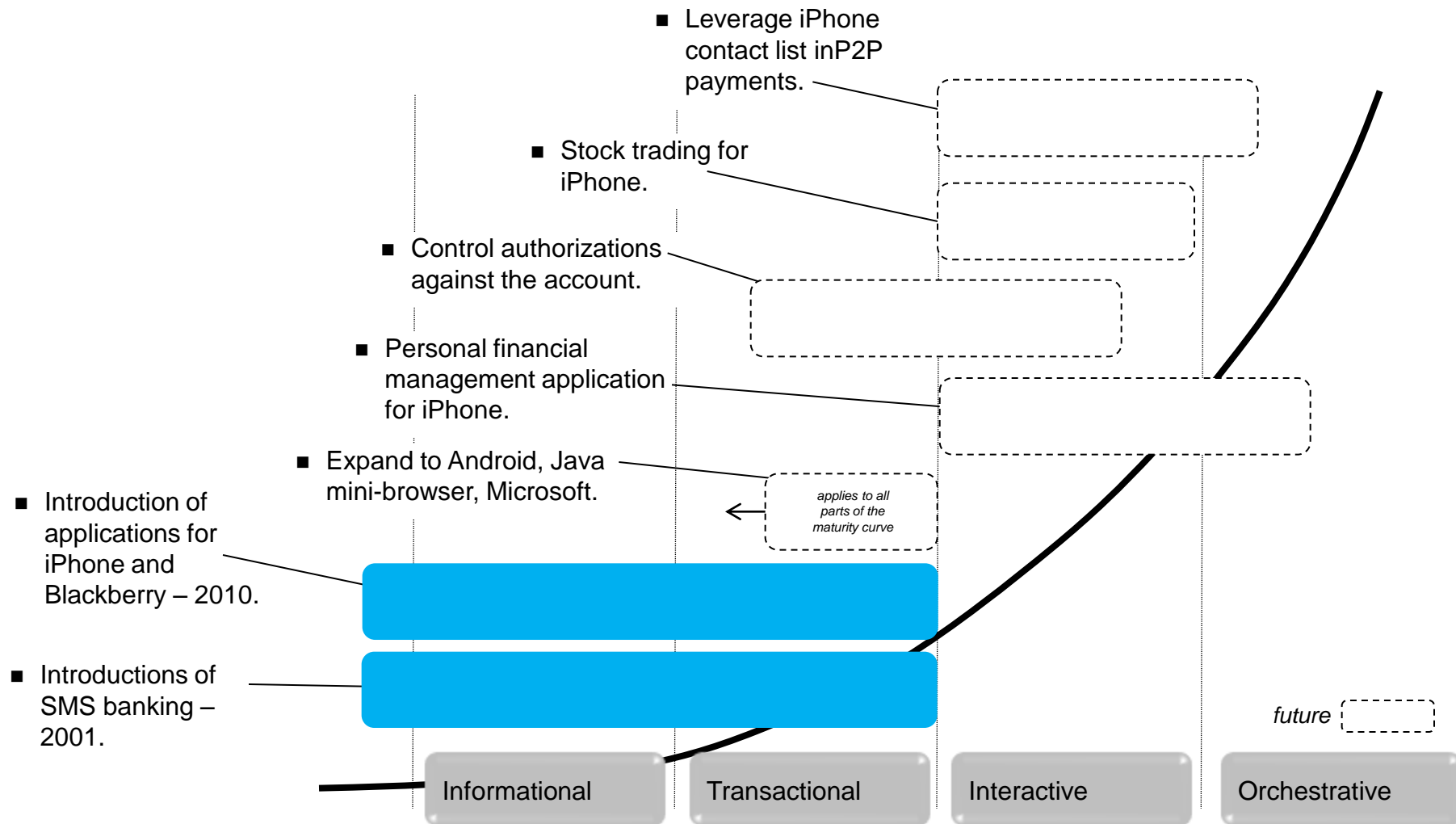
Current focus of activity to realize competitive advantage

- Expand availability (Android, Java mini-browser, Microsoft.)
- Reduce difficulties from proliferation of Blackberry configurations.
- Personal financial management.
- Control of authorizations on the account.
- Accelerating/minimizing log-in processes.

# The bank is focused on increasing ease of use by customers, and on evolving into interactive and orchestrative features



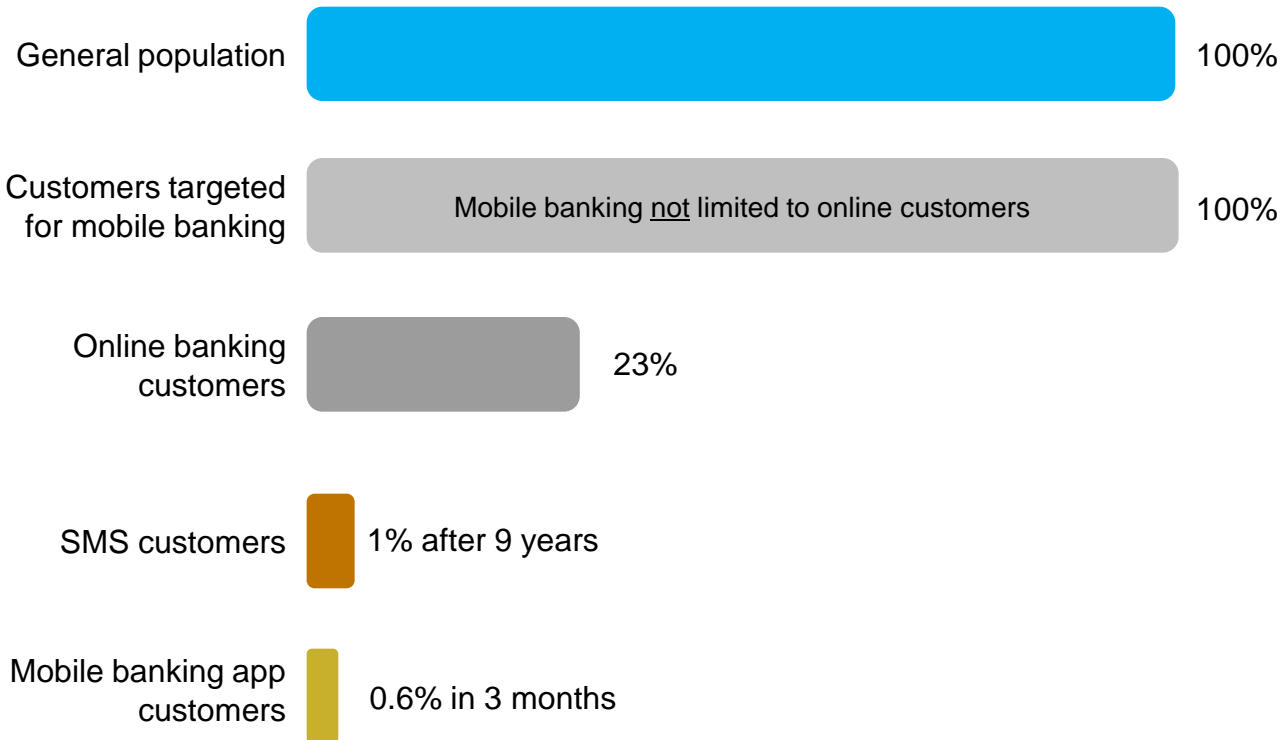
## Case Study #7: the implementation



# Impacting the customer base



## Case Study #7: customers targeted and conversion rates



### Key Observations

- Mobile banking not limited to online banking customers, utilizing same password.
- No mobile banking charges to customers.
- SMS introduced in 2001 had unfriendly user experience and was never really adopted.
- Online banking was introduced in 2000-2001, seen as systemic shift of servicing from branch to ATM to online/mobile.
- Early introduction of personal financial management using Microsoft Money was not deemed a success – too complex and needed real-time transaction classification to be embraced by customers.

# The bank did not view mobile banking in the context of an ROI but as a need-to-have



## Case Study #7: key economic outcomes

Customers impacted	Low adoption of SMS banking, even after 8-9 years due to unfriendly interface. Rapid adoption of mobile applications.
Benefits	No business case. Bank sees mobile banking as “not an option” like investments in the bank’s brand. Bank did assess mobile banking as having a role in recent increase in customers base, that their target customer base assess “a premium for innovation.”
Costs	Not disclosed.
Implementation details	Not disclosed.

# Additional observations: mobile value, new customer incentives



## Case Study #7: additional observations

- Focus on unique value proposition of mobile:
  - “Banking in a taxi” – mobile transactions, from start to finish (enter transaction, authenticate, execute) should be completed within 15-30 seconds.
  - Mobile customer values speed and simplicity.
  - Customers expect mobile information to be real time.
- Subsidized handset contributes greatly to adoption:
  - Very difficult to incent customers change banking relationship, especially in down economy.
  - Subsidized iPhone (partnering with carrier) attracts new customers.

# What's next in mobile banking for this bank?



## Case Study #7: what's next?

- Expand mobile application to Android. Expand to Microsoft, although waiting for the platform to be sufficiently developed. Java mini-browser. Reduce difficulties from proliferation of Blackberry configurations.
- Personal financial management application with real-time transaction categorization.
- Stock trading for iPhone.
- P2P payments leveraging iPhone contact list.
- Control of authorizations on the account.
- Continuing to become more real-time.



## Case Study 8

*A recent Pacific Rim mobile banking entrant up-shifting from its initial mobile entry into a significant expansion of capability.*

# Case study #8: *up-shifting from initial mobile entry into a significant expansion of capability*



## Case Study #8: introduction

### Country profile

- Asia Pacific.
- GDP/Capita: >US\$20,000.
- Population: >20 million.

### Bank profile

- Assets: >US\$100 billion.

### Mobile starting point

- Launched mobile banking mid-2007.

### Mobile end point

- Shifting from Phase 1 to Phase 2:
  - Phase One. Informational: SMS balance and mini-statement. Transactional: balance transfer. Reminders, no alerts. Interactive: one-off P2P.
  - Phase Two. Informational: daily reminders. Transactional: increased level of transactions (e.g., mobile top-up). Interactive: Major enhancements to P2P payments, for account to account and mobile to mobile.

- Web registration. iPhone app.

### Key partners

- Support from 3<sup>rd</sup> party software provider for Phase 1 and Phase 2.

### Narrative

- Business case developed in 2006.
- Phase 1 SMS and Java, but with challenging user registration process.
- Currently shifting into Phase 2, focus on web based, rather than Java. Deploy iPhone app.
- Moving to full smartphone experience.

# Evolving competitive advantage sought from mobile banking



## Case Study #8: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- Customer migration to lower cost channels.
- Customer retention.

Current areas of competitive advantage that are driving evolution

- *Same drivers as for original case, plus...*
- Leveraging critical mass of getting more than 10% of customer base using mobile banking.
- Engaging customer facing staff to promote adoption in branch and call center.

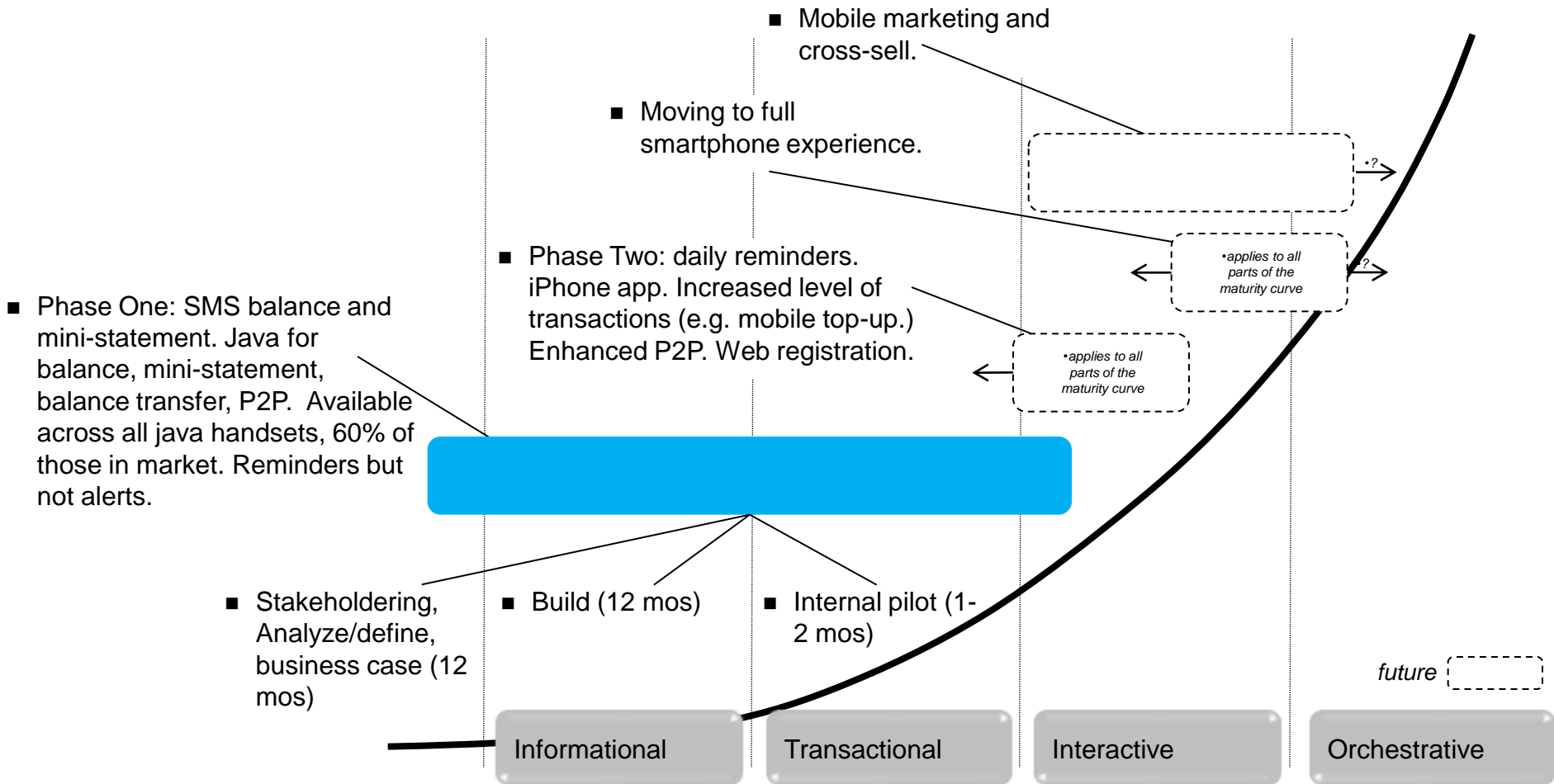
Current focus of activity to realize competitive advantage

- Executing on Phase 2.
- Mobile marketing and cross-sell.

# The bank is moving from a suboptimal Phase 1 into a more mature (interactive and orchestrative) Phase 2



## Case Study #8: the implementation

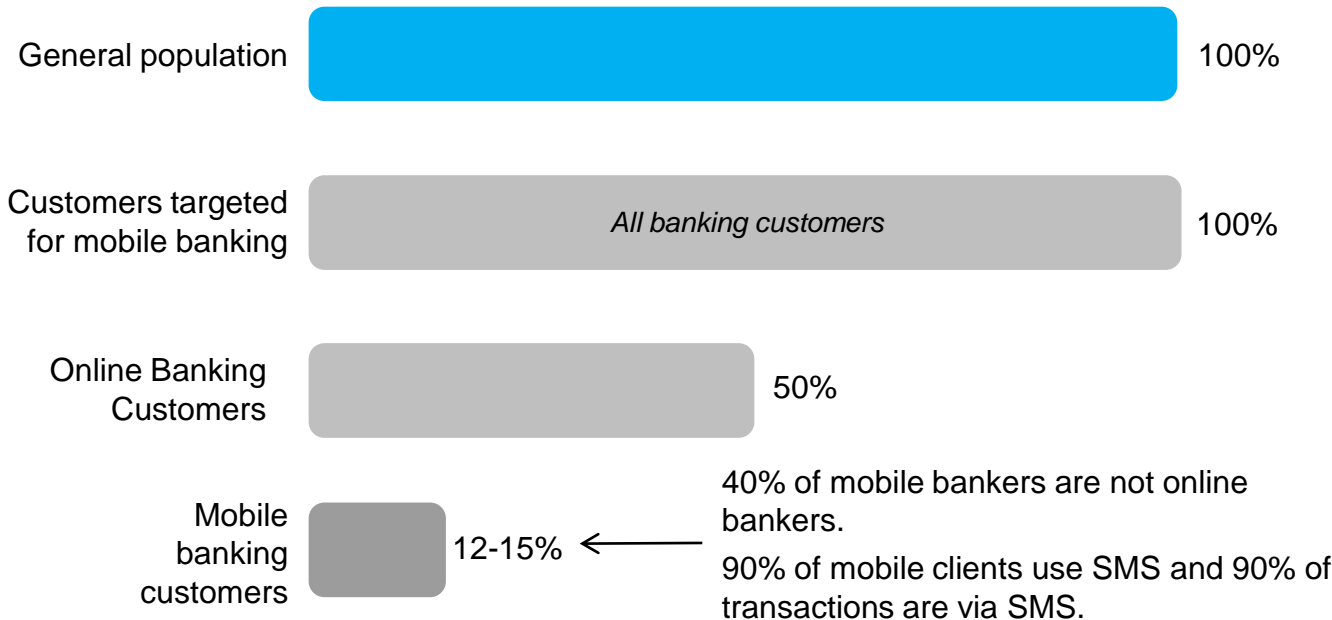


# Impacting the customer base



## Case Study #8: customers targeted and conversion rates

### Key Observations



- Mobile offering not limited to online banking customers, but registration process in Phase 1 was “poor.”
- Pushed for sign-ups from call-center.
- Did not pursue any particular customer segments, but focused on staff – “invest \$100K with them and you’ll get 10X the registration impact you’d get with external marketing.”
- “Easy” to get to 5-6% penetration through good marketing. Getting to 10% plus critical mass “proves that you can make it” and “credibility increases, business cases become easier and doors open.”

# We examined the key outcomes associated with the implementation...



## Case Study #8: key economic outcomes

Customers impacted	12-15% adoption.
Benefit Areas	<p>Bank did not see the traditional metrics applying well to mobile banking, but saw the drivers as being channel migration and retention.</p> <p>While the bank charged for the service, this revenue was not described as an economic driver, and was subsequently dropped.</p> <p>Bank position was “if mobile is important, then needed to move on that...prove the demand.” Reporting of channel migration by branch and call center has been difficult, but a band-wide “given” that there has been channel migration. Lack of reporting on retention improvement.</p>
ROI/Payback	<p>NPV of US\$1.55MM.</p> <p>ROI of 230% (undiscounted values.)</p> <p>27 months to payback.</p>
Costs	Phase 1 budgeted ~US\$2.1MM over first 3 years in total costs. Phase 2 multiples of this amount.
Implementation details	<p>Phase 1: 25-26 month design through rollout.</p> <p>Phase 1: around 20 people on project team. Phase 2: project team of approximately 34.</p> <p>Ongoing governance from 50% of an executive plus a couple of staff.</p>

# ...and compared this to the business case going into the implementation



## Case Study #8: outcomes relative to the original business case

	<i>Outcome beats business case</i>	<i>Outcome worse than business case</i>
Customer base impacted	Adoption beat expectations of business leadership.	Adoption was not in line with forecast in business case.
Benefits	Bank has not had sufficient reporting to determine this.	-
Costs	In line with business case.	-
ROI	Bank has not had sufficient reporting to determine this.	-
Implementation	-	~21-22 months planned for implementation, achieved in ~25-26 months.

# Additional observations: stakeholdering, staff engagement, integration and lifting fees



## Case Study #8: additional observations

- Stakeholdering:
  - The initial mobile case presented considerable uncertainty, concern with risk – against which was excitement around the possibilities of mobile banking. Stakeholder management was difficult due to this, but “the numbers weren’t large.”
  - Mobile can “punch way above its weight” because of the senior executive attention it receives – due to both its risk and its possibilities. To senior executives mobile itself is quite personal.
  - CEO stayed engaged throughout as a stakeholder.
- The bank “bust a gut” in the branches and call centers with staff education and registration – the best decision we made.” The bank reported that external marketing spend, while minimal “didn’t achieve anything.”
- The bank’s mobile systems are well integrated with the core, but not with the CRM systems, and the bank sees this as an integration need, along with many other integration needs: “in 2, 3, 5 years when mobile is the next internet banking, the platform will have to offer everything.”
- Bank initially had mobile banking fees, but when these were removed saw “a lot more” usage and benefits.
- The bank expressed disappointment that it had not deployed mobile web banking earlier as its java experience has not met expectations.

# What's next in mobile banking for this bank?



## Case Study #8: what's next?

- Phase 2, with an investment orders of magnitude larger than the Phase 1 investment.
- Enhanced registration.
- Enhancements to P2P payments.
- Increased transactions.
- Alerts.
- Mobile marketing and cross-sell.



## Case Study 9

*A bank with no mobile functionality undertakes a low-investment introduction of new capability.*

# Case study #9: a bank with no mobile functionality undertakes a low-investment introduction of mobile banking



## Case Study #9: introduction

### Country profile

- Americas.
- GDP/Capita: >US\$40,000.
- Population: >100 million.

### Bank profile

- Assets: >US\$10 billion.
- >250 branches, >400 ATMs

### Mobile starting point

- No mobile banking services.
- Mobile banking launched mid-2008.

### Mobile end point

- Downloadable application only (excludes Android.)
- Hosted, leveraging OFX connect to online banking for low-cost. Multi-lingual English-Spanish.
- Informational: balance inquiry, account history, ATM locator.
- Transactional: balance transfer, bill-payment.

### Key partners

- mFoundry for initial implementation.

### Narrative

- Business case developed in 2007, for years 2008-2010. Launched mid-2008, driven by CEO's observations of mobile usage in Europe.
- Minimal investment. Three year plan investment of under US\$300,000.
- Online banking customer penetration goal of 1% in Year 1, 3% in Year 2, 7% in year 3.
- Struggling with economic justification in low-fee environment, with reluctance to charge for mobile, plus need to expand functionality.

# Evolving competitive advantage sought from mobile banking



## Case Study #9: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- Defensive: competitive position.
- Defensive: retention of customers.
- Conservatively, gain experience in mobile banking at low cost.

Current areas of competitive advantage that are driving evolution

- *Same drivers, plus...*
- Justification of mobile bank services in challenging banking environment with reduced OD fees and card income.
- Finding opportunities to charge for service – question is being asked: “do we really need mobile banking?”

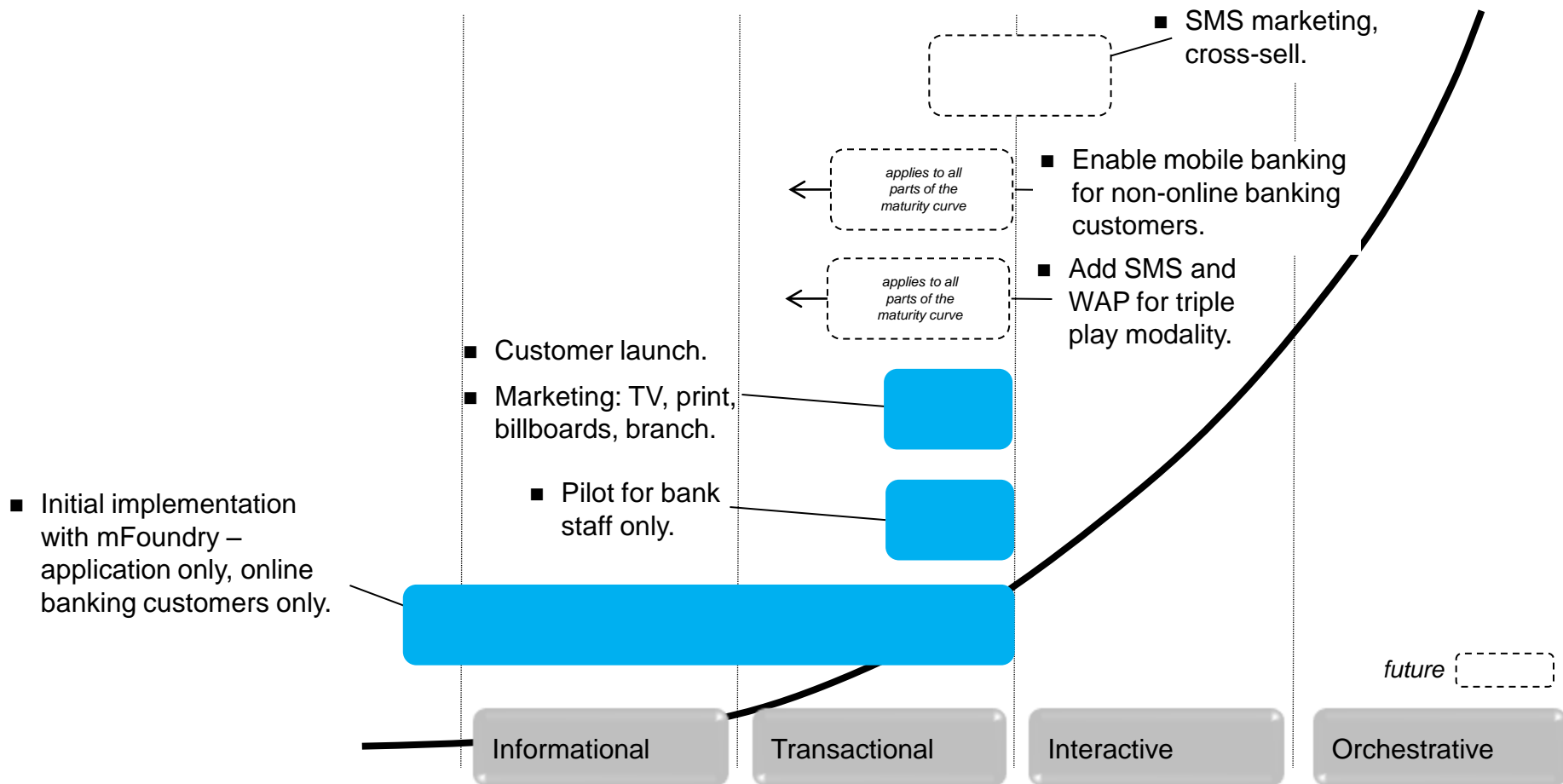
Current focus of activity to realize competitive advantage

- Add SMS and WAP for triple play modality.
- Offer mobile to non-online banking customers.
- SMS marketing.
- Target Millennials.

# The bank moved into mobile banking in a low-cost, limited modality manner



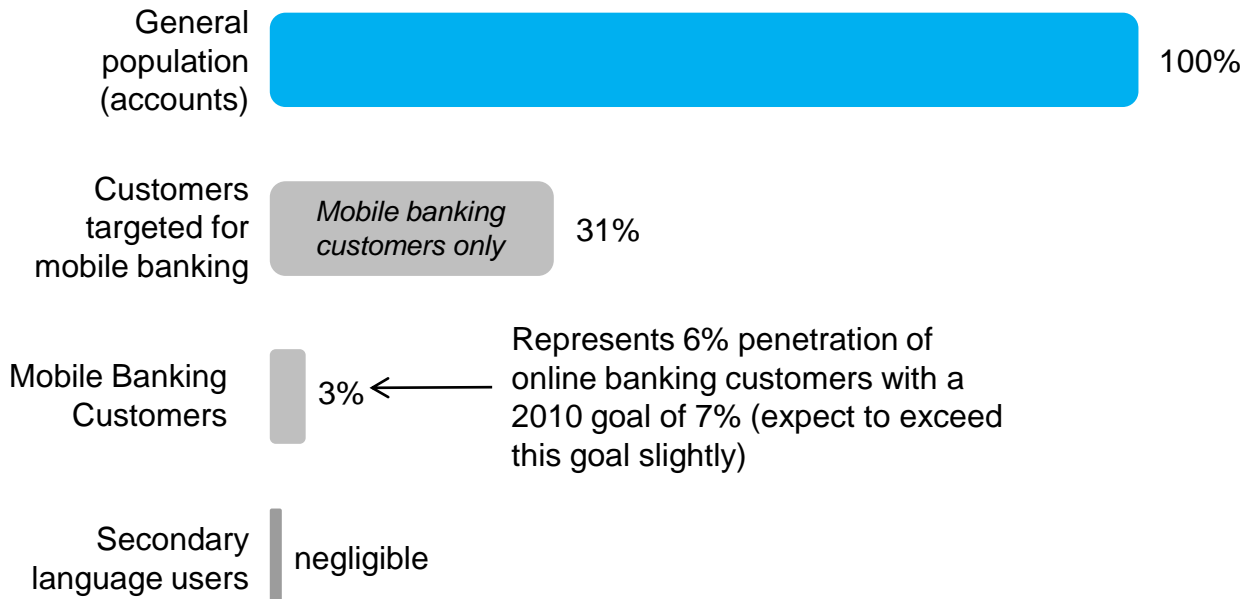
## Case Study #9: the implementation



# Impacting the customer base



## Case Study #9: customers targeted and conversion rates



### Key Observations

- Technology implementation limited the bank of online banking customers only.
- No particular segments targeted.
- Offered both English and Spanish – disappointing take up of Spanish version (theorize bilingual clients simply prefer English, unclear why Spanish speaking clients have not adopted)
- Even distribution of mobile banking customers by age.
- Future focus on Millennials.

# We examined the key outcomes associated with the implementation...



## Case Study #9: key economic outcomes

Customers impacted	Just under 7% of online banking customers.
Benefit Areas	<p>Business case lacked definition around economic drivers, benefits.</p> <p>Benefits set out in business case around channel usage were not observed for retention, channel usage, balances.</p> <p><i>Bank does not appear to have undertaken detailed ex-post behavioral analysis by mobile banking segments.</i></p>
ROI/Payback	Business case was defensive, did not include ROI or payback period.
Costs	Budgeted <US\$350,000 over first 3 years.
Implementation details	<p>Entry into mobile banking promoted by CEO.</p> <p>Vendor due diligence of around 90 days, selecting approach with “no risk” cost point.</p> <p>Downloadable application, hosting from mFoundry.</p> <p>Requirements gathering and integration 30-60 days.</p>

# ...and compared this to the business case going into the implementation



## Case Study #9: outcomes relative to the original business case

	<i>Outcome beats business case</i>	<i>Outcome worse than business case</i>
Customer base impacted	Expected to be slightly ahead of plan by end 2010.	-
Benefits	-	Benefits not observed for retention, channel usage, balances.
Costs	Met expectations.	-
ROI	n/a	n/a
Implementation	Met expectations.	-

# Additional observations: learnings, economic challenges of mobile banking



## Case Study #9: additional observations

- Make the enrolment process as simple as possible.
- Establish a solid interface from the start between mobile and core.
- Plan the technology platform better for functional enhancements, retain flexibility.
  - “...don’t become one-dimensional through technology short-cuts.”
- Mobile triple play (app, SMS, WAP) should be planned for initially.
- Mobile used to be table stakes, but now needs to be able to justify itself economically.
  - “Very difficult to charge when bank leads with free products.”

# What's next in mobile banking for this bank?



## Case Study #9: what's next?

- Develop triple-play by adding SMS, WAP.
- Offer mobile banking to non-online banking customers.
- Introduce SMS marketing (looking at this closely.)
- Center development around Blackberry, Android and iPhone, while other handsets can leverage SMS.
- Bank may not continue with multi-lingual, as second language did not experience expected utilization.
- Target Millennials.



## Case Study 10

*A bank with no mobile functionality undertakes a conservative introduction of new capability – and measures the effects.*

# Case study #10: a bank with no mobile functionality undertakes a conservative introduction



## Case Study #10: introduction

### Country profile

- Americas.
- GDP/Capita: >US\$40,000.
- Population: >100 million.

### Bank profile

- Assets: >US\$150 billion.
- 3MM+ DDA customers.
- Branch, ATM range: >1,500, >2,500.

### Mobile starting point

- No mobile banking services.
- Started investments in mobile banking in 2007.

### Mobile end point

- Downloadable application only.
- Moderately Transactional: transfers, alerts, bill payment.

### Key partners

- In 2007 online banking vendor introduced mobile banking vendor, who undertook the majority of the implementation.
- Used trusted vendor to house data.

### Narrative

- Partnered with other banks to launch the product from the vendor, to lessen risks. In 2007 was very little in the marketplace in their geography.
- Project was around 6 months in 2007. A “startup” with no written plan or release management.
- Project limited to online team, but then shifted to more strategic view of mobile banking.
- Shifting to full modality release with new vendor, announced March 2010.

# Evolving competitive advantage sought from mobile banking



## Case Study #10: competitive advantage

Areas of competitive advantage that drove original mobile banking business case

- Customer retention.
- Decreased cost to serve.
- Increase acquisition rate.
- Be seen as innovators.
- Remain competitive with those ready to launch (or launched.)

Current areas of competitive advantage that are driving evolution

- Customer retention.
- Decreased cost to serve.
- Increase acquisition rate.

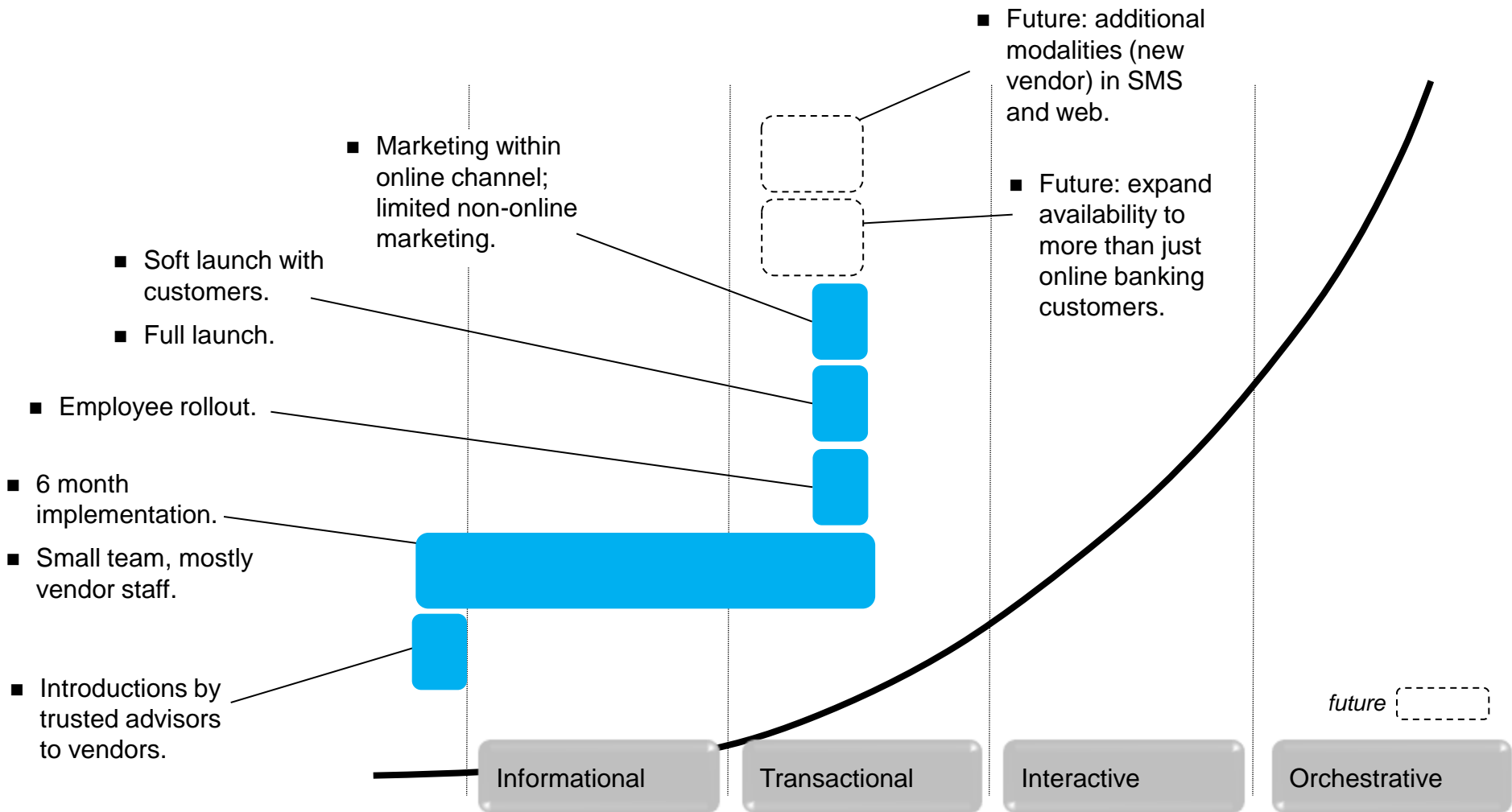
Current focus of activity to realize competitive advantage

- Expansion of modalities.
- Increasing access.
- Improving usability.

# The implementation was a simple single release, with employee rollout and soft launch with customers



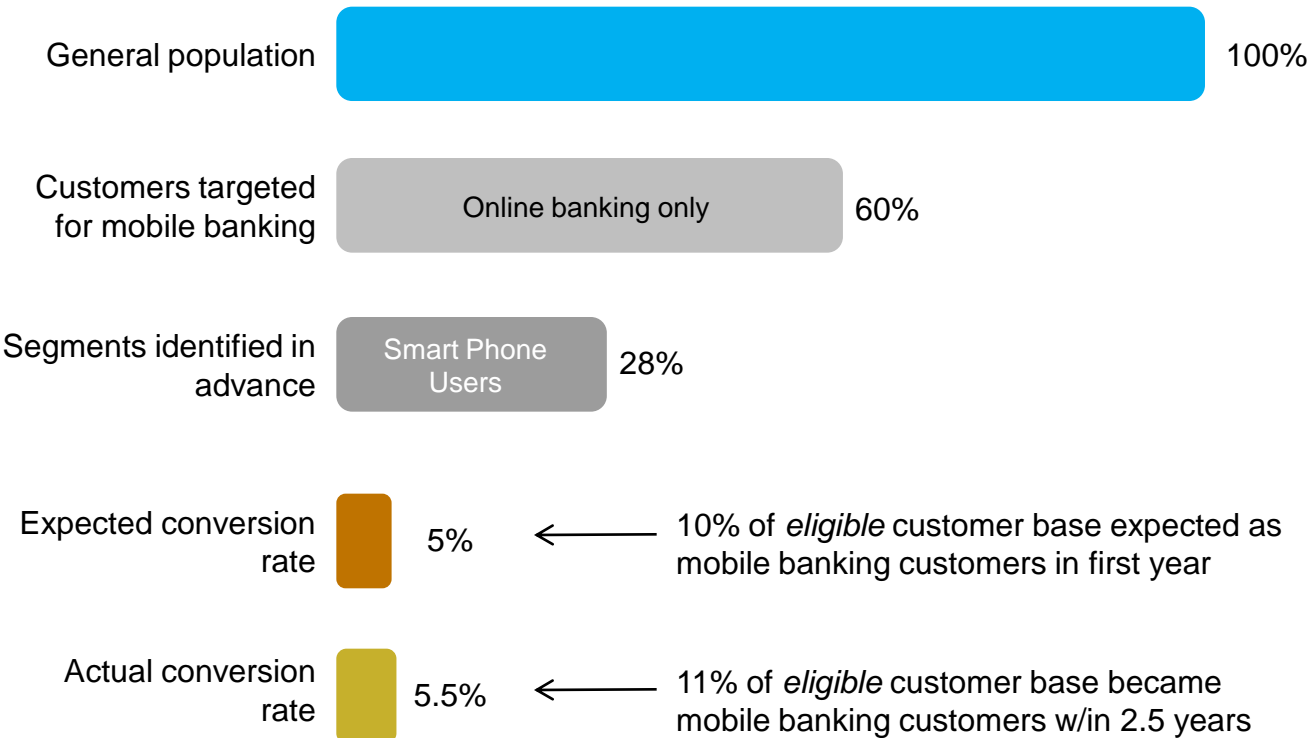
## Case Study #10: the implementation



# Impacting the customer base



## Case Study #10: customers targeted and conversion rates



### Key Observations

- Limited customer group chosen to enable soft launch with customers likely to be more familiar with the technology.
- Strong internal communication drove associate support and adoption.
- Print and billboard advertising drove measurable adoption spikes.

# We examined the key outcomes associated with the implementation...



## Case Study #10: key economic outcomes

Customers impacted	100,000 in around 30 months. Limited to customers with online banking only.
Benefits	Relative to online banking-only households, mobile banking households exhibited: <ul style="list-style-type: none"><li>• 30% higher household profit.</li><li>• Over 3 additional debit card transactions per month after signup for mobile</li><li>• 40% reduction in attrition</li></ul> After enrolling in mobile banking, customer profit increase of 60% with balances increasing over 500%.
Costs	Not disclosed.
Implementation details	No written approach – “all hands on deck.” 6 month project. Largely staffed by vendor, with some staff from online banking team.

# ...and compared this to the business case going into the implementation



## Case Study #10: outcomes relative to the original business case

	<i>Outcome beats business case</i>	<i>Outcome worse than business case</i>
Customer base impacted	Expected 10% of eligible target base to adopt, but was actually 11%.	Expected 100K customers within 1 year, actually took ~2.5 years.
Benefits	Expectations not set within a business case. Implementation in 2007 with late H2-07 launch. Analysis of economic outcomes undertaken in 2009. Reported as exceeding expectations.	-
Costs	Low-cost effort that was reported as exceeding expectations.	-
ROI	Not disclosed.	
Implementation	Qualitatively, exceeded expectations although unclear what the expectations were (no written plan etc.)	-

# Additional observations: bank's approach to mobile banking, partners and unexpected demographics



## Case Study #10: additional observations

- Bank was an early entrant, via online banking vendor.
- Bank approached this as a very conservative implementation.
  - Minimal resources, mostly executed by vendors. Minimal \$s.
  - Low-risk approach.
- Bank has partnership with a telco, with some billboards in heartland.
- Bank saw a big big boost from messaging in online channel, limited in branch.
- Bank was expecting a younger profile, but ended up with users more representative of broader demographic profile of online customer base.

# What's next in mobile banking for this bank?



## Case Study #10: what's next?

- Expand modality from application to SMS and web.
- Start using SMS for US Regulation E changes for customer to better manage accounts/overdrafts.
- Allow mobile banking registration for non-online banking clients.
- Remain conservative.