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Strategic Analysis of NAB's Virtual Assistant Capability

A roadmap for transforming NAB's customer service from reactive support to strategic partner

Introduction

Introduction and professional background

An approach to analysing NAB's virtual assistant version next...

| ⦿ Senior expertise in design and technology leadership |

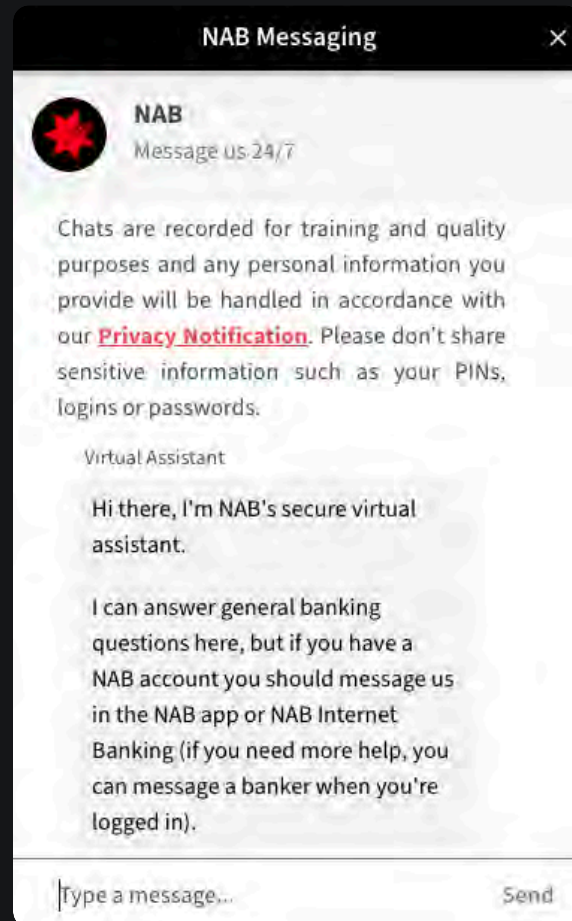| ▦ Published AI/UX Innovation Practice portfolio |

| ▱ NAB virtual assistant capability analysis (this document) |

| 💼 Chief Design & Technology Officer at Insyteful |

Strategic Analysis

Executive Summary

The Opportunity

NAB's virtual assistant handles 600+ question types but operates primarily as a reactive support tool.

The Australian banking market presents a unique opportunity to transform this into a strategic customer partner.

Analysis of CBA (CEBA), Westpac (RED), and ANZ (AMIE) reveals:

- Limited multi-turn conversation capabilities across all competitors
- Minimal personalisation beyond basic customer data
- Opportunity for NAB to lead through conversational excellence

Why virtual assistants matter in banking

"Leveraging a larger data set and getting up and running in weeks versus months enables a faster return on investment and delivers a better user experience."

Bank Administration Institute (BAI) article *"Virtual Assistants: Efficiency and Customer Self-Service"*
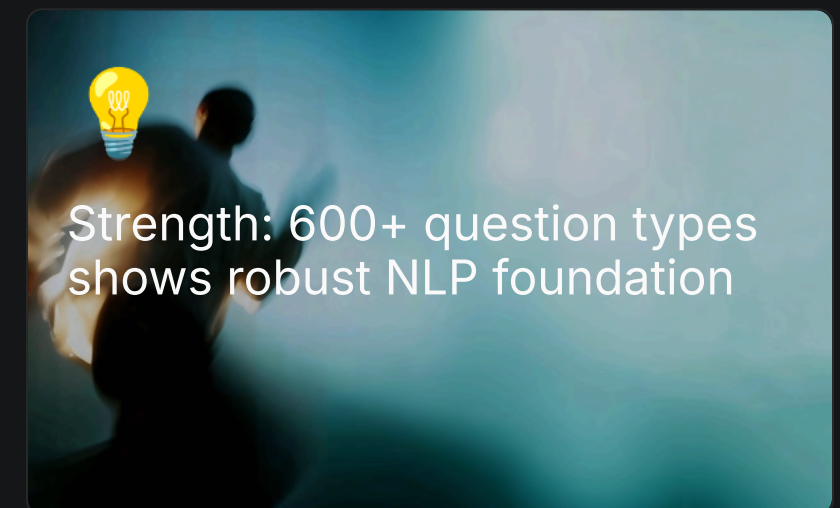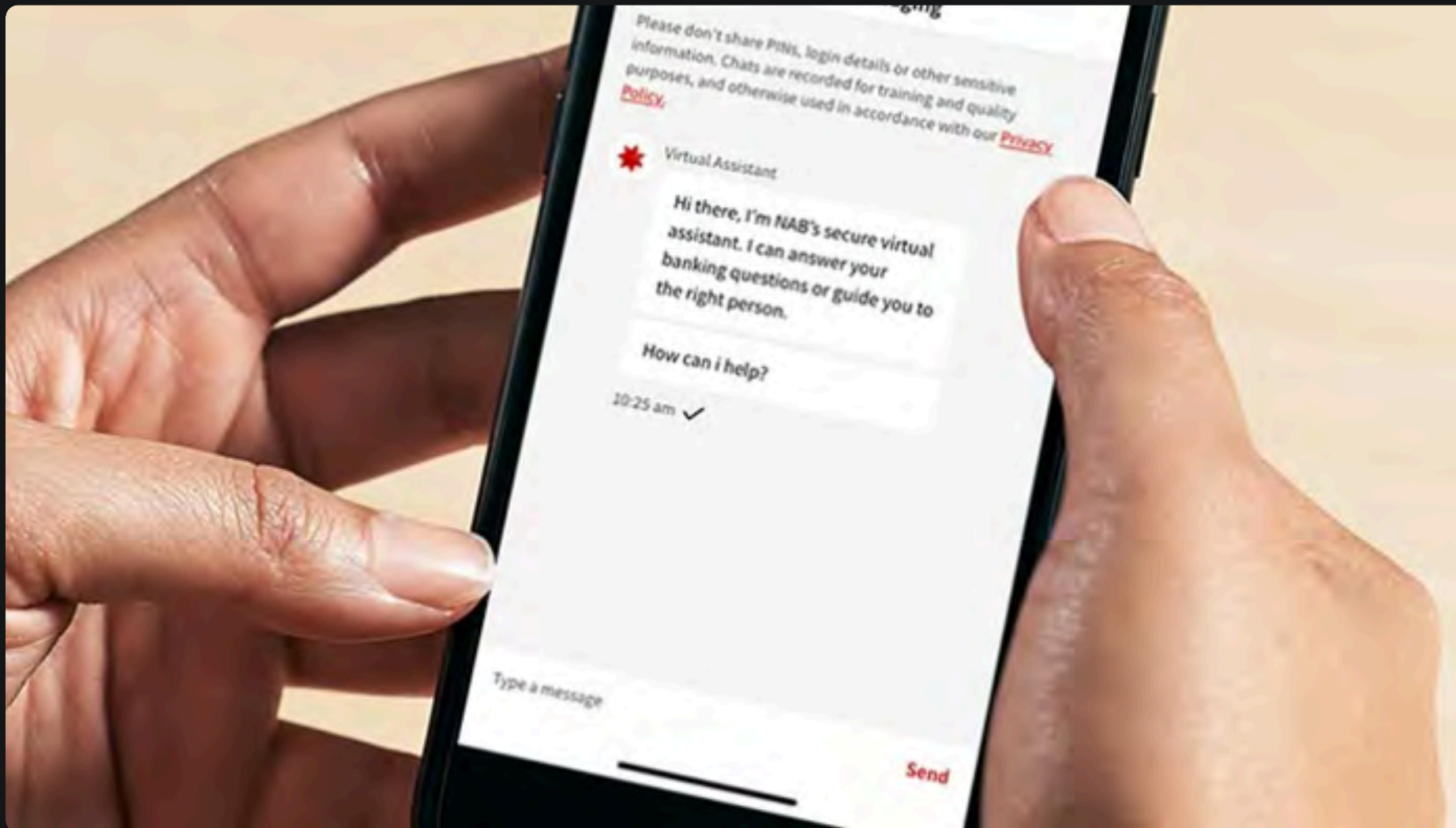
73%

of customers prefer self-service for simple banking tasks, but only 34% report being satisfied with current virtual assistant experiences.

- Forrester Research, Banking Technology Survey 2024.

this gap is the opportunity for NAB

NAB's Virtual Assistant

NAB Messaging chat service with **NLP processing for 600+ question types** and authentication advantages.

Strength: 600+ question types shows robust NLP foundation

Opportunity: Limited multi-turn conversation depth compared to competitors

Competitive analysis of major Australian banks

Compares NAB against CBA, Westpac, and ANZ across multiple dimensions.

NAB has the technical foundation. The next step is enhancing conversational depth and adding proactive, personalised advisory capabilities.

Key insight

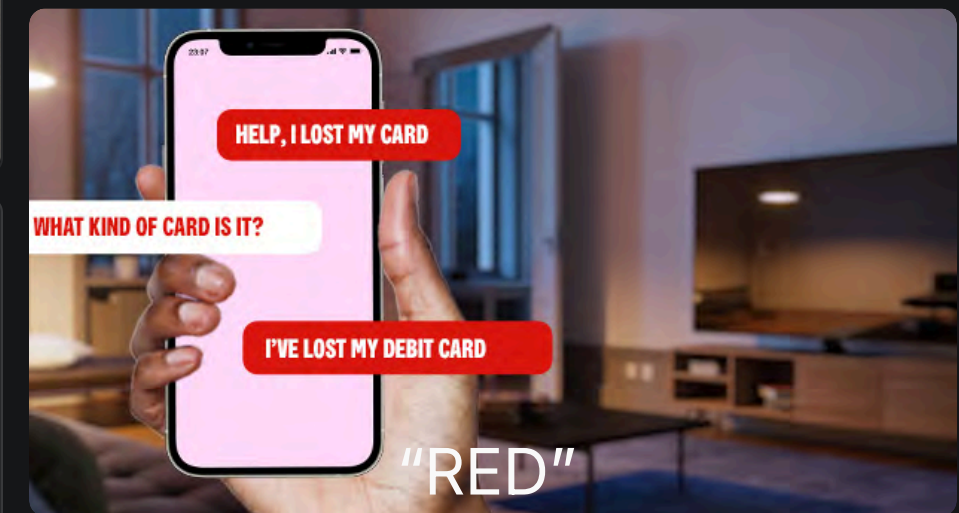Personalisation: Assessment of how well each bank delivers customised experiences to customers.

Task breadth: Evaluation of banks on comprehensive task capabilities across banking services.

Market opportunity: Identified potential for NAB to become a leader through integration and advisory capabilities.

"CEBA"

"RED"

"AMIE"

Three phase strategic roadmap

A culture of innovation with continuous iterative feedback (human loops) between development & implementation are critical

Phase 1:
Now→ 12 mths

Phase 2:
12→24 mths

Phase 3:
24→36 mths

Core upgrade focusing on multi-turn capabilities and user experience

Building the agent ecosystem with specialised assistants (multi-chained agents)

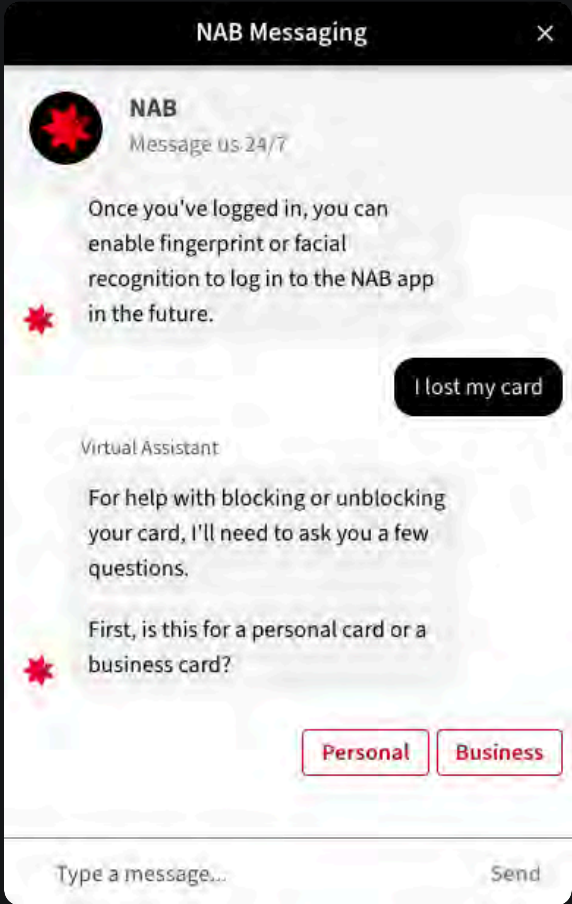Evolving to proactive partner with advisory capabilities

KEY DELIVERABLES

• Multi-turn conversation engine implementation
• Context persistence across sessions
• Enhanced NLU training for banking-specific intents
• A/B testing framework for continuous optimisation

• Specialist agents (fraud, loans, investments, account management)
• Agent orchestration layer for seamless handoffs
• Proactive notification system
• Integration with NAB's recommendation engine

Predictive customer needs modelling
• Financial wellness advisory features
• Behavioural nudging for better outcomes
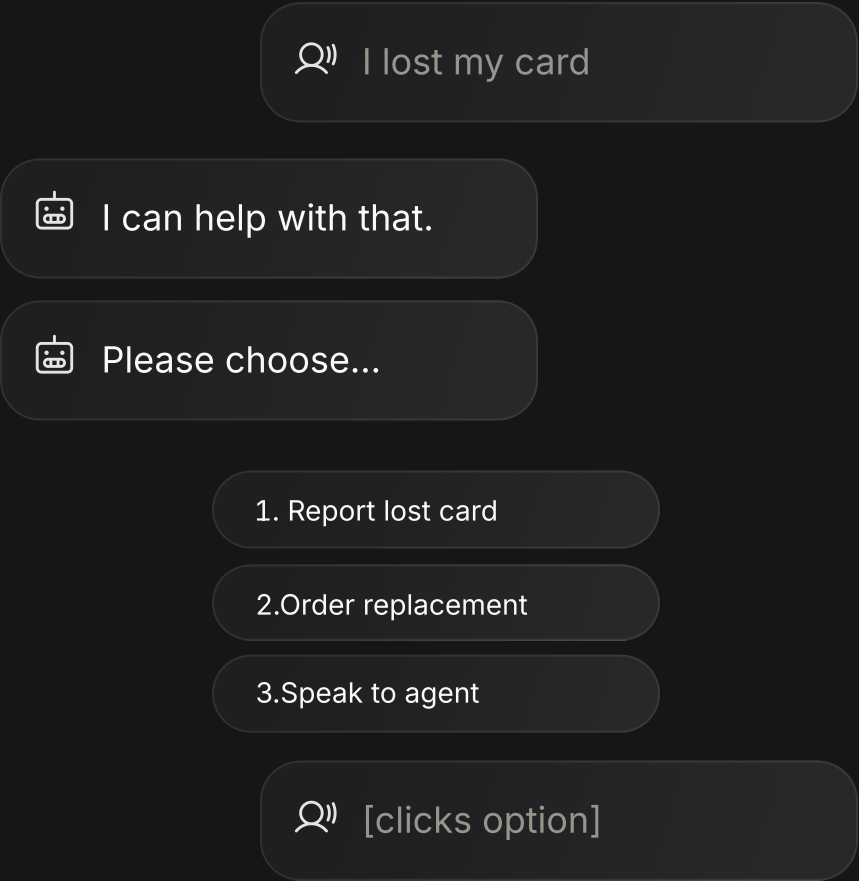• Cross-platform experience consistency

From Reactive to Strategic

Conversation Examples

NAB Messaging ✕

NAB
Message us 24/7

Once you've logged in, you can enable fingerprint or facial recognition to log in to the NAB app in the future.

I lost my card

Virtual Assistant

For help with blocking or unblocking your card, I'll need to ask you a few questions.

First, is this for a personal card or a business card?

Personal | Business

Type a message... | Send

Current State: Single-Turn Interactions

Core upgrade focusing on multi-turn capabilities and user experience

🔊 I lost my card

🤖 I can help with that.

🤖 Please choose...

1. Report lost card

2.Order replacement

3.Speak to agent

🔊 [clicks option]

- No context retention
- Requires multiple steps across systems
- Customer must know what they need
- Missed opportunity for proactive assistance

Future State: Multi-turn, Contextual Conversations

Building the agent ecosystem with specialised assistants (multi-chained agents)

🔊 I lost my card

🤖 Sorry to hear that.

I'm sorry to hear that. Let me help you right away.
To protect your account, I'm temporarily locking your card ending in 4567.
Done ✓

I've checked your recent transactions - everything looks normal. Would you like me to order a replacement card to your address at 123 Main St, Sydney?

🔊 Um...yes. How long will it take?
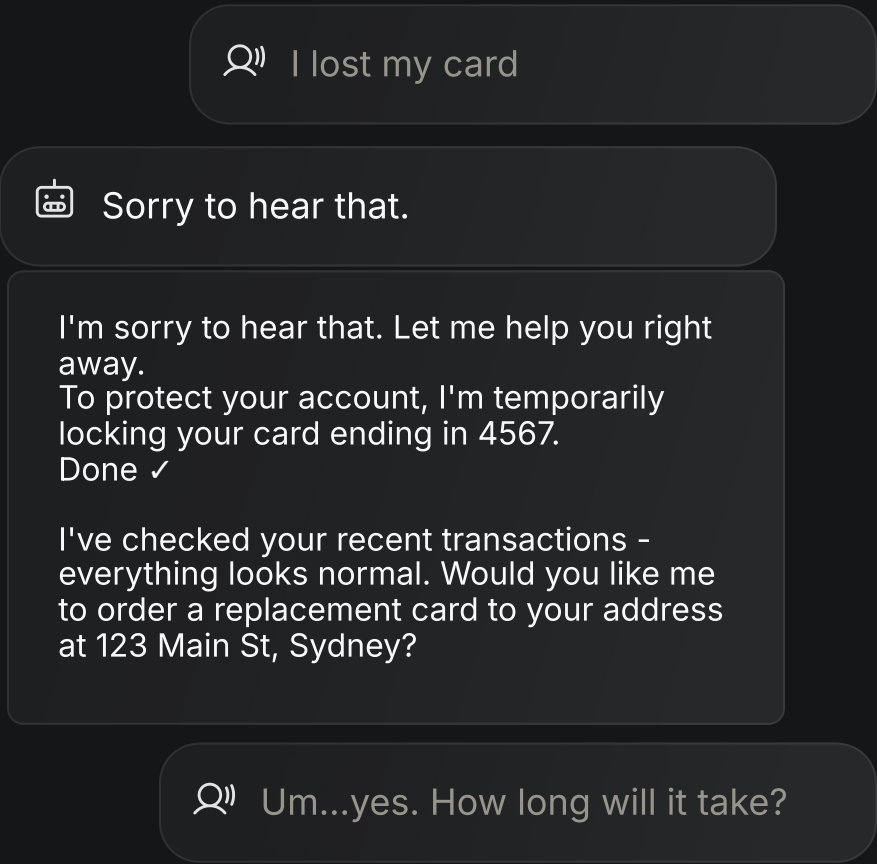
- Single conversation resolves entire issue
- Proactive security + convenience
- Context-aware recommendations
- Reduced customer effort
- Increased trust and satisfaction

Opportunity

Five key opportunity areas for improvement

Deeper personalisation

Implementing behavioral nudging for customized user experiences

Contextual conversation

Enhancing multi-turn conversation flows for better interactions

Seamless orchestration

Designing effective hand-off processes between systems

Transactional capabilities

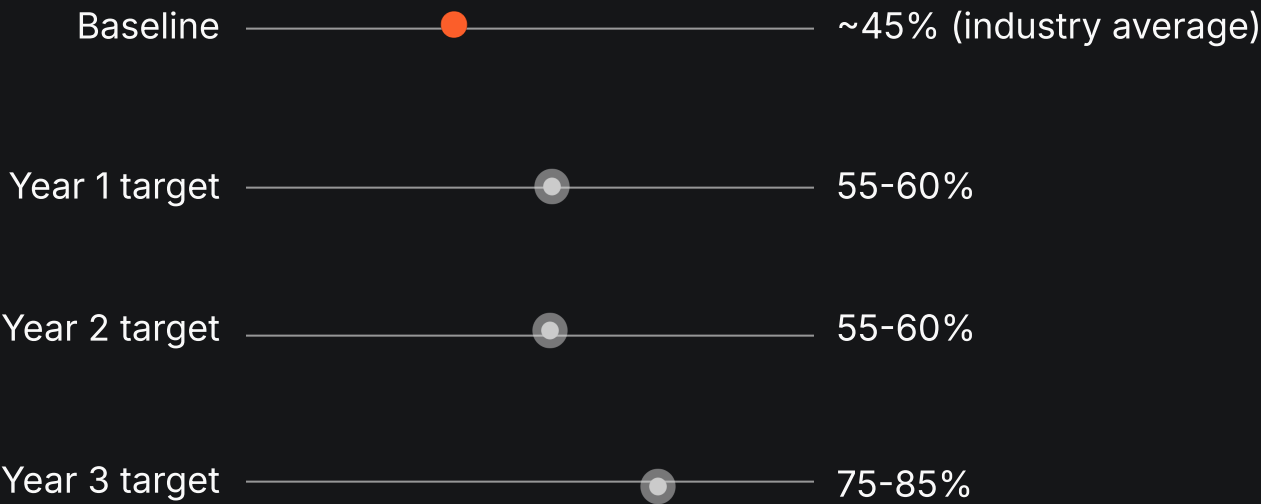Developing robust advisory and transaction processing systems

Inclusion features

Building accessibility and trust into all interactions

Measuring Success

KPIs & targets

Measurement framework:

- Real-time dashboards: Daily monitoring of key metrics
- A/B testing: Continuous optimization of conversation flows
- User feedback loops: Weekly analysis of user sentiment
- Quarterly business reviews: Strategic adjustments based on data

Primary metrics:

15-20pts ⬆️

Net Promoter Score: increase over 36 months

Measured: Post-interaction surveys

40% ⬇️

Customer Effort Score (CES): Reduce average interaction time

Measured: Steps to resolution, time to completion

Secondary metrics:

Gains ⬆️

Operational Efficiency:
- Call centre volume reduction: -30%
- Average handling time (for escalations): -20%
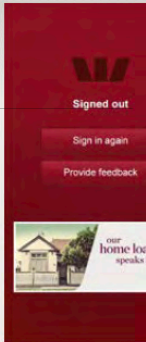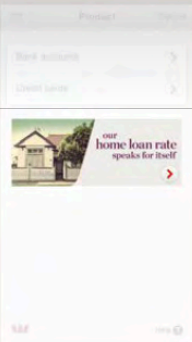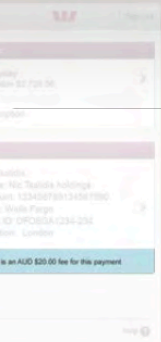- Agent productivity increase: +25%

35% ⬇️

Cost per interaction:
- Customer retention improvement: +5%
- Cross-sell conversion from bot interactions: +15%

Containment Rate

Baseline	~45% (industry average)
Year 1 target	55-60%
Year 2 target	55-60%
Year 3 target	75-85%

AI implementation projects

Key AI solutions that **increased engagement and reduced operational time** across multiple organizations.
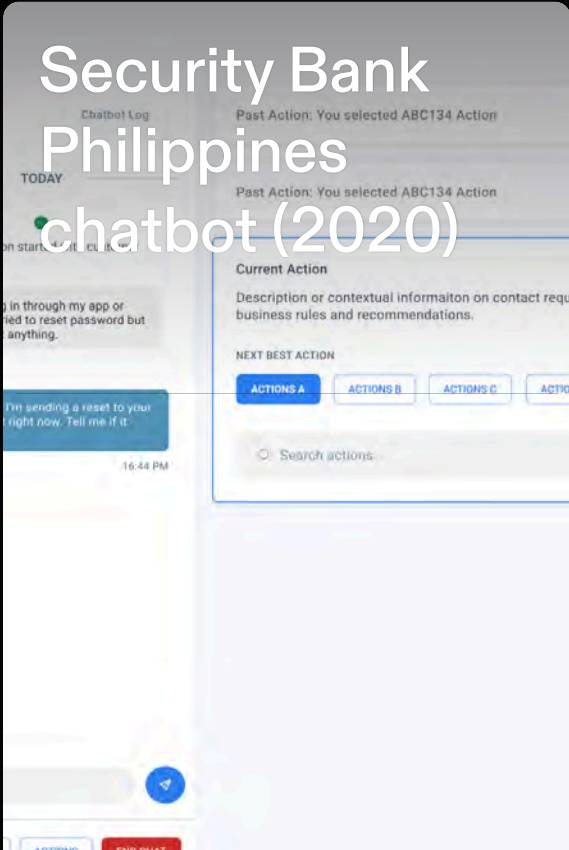
Westpac Next Best Action program (2016)

Security Bank Philippines chatbot (2020)

Service Bricks AI automation & multi-agent chaining (2024)
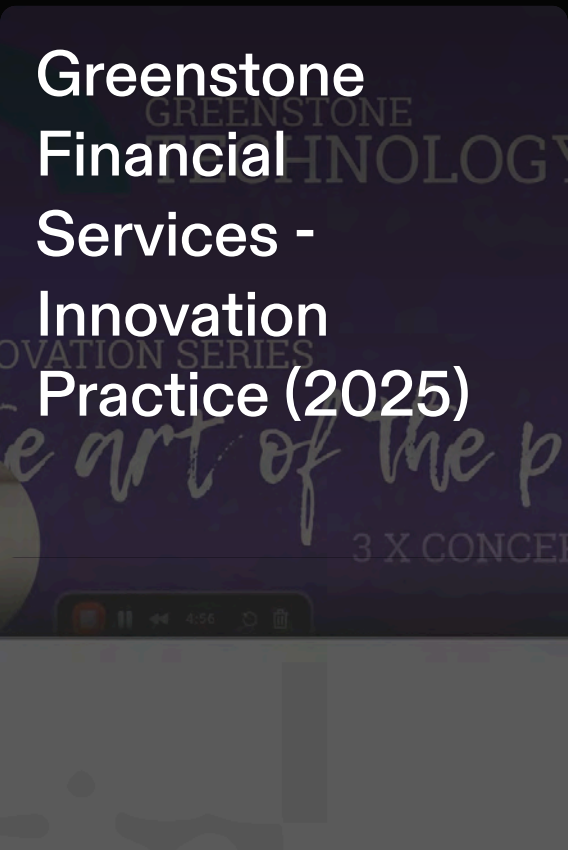
Greenstone Financial Services - Innovation Practice (2025)

Value proposition and next steps

- Emphasizes unique combination of strategy, building skills, and leadership experience

- References portfolio and video demonstrations of relevant work

- Clear call to action for further discussion about implementation

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Value Proposition

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This Analysis

Strategic roadmap for NAB's virtual assistant evolution

Value Proposition

💼
My approach

Strategy + hands-on building + leadership experience

Value Proposition

🎯
First 90 days

- Audit current virtual assistant capabilities
- Identify quick wins for immediate impact
- Build relationships with key stakeholders
- Develop detailed Phase 1 implementation plan

Next Steps

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Ready to dive deeper?

Ask me about:
- Specific implementation challenges at NAB
- My experience with similar transformations
- Technical architecture recommendations
- Team structure and resourcing needs