



มหาวิทยาลัยราชภัฏนครปฐม



Chapter 6

E-Commerce Payment Systems

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Introduction to E-Commerce Payment Systems



Understanding digital transactions and their importance in the online marketplace.



Types of Online Payment Systems



Payment Gateway



E-Wallet



Direct Bank Transfer



Cryptocurrencies



Payment Gateway - Overview



A service that processes credit card transactions securely between merchants and banks.



How Payment Gateway Works

1. Customer enters payment details.
2. Gateway encrypts and forwards data.
3. Bank processes the transaction.
4. Approval or rejection is sent back.



Examples of Payment Gateways

- PayPal
- Stripe
- Omise
- Authorize.Net



<https://www.freemalaysiatoday.com/category/business/2023/08/03/paypal-faces-margin-squeeze-as-loan-provisions-rise/>



E-Wallet - Overview



A digital wallet that stores funds electronically for easy online transactions.



How E-Wallet Works

1. User loads funds into the wallet.
2. Payments are made with stored funds.
3. No need to enter banking details each time.



Examples of E-Wallets

- PayPal
- Line Pay
- Google Pay
- Apple Pay



<https://pay.line.me/portal/th/about/payment>



Direct Bank Transfer - Overview



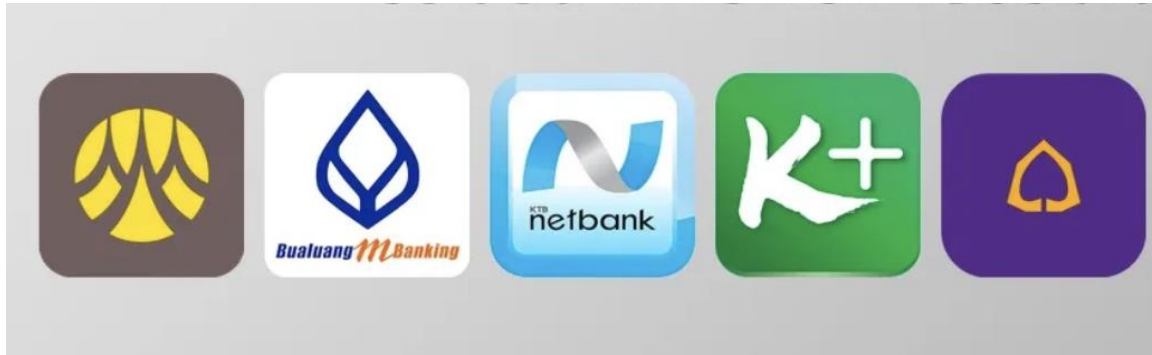
Direct Bank Transfer is a **payment method** where customers transfer funds **directly** from their bank account to the merchant's account **without intermediaries** such as Payment Gateways or E-Wallets.

How Direct Bank Transfer Works



1. Customer Initiates the Transfer Mobile Banking, Internet Banking, or ATM
2. Customer Provides Proof of Payment
3. Merchant Verifies the Payment
4. Order Confirmation

Example Banks Supporting Direct Transfers in Thailand



- Kasikorn Bank (K PLUS)
- Siam Commercial Bank (SCB EASY)
- Krunghthai Bank (KTB Netbank)
- Bangkok Bank (Bualuang mBanking)
- Krungsri Bank (Krungsri Mobile App)



Cryptocurrencies - Overview



Cryptocurrencies are **digital or virtual currencies** that use **blockchain technology** for secure, decentralized transactions. Unlike traditional currencies, cryptocurrencies are not controlled by any central authority, such as a government or financial institution.



How Cryptocurrency Payments Work

1. Customer Selects Cryptocurrency Payment
2. Transaction Initiation
3. Blockchain Verification
4. Merchant Receives the Payment

Transaction Processing - Overview



The process of handling digital payments securely and efficiently.



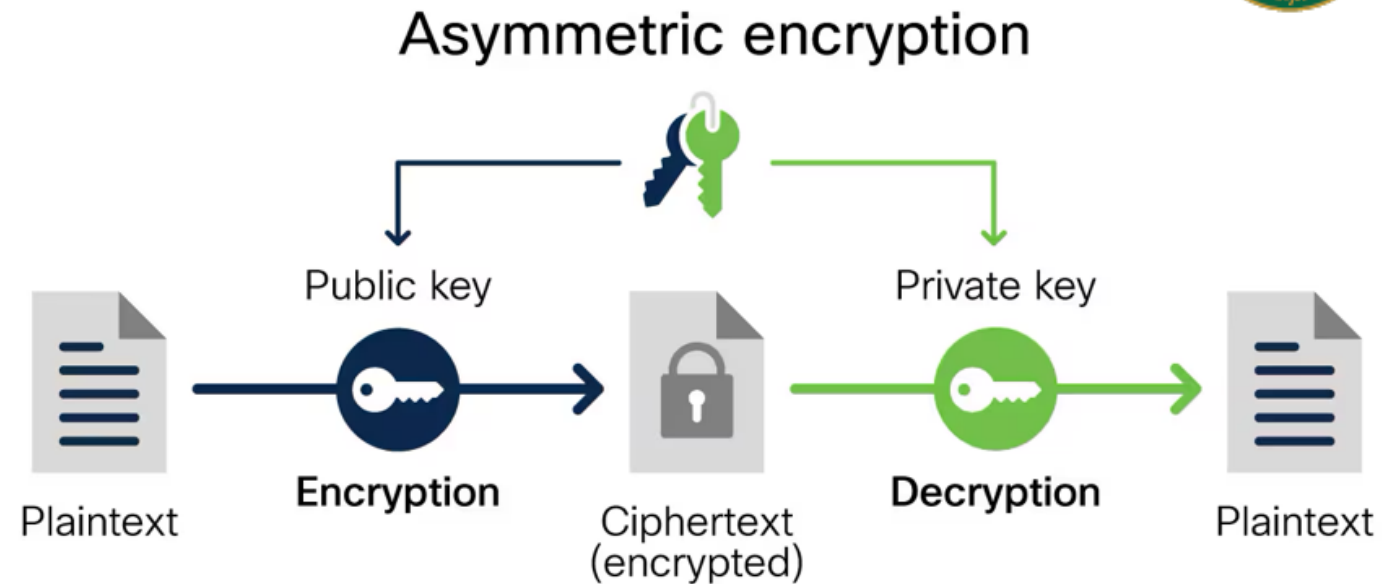
Steps in Transaction Processing

1. User initiates a payment.
2. Payment request is sent to gateway.
3. Bank verifies the transaction.
4. Funds are transferred to merchant.



Security in E-Commerce Payments

- Data Encryption
- Two-Factor Authentication
- PCI-DSS Compliance
- Fraud Detection Systems



<https://www.cisco.com/c/en/us/products/security/encryption-explained.html#~encryption-algorithms>



Common Fraud in Online Payments

- Phishing

- Identity Theft

- Chargeback Fraud

- Card Skimming



Future of Online Payments



- Rise of
Cryptocurrencies



- AI-driven Fraud
Prevention



- Biometric
Payments



- Instant Cross-
border Transactions

Summary



E-commerce payments continue to evolve with technology, ensuring security and convenience for users.



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