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### A. INTRODUCTION

Web Design envelops “User Experience Design”, which is the process of enhancing user satisfaction by improving the ease of use, accessibility, and proficiency of user interaction with the site.

#### A1. Purpose of Document

- To identify a website with specific user interface, which requires some improvement
- Conduct detailed research into the interface
- Redesigning the website

#### A2. Chosen Website

Indian Nationalised Bank “Oriental Bank of Commerce”- Net Banking and Mobile Banking Application.

This website

- Provides conventional financial related services with lower costs
- Customer with web access should register with the institution for the service, and set up a password and other credentials for customer verification
- Access normally uses username and password with 2 factor authentication
- New features and financial services, such as credit card, stock and fund transaction, forex wealth management are propelled
- Mobile banking encourages electronic payment framework that enables clients to direct a range of financial transactions
- Also facilitates electronic bill payments, financing loans and assets transfers between a customer's or another account.
- Viewing account balances, obtaining statements, checking recent transaction and making instalments are the regular utilization of the application/website.

#### A3. Problems Identified & Comparison with AXIS Bank Net Banking Design

I am Kate, I am 25 years old & am a working professional. I work on 6 days per week. My preference would be using the net banking and mobile banking facilities provided by OBC, since I would not be able to go to the bank to initiate any transaction. My reviews on OBC Net Banking and Mobile Banking are as follows:

##### **Problem 1: Very difficult to locate, regularly used facilities –**

1. There is no direct option to register/ login.
2. The bank advises never to share card details and ATM pin. Why does the net banking and app ask these details for registration? – Breach of trust in the initial stage.
3. No Chat Support

## o STEPS TO REGISTER TO ONLINE BANKING IN OBC BANK

The first screenshot shows the homepage with a banner about 'Technologically Advanced New Chip Cards'. It includes links for 'Retail User Login', 'Corporate User Login', 'Oriental BHPS BHPay', and a 'Security Alert' button.

The second screenshot shows the 'Online User Registration' page. It has fields for 'Account Number', 'PAN Card Number', and 'Date of Birth'. Below these are sections for 'Please note:' and 'Please fill in the complete information & click on 'Verify' link.' It also includes a 'View Only' and 'View and Transaction' option, and 'Verify' and 'Cancel' buttons.

The third screenshot shows a 'Security Alert!' box with instructions to avoid fraud during financial transactions, mentioning phishing, viruses, and fake emails. It also includes a note about SIM card cloning and advises users to change their internet banking password regularly.

## o STEPS TO REGISTER TO ONLINE BANKING IN AXIS BANK

The screenshot shows the Axis Bank homepage with various navigation links like Personal, Business, Priority, Burgundy, NRI, About Us, Explore Products, Grab Deals, Make Payments, Bank Smart, Apply Now, Get Axis ASAP, and LOGIN. A 'My Axis' sidebar on the right lists options such as Internet Banking, Personal, Corporate, CMS and Payment Solution, Cards, Power Access, Remit Money, and Axis EDGE Rewards. The main content area features a banner for 'TRAVELLING ABROAD? LOAD UP TO 16 CURRENCIES ON ONE CARD\*' and links for Instant Personal Loan, Axis Bank Credit Card, and Burgundy.

### Problem 2: Annoying Login Process –

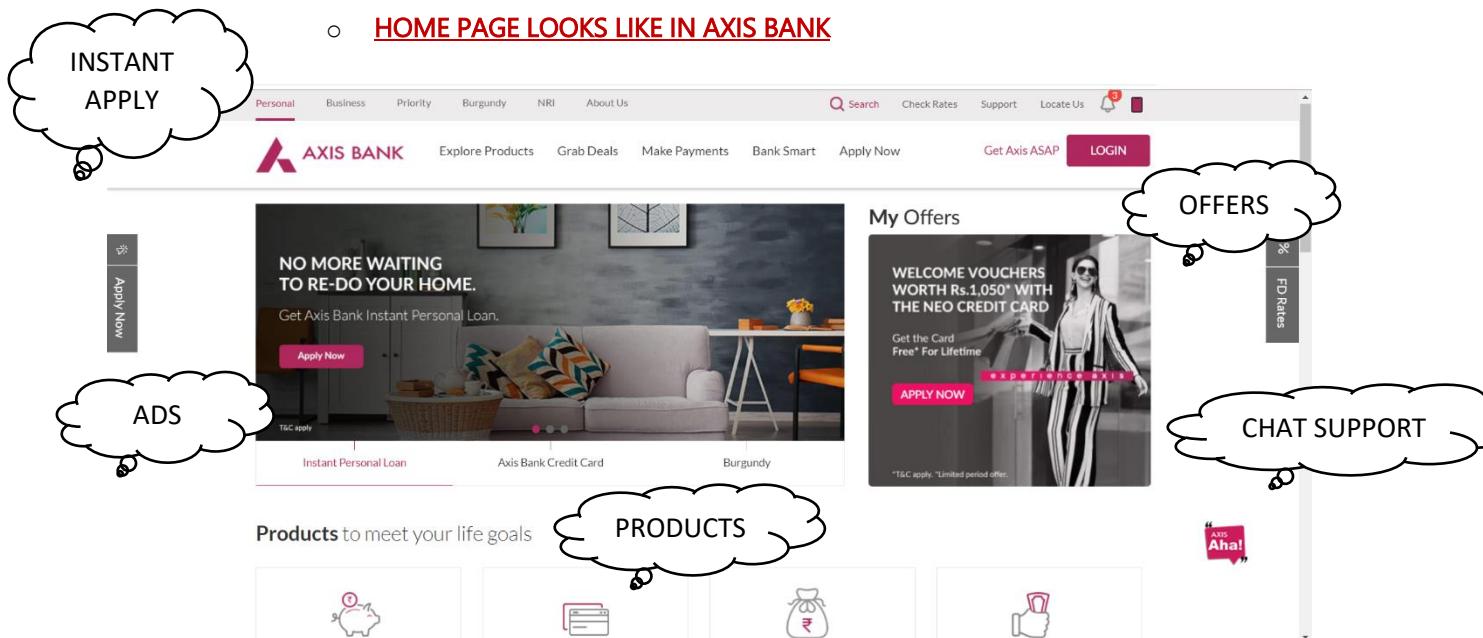
1. The login button is hidden in quick access. After clicking on login, it directs to a page that asks for type of login. Third screen ask for User ID and then followed by password on next page. Sometimes loading of page takes lot of time hence throws error—"Login fail try after sometime/ Session Timed Out".

o STEPS TO LOGIN OBC NET BANKING

o STEPS TO LOGIN TO ONLINE BANKING TO AXIS BANK

### Problem3: Layout of Web Site is Bad-

1. Not clear directions or instructions
2. The ads keep scrolling horizontally and there is no mouse over action that can be executed on them
3. Irrelevant grouping and labelling



### Problem 4: Account Information & Various Options:

1. Where should I check for my account details?
2. Where do I find an option to open FD?
3. How to link my loan account to my profile?

### o DASHBOARD OBC



Last login: 21/03/2019 09:11:20 PM IST      Welcome Mr. SIDDHARTH RAJ .      Log out

Dashboard Accounts Transactions e-Services e-Requests Social Security Schemes e-Taxes Bills/Insurance Personal Profile

Complaint / Feedback

Favourites  
24\*7 Instant Transfer (IMPS)  
SelfLinked Account Transfer  
Account Statement  
Operative Accounts  
Manage Beneficiary  
Initiate NEFT  
Change Password  
Set Limits  
Tax Credit (View Form 26AS)  
e-FDR /e-CDR  
ATM CARD SERVICES  
Mobile Banking Services  
Submit Form 15G/H

Bills/Insurance: Bharat Bill Payment System > BBPS Quick Pay > Bill Payment

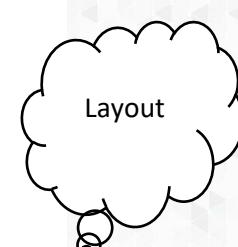
**BHARAT BILLPAY**

Select Category: \* Mobile Postpaid  
Select Biller: \* Vodafone Postpaid  
Biller Id: \* VODA00000NAT01  
Mobile No: \* 8884575959  
Mobile Number: \* 8884575959

Amount to be paid:

Make Payment Back

### o AXIS BANK DASHBOARD



AXIS BANK Retail Log out

SNAPSHOT ACCOUNTS PAYMENTS SERVICES INVESTMENTS FOREX APPLY NOW

Accounts  
Savings 912010031082649 ₹ 2,922.77  
Credit Cards  
Loans  
Deposit

I want to..  
Transfer Funds  
Recharge  
Open FD/RD  
Pay Bills  
Stop Cheque  
Stop Payment  
Personalize your User ID

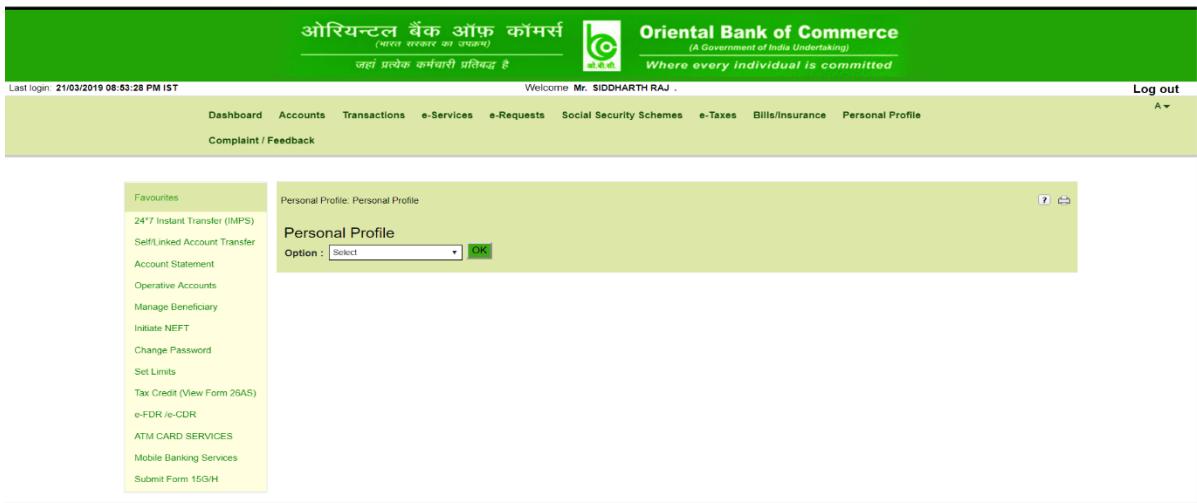
Specially for you  
Zero foreclosure & part pre-payment charges on Home Loans - Apply Now  
Start growing your wealth: Find the SIP best suited for you  
Earn up to 2000\* Axis eGIFT reward points a month with Axis Active  
Hassle-free opening of deposits from the comfort of your home/office

Favourites  
Set your favourite transactions to access them instantly.

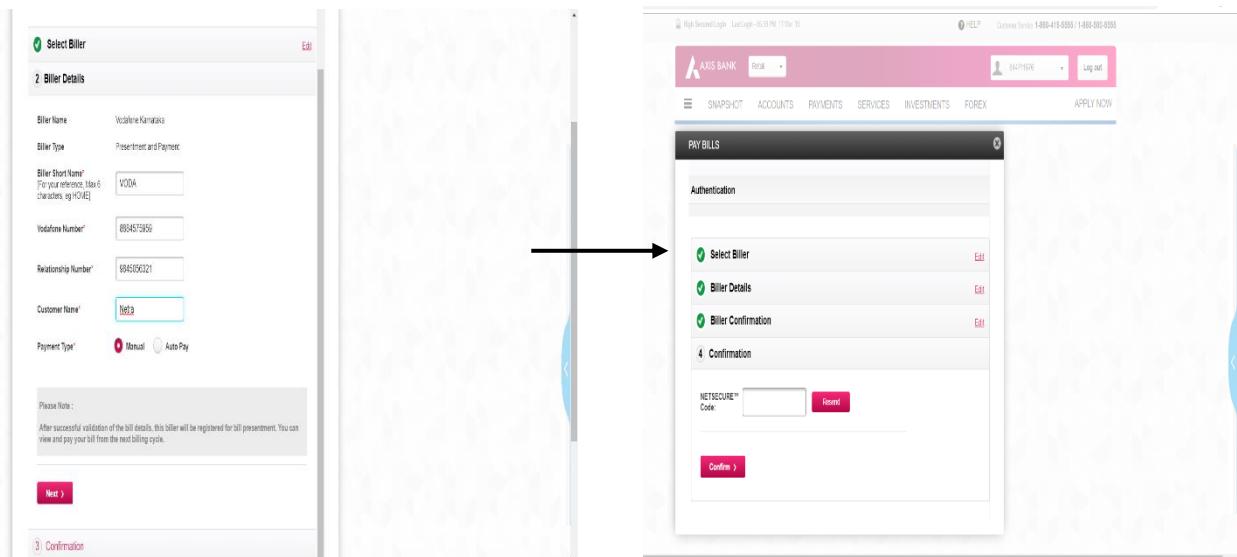
### Problem 5: Bill Payments-

1. Every time I need to make payment I should select my biller and register.
2. No reminder of next billing cycle
3. No reward points for the bill payment
4. No discounts on making payments

o **BILL PAYMENT PROCEDURE IN OBC**



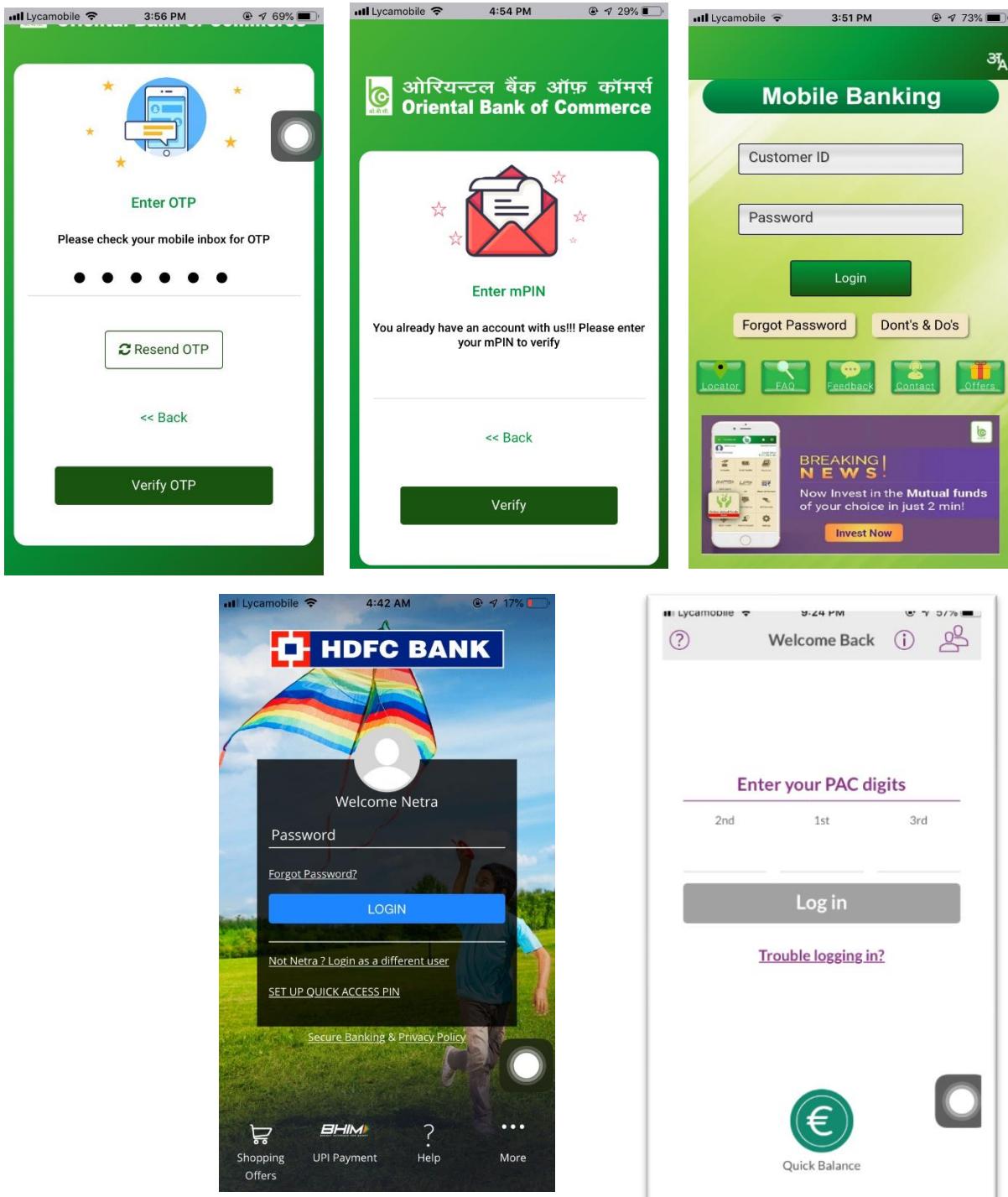
o **BILL PAYMENT PROCEDURE IN AXIS BANK**



#### A4. Problems Identified & Comparison with AXIS Bank Mobile Application

1. **Lengthy Login Procedure:** Many times I have changed the password and MPIN but again when I try login after a week or so, I have faced same issues as to login failed. Since there is update every two weeks. Need easy pin login method with fingerprint.
2. **Availability:** Open this app- it keeps on loading and loading
3. **Transfer Money:** Online and Mobile Banking not Synchronised. You can't transfer money in urgent cases. Sometimes it takes long time for log in.
4. **Multiple Accounts:** Cannot operate multiple accounts on a single phone. I have 2 accounts in this bank but can't operate in this app.
5. **Sharing Account Information:** No option to share account details with name and IBAN for remitter to transfer to my account
6. **Account Statement:** Only in PDF format and cannot request for statement.

- **OBC MOBILE APP LOGIN VS OTHER BANK LOGIN(HDFC & AIB)**



## B. FIELD ANALYSIS

In the world of internet, web banking diminishes operational expenses to the bank as well as has led to more elevated level of consumer loyalty and maintenance.

**B1. Field Research:** Web based banking should be possible from the solace of one's home or work place. It isn't quite easy if in case the interface and design of online banking application/website are not well designed and

regressively tested. It gets frustrating, confusing and feels like an exercise of time if viewing a payment history can't be found easily or even if it takes n navigations through the all the tabs of account dashboard to get a small piece of information.



*Figure 1 Essential Elements of Internet Banking*

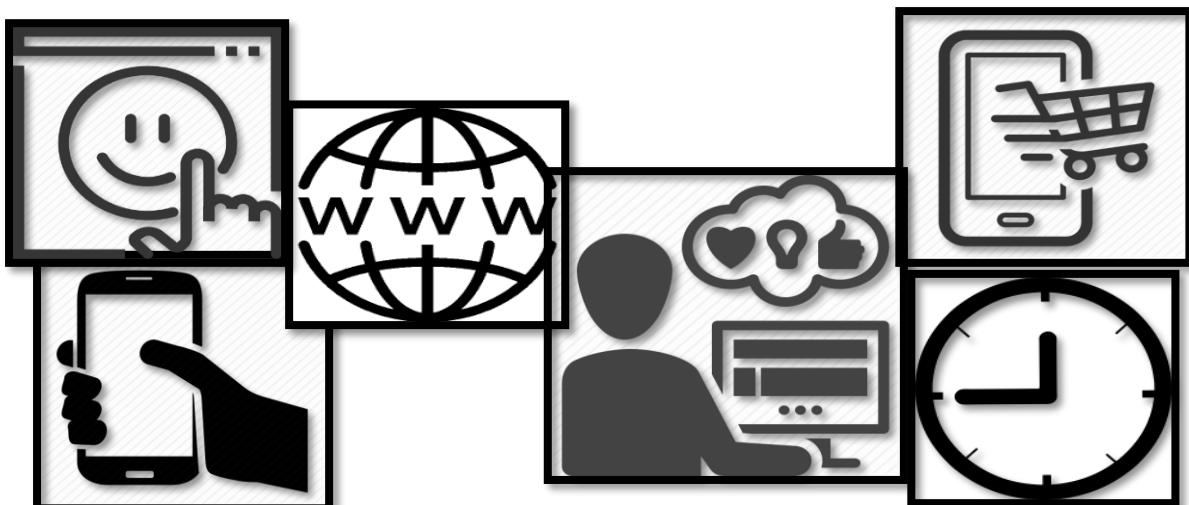
Essential elements for web designers to apply while working on a banking site:

1. **Taking Security Measures:** Users must be 100% sure about the security of each web based financial exchanges.
2. **Ensuring Accessibility:** A great financial website design should consider all classification of individuals. Accessibility is critical part of designing a site and ought to be considered all through the development steps. This component empowers the bank to win loyalty and trust of its clients.
3. **Developing for Different Devices:** Computers, smartphones, and tablets are the means of getting to the Internet. Bank sites that support a huge number of the devices, OSs, and browsers often result in a responsive design.

Internet Banking facilitates following services in just few finger clicks :

- Bill Payment Options
- ATM location
- Debit Card and Credit Card options
- Personal Loans
- Saving and Checking Accounts
- Fund based & Non Fund based services
- Investments

**B2. Market Analysis:** Internet banking otherwise called online banking or web banking enables its clients to execute transactions with the assistance of internet through a mobile device or computer. As indicated by a report published by Allied Market Research, the online banking market size was valued at \$7,305 million in 2016, and is estimated to reach \$29,976 million by 2023, registering a CAGR of 22.6% from 2017 to 2023. Europe is the market leader and accounts for nearly 31% share of the global market in 2017, closely followed by North America. In addition, Asia-Pacific is estimated to grow at the highest CAGR of 26.1% during the forecast period due to rise in internet users, and increase in consumer base due to higher population size.



**Figure 2 Elements of Market Analysis**

- Improvements in the Customer Convenience
- Growth in Smartphone Usage
- Increase in Internet Penetration
- 24/7 Availability Anywhere
- Cost Effective Service
- Growth in E-Commerce
- Technologically Advanced Interface

**B3. Market Trends:** Banking organizations worldwide comprehend the essential patterns and trends affecting the industry. There's no such thing as an ideal crystal ball in any field using innovation and advancement. So is internet banking, not all that perfectly homogeneous and global field. Most financial institutions understand the significant trends that are impacting the banking industry as well as what needs to be done to respond to those trends?

#### #PAST TRENDS-

- Offering all the more financial items and administrations, for example, loans, insurance products or cash transmissions, discount subsidizing lines.
- Extending their administrations past those generally offered by banks, for example, home, auto, purchaser merchandise, travel administrations and so forth—to help a progressively total user journey.

#### #INTERMEDIATE TRENDS-

- QR code-based mobile payments
- Mobile wallet payment and connecting WhatsApp payments
- Expanding with advanced technology innovations- IoT, voice, blockchain, wearables and so forth.
- Fingerprint Access

**#FUTURE TRENDS-** As all the more banking interactions are carried on computerized gadgets, expanding measures of information being gathered.

- Use of data, artificial intelligence (AI), and improving data analytics capabilities and utilization of bits of knowledge are positioned first, supplanting improving the client experience as the main pattern.
- Realization of the importance of open banking and application programming interfaces (APIs) by organizations internationally
- Pushing into cloud
- Increasing array of digitalization and innovation initiatives

#### **TREND 1- USE DATA ANALYTICS :**

Today, everything happens online — on a PC or a mobile device. At the point when consumers are looking for their new account, they are utilizing a correlation device that encourages them figure out which account best addresses their issues. After the new account is opened, consumers receive a very quick email or text thanking them for their business. This enables the financial institution they select to start to finish computerized account opening, distinguishing proof. It is important to make use of data and advanced analytics to deliver customers timely, relevant, and personalized messages, however, can build lasting loyalty and significant revenue growth.

#### **TREND 2- REDUCE FRICTION IN THE CUSTOMER JOURNEY:**

1. Move the focus of digital engagement from cost reduction to experience enhancement.
2. Leverage advanced analytics, machine learning and contextual engagement to provide a highly personalized experience.
3. Allow consumer to engage with their bank on the channels they prefer at the times they want to engage.

#### **TREND 3- PRIVACY IS PRIORITY:**

Strong controls and governance, robust systems to capture customer consent, encryption and security standards, third-party authentication processes, real-time transaction processing, and security-by-design.

#### **TREND 4- IMPROVING MULTICHANNEL DELIVERY:**

A digital branch network requires a complete rethinking of digital delivery and how the branch works with other channels. Goal should be to migrate more than 90% of simple customer activities to assisted or self-service formats.

#### **TREND 5- EXPANDING DIGITAL PAYMENTS:**

Consumers are reaching for their phones instead of their wallets to make payments. Now what banks can do is change their communication of the benefits to pay with a mobile phone versus a credit or debit card.

#### **TREND 6- EXPLORING ADVANCED TECHNOLOGIES AND INVESTING IN INNOVATION:**

The scope and speed of evolution in regulation, customer behaviour and technology — coupled with the emergence of new competitors — mean that the future of banking will be: Big data, advanced analytics and new technologies to improve the customer experience can build trust, loyalty and revenues that are the keys to success in the future.

### **C. RESEARCH & REVIEWS**

**C1. Stakeholders Interviews:** As a part of my learning, I was able to speak face to face with my mother and a friend of mine who hold account with OBC and have tried using the online banking and mobile application. It was beneficial to receive feedback on their experience with the App and Web Site. Poor user experience was reported by both of them with few common problems such as:

- Not available all time
- App crashes
- Confusing & Clunky
- Difficult to login
- Not all service providers are registered with OBC and so on

**C2. Focus Groups:** I was unable to conduct any discussion with the group of users due to time constraint, however I managed to collect reviews from Google Play Store from different customers using the services and it was observed that 3/5 are unsatisfied with the features and experience with the application.

### C3. Usability Goals:

- Security
- Quick Access
- Availability
- Consistency & Layout Design
- Rewards and Experience

## D. BUSINESS REQUIREMENTS

Reference	Requirement	Requirement Detail	Priority	User Contact
1	<b>Accessibility</b>	The portal must be compatible of all browsers such as Internet Explorer (IE), Mozilla Firefox, Google Chrome and Safari etc in the latest versions	H	Application Developer
2	<b>One Time Password authentication</b>	Receiving OTP on always on mobile is bad. Instead OTPs via push notification in order to bypass SMS delivery	M	All
3	<b>Updates</b>	Customer must be notified about the updates happening and its schedule in advance  Updates should not be made every few days as the customer gets frustrated changing credentials and remembering it each time	M	All
4	<b>Login</b>	One simple pin or login pin for operating App can be implemented	H	All

5	<b>Resetting Credentials</b>	Asking for bank details, Debit card details and OTP, ATM pin can be avoided to build customer trust	H	All
6	<b>Display</b>	Add a visual of name and amount at the time of MPIN during a transfer confirmation	H	App Developer
7	<b>Ways to Bank</b>	Apple Pay, Google Pay	L	All
8	<b>Locate Branches and ATM</b>	Identification of nearby connections based on current location	H	All
9	<b>Data Visualization</b>	Represent customers savings and transaction information and also notify about best offers in their area of interest based on Data Analytics	M	All
10	<b>Chat Support</b>	Instant messaging support in case the user is facing some difficulty in finding desired option	H	All
11	<b>Share Transfer Details &amp; Account Information</b>	Option to share account information with the person who wants to transfer funds to my account	H	All
12	<b>Additional Features</b>	To manage and track budget and funds	L	All
13	<b>Register Biller Option</b>	Provide rewards and help save biller	M	All
14	<b>Manage Multiple Accounts</b>	User must be able to operate from any of his account in a single login	M	All
15	<b>Sort Services and Products</b>	Option to sort desired products and services	L	All

16	Updates and Change Management	Must take care to notify the user well in advance	M	Developer
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#### E. APPLICATION OF UX DESIGN MODELS & PRINCIPLES IN BANKING WEBSITES

- a. **The Hook's Model:** Application of Hook's Model in designing online banking website to offer best user experiences by:
1. Employing external triggers and making sure that they are aligned. E-mails, online advertisements, connections, mobile application will act as external triggers in banking sites.
  2. Making it easy for users to take action by designing a user friendly interface for the website. Example: Remove text content and use card or the icon approach to convey any message
  3. Offer incentives, and they must be fulfilling. What are the rewards that they are likely to get if they invest money? If they refer friends and family? Add to their buying experience to keep them coming back for more.
  4. One way to re-engage the customers is to find ways that will encourage the customers to check back in again like the service to transfer money instantly or make a bill payment on time.

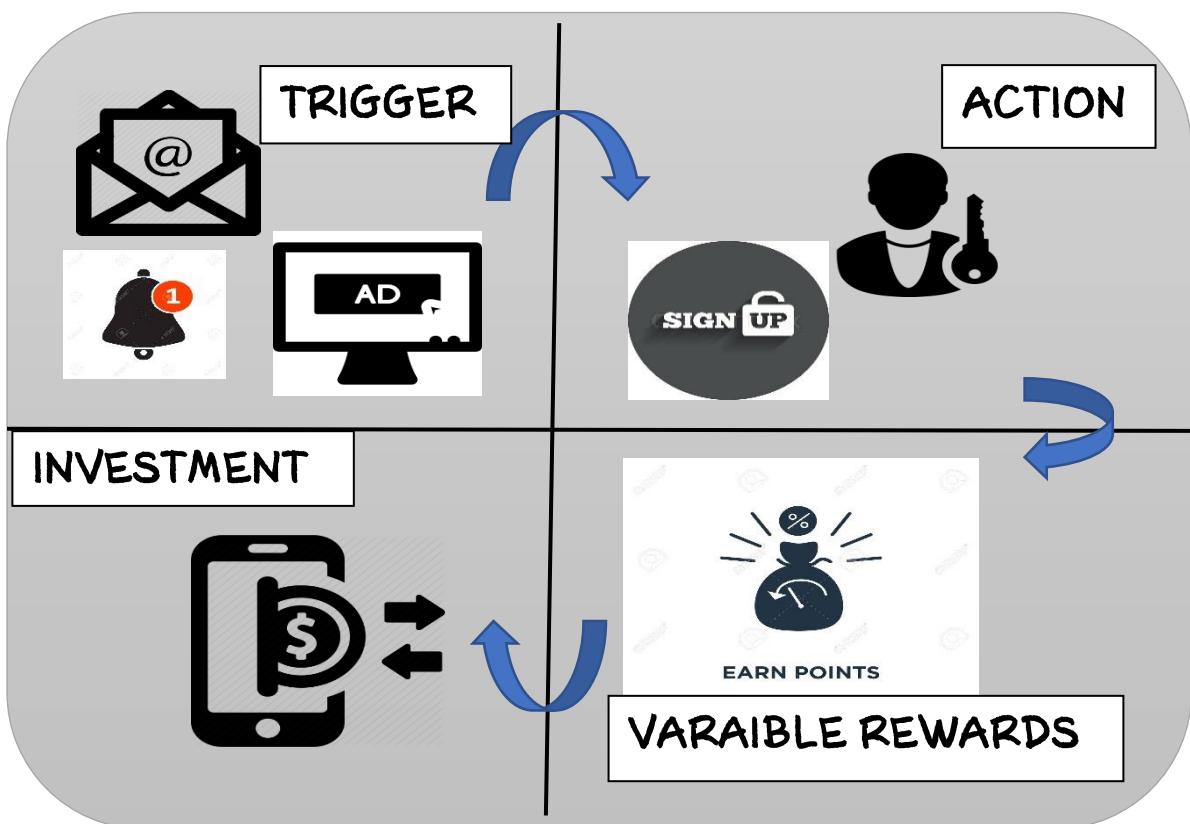


Figure 3 Application of The Hook Model to Banking Website

- b. **Fogg's Behavioural Model:** In banking websites- the services provided are many as mentioned earlier in this report. For instance, bill payment activity which is done on a monthly basis standing in a queue for a long time can be made in just one click via net banking.

Combination of Motivation, Ability and Trigger must be present at the same time. User is motivated when he is offered the best products/offers/coupon codes with the ability to register with the biller and as well triggered by notification or e-mail to make the payment changes human behaviour to register more biller and make payments. Trigger(notifications) works only if the person is highly motivated(offer reward points) and able(login) to make the payment instantly by few clicks.

Change human behaviour while using Mobile/Online Banking

1. **Map Users Motivation:** In case of banking we find all category of people with respect to age, gender, culture and physical disabilities. We must analyse our users, what they are looking for and categorise their behaviour mainly find what can be done to motivate their behavioural change to create an interface that is usable and delivers value.
2. **Assess Ability of the Users:** By answering questions like which device will user use to login? What time of the day will user login? What mistakes might they encounter? Will they be able to understand the icons and steps involved? How do they feel when they use the website?
3. **Identifying Triggers:** Understanding what motivates an user and how can the website adapt their level of ability. Sending notifications about offers and new products, monthly statements via email, OTP for every transaction, reminder about payments due.

## F. APPLICATION OF UX LAWS IN BANKING WEBSITES

**OB C BANK INTERFACE**                           **VS**                           **AXIS BANK INTERFACE**

Law	Is it used in the Interface?	How much(0 being least & 5 being high)	Is it used in the Interface?	How much(0 being least & 5 being high)
Hick's Law	No	2	Yes	5
Fitt's Law	No	1	Yes	4
Jakob's Law	No	1	Yes	4
Law of Proximity	Yes	3	Yes	5

Comments on the above table are as following:

- a) **HICKS LAW:** Time taken to make a decision increases with number of complexity of choices
- The **number of function offered** at any point of the website should be examined and its effect on user's overall approach to decision should be planned. Site must have a **simple layout** and navigation that won't confuse users. Making use of white spaces and **avoiding too much text on its pages**, catches the user's eye.

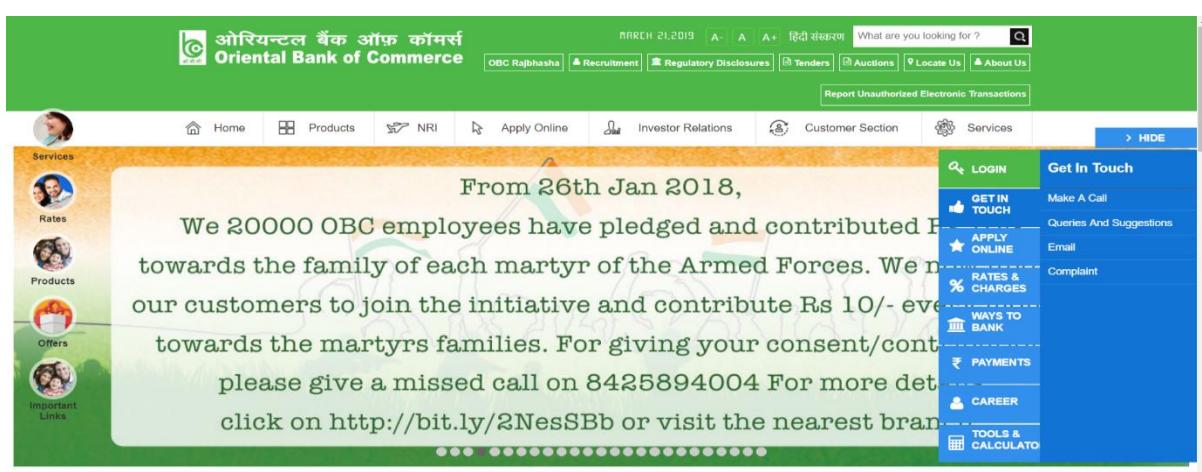
### LOT OF TEXTS AND ADS ON THE HOME PAGE THAT KEEPS SCROLLING EVEN ON MOUSE OVER

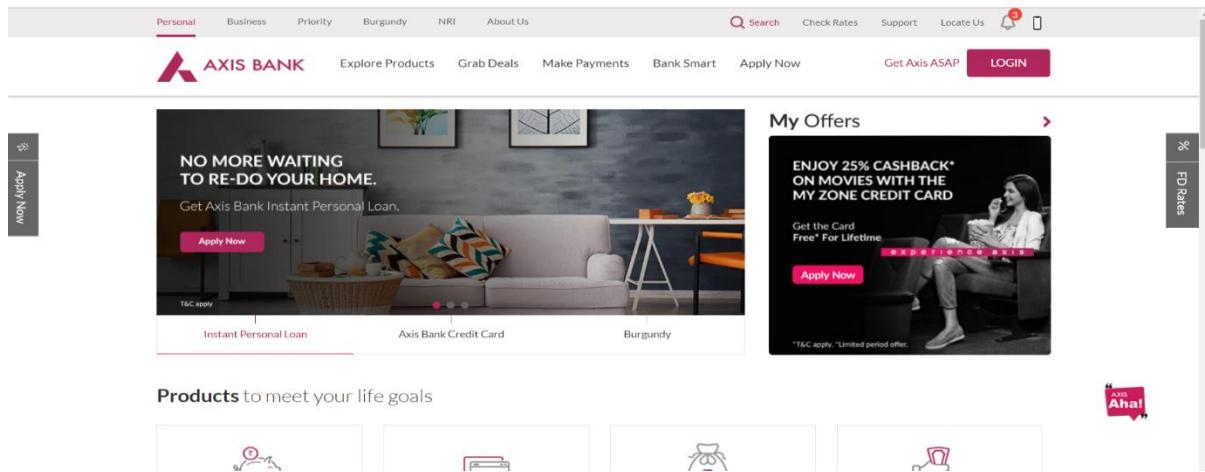


**Figure 4 Home Page of OBC net banking**

- Users are more likely to notice items near **the top of the page**, in order of their importance
- **Consistency** and easy-to-use web interfaces help users concentrate on the content and move through it through the banking website by eliminating any confusion and creating a sense of control.
- Avoid creating **dead end pages** on websites. They cause confusion and create additional work for users
- Use **common website patterns and interfaces**; don't make users learn something new
- **Move users seamlessly from one section to the next** by understanding user personas' goals and needs
- What matters the most to users is that your website **feels fast**
- **Delays** longer than several seconds will often make users leave the website
- Always have an **obvious way** to access the navigation menu on your website
- **Don't hide login** or search features inside website menus

### LOGIN BUTTON IS HIDDEN IN THE QUICK ACCESS VS SINGLE LOGIN BUTTON ON AXIS





- b) **FITT'S LAW:** Amount of time required for a person to move a pointer (e.g., mouse cursor) to a target area is a function of the distance to the target divided by the size of the target. Thus, the longer the distance and the smaller the target's size, the longer it takes.

- Distance between a user's task/attention area and the task-related button should be kept as short as possible.

VS

I ALWAYS TEND CLICKING "RESEND OTP" INSTEAD OF "VERIFY OTP" ON OBC

- Right-click pop-up menu or short drop-down menus have had resounding success, minimizing the user's travel distance with a mouse in selecting an option—reducing time and increasing productivity.
- Task bars impede movement through the interface as they require a more time-consuming level of precision than when options are placed on the outer limits of the screen. Multiple task bars can introduce a certain level of confusion or at the very least require the user to engage consciously with the screen arrangement to ensure appropriate selection.

## CMULTIPLE TASK BARS USED ON OBC VS SHORT DROP DOWNS ON AXIS BANK SITE

The screenshot shows the OBC website with several horizontal navigation bars at the top:

- Top bar: Home, Products, NRI, Apply Online, Investor Relations, Customer Section, Services.
- Middle bar: Recruitment, Regulatory Disclosures, Tenders, Auctions, Locate Us, About Us.
- Bottom bar: Report Unauthorized Electronic Transactions.

On the left side, there's a sidebar with "Services Central" and various student-related offers. The main content area has a grid of icons for Digital Banking, Deposit, Retail Loans, Demat/Insurance & TPP, Priority Sector, Govt. Business, MSME, Forex, and Online Mutual Fund. Below this is a section for NAAC URL, NBA, and other accreditation details. A large image of a graduate is on the right.

DIFFICULT TO NAVIGATE

The screenshot shows the Axis Bank website with a single, long vertical dropdown menu on the left side under the "FILTERS" heading. The menu categories include:

- Retail**: Accounts, Deposits, Cards, Loans, Forex, Investments, Mutual Fund SIP, Insurance.
- Special Features**: Family banking facility, Free Debit Card, Free Demand drafts Pay Orders, Entertainment Benefits.

The main content area features a banner for "Individual needs" with sections for EasyAccess Savings Account, Prime Plus Savings Account, and Prime Plus Current Account. A speech bubble highlights the "SHORT DROP DOWN MENU".

- Long drop-downs, title menus, etc., impede users' actions, raising movement-time demands.

The screenshot shows the OBC website with a long vertical dropdown menu on the left side under the "Home / Deposit Saving Account Misc" heading. The menu categories include:

- Deposit**: Oriental Salary Account, Oriental Yuva Account, Oriental Pranam Account – For Pensioners, Saving Accounts, Saving bank account, Unnati Deposit Scheme, Street Sakti Saving account, Pratham Account, Current Accounts.

A speech bubble highlights the "LONG DROP DOWN". The main content area features a grid of images for various saving account types like Unnati Deposit Scheme, Oriental Saprivaar Account, Premium Salary, Oriental Salary Account, Oriental Salute Salary Account, Oriental Yuva Account, Oriental Pranam Account For Pensioners, and Saving Accounts.

LONG DROP DOWN IN OBC VS FILTERS IN AXIS BANK

The screenshot shows the Axis Bank website's savings account customization feature. On the left, there's a 'FILTER BY' sidebar with sections for 'Category' (checkboxes for Premium, Regular, Children, Senior Citizen, Women, Trust NGO, Insurance Agent, Youth, Government, Zero Interest) and 'Special Features' (checkboxes for Family banking facility, Free Debit Card, Free Demand drafts Pay Orders, Entertainment Benefits, Health service benefits). The main area displays two account options: 'ASAP Instant Savings Account' and 'Women's Savings Account'. Each account has a summary of features like Debit Cards, Product features, Offers & Discounts, and a 'Explore More' or 'Open ASAP Account' button. A large speech bubble on the right contains the text 'OPTION TO FILTER MENU'.

- c) **JAKOB'S LAW:** The best way to create something new is to look for references so that the first clients understand what it is about and are able to make associations. It means that users spend most of their time on other websites. This means that they prefer similar sites to the ones they frequent and are already familiar with. That's why it's better not be over-original or over-creative.

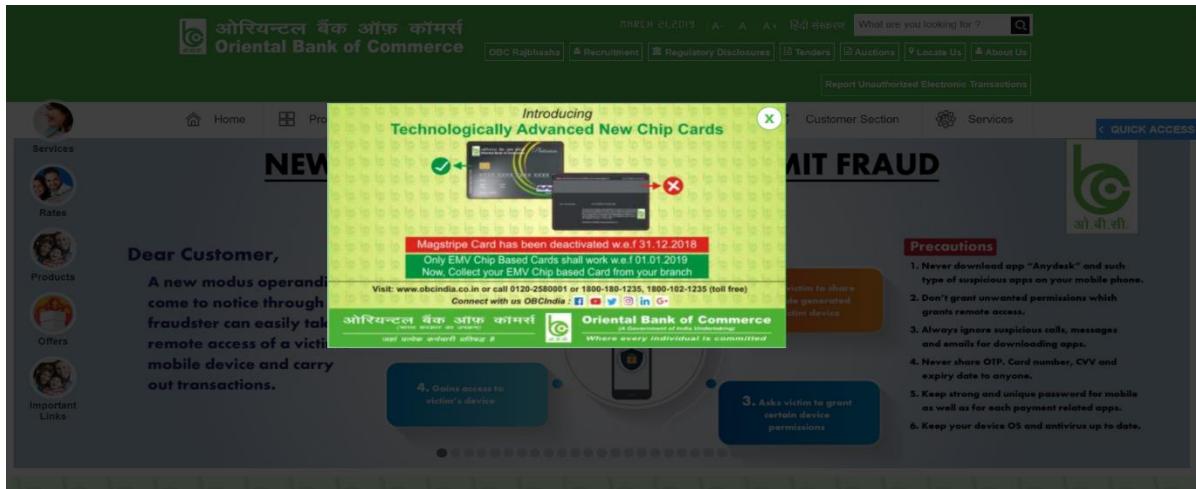
- **Bad Search:** Search is the user's lifeline when navigation fails.

The screenshot shows the Oriental Bank of Commerce website. At the top, there's a green header with the bank's logo and name 'Oriental Bank of Commerce'. Below the header is a search bar with the placeholder 'What are you looking for?'. The main content area features a large banner for 'Pratham Account' with text about basic account features and interest rates. To the right of the banner is a woman in traditional Indian attire with the text 'ओर श्री रसी'. Below the banner, there are sections for 'Stree Sakti Saving Account' and 'Valuer Application Status'. A blue banner at the bottom of the page reads 'Central Sector Interest Subsidy Scheme [CSISI]'.

- **Banner Blindness:** User never fixate their eyes on anything that looks like a banner ad due to shape or position on the page.

This screenshot of the Oriental Bank of Commerce website shows a large blue banner at the bottom of the page for the 'Central Sector Interest Subsidy Scheme [CSISI]'. The banner features text about the scheme, including 'Student to be denied Higher Education due to Poverty?', 'Eligibility', 'Benefits', 'Documents Required', 'Process', and 'Offers'. To the right of the banner is a photo of students in graduation gowns. At the bottom right, there's a logo for 'Ministry of Human Resource Development'.

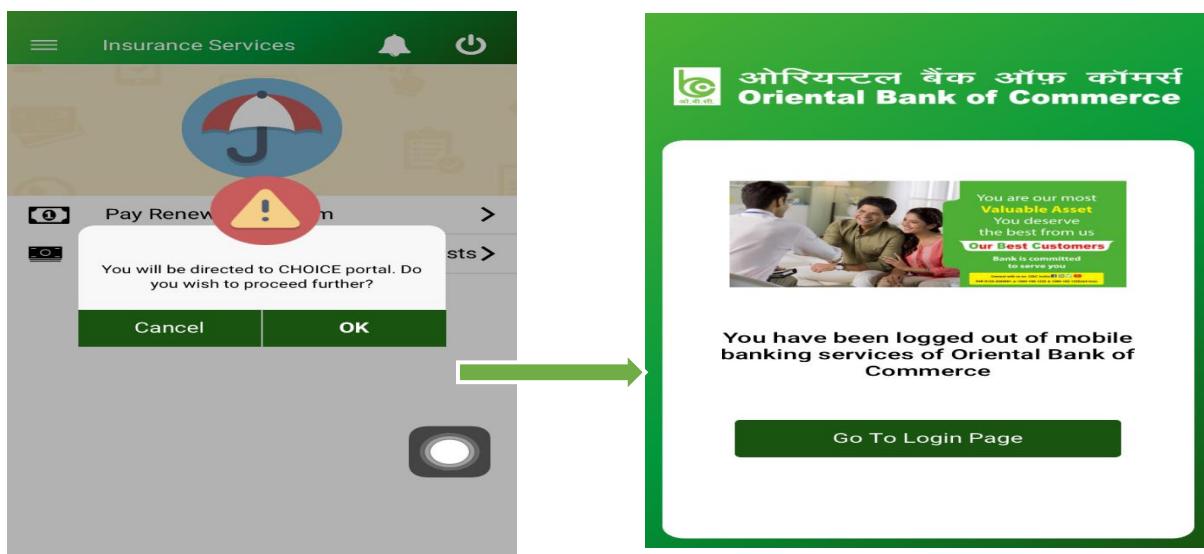
▪ Pop-Up Purges



▪ Inconsistency change in language and texts on the web page



▪ Opening New Browser Window



d) **LAW OF PROXIMITY:** Is the gestalt grouping law that states elements that are close together tend to be perceived as a unified group.

- As a rule of thumb, a balanced white space is generally more attractive and pleasing to the eye.
- Proximity for web design purposes means that similar or related elements should be grouped.
- Guiding the user through your website with proper flow, effective use of white space, positioning similar content closer together, and providing clear structure are all facets of the proximity design

The screenshot shows the homepage of the Oriental Bank of Commerce. On the left, there is a vertical navigation menu with sections like Digital Banking, Debit Card, Internet Banking, Mobile Banking, BHIM, Prepaid Card, IMPS, and Automated Teller Machine. The main content area features a large cloud-shaped callout containing the text "NOT EVERYTHING IS RELATED TO DIGITAL BANKING". Below the callout, the bank's logo and name are visible.

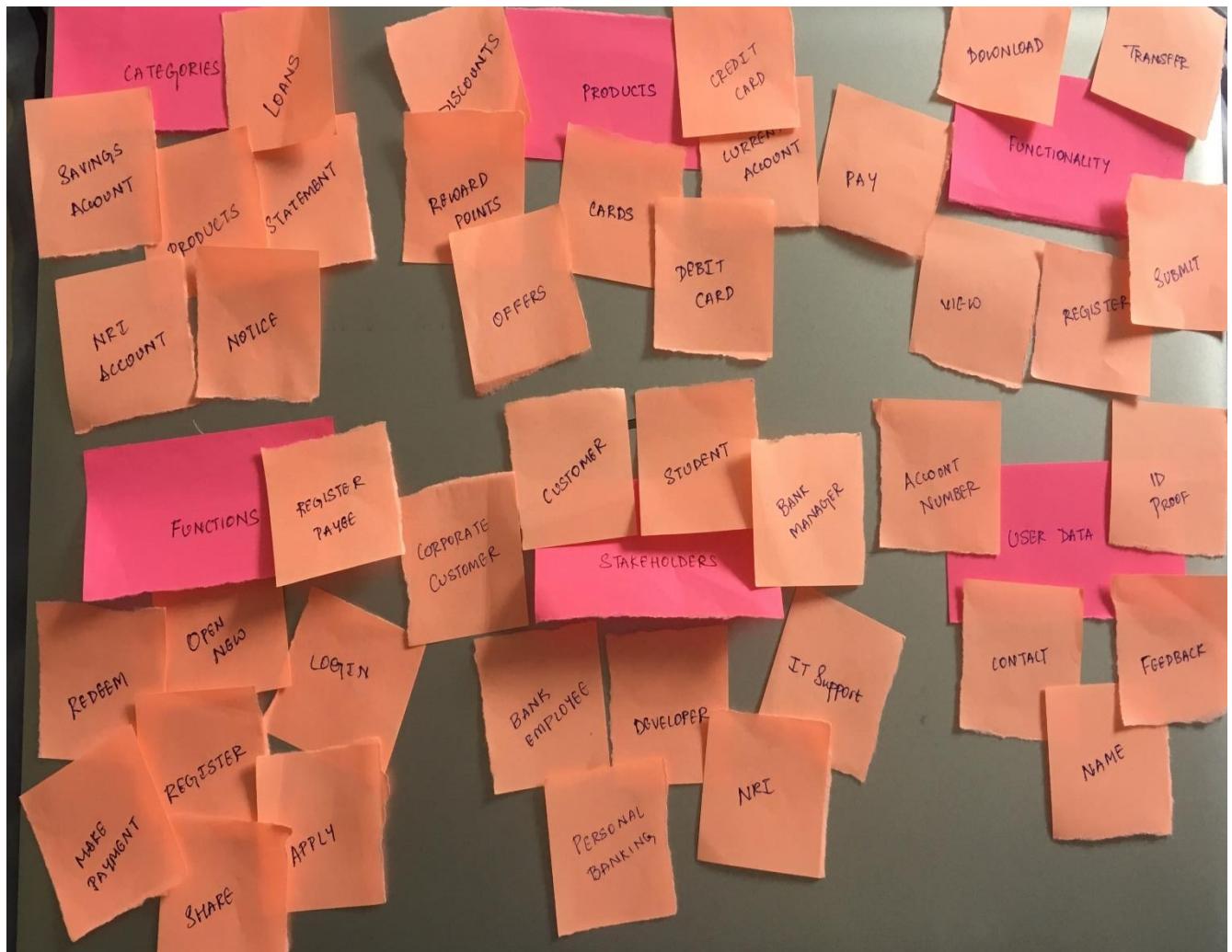
The screenshot shows a user profile page for Mr. SIDHARTH RAJ. The page includes a sidebar with various banking services and a main content area for managing personal profiles. A cloud-shaped callout in the center asks "WHY SO BLANK?", pointing to a dropdown menu that is currently empty.

standard.

## G. TASK ANALYSIS & PROTOTYPING

### G1. Low Fidelity Prototypes

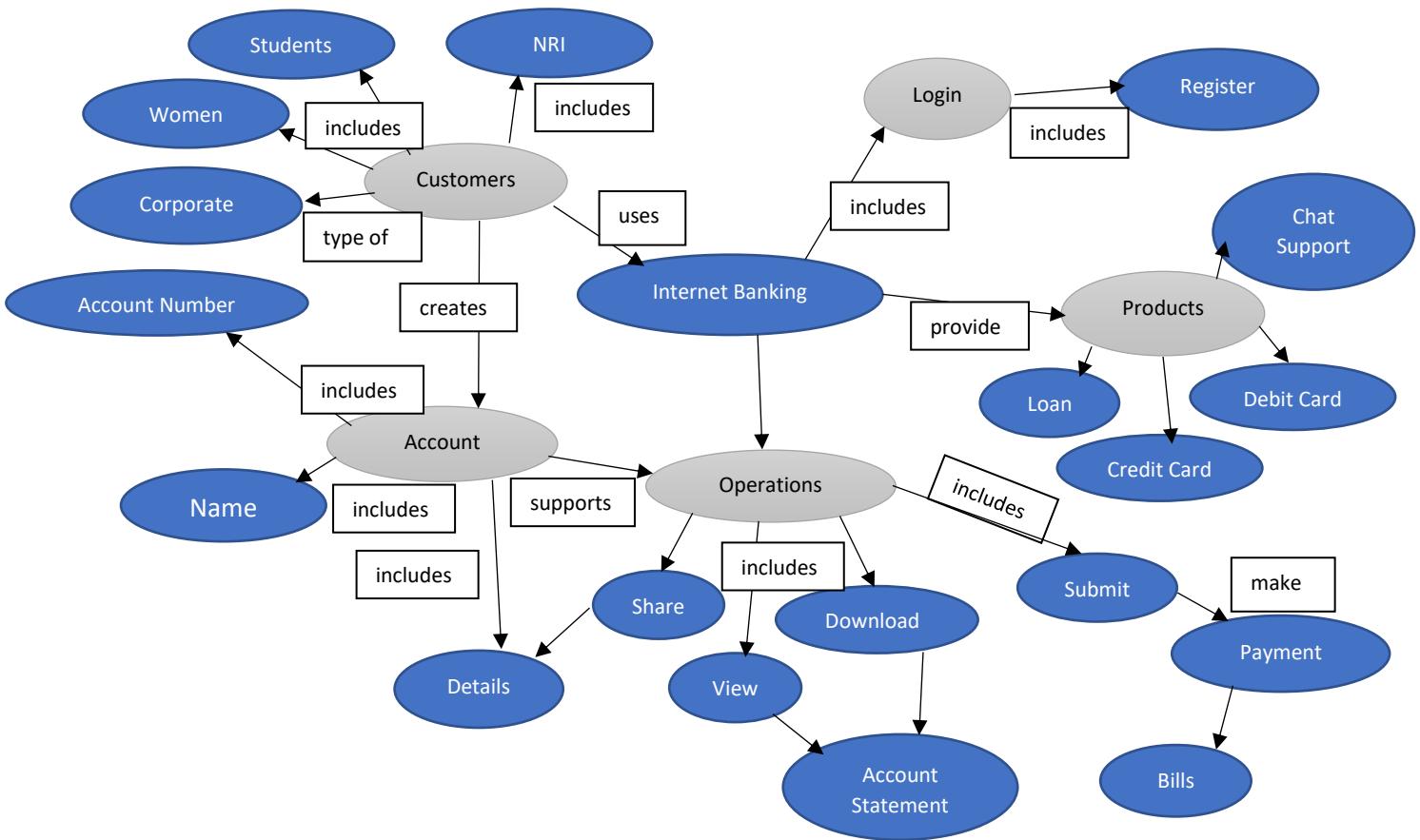
#### i. Card Sorting



- Task Analysis – Oriental Bank of Commerce Netbanking

Who is going to use the system?	Corporate Banker, Students, IT Support, Staff, Personal Banker, Developers
What tasks do they perform?	Open Account, Apply Credit Card, Apply Loan, Transfer Money, Download Account Statement, Share Account Details, Make Payments, Register Login
What tasks are desired?	Avail Offer, Chat Support, Notifications, Latest on Top
Where tasks are performed?	Home page, Login page, Personal account & Payment Page

## Concept Map

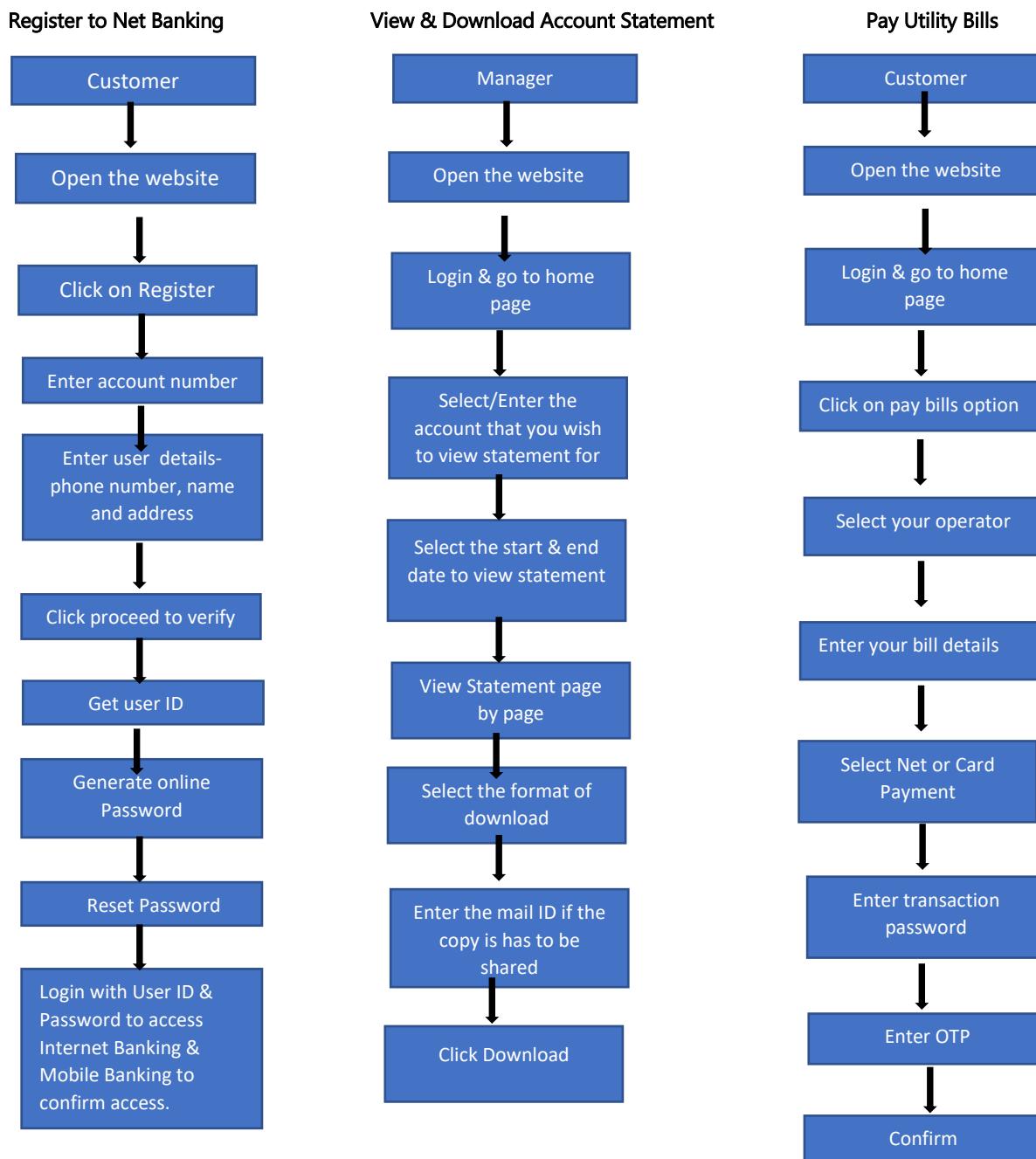


### ii. Personas

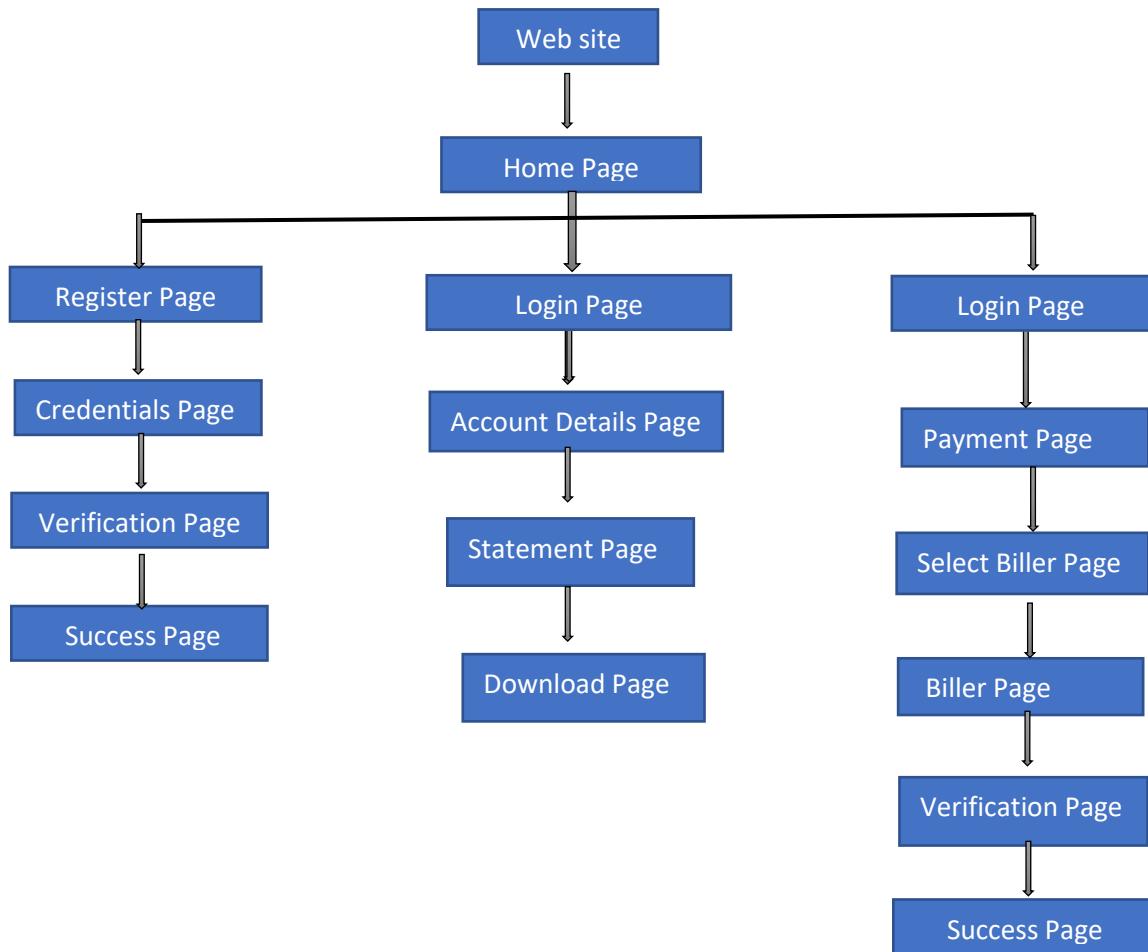
1. Ram is 38 years old and works as a Team lead with an organisation. He has worked in the job for the past 12 years. He holds an account with Oriental Bank of Commerce. He has a small family which consists of his wife, mother and daughter. Unfortunately he is staying away from his family for his career benefits. His family stays in other part of India. Mother is 60 years old and needs money for her monthly check-up and medication. Wife is a home maker looking after the home, daughter and her mother-in-law. Daughter is studying in 8<sup>th</sup> standard. His family is completely dependent on his earning. He needs to transfer money to his wife every month and sometimes in between if there are some unexpected requirements or expenses.
2. Sneha, is a student at Vasavi Education Trust. She is 19 years old and holds an Oriental Bank of Commerce account. She opened this account when she applied for education loan with the bank. Her father holds a joint account so that he can help her pay the interest. She is working part time which is also a source of her interest payment. She has her loan account linked to her salary account.
3. Sussan is a married woman who is 40 years old. She owns a boutique. She is busy from morning 9am till evening 6pm with her business. She also is a home maker. Her son and daughter are pursuing their Bachelors. She makes her bill payments online by registering with the providers. She pays her business bills too online. She uses the account to pay her children college and hostel fees.
4. Jay is an Indian who owns a restaurant in Dublin. He is 32 years old and his parents live in India. He has an account with OBC to avail the NRI services like NRI bank accounts, forex card, fixed

deposits and recurring deposits. Since he is the loving son, he transfers money to his parents and sometimes in his needs they do transfer money to his account.

- **User Journey:**

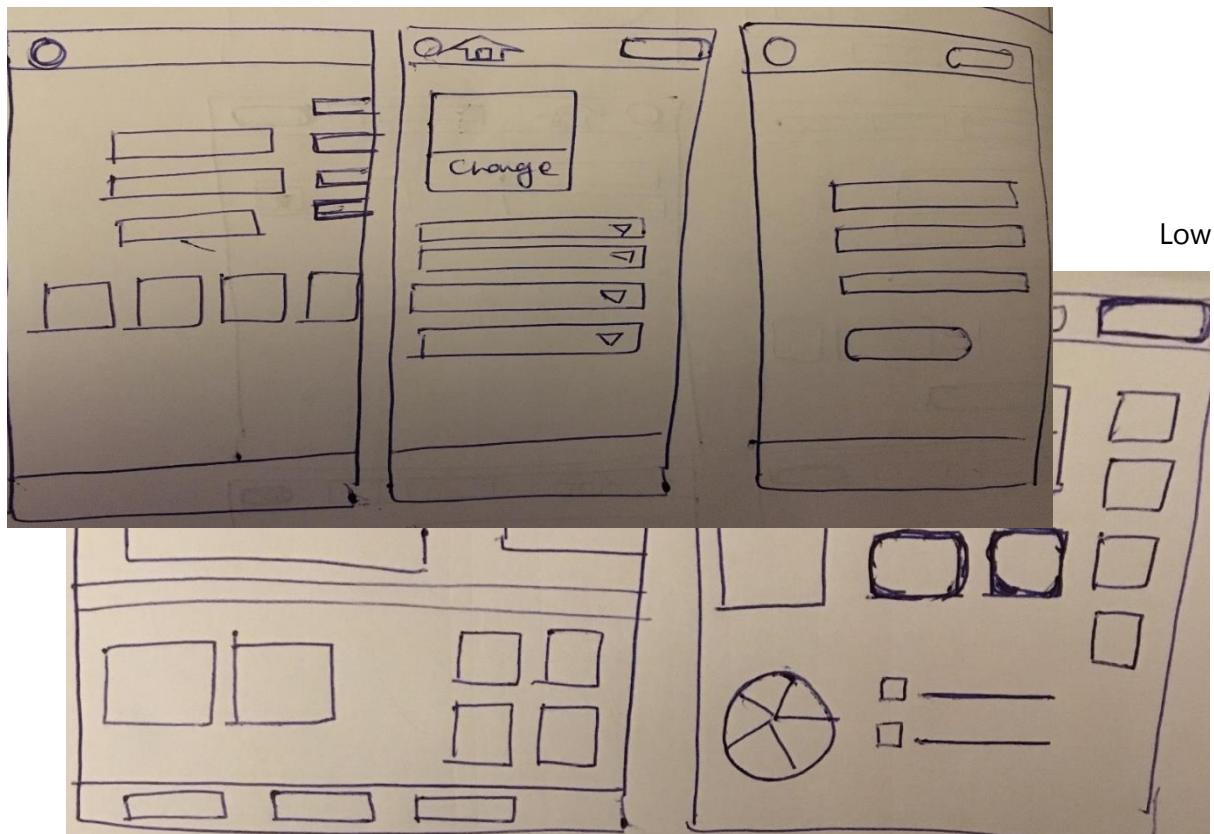


## Site Map

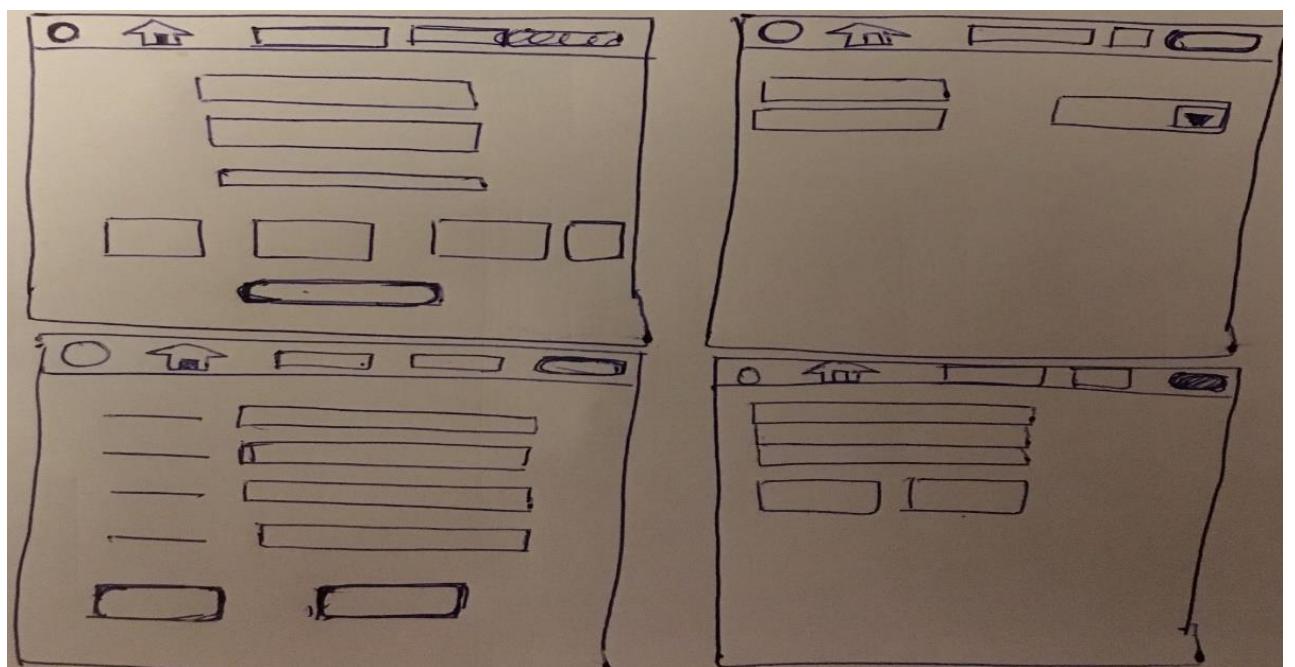


### ➤ Low Fidelity Prototype

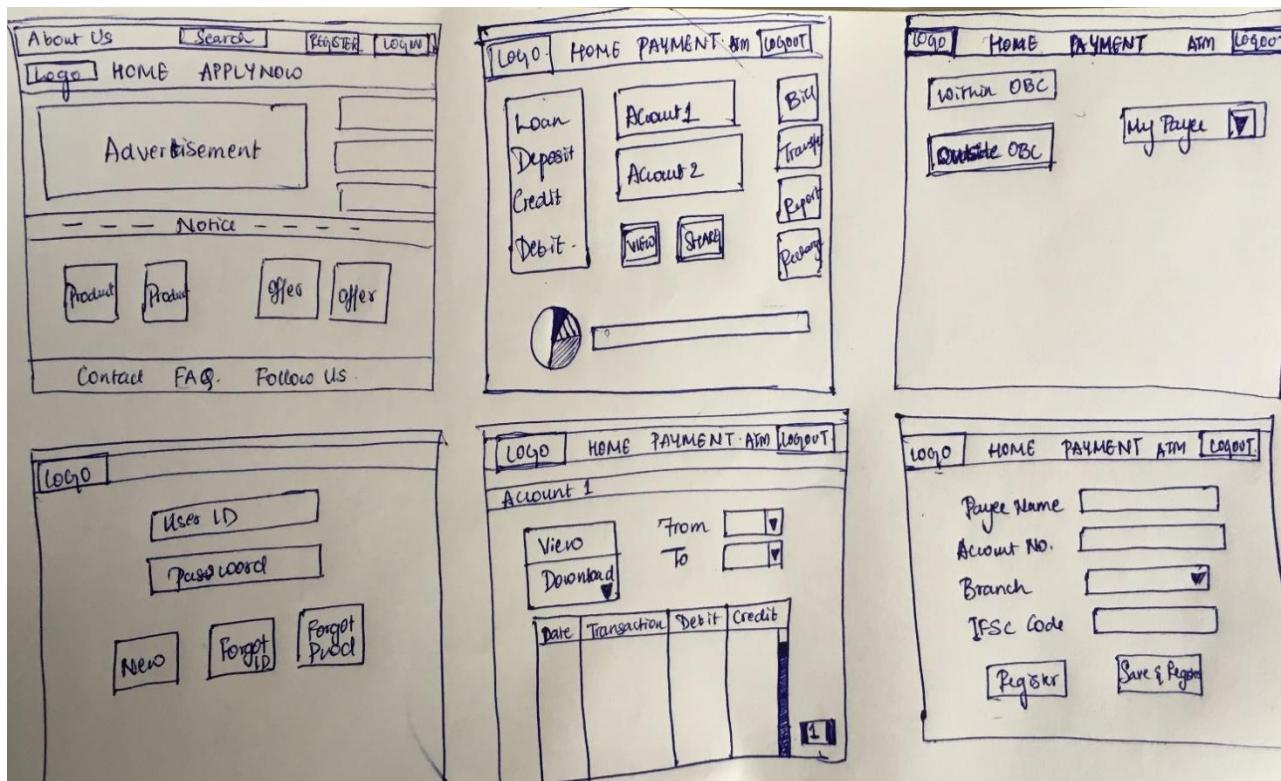
#### Low Fidelity Wireframe for Mobile Access



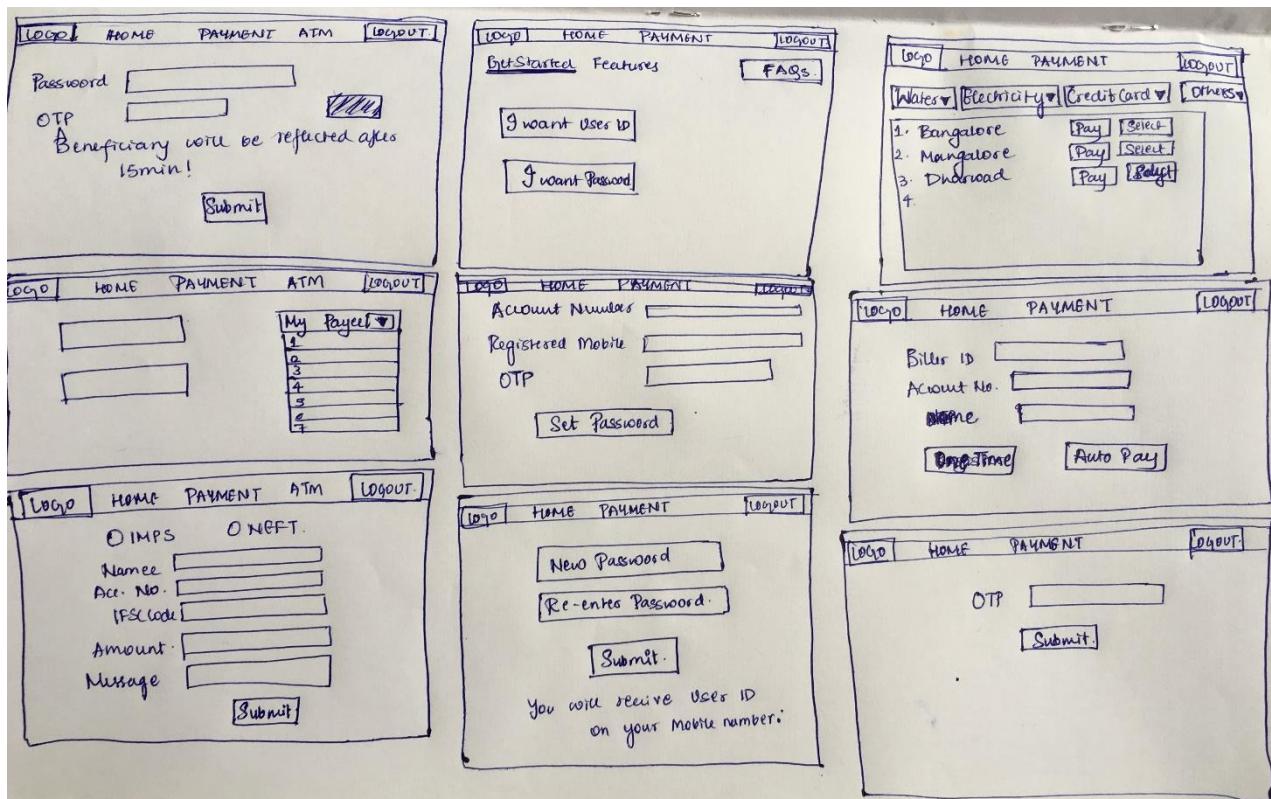
Fidelity Prototype for Desktop Access



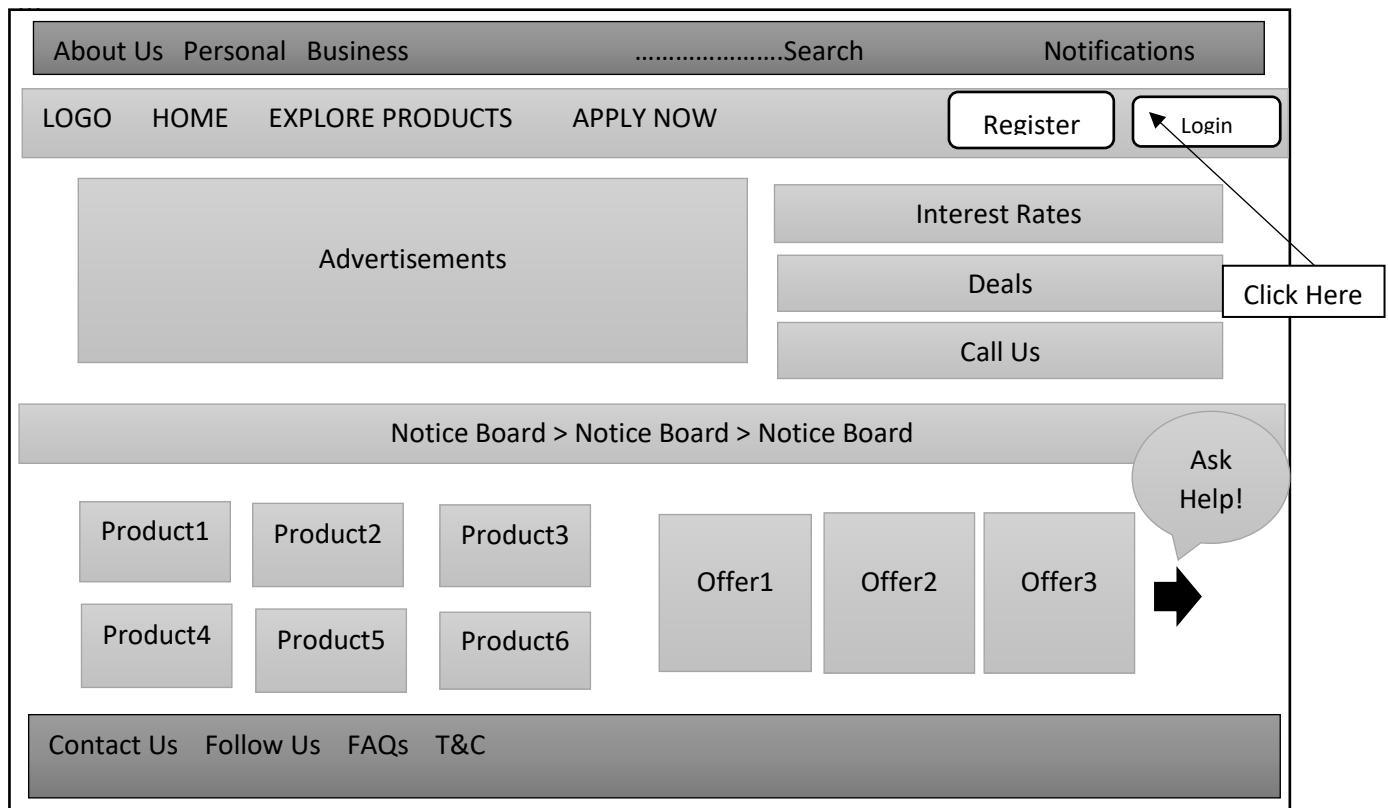
## Medium Fidelity Prototype



Wireframe for Desktop



### Wireframe for desktop OBC- View Account Details



This wireframe shows a login form. It includes a logo at the top right, a 'Logout' button, and input fields for 'Enter User ID' and 'Enter Password'. Below these is a 'Use Virtual Keyboard' link. A 'LOGIN' button is at the bottom left, with a 'Click Here' button to its right. At the bottom are links for 'Forgot Password?', 'Forgot User ID?', 'New User?', and 'View Live Demo'.

This wireframe shows the 'MY PROFILE' tab selected in the top navigation bar, along with PAYMENTS, INVESTMENTS, and FOREX. On the left, a sidebar lists financial products: Loan, Fixed Deposit, Recurring Deposit, Credit Card, and Debit Card. The main content area shows two accounts: Account 1 and Account 2. To the right are buttons for Pay Bills, Recharge, Transfer Funds, and a 'Click option' button. Arrows point from the 'Click option' button to the 'Transfer Funds' button and from the 'Click option' button to the 'Recharge' button.

## H. EVALUATION

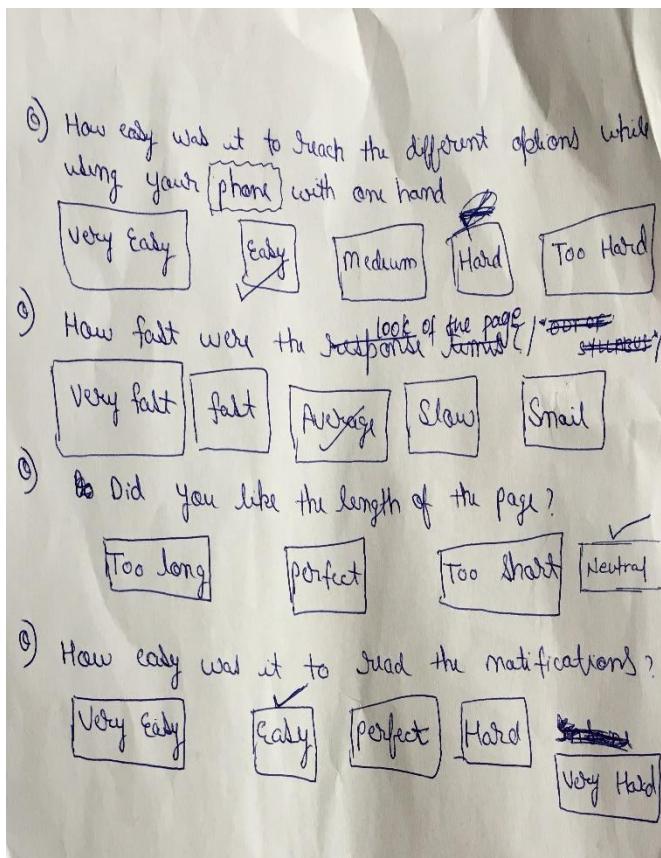
### H1. COGNITIVE WALKTHROUGH

I defined the task or tasks that the user would be expected to carry out.

Tasks was then divided up into a simple process to follow. So, for example, the log in process on a website might look like this:

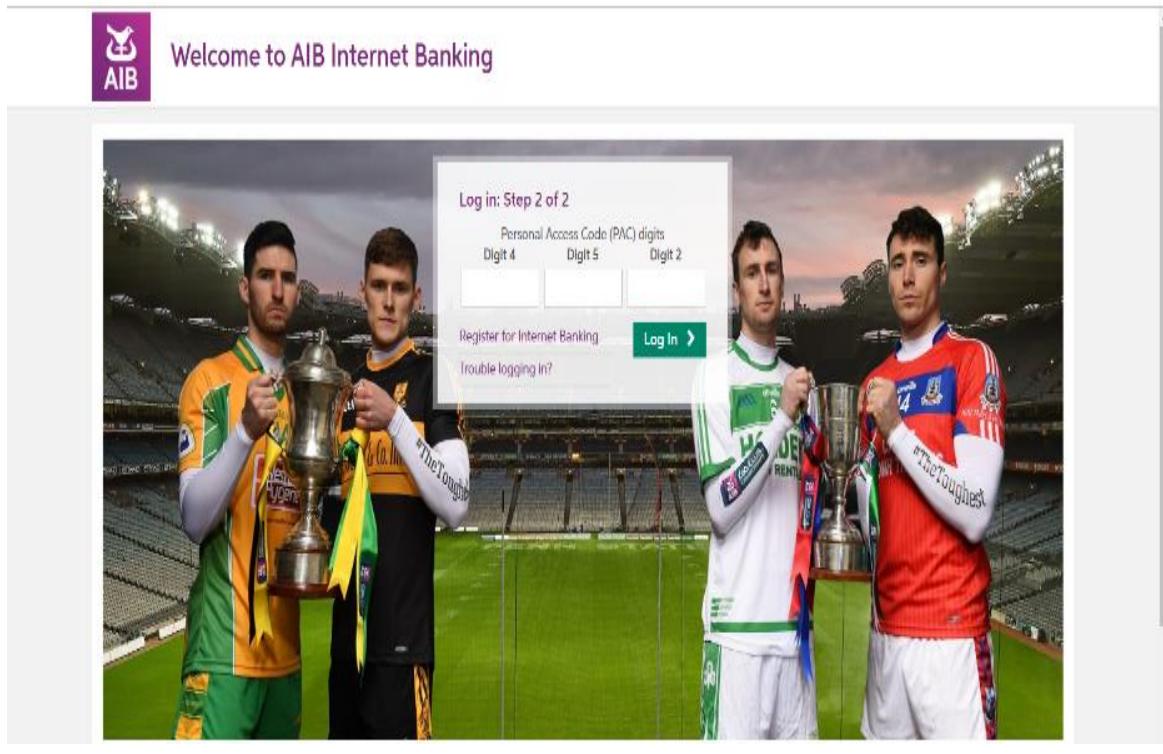
- Click login button
  - Enter user name in user name field
  - Enter password in password field
  - Click the login button
- 
- Did the user try and achieve the right outcome? Yes
  - Did the user notice that the correct action is available to them? Yes
  - Did the user associate the correct action with the outcome they expect to achieve? Partially yes
  - If the correct action is performed; did the user see that progress is being made towards their intended outcome? Not actually

### H2. USABILITY TESTING:



1. After designing my prototype, I constructed a questionnaire to know the user opinion on the usability and design of the web site.
2. My roommate and classmate were asked to perform tasks like download account statement, transfer money or pay bills.
3. The questionnaire was distributed to them after they working on the prototype.
4. Documenting the Test Results led to the following updated medium fidelity prototype.

## Additional functional specifications found in other banks



### My Money Manager

My Spending      My Savings Goals      My Budgets      My Categories Manager

#### My Budgets

This month €600.00 available in your €600.00 budget total

+ Add Budget

Description	Budget	Spent	Available	Progress this month
Total Budget	€600.00	€0.00	€600.00	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>
Savings & Investment	€600.00	€0.00	€600.00	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>
Saving & Investment Other	€0.00	€0.00	€600.00	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>

€750  
€500  
€250  
€0

Mar 18 Apr 18 May 18 Jun 18 Jul 18 Aug 18 Sep 18 Oct 18 Nov 18 Dec 18 Jan 19 Feb 19 Current month

Show in Table Format

TRIGGER FEATURES

## LOCATE ATM & BRANCH

Search nearby Branch or ATM

Karnataka ▾ ▾ Bangalore

J.P.nagar ▾ - 3 KM -

Category

- Branch
- Loan Centre
- ATM
- MSME Samriddhi
- Agri Centre

Services

- Ramp Facility Available
- Aadhaar Enrolment Centre
- Forex
- Demat Services NSDL
- Demat Services CDSL

Search Reset

### AXIS BANK Branches/ATMs In J.P. Nagar, Bangalore, Karnataka

Axis Bank ATM, Valtech,Bangalore.

IFSC : N/A  
State : Karnataka

Axis Bank ATM, Yelchanahalli

IFSC : N/A  
State : Karnataka

Axis Bank ATM, SONA TOWER-CD.

IFSC : N/A  
State : Karnataka

Lycamobile 4:48 AM 17% ◻

< Current - Student-051

Available funds €1,083.44

Account details

IBAN IE76AIBK9310  
BIC  
Account Number  
NSC

Payment Logs

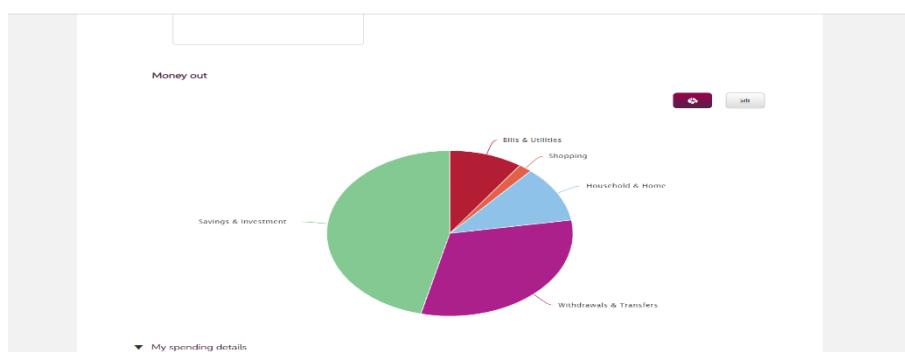
Transactions

TUE 19 MAR \*MOBI BILLS -€78.20

Accounts Pay & Transfer Cards Apply & Open Services

## SHARE DETAILS

## DATA VISUALIZATION



UPDATED MEDIUM FIDELITY PROTOTYPE – Downloading Account Statement – MARVEL SCREENSHOTS

This screenshot shows the medium fidelity prototype of the home page. At the top, there's a header bar with "About Us", a search bar, and icons for mobile and notifications. Below the header is a navigation bar with a bank icon, "HOME", "APPLY NOW", "LOCATE US", "Register", and "Login". A large central area contains a placeholder for "Advertisements" with four dots below it. To the right are three grey boxes labeled "Rates", "Our Blog", and "Grab Offers". Below this is a banner with the text "Notice....> Notice....>Notice....>Notice....>". Underneath the banner are three grey boxes labeled "Product 0", "Product 1", and "Product 2", followed by a right-pointing arrow. To the right of the arrow is a red circular logo with the word "Ask". At the bottom is a footer bar with links for "Contact Us", "Other links", "Report Fraud", "Follow Us" (with Facebook and Twitter icons), "We are in" (with a dropdown menu), and "Cities".

This screenshot shows the medium fidelity prototype of the login page. It features a header with a bank icon. The main area contains fields for "User ID" and "Password", each in its own green box. Between these fields is a link "Forgot Password?". Below the password field is a green "LOGIN" button. At the bottom of the page are three green buttons labeled "New User?", "Forgot User ID?", and "Live Demo". To the right is a red circular logo with the word "Ask".

**LOGOUT**

Last Logout: 23.04.2019 00:40

**Account 1** **Account 2**

**My Profile**

**Transfer**

**Bills**

**Recharge**

**Loan**

**Deposits**

**Debit Card**

**Credit Card**

**View Statement** **Share Details**

**Shopping**

**Savings**

**Bills**

**Account 1**

Account Number  
IFSC Code  
Balance Available  
Account Type

From   
To

**View Statement**

**Mini Statement**

Date	Debit	Credit	Description	Cheque/Cash	Balance

Format

**Download**

Download Successful! Kindly check your registered mail for the statement copy!

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- [8] Jakob Nielsen. (2011). "Top 10 Mistakes in Web Design". Retrieved from <https://medium.com/swlh/ux-laws-with-practical-examples-c418b4738d20>.