WhatsApp Pay Project

Simplilearn project for CBAP

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1.Introduction

WhatsApp is a messaging and Voice over IP (VoIP) service owned by Facebook. It allows users to send text and voice messages, make voice and video calls, and share images, documents, and other media. WhatsApp runs on mobile devices but is also accessible from desktop computers. WhatsApp has over 2 billion users worldwide as of today. It has become the primary means of electronic communication in multiple countries across multiple continents, including Latin America, the Indian subcontinent, and large parts of Europe and Africa.

2. Business Objective

WhatsApp has decided to take the plunge into this digital payment market. They have launched a new feature namely, WhatsApp Payments to be known as WhatsApp Pay in Brazil in June 2020. WhatsApp promises to disrupt the global digital payments ecosystem with WhatsApp Pay.

WhatsApp will integrate the customer's debit card or credit card into their app. That is, while chatting with your peers, you can transfer the money to them. There will be no separate app that the customers need to download to access this payment feature. This feature would be provided to users as an update in the existing WhatsApp messaging app. The user can use WhatsApp pay feature by updating the WhatsApp messaging app.

Business Objective by senior management:

- 1. Have at least 1 million users use WhatsApp pay feature within the first 3 months of launch.
- 2. Over 1 year of its launch have 30% of user base using WhatsApp pay.

3.Expected Benefits

- 1. Easy peer to peer payments. You can send money to your family, friends, or relatives all through WhatsApp.
- 2. Users need not go to the bank or use wallets, bank apps, or NEFT to transfer money.
- 3. It will be a one-click payment.
- 4. Easy and user-friendly interface of WhatsApp would make digital payments seamless and there will be no need to enter details at multiple page loads.

4. Business Analysis Core Concept Model as per BABOK

Business Analysis Core Concept Model™ (BACCM™): defines a conceptual framework for the business analysis profession.

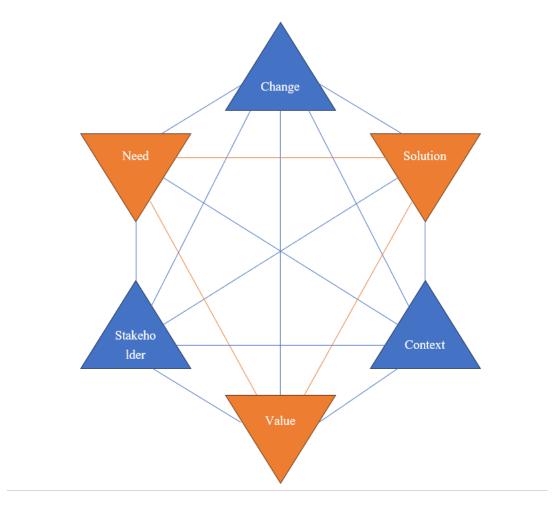


Figure 1. Business Analysis Core Concept Model as per BABOK

For WhatsApp to come up with Digital Payments in their existing application, detailed analysis pertain to below aspects will have to be done.

- 1. Need to come up with new feature
- 2. Change required in to satisfy the need
- 3. Solution to be delivered in response of change and need
- 4. Stakeholders impacted by the solution delivered in response of change and need
- 5. Value to the stakeholder for the solution delivered
- 6. Context of payments horizon in which the solution will be delivered enhancing the value of the application to the stakeholders.

BACCM for WhatsApp

Need:

Problem or Opportunity

WhatsApp is a messaging and Voice over IP service enabling users to use it as a messaging, voice and video calling application. WhatsApp wants to enter into Digital Payments Market to enable users to make digital payments via WhatsApp.

Change:

Transformation

In addition to its presence in electronic communication, WhatsApp would also enable users to do digital payments.

WhatsApp Users will be able to make payments from WhatsApp without downloading a separate software. Messaging, Voice/Video calls and Payments all can be done by a single app.

Context:

Influential Circumstances

- Payment feature of the app should be easy to use.
- It should be secured.
- It should scalable, self-explanatory and user friendly

Stakeholder:

Group or Individual impacted by the change

External Stakeholders: WhatsApp Sponsors, WhatsApp users, Payment Gateways coordinators, National Payments Corporation of India & Competition Commission of India (For regulation), Google

Play store (Supplier/Facilitator)

Internal Stakeholder: Domain SME, Project Manager, Developers, Implementation SME, Testers Simplilearn Business Analyst

Value:

Its worth, importance and usefulness to stakeholders within a context

WhatsApp can leverage its existing user base and provide them feature to dXmake digital payments Whatspp can increase its earning potential by entering into digital payments market and capturing considerable amount of market share.

Solution:

Way of satisfying needs in a context

WhatsApp would provide a user friendly, easy to use scalable and secure payment option. One of the two approaches to implement payment feature as mentioned in the case study

5. Requirement Classification Schema

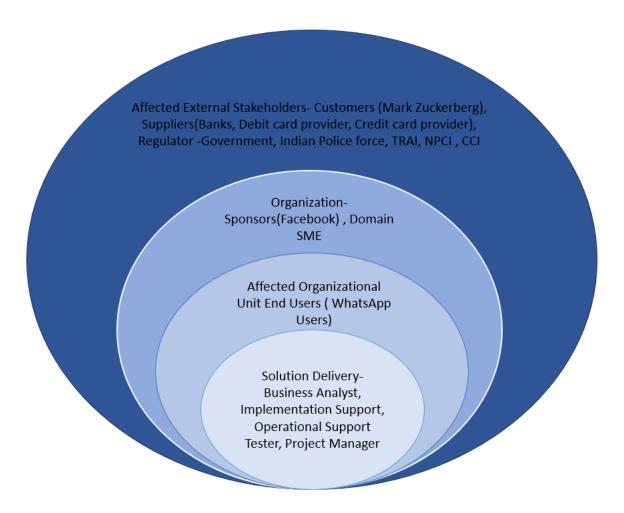
Requirements are described by following classification schema:

- **1. Business Requirements:** These are statements of goals, objectives, and outcomes that describe why a change has been initiated. They can apply to the whole of an enterprise, a business area, or a specific initiative.
- **2. Stakeholder Requirements:** It describe the needs of stakeholders that must be met to achieve the business requirements. They may serve as a bridge between business and solution requirements.
- **3. Solution Requirements:** It describe the capabilities and qualities of a solution that meets the stakeholder requirements. They provide the appropriate level of detail to allow for the development and implementation of the solution. Solution requirements can be divided into two sub-categories: Functional requirements & Non-functional requirements or quality of service requirements
- **4. Transition Requirements:** It describe the capabilities that the solution must have and the conditions the solution must meet to facilitate transition from the current state to the future state, but which are not needed once the change is complete.

6.STAKEHOLDERS

	External S	takeholders
Stakeholders	Actors	Actions
Sponsors End Users	Facebook WhatsApp users	 The Sponsors would fund for the new feature development of WhatsApp pay WhatsApp end user is already able to use WhatsApp for messaging, voice calls and Video calls In the proposed system, they will also be
Customers	CEO	able to make digital payments via WhatsApp. ❖ He owns WhatsApp and one of the most
	Banks	 important Stakeholder For digital payment with WhatsApp, Banks will have to cooperate with WhatsApp for provision payment via respective Banks. Banks will have to share Bank details, Branch Details, IFSC details to shown on the screen and on making payment banks will have to validate the users have accounts in respective banks
Suppliers	Credit card provider	 Credit card providers will have to cooperate with WhatsApp to enable users to pay via respective credit cards Details like Card details, Credit card holders' details, Payment gateway details will have to be provided to WhatsApp. Also, they will have to validate on entry of user card credentials.
	Bank Debit Card provider	 Debit card providers will have to cooperate with WhatsApp to enable users to pay via respective Debit cards Details like Card details, Debit card holders' details, Payment gateway details will have to be provided to WhatsApp. Also, they will have to validate on entry of user card credentials.
Regulators	Government, Indian Police force, TRAI, NPCI, CCI	 Government of India has laid down guidelines to take swift actions on government takedown requests Indian Police force keeps a check on WhatsApp NPCI: May come into picture as it regulates UPI payments CCI: Keeps a check on new features launched by WhatsApp

Internal Stakeholders			
Stakeholders	Actions		
Domain SME	Domain SME will help in understanding the Payments domain in India.		
Tester	 Tester will test the build before deployment in production 		
Operational Support	The operational support will ensure support post the new feature goes live		
Implementation Support	Implementation support team will ensure proper development of the new		
	feature without impacting the old functionality		
Project Manager	Project manager will ensure timely and effective delivery of the new feature		
Business Analyst	Business Analyst will ensure all the requirements are been converted into the		
	actual feature in the proposed system. He will ensure seamless coordination		
	and communication between all the stakeholders		



7. Risk Identification

- 1. WhatsApp End users may be reluctant for users to use WhatsApp for payment as it's known for as Social Networking Application.
- 2. Competitors may offer many extra features which may not be possible for a social media Application.
- 3. Money transferring should be convenient and seamless, otherwise people would uninstall this basic App as well
- 4. Keeping it updated with the current trends and future requirements in both the fields, Money transfer and social media may be difficult, failing in which would result in customer dissatisfaction.

Process				
Knowledge Area Tasks	Task Details			
Analyse Current State	 Analysing the current state of WhatsApp application Studying the other digital payments Market Internal and External Stakeholders Analysis Penetration strategy to be adopted Current technical gaps, when customers are using the application. 			
Define Future State	 Define High level planning of scope of program Organizational Structure of the program Modular release across geographies Roles and Responsibilities of the stakeholders Organizational Objectives to be achieved 			
Assess Risks	 Ensure security while digital payments are made. Account details of the end users should not be leaked. Thus, should be encrypted and kept safe while in rest or transit. Existing functionality of the application should not be impacted by the new feature. Integration with Banks, payment gateways and other payment network operators should be secured, transparent and seamless. 			
Define Change Strategy	 Gap analysis from existing releases. Tie up and collaboration with other players in the market			

8.SWOT Analysis of WhatsApp Pay

Strengths

- Huge end user base
- Strong brand value
- Better capital raising avenues
- Better Financial Stability
- Least user training required as user is already accustom with the interface

Weaknesses

- Reluctance from the end users as it's a casual messaging app
- WhatsApp will have to comply with local regulations and guidelines
- Recent news on lack of maintenance of privacy can be one of weakness
- Additional layers of security will have to added

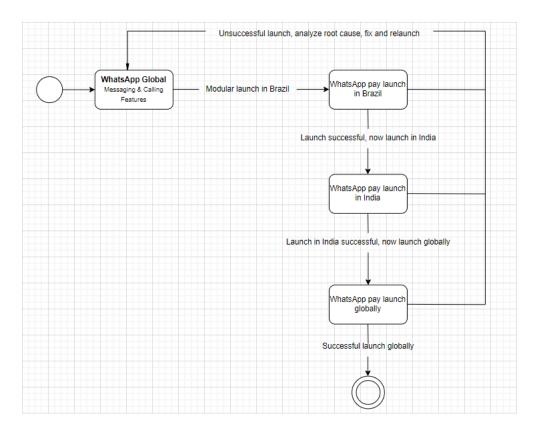
Opportunities

- Expansion across geographies
- Market saturation is low
- Apart from just Debit and Credit other options for payment may also be adopted
- Payment Wallets can also be launched for ease in payments.

Threats

- Competition with prevalent existing competitors may be difficult
- WhatsApp will have to comply with local regulations and guidelines

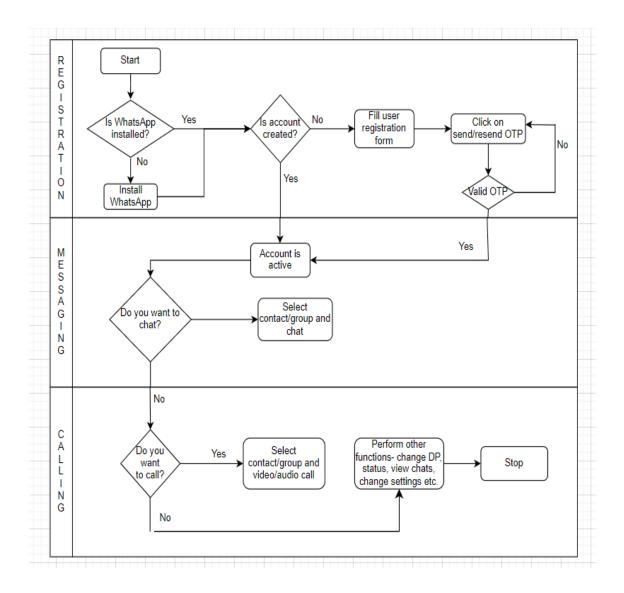
9. Transition State of WhatsApp Pay



10. Current Process of WhatsApp Pay

- 1. The Current System allows users to use WhatsApp as a messaging and Calling application.
- 2. User can install WhatsApp from Google store and install it on their phones.

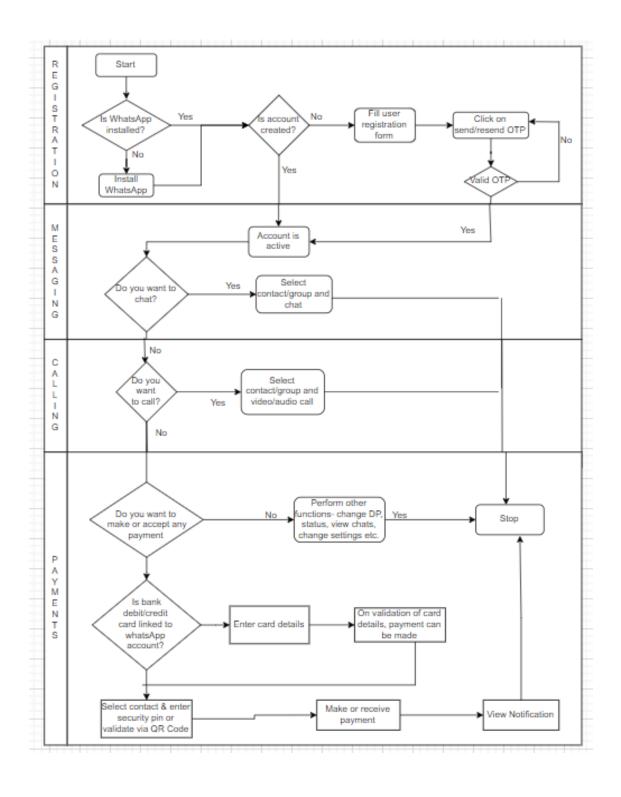
- 3. User will have to register themselves to create their WhatsApp for the first time.
- 4. Once registered, User can chat or call their contacts via this application. Any chat can be pinned, deleted, muted, archived or marked as unread by the user.
- 5. User can also create a group, add one or more than one contacts and send messages r call in the group.
- 6. Calls can be voice call or video call.
- 7. User can also create a broadcasting group to broadcast messages to huge contact list.
- 8. User can manage their WhatsApp details like Display name, profile picture, status.
- 9. User can configure account details, chat and notification details, Storage, and data details under Settings
- 10. In addition to this, WhatsApp stores and creates backup on daily basis. In case of re-login to the application, backup can be restored, and the chats can be ensured to be up to date.



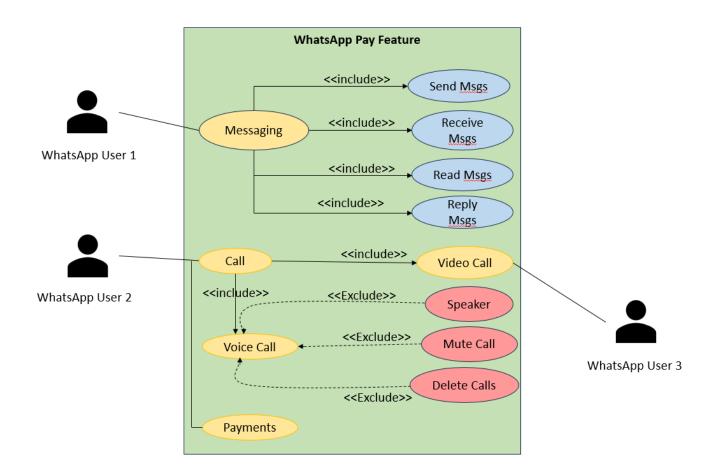
11. Future Process of WhatsApp Pay

- 1. In addition to all the above features, WhatsApp will also allow users to make digital payments.
- 2. Users will have to configure their debit card or credit card details of the bank accounts.
- 3. After configuration, WhatsApp will ensure the details are authenticated by checking the cards authenticity from Banks System.
- 4. If the cards will be authenticated, then WhatsApp will allow users to make payments.
- 5. In case if no card is registered or if the details wouldn't be authenticated, then payments will not be allowed.
- 6. After card details are registered by the user, user can make digital payment to their contacts.

- 7. User can go to contact's chat and select 'Payment' from the menu. User will then have to enter the amount and followed by security pin which will be preconfigured. If the security pin is valid, then the payment would be successful, else payment operation will be aborted.
- 8. Another approach is via QR Code. You can go to Payments from the menu. User can tap on the QR code showing next to their name to show their QR code using which people can send them money. User then will have to tap on the new payment option located on the bottom right of the display.
- 9. User selects a contact or the scan QR code option.
- 10. Transaction History will be maintained for the user to view the same.



12. Scope of the Proposed System explained via Use-case Diagram



13. Main Features of the Proposed System

- 1. Proposed system will ensure easy peer to peer payments. Users can send money to family, friends, or relatives all through WhatsApp.
- 2. Users need not go to the bank or use wallets, bank apps, or NEFT to transfer money.
- 3. It will be a one-click payment.
- 4. Easy and user-friendly interface of WhatsApp would make digital payments seamless and there will be no need to enter details at multiple page loads.

14.In-Scope and Out-of-Scope Requirements

In Scope Requirements

- 1. Addition of Bank accounts to WhatsApp User Account
- 2. Linkage of Debit and Credit cards to WhatsApp User Accounts
- 3. Additional credentials management making Digital Payments
- 4. Payment or Receipt of funds to/from Contacts via WhatsApp Digital Payments
- 5. Notification of Payments/Receipts of transactions done via WhatsApp Pay.
- 6. Digital Payments through QR Code
- 7. Integration with Banks, Payment system operators and Payment Gateways for seamless transfer of funds.
- 8. Payments Process to follow local and global guidelines and protocols for secure transactions.

- 9. Payment feature would be available in multiple languages.
- 10. Display of Transaction History will be available to the users.

Out of the scope requirements

- 1. WhatsApp pay will not be accessible to users who do not have WhatsApp Account
- 2. Payments would not be allowed for users whose Bank Accounts are not added.
- 3. WhatsApp Wallet is currently out of scope

15.Business Requirements

Functional Requirements

- 1. **Linkage of Debit and/or Credit Card to WhatsApp Account:** System will allow WhatsApp Users to add their bank accounts by providing the option to configure their account from Settings.
 - User can go to Payment Account Details sub menu under Settings menu.
 - In Payment Account Details, user can view his/her debit and/or credit card details if already added to the system. Users can remove their card details if they wish to.
 - To add new card details, user can click on add and can fill in all the details on the form like Account holder name, Account number, IFSC Code and Card Validity period.
 - All the details entered by the user would then be sent to Bank's system to validate and authenticate the card details entered by the user. On fetching authentication on the same, user card will then be linked to WhatsApp User's Account.
- 2. Users can make digital payments only if there is at least one authentic card linked to their WhatsApp Account. Moreover, the transfer can only be done to the contacts of the WhatsApp User.
- 3. **Process of payments made to and from WhatsApp users accounts:** There can be two approaches for making digital payments.

Approach 1:

- To use the WhatsApp Pay feature the user needs to have a bank account with its debit card or a credit card
- Users shall select the person they want to send money to from their WhatsApp contact list
- Users shall click on payments option in their chat settings
- Users shall enter the amount they wish to transfer
- Users will then enter a security Pin
- Users will click on the transfer button
- Money is transferred
- The sender and the receiver will both receive a payment notification on their chat window once the fund transfer has been made.
- In cases where the user is requesting money, tap on request and wait for the person to accept your request.
- The feature should be available in multiple languages

Approach 2:

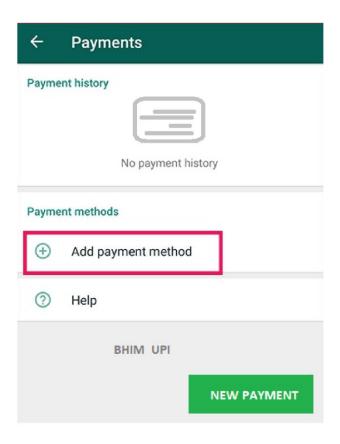
- User goes on the main page of WhatsApp and opens the payments option.
- User then taps on the QR code showing next to their name to show their QR code using which people can send them money.
- User taps on the new payment option located on the bottom right of the display.
- User selects a contact or the scan QR code option.
- The rest of the process remains the same as above.
- 4. **Transaction History:** Users will be able to view their transaction history.

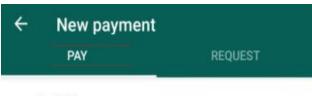
Non-Functional Requirements

- 1. The system should be scalable to cater to more users when launched in modular manner.
- 2. The system should be secure. All the transactions details should be encrypted to ensure that data at rest and in motion is secured.
- 3. Performance of the system irrespective of number of users using the system should be under acceptable limits.

16. Wireframes

Below is the screen when user clicks on Payments Menu. From this screen, users can add their Debit or Credit cards.





To XYZ Using SBI Bank *0000 via...

₹50

BHIM UPI



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7	8	9
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