Technology In Banking

...Life After Campus...

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This is the defining Moment, it is the year I have termed "...the Make or Mar Year"
How many of us were around when tally numbers were distributed as you enter the banking hall?

How many of us still remember the ledgers and cash registers?

How many were around in the days of long queues and hours of waiting period?

**Summary:**
The technology sector today plays a huge and an important role in the banking sector. The result of technology is that we can easily transfer money from one place to another. This is evident through simple money transfers, Online Shopping and Online payments.

In today’s world, there is no need to go the bank and stand in long queues just to deposit or withdraw money, all that has been made easy by the advent of technological inventions….details shortly.

Technology has brought a huge revolution but with every good innovation; though, there is always a “not so good side” and this why there are increased cases of hacking and fraud. These are also constantly being contained by Security and Compliance policies and procedures in the banks.
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The term Infrastructure in the context of IT simply refers to the entire collection of hardware, software, networks, data center and related equipment used to develop, test, operate, monitor and support information Technology services in an organization.

It is the most broad part of IT since all other IT services rely on the strength and robustness of the Infrastructure. This includes the entire:

• Network, Servers, Service desk down to the monitoring and reporting of IT incidents.
• The backup and recovery of IT systems including the disaster recovery process for all IT services are fully based on the architecture and layout of the organization’s infrastructure.
An organization's infrastructure can have a sizeable effect on its entire business environment.

Managing network infrastructure is an important part of delivering IT services to the end-users. Networks play an essential part in the service delivery and while network infrastructures are becoming more complex, it is vital that the processes for the network infrastructure exist and function effectively.

The landscape of an infrastructure ranges from simple to complex and hybrid architectures.

Beyond our scope 🧐

- Hardware Infras: PCs, Laptops, Servers – Repairs
- Find your passion and get certified!!
- Degree is good but certification is an added advantage
Automatic Teller Machine – electronic computerized machine that performs basic banking functions.

- Banks and other Financial institutions are being squeezed on both the revenue and cost fronts
- creating a need to become more efficient and customer-centric than ever before.
- The need for acquiring new customers and conquering new environment
- Proximity to the customers

This channel will play an increasingly important role as banks and other financial institutions:

- seek new cost savings avenues
- enhanced customer interaction
- process improvements in the branch channel.

Interswitch and UPSL have made interconnectivity easier. Technically, all Nigerian banks’ ATMs are connected.

As at date, we have about 40,000 ATMs across the nation (1873)
ATMs transformed the banking system when they were first introduced.

- The next revolution in ATMs is likely to involve contactless payments.

- Some ATM innovations are already available overseas and might reach the African shores soon.

As at date, we also have cheque and cash accepting ATMs in addition to the generally known cash dispensing ATMs.

ATMs are a lot more interactive and more customer centric now. It allows for mini-statements and mobile phone top-up, etc...

Channels management is becoming more interesting daily and a good career path.
This is banking made easy!

Mobile banking addresses most of the identified limitations of traditional Banking system simply because it reduces the customer requirement to just the ownership of a mobile phone.

Mobile communication has seen an explosive growth in the economy of most of the African countries and Nigeria has a fair chunk of this by virtue of her population.

As a student in this age, What takes your time?....those whatsapp, snapchat, etc were class room ideas by young people
What is Mobile Banking?

- A system that allows customers of any financial institution to carry-out some financial transactions through the use of a mobile device like Tablets and Mobile telephones.

- Before now, banking and financial products had always been delivered based on face-to-face human contact.

The mobile and digital transformation in banking has only just begun and growth is already explosive. …check out the number of products churned out daily…

..... The world is gradually converging to this point. Recruiters and employers can now know you better...watch your posts!
Nigeria has a population of about **184 million people** of which about 60% use mobile phones.

The major catch on the use of Mobile Banking over the traditional banking is that customers don’t need access to a computer terminals or human beings to access their bank accounts.

- The cost of data has gone so down over the years. Remember **per second billing**
- More and more young people should dedicate their time to learning various mobile coding languages
- The close gap between total active media accounts(13.6m) and active mobile social accounts(12.4m) tells you how much activity we have around mobile.
Why MTN chose to pay the fine ($5.2 B/₦1.04 T) than leave

Nigerians are avid online shoppers

By 2020, Nigeria mobile subscription will equal Egypt and SA. according to world bank record…

this implies more market will move to the mobile and digital space
IT Service Management

Service Management is a customer-focused approach to delivering Information Technology. It focuses on providing value to the customer and also on the customer relationship that are performed by an organization to plan, design, deliver, operate and control IT services offered to customer.

**IT Service Desk** – This is the first point of contact to the users for basic troubleshooting of end user issues on various software applications, hardware, network and telecommunications systems and provide basic desktop support, it is manned by a number of Service Desk Agents.

**Incident management** – the purpose is to restore normal service operation as quickly as possible and minimize the adverse impact on business operations, ensuring that agreed levels of service quality are maintained.

**Change management** - deals with the management of change and development within a business or similar organization.

**Asset Management** – This is a systematic process of developing, operating, maintaining, upgrading, and disposing of assets cost-effectively.

**Project management** - Project management is a methodical approach to planning and guiding project processes from conception to completion.

…set a target to earn any of the credentials before end of service year!!
Effective IT Service Management focuses on:

- the customer satisfaction through the efficient delivery of reliable, cost effective, fit for purpose IT and network services designed to support business objective.

- These services underpin business strategy and support the organization.

- With the move to enterprise level solutions, e-business and e-government and other mission critical initiatives a greater emphasis is now being focused upon end-to-end customer service.

- IT departments and service suppliers are being compelled to respond to more demanding requirements with less resource and often struggle to meet these needs often due to inexperience, process issues, inefficiencies and cultural differences.

Roles like these are usually and easily reserved for young and sharp graduates like yourselves.

It's usually a learning point and good point of entry
Software Development

Software development is an iterative logical process that aims to create a computer coded or programmed software to address a unique business or personal objective, goal or process. ..more academic now 😊

It is a planned initiative that consists of various steps or stages that result in the creation of operational software and primarily achieved through computer programming.

- carried out by a software programmer
- includes processes such as initial research, data flow design, process flow design, flow charts,
- **technical documentation**...abbreviators, please take note
- software testing, debugging and
- other software architecture techniques
- Software is everything and everything is software!
Software Development

It follows a common development cycle referred to as the application development life-cycle. SDLC

- The mobile and digital transformation in banking has only just begun and growth is already explosive.

- Banks are investing heavily in digital banking technology, in which customers use mobile, web or digital platforms to use banking services.

- These great strides in mobile and digital technology are directly linked to strong software development skills.
DATA CENTER vs. CLOUD

Data Centers
- Require specialized equipment and knowledge
- Owner maintains complete control over hardware and software
- Highly customized
- Component of a cloud

Cloud computing offers computing as a utility service
- Self service, Pay per use
- Platform independent
- Requires no specialized knowledge in computing
- Often represents outsourcing as a Risk Transference Strategy
- Composed of many data centers
Datacenter and Cloud Services

Datacenter is a facility that centralizes an organization's IT operations and equipment, as well as where it stores, manages, and disseminates its data; mostly physical. While Cloud Service is a datacenter model for enabling universal access to shared pools of configurable resources and can be rapidly provisioned with minimal management effort, often over the Internet.

Based on uptime institute definition, datacentres are classified into tier I, II, III and IV as described below:

- **Tier I datacenter**: a single path for power and cooling distribution; without redundant components; providing 99.671% availability.

- **Tier II datacentre**: a single path for power and cooling distribution; redundant components; providing 99.741% availability.

- **Tier III datacentre**: multiple active power and cooling distribution paths; only one path active; has redundant components; concurrently maintainable; Providing 99.982% availability.

- **Tier IV datacentre**: multiple active power and cooling distribution paths; has redundant components; fault tolerant; providing 99.995% availability.
A core banking system is the software used to support a bank’s most common transactions. It is a banking service provided by a group of networked bank branches where customers may access their accounts and perform transactions from any of the member branch offices.

Elements of core banking includes but not limited to the following:

• Making and servicing loans.
• Opening and closing of accounts.
• Processing cash deposits and withdrawals.
• Processing payments and cheques.
• Calculating interest and Managing customer accounts.
• Establishing criteria for minimum balances, interest rates, number of withdrawals allowed and so on.
• Maintaining records for all the bank’s transactions; etc.

Core banking systems are often specialized for a particular type of banking- retail, commercial, etc.

Many banks implement custom applications for core banking. Others implement or customize commercial independent software vendor packages and the most common core banking applications used by Nigerian banks are Flexcube and Finacle (globus and T24 are not as common as the earlier two).

Unfortunately, Indians enjoy the market monopoly … a challenge for young students…not limited to any course.
IT Risks, Control and Compliance:

Just like the EFCC, Police, etc... these groups ensure that customers get the best.

IT Risks, Control and Compliance ensure the functions below are well attended to:

- Email password may be disclosed
- Facebook account may be used by someone else
- Credit card information may be disclosed
- Customer information may be stolen
- IT Service delivery to the customers may be poor
- IT systems may be obsolete
- IT projects may be late or fail
- IT systems do not provide any business benefit
- Risk of non-compliance with the regulator
- Own people may harm the systems

IT risk is business risk.
IT Risks, Control and Compliance:

• The teams here act more like policemen of the group.

• They are the “devil’s advocate”. Always looking out for what could go wrong and asking the “if not” and “why not” questions.

• They are always thinking of what could go wrong…

All human characters are needed in a complete IT ecosystem.

• We are not all software or hardware people.

• We are not all programmers and coders.

• There are also testers and quality assurance opportunities.

• Strategic Planning, Governance, etc are all wonderful opportunities that exist awaiting your exploitation…
Security Management aims to ensure the
• Confidentiality
• Integrity
• Availability
of any organization's information, data and IT services.

• It usually forms part of an organizational approach to security management which has a wider scope than the IT Service Provider.

• It used be a reserved area for selected experts but gradually now being exploited by young graduates too.....

• You too can dare it!!
The following are information management sub-processes and process objectives:

- **Designing security controls**: To design suitable organizational and technical measures to guarantee the availability, integrity and confidentiality of an organization's data, information and IT services.

- **Security testing**: To ensure that all security mechanisms are subjected to regular testing.

- **Managing security incidents**: To identify and fight intrusions and attacks and also to minimize damages incurred due to security breaches.

- **Security review**: To review whether the safety measures and processes are still in accordance with risk perceptions from the business side, and also to validate whether these safety measures and processes are consistently managed and tested.
Opportunities For You

As a young graduate, you have enormous chances of working in any of the various IT and digital banking teams described earlier.

Employment criteria in most Nigerian firms favour largely the young and the agile...you belong to that bracket.

The same quality of time and discipline you acquired while in the university will be tested along the various functions.

Your conviction will lead you to your interest …not undermining the X-factor.

Apart from the paid employment opportunities, there are lots and lots of technology entrepreneurs out there. ..You too can join them and the decision starts today!
Skills You Must Have

Not so much is required to become a member of any IT units in the bank.
• ICT (not just Computer) related skills
• Self confidence
• Communication skills
• Internet and research skills
• Working Smart and Dedication to work
• Etc

IT is like the engine room of the moving train and every bank needs a strong and well equipped IT team in order to remain relevant, competitive and useful to the customers, its shareholders and the entire society.

You are already on the right track…all you need is a well guided direction
Why Are You in the University?

- Being a graduate is an evidence that you are among the civilized and Educated citizens of a Nation
- It marks a major milestone that prepares you for the ‘real’ world…the university environment is like the kitchen
- You learn self-discipline
- You begin to establish contacts and networks
- It exposes you to different people from different backgrounds and cultures
- It’s a dreaming haven and opportunity to be refined
Basic Career Tips

To have that dream career, you need the basics. That is what the university has given you.

…However *Is the University Degree Enough?*

Think of skills and Certifications
Basic Career Tips Contd..

• Take time to build your career, learn deferred gratification.

• Don’t expect to be a manager as soon as you graduate. It’s great to have high expectations.

• Never compare yourself with your peers. Every individual is different and you will eventually get there.

• Be willing to do menial/free jobs. As you progress in your career, find things in each job to be passionate about.

• Maintain contacts

• …and remain value adding
CONCLUSION

• Information technology has hugely transformed commerce and banking services and creates more opportunities for interactive and proactive banking.

• The banking industry is not an exception with regards to technological adaptation. So it is worth suggesting that young people spend time and money in acquiring saleable skills and improving themselves

• Every human character and temperament is required in the industry. Young people are encouraged to identify their strengths as early as possible and develop them.

• Do not dwell on your grades, find what you are good at and see where it takes you to. What are your unique attributes? Lay more emphasis on them when applying for jobs.

• Finally, more and more opportunities abound for fresh graduates aspiring to pursue a technology based career in the banking industry..... Strongly waiting for you to take over! ..... Prepare and wait for the opportunity...it must come!

• Seek guidance and Pray for grace – it makes the unqualified qualified!!
Any questions?