WatsApp Pay

1. STAKEHOLDERS

ACTOR	What he can do on the Software Created
WhatsApp users	• Transfer fund to the users in their contact list. • Request fund to from the users in their contacts list • Add beneficiaries and account details to transfer/request fund to and or from. • Make One-time payments via scanning the QR code option • Report any failed or fraudulent transaction via Help option on Whatsapp Pay
Banks	• Authorize users via security pin • Allow to Add and authenticate beneficiaries • Approve requested transactions made via App • Transfer the funds to the beneficiary. • Secure and encrypt the transactions. • Display monthly transaction statements. • Arbitrate any disputes between sender and receiver
Credit card providers	• Authorize users via security pin • Allow to Add and authenticate beneficiaries • Approve requested transactions made via App • Transfer the funds to the beneficiary. • Secure and encrypt the transactions. • Display monthly transaction statements. • Arbitrate any disputes between sender and receiver
Bank (debit card provider)	• Authorize users via security pin • Allow to Add and authenticate beneficiaries • Approve requested transactions made via App • Transfer the funds to the beneficiary. • Secure and encrypt the transactions. • Display monthly transaction statements. • Arbitrate any disputes between senderand receiver

2. Risk Identification

S. No.	Risk Event	Consequence	Probability	Impact	Risk Level	Risk Modification/Mitigation Plan	Residual Risk
1	Switching cost between wallet is too low. Can work both ways (in favor as well as against)	Loss of Business & Revenue	High	High	High	1. Periodic Customer Loyalty Benefits and Promotions 2. Cashbacks on Transactions 3. Brand Promotions	Low
2	Cyberattacks – Malware & Virus Attacks	Loss of Business Loss of Brand Value Legal Implications	High	High	High	1. Periodic IT Security control audits 2. Periodic Security Patches to users 3. Data Encryption	Medium
3	Phishing, Impersonation and SIM swapping attacks	Loss of Customer's money Loss of Customer's Personal Information	High	High	High	1. Periodic IT Security control audits 2. Periodic Security Patches to users 3. Authentication	Low
4	Unintentional exposure of Personal and Sensitive user information	Loss of Customer's money Loss of Customer's Personal Information	High	High	High	1. Periodic IT Security control audits 2. Periodic Security Patches to users 3. Data Encryption	Low
5	Breach of Compliance Standards like PCI etc.	Legal Penalties Loss of Brand Value	High	High	High	Periodic third party IT Control Audits	Low
6	Time To Market – New competitors may evolve & capture market share	Loss of Market Share	Low	Medium	Low	1. Expedite Product Delivery 2. Pre-launch promotions and branding	Low
7	Wrong Transactions	Loss of Customer's money	Low	High	Medium	Mechanism to report such transactions and reverse them	Low

3. SWOT Analysis of WhatsApp pay

Perform SWOT Analysis for the system.

STRENGTHS	**WEAKNESS**
• Easy to adopt and user-friendly payment method • Safe & Secure method of payment • Wide applicability and acceptance like retail shops, KIOSK centers, shopping malls, online payments and peer to peer payments. • No limit on the minimum amount required for payment making this an attractive option • Easy to connect new accounts and one-time payments • Direct link to user's bank account • Strong government push • High Customer adoption rate • Existing user base of ~2 billion whatsapp users as initial target base.	• Lack of supporting Infrastructure – Internet connectivity, compatible mobile devices etc. • In certain low value but high-volume transactions, cash transactions are still preferred • e-literacy is a challenge as current yet traditional whatsapp users may not be able perform financial transactions with same ease. • Dependency on bank accounts: low income group might not have
OPPORTUNITIES	**THREATS**
• Curbing Black Money as all the transactions would be carried out via bank accounts leaving a financial footprint • Increased Tax Collection due to transactions • High growth rate of this segment overall (CAGR: 23%) • Cashless/paperless payments reducing carbon footprint • Small Vendors/Merchants can be convinced to adopt cashless medium • Traditional users can be target base.	• Existing competitors holding large market share like PayPal, GooglePay etc • Switching cost between wallet is too low. Can work both ways (in favor as well as against) • Cyberattacks – Malware & Virus Attacks • Phishing, Impersonation and SIM swapping attacks • Unintentional exposure of Personal and Sensitive user information • Breach of Compliance Standards like PCI etc. • Time To Market – New competitors may evolve & capture market share

4. PROPOSED SYSTEM

The proposed system for the WhatsApp Pay would be as follows:

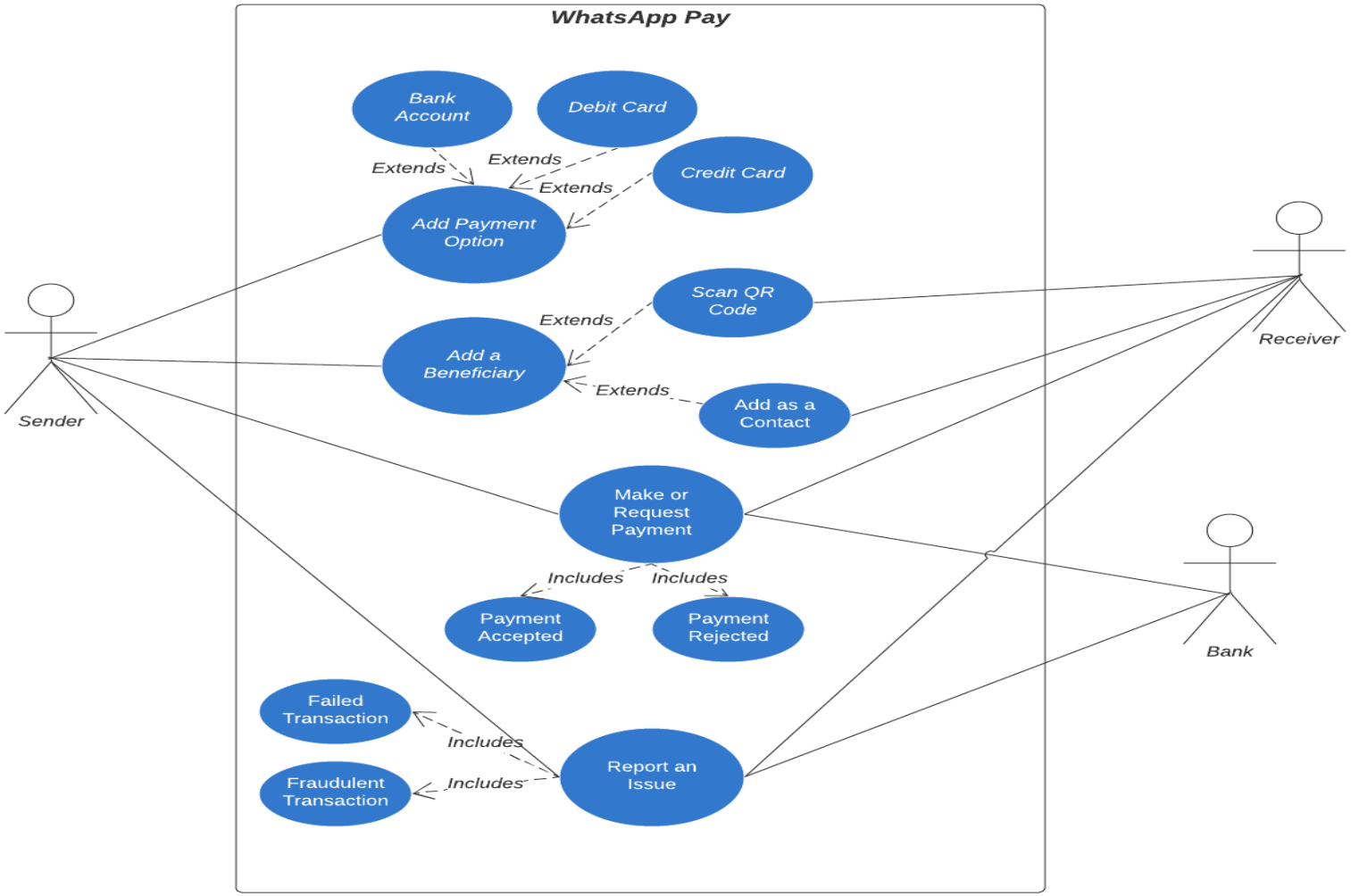
- Easy to adopt and user-friendly payment method

- This feature will be rolled out to users as an update to the existing app. 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.

- This feature would be first rolled out in Brazil as a pilot.

- Then, the target is huge markets like Indian Subcontinent and rest of the world which includes Latin America and large parts of Europe and Africa.

SCOPE using Use Case Diagram (UML)



5. IN SCOPE

The In-scope requirements are as follows:

1. New Payment Feature for WhatsApp user
2. Add New Payment Option
3. Remove Payment Option
4. Scan QR code for making payment option
5. Approve Payment Request
6. Reject Payment Request
7. Report an Issue
8. View Transaction History both overall and per user.

OUT OF SCOPE

The out-of-scope requirements are as follows:

1. New Bank Account Creation
2. Virtual Wallet Money in form of virtual points
3. Money Transfer without linking payment methods/account (at receiver's end)
4. Transfer money to non-WhatsApp QR codes

6.Business Requirements:

Business Objective:

- Have at least 1 million users use WhatsApp pay feature within the first 3 months of launch.
- Over 1 year of its launch have 30% of user base using WhatsApp pay.
- Be among top-5 market players in the first year of launching.

FUNCTIONAL REQUIREMENTS

1. New Payment Feature for WhatsApp user
2. Create Pin
3. Change Pin
4. Add New Payment Option
5. Remove Payment Option
6. Block a Contact
7. Un-block a Contact
8. Scan QR code for making payment option
9. Approve Payment Request
10. Reject Payment Request
11. Report an Issue
12. View Transaction History both overall and per user.
13. Change Language Feature
14. Change Theme

NON-FUNCTIONAL REQUIREMENTS

System Requirement:

1. Existing WhatsApp Chat platform technology should be used to develop the WhatsApp Pay as well to ensure tight integration between the two.
2. Feature should be available in multiple languages and should support transactions in different currencies
3. Strong Encryption Technologies should be used .
4. The transactions should be end to end secured via secured Internet Protocols and encryption
5. The backend data base should be highly scalable and should use redundancy and mirroring to ensure availability of services all the time
6. The system performance should be optimized and should not degrade considerably based on the internet speed fluctuation of the user

Usability:

1. The screens should be self-explanatory and very user friendly.
2. Screens should use the current WhatsApp aesthetics and themes in the WhatsApp Pay pages as well to ensure user familiarity.
3. There should be FAQ section available to answer generally asked queries

7.Screen Wireframes