The cognitive bank
Decoding data to bolster growth and transform the enterprise
Executive summary

It's official, the traditions of the financial services business model are in stagnation…
Customer experience and engagement are not keeping pace with greater expectations of the rapidly evolving digital world
Sustainable profitability is a serious challenge for most of the global banking industry
Even more troubling is that operational efficiency is also in decline and attempts at tactical cost reduction are failing to achieve sustainable efficiencies
IBM's latest IBV study – the cognitive bank – categorizes winners and losers by revenue growth and operating efficiency over the past three years. Data and managing it effectively is the primary source of sustainable competitive advantage
Winners have several traits in common:
  Firstly, they are re-orientating their business models, by establishing, expanding, and evolving their ecosystem of partners everywhere…transforming very deep and wide
  Secondly, they are investing in fintechs, as partners in sustainable business models
  Thirdly, becoming the cognitive bank, using the latest techniques in design thinking and agile
Outperforming banks are already on their journey towards becoming the cognitive bank. We are already partnering with them to plan the journey and charter the course
Banking industry is in the midst of challenges …

Banking is being commoditized and value is moving from functional capability to relationship management.

Banks are struggling to match customer expectations in terms of overall experience.

New breeds of competitors are attacking banks on all sides – with low costs and new value to customers.

Financial performance has plateaued with many banks struggling to pare costs further.
Successful organizations tend to have stronger capabilities in discovery of new ideas and effective decision-making.

Outperforming banks are much more aware of disruption¹...

- Outperformers: 231% more
- Underperformers: 43% more

The response of many banking leaders is to cut costs³...

- Improve operational efficiency: 58%
- Improve customer engagement and experience: 51%

...and more likely to prepare for disruption²

- Outperformers: 80% more
- Underperformers: 54% more

But many now struggle to achieve additional efficiencies⁴

- 64% report that their bank’s operational efficiency remained the same or declined further over the last 3 years

Sources: See speaker notes
But incremental change is not sufficient and banks need more radical and rapid measures to achieve the desired performance.

**Banks are performing below targets and responding to the headwinds**

Performance of global banks compared with bankers’ own performance targets in our survey\(^1,2\)

- **Revenue growth**
  - Target revenue growth: 4.3%
  - Actual revenue growth (2012-14): 10.6%
  - Performance gap: 6.3pp

- **Return on Equity (RoE)**
  - Target RoE: 9.3%
  - Actual RoE (2012-14): 13.1%
  - Performance gap: 3.8pp

**Sources:** See speaker notes

- Banks are looking beyond immediate gains to tackle the effects of disruption
- The industry is rapidly embracing new technologies to renew growth prospects through a reshaping of the business
- Cognitive computing is enabling banks to exploit the benefits of the data available to them by:
  - Providing deeper and more personalized customer insights
  - Supporting more informed decisions across the whole bank
  - Accelerating operational and organizational efficiencies

**Revenue growth**

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<tr>
<th>Performance gap</th>
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<th>Actual revenue growth (2012-14)</th>
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**Return on Equity (RoE)**

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They are faced with few key challenges pertaining to changing skill set and lack of effective decision making.

Top 3 strategic priorities stated by the banking executives surveyed:

- Improving operational efficiency: 58%
- Improving customer engagement & experience: 51%
- Growing revenues: 50%

Top 3 benefits anticipated from cognitive computing as surveyed:

- Improve operational efficiency: 49%
- Improving customer engagement & experience: 46%
- Growing revenues: 39%

Sources: See speaker notes.
Cognitive computing enables systems that process and act on data like humans.

Cognitive computing is based on four principles:

- **Learn and improve**: Improves with each outcome, action, iteration – with each new piece of information.
- **Build speed and scale**: Uses machine learning to carry out complex tasks repeatedly, much more efficiently.
- **Collate human intelligence**: Makes collective knowledge accessible for reuse, trained by subject matter experts.
- **Interact in a natural way**: Adapts to human approach and interfaces, understands context and reason.
This performance gap can be bridged by cognitive computing, overcoming human and current systems’ limitations.

**Improved engagement**

*Engage*

**Self-service engagement**

- Delivering one-on-one experiences at scale
- Direct-to-consumer cognitive virtual agents serving, guiding and advising via web and mobile

**Decide**

*Wealth advisor assist*

- Scaling sales and service expertise

**Explore**

*Customer service support*

- Accelerating expertise on demand
- Employee-facing applications that supplement service across the customer life-cycle

**Monitor**

*Risk and compliance*

- Enabling assurance across all business processes
- Employee-facing applications that enhance wealth management operations

**Operational transformation**

*Actionable insights*
Above all, the cognitive bank enables decision-making to be enhanced by dynamic learning across the whole organization.

**Descriptive**
- Deals with what happened
  - Reports
  - Dashboards
  - Visualization

**Predictive**
- Deals with what can happen
  - Predictive models
  - Scores
  - Forecasts

**Prescriptive**
- Deals with optimizing outcomes
  - Rules
  - Optimization models
  - Recommendations

**Cognitive**
- Deals with dynamic learning
  - Learning models
  - Experience based
  - Feedback mechanisms

Cognitive computing enables decision-making to be forward-looking and continuous.

Levels of human interaction:
- Descriptive
- Predictive
- Prescriptive
- Cognitive

Depth of insights:
Cognitive computing transforms the entire bank across three key dimensions:

- **Deeper contextual engagement**
  - Personalizes customer engagement
  - Complements human expertise
  - Provides access to ecosystem partners

- **New analytic insights**
  - Enables seamless dialogue with user
  - Accelerates banking processes
  - Provides knowledge-driven opportunities for ecosystem partners

- **Enterprise transformation**
  - Redefines the business model
  - Redefines roles and business processes
  - Transforms the organization
Cognitive computing is helping banks in improving engagement, generating new analytical insights and transforming enterprise.

- **Deeper contextual Improved engagement**
  A bank in Japan pioneers the building of a cognitive based customer service robotic platform that understands customer words and even expressions.

- **New analytic insights**
  A bank in Spain exploits cognitive to trawl more data more quickly than ever imagined.

- **Enterprise transformation**
  A global financial services organization uses cognitive computing to manage business proactively.

Sources: See speaker notes
Next steps

Plan your cognitive journey

Assess the business case for cognitive bank and chart a course for your own cognitive journey

Prepare your organization

Evaluate your current capabilities and build the foundation to make your organization ready

Implement and evolve continuously

Use a strategic rollout for cognitive transformation, and evolve it with continuous learning
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