

# **Product Development for Digital Banking**

2017 Graduate Trainee Program – A Case Study Report

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### Agenda



Why Digital Banking?



Key Elements



Cost-Benefit Analysis



Digital Banking Concepts



Back Office Functions



Cost-Benefit Analysis



System Features



Competitors
Analysis



Timeline Projections



Proposed Architecture



Marketing Strategy



Strategic Priorities



Working Procedure



Cost-Benefit
Analysis



Closing and Others

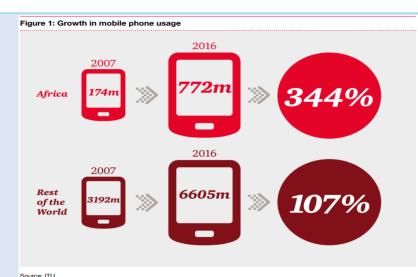


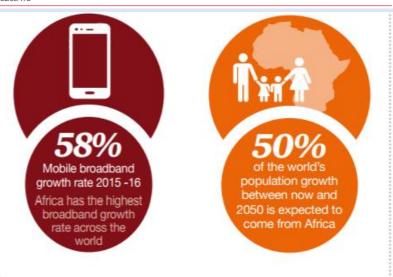


### 5 Reasons for Digital Banking?

- ➤ Africa is an early adopter rather than a follower. Instances include the highest mobile growth rate in the world
- ➤ **The millennial generation**. Digital native with a growing spending power
- ➤ **User Experience**. Driven by best in class websites; interactive, modernized, analytics with fewer clicks

- Omni-channel Expectations. Anywhere, anytime, any form factor
- ➤ **Technological Breakthroughs.** Broadband penetration within Africa grows in unprecedented ways





Source: PwC Megatrend analysis



## Why Digital Banking? Cont'd

What's an average Nigerian bank customer needs?

USSD banking

Debit card

Open a simple current or savings account

Overdraft or personal loan when broke

SMS and email notifications

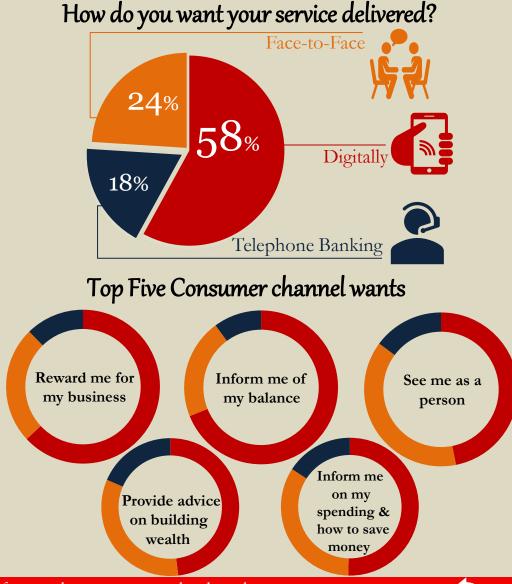
Reliable customer support

Access to ATM and Forex

Send & receive money

Awesome mobile app

Use of cards abroad





### **Key Digital Banking Concepts**

# Omnichannel **i Experience**

Users have the same experience across all channels

#### APIs

API is the face of modern e-business transactions; it creates a brand new distribution channel

# Users **Experience**

Via Big data, products
and services are fine
tune to suit
customers needs

# Digital Customer 1 Persona

By creating a digital profile of customers, we gain insights into their needs

# Users Interface

A unique design pre built with a settings tool to customize the app to customer's delight

# Simplified Banking Terms

Simple and catchy
words attracts
millennials, hard
and ambiguous
words turns off!





### 7 System Features

#### **Digital Onboarding**

#### **Digital Wallet**

**Open API Platform** 

**E-Signature** 

Frictionless account opening in 5 minutes.

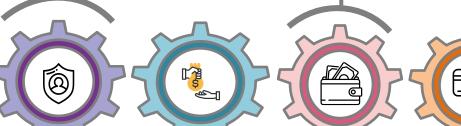
Send and request money on your smartphone with cashless

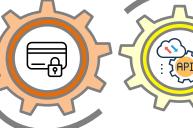
Extend the reach of bank assets and generate new revenue

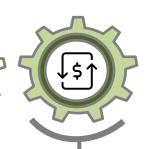
streams

Authentication made easy; eliminating delays

payments at stores and malls









#### **Swift Loan Disbursement**

Loan application/approval in 30 minutes

**Digital Safe** 

**Blockchain Democratized Trust** 

In-country and cross border payments through blockchain technology

Secured digital safe for important

documents and passwords



#### The Architecture



#### **ACCOUNTS**

Card Details
Account History
Wishes & Goals
Budgets
Pay Bills
Send Money
Request Loan
Onboarding



#### **HELP**

Video Assistance
Live Chat
Appointments
Market Trends
Recommendations
Talk to Experts
Finance Digits

### **4 Services**

5 APIs and a Chatbot

## INVESTMENTS

Fund Portfolio
FX Buy
Fund Sell
Travel Insurance
Overseas Trading
Real Estate
Retirement Savings
Alerts & Notifications

# APP & TOOLS

Settings
FAQs
Loan Calculator
Stock Indices
Complaints Resolution
Currency Converter
Credit Ratings





### **Working Procedures**

**The** digital bank app comprises 10 mini-apps that communicate with users, support their financial activities, and provide them with personalized financial coaching and services.

A simple 10 seconds login process for registered and verified users. The app will have useful information and tools available pre-login for non-customers to try out.

The app will provide a clear feature of the user's monetary status for the month, based on scheduled payments.

Allows withdrawals from an ATM without having a bank card in hand.

Creates a virtual wallet via optical character recognition technologies.

**Recognizes** favourite brands based on spending habits and offers exclusive offers from those brand. **Connects** to Facebook, Twitter, and Instagram through the app.

Offers personalized suggestions and tips based on the user's current financial status, such as information about loans, savings plans, etc.



### Working Procedures (cont'd)

**Investments:** Simple and interactive way of investing in mutual funds via Finance Digits Chatbot. **Investments:** Ouick search across funds' attributes.

Investments: Overall portfolio performance with consumer balance sheet summary.

Loans: All types.

Loans: Quick loan application in three simple steps.

 $\mathsf{T}$ ext payments, Location based services, Real time notifications near useful places

Going digital is about maximizing the three digital channels i.e. mobile, internet, and SMS. However, adopting a mobile first/mobile only approach is the way forward



## Integrating the Elements



Proximity payment (NFC– enabled POS, QR codes)

Social Media Integration



Agile Development of Digital tools





Predictive Analytics via Big Data



Connect with the ecosystem via APIs

Advanced Cybersecurity



Omni-Channel Frontend



Video Banking: Video, Voice, Chat, Real time collaboration P<sub>2</sub>P and B<sub>2</sub>B payment via Blockchain





Biometrics and Security



Gam Cale

Gamification, Payments Calendar, Google-like quick search



E- Signature, Face and Document Validation



## **Back Office Functions**

Branch Operations	Technology	Leadership
Marketing and others	Agile IT and Operations	Core Banking Decisions
✓ Seamless Teaming with Business	✓ Smart and Agile Middleware	✓ Ground-up Rebuilding of Traditional
✓ Improve Customer Experience	V Data Model Harmonization	Processes
✓ Customer Journey Focus	✓ API & Data Security	✓ Build Robust Partnerships through
✓ Reliability and Traceability of Records	✓ Selective Outsourcing	Collaboration
✓ Automatic and Real-time Filings to	✓ Integrated Architecture	✓ Personify the Digital Culture at the top
Regulators	✓ End-to-End, Digitally Optimized	✓ Define Operations and IT Strategy for
✓ Investor Literacy	Processes	the Digital Transformation
✓ Faster Speed of Settlement	Full Deployment of new Services	✓ Open new Digital-dependent positions
	Cloud Backup and Scalability	✓ Adopt an Open Innovation Ecosystem



# **Competitors Analysis**

Attributes Players	Year Launched & Area of Focus	Key Innovative Features	Deployment Platform	Customer Base	Test Evaluations
ALAT by Wema	May 2, 2017 Full digital banking experience	Account signup in 5 minutes with a selfie and signature Online card activation & locking feature Fingerprint Login Refer a friend (Viral marketing)	Available as an app on iOS and Android Accessible via web browsing	has added an estimated 200,000 customers to the Wema bank.	Rated 4.0 on Google play store based on customer reviews
SkyeXperience	August 13, 2017 Omnichannel digital banking experience	<b>S</b> ingle sign-on <b>M</b> ultiple self service options	App accessible on Android and iOS	_	Customers experience ratings so far has been low. Rated 3.8 on Google play store
UnionMobile	July 26, 2017 Mobile banking and USSD	ATM & branch locator with news Locate an agent Weather forecast	App accessible on Android and iOS Available via web browsing as well	The customer base has scaled up by 2.2Mn through the mobile platforms	Customers reviews is good. Rated 4.3 on Google play store



#### Marketing Strategy

#### **Email Newsletters**

Roughly **91**% of people with email check their inboxes at least once per day.

#### **Social Media Channels**

39% of Millennials interact more than they do with their smartphones than actual humans. Millennials age 21-34 have the highest levels of trust in online and mobile formats. --Bank of America



#### **Search Engine Optimization**

In SEO, the goal is to be there to answer questions for customers online so that they trust you and view you as the financial leader with whom they want to do business.

#### **Content Marketing**

Valuable online content can be use to introduce people to your brand and encourage them to further engage with you on the mobile platforms.

#### **Display Advertising**

Employing a combination of legacy media channels like TV, radio, Billboards, LED boards, and online promotional adverts like Google Ads





### **Cost-Benefit Analysis**

#### My Conservative Assumptions

Project development period is 15 months

₩320Mn implementation budget

150% annual app customers growth rate

Forecast period is 5 years

Transition costs is 100% of current operating costs

Full transition to the digital platform in the 3<sup>rd</sup> year

20% annual app revenue growth rate

Current operating cost is ₦200Mn & grows at 30% per annum



## Cost-Benefit Analysis (Cont'd)

Costs for Proposed system (Figure in Millions)	Year 1	Year 2	Year 3	Year 4	Year 5
Non - Recurring Costs	N	N	N	N	N
Hardware/Servers	20	_	_	_	_
Telecommunication	20	_	_	-	-
Transition costs (Parallel systems)	200	260	338	-	-
Training of Employees (Pre-Implementation)	3	3	3	3	3
Software Development	25	_	_	_	-
Post-Implementation Reviews	3	-	-	-	-
Total Non-Recurring Costs	271	263	341	3	3
Recurring Costs	₩	N	N	N	N
Hardware/Servers	_	10	10	10	10
Software Maintenance and Upgrades	-	10	10	10	10
Telecommunication	_	10	10	10	10
Web Hosting, Renewals and Cybersecurity	5	5	5	5	5
Sales and Marketing	15	15	10	10	10
Operations and Administration	3	3	3	3	3
Employee Salary	10	10	15	15	15
Total Recurring Costs	33	63	63	63	63
Total Project Cost (₦)	304	329	404	66	66
Current Operating Costs (₦)	200	260	338	439	571
Cost Savings (₦)	0 (No savings)	0 (No savings)	0 (No savings)	373 (85%)	505 (88%)



### Cost-Benefit Analysis (Cont'd)

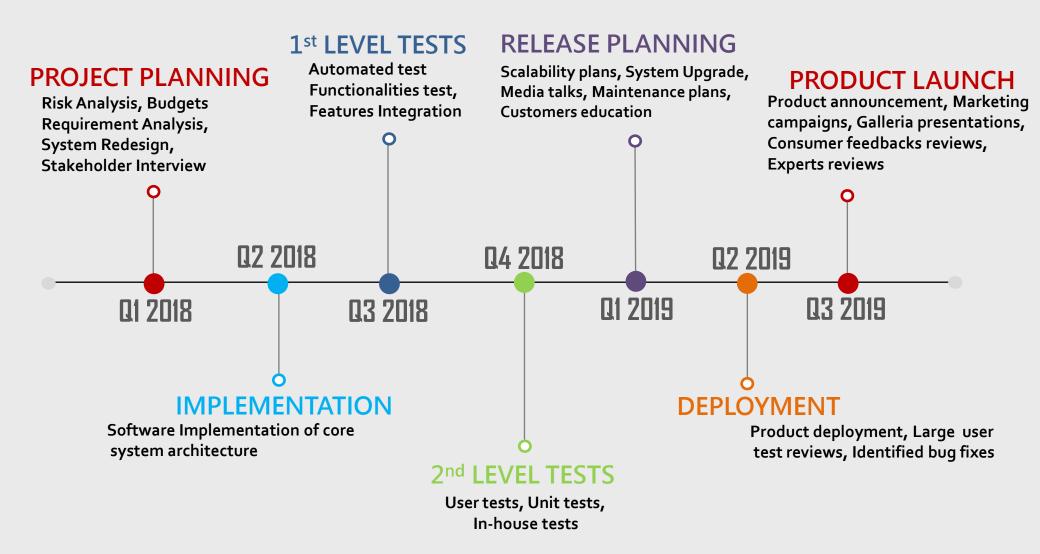
Benefits for Proposed system (Figure in Millions)	Year 1	Year 2	Year 3	Year 4	Year 5
Monetary	N	N	N	N	N
App Transaction Revenue [User Base]	300 [1500]	360 [3750]	432 [9375]	518 [23,438]	622 [58,594]
3 <sup>rd</sup> Party API Revenue [Number]	75 [3]	175 [7]	250 [10]	325 [13]	375 [15]
Operational Savings	0	0	0	373 [85%]	505 [88%]
Total Monetary Benefits	375	535	682	1216	1502
Profit (₦)	71	206	278	1150	1436

Non-monetary Benefits: 🗸 Increased Customer Service Impacts 🗸 Service Quality 🗸 Increased Revenue Producing Activities 🗸 Partnerships

- Since we are gaining, the system is feasible
- The project reduce operational costs by as much as \$505,000,000.00 i.e. 88% of the current operating costs
- Since the benefits far outweighs the cost, the project is worthwhile and we can go ahead with it



## **Timeline Projections**





#### **Strategic Priorities**

#### The digital banking long-term strategy breaks down into four phases



#### **Development**

In January of 2018, VFD will begin the process of planning, design and product research. The minimum viable product is expected for testing Aug. 31, 2018, iterations begins Oct. 1<sup>st</sup> 2018. At the 4<sup>th</sup> iteration, the product should be ready for mainstream adoption. Revenues will be immaterial during this phase, and capital needs will be relatively high. By the end of this phase, we hope to achieve a base of 10,000 users.

#### **Phase I (Traction)**

Our focus here will be expanding our active user base and expanding our vendor network. By the end of this phase, we hope to achieved an active base of 30,000 users, earning revenues at a clip of \$1,150,000,000.

#### Phase II (Expansion)

During this phase, we'll extend the digital platform reach across the 36 states of the federation. By April 1<sup>st</sup> 2021, we hope to have achieved a base exceeding 60,000 active users, earning revenues at a clip of \text{\bar\chi}1,600,000,000.

#### **Acquisition**

VFD will opportunistically consider FinTech's acquisition possibilities beginning April 2021.



#### Conclusion

