

Artificial Intelligence for Business

Deep learning Natural language processing

Lecture 8 and 9

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Introduction

E payments are payments that are made electronically over the internet . Earlier almost all the business transactions were done through cash payments but now IT revolution has led to the development of new forms



Electronic payment system



payment(EFT , e-cash ,e check , e-wallet,micropayment)

customer

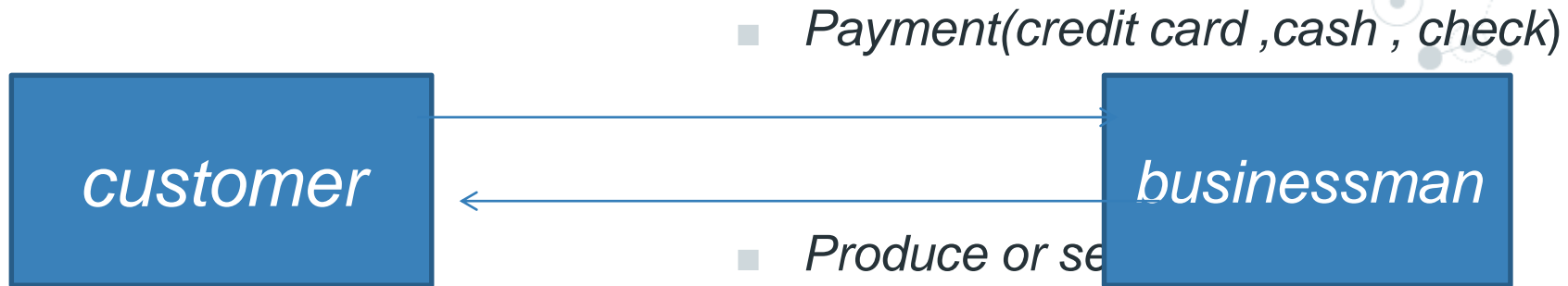


Virtual
businessman

product or service

- 1. Electronic payment system is a financial exchange that takes place online between buyers and sellers*
- 2. There are different methods to pay electronically like credit cards , electronic cash etc.*

Traditional payment scheme



- *In earlier days ,conventional cash were most popular because they were the only payment type available*
- *However with time banks came into existence and the society underwent a financial revolution.*
- *But all these modes of the conventional payment and settlement process act as a bottleneck in the fast moving electronic commerce environment*

Problems in traditional payment system

- ⊙ *Lack of convenience*
- ⊙ *Lack of security*
- ⊙ *Lack of coverage*
- ⊙ *Lack of eligibility*
- ⊙ *Lack of support for micro transactions*



TYPES OF E- PAYMENT SYSTEM



PAYMENT CARDS

- ◎ CREDIT CARDS
- ◎ DEBIT CARDS
- ◎ CHARGE C
- ◎ SMART CAI



CREDIT CARDS

- ◎ Two of credit cards on the market.
- ◎ Credit cards issued by credit companies(e.g. Master card, visa) and major banks (SBI, HDFC etc.).
- ◎ Credit cards issued by the departmental stores(e.g. Shoppers Stop).



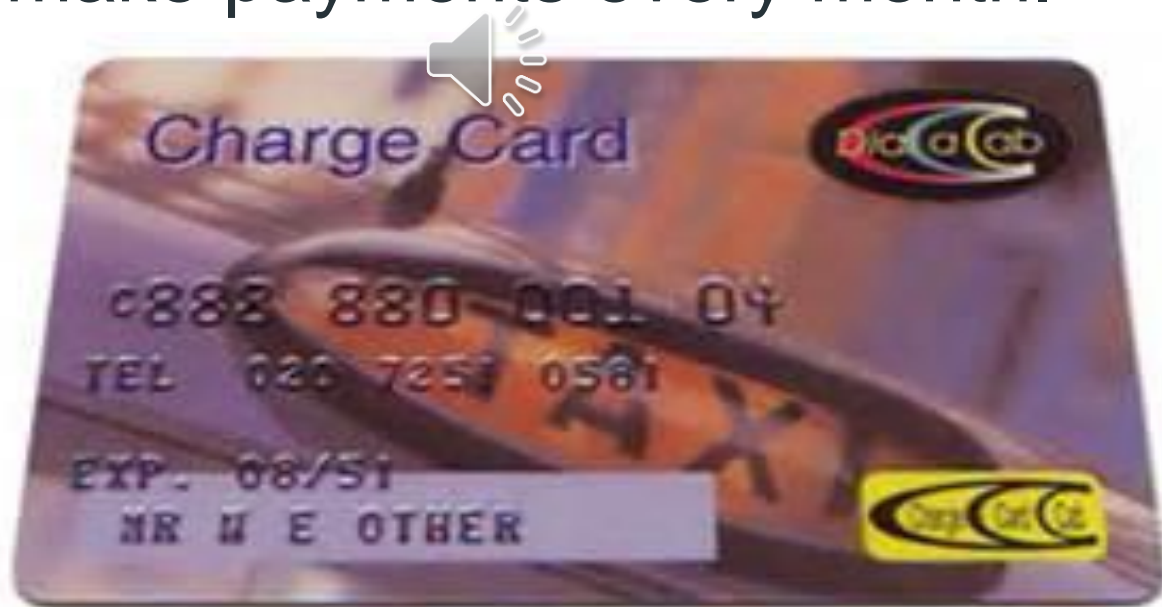
DEBIT CARDS

- ◎ Plastic card with a unique number.
- ◎ Requires a bank account.
- ◎ No interest charges related to this card.



CHARGE CARDS

- ⦿ Are similar to credit cards except they have no revolving credit line so they have to make payments every month.



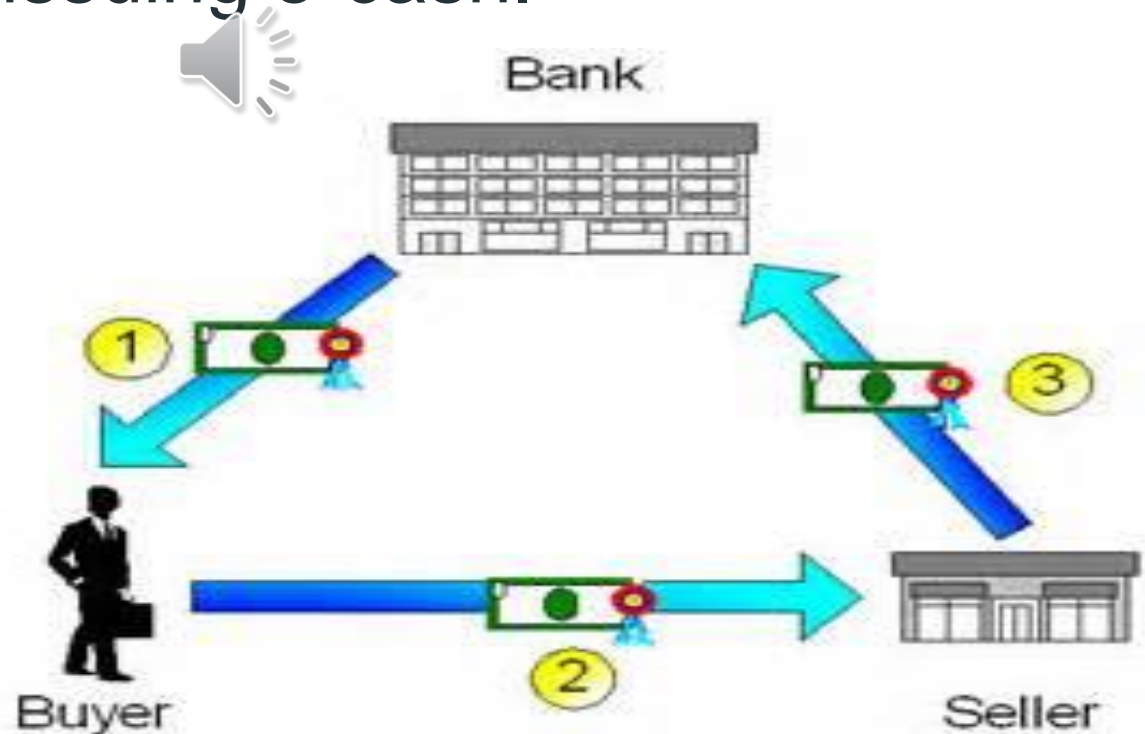
SMART CARDS

It similar to credit card and debit card in appearance bt it has a small microprocessor chip embedded in it.




ELECTRONIC CASH

- ◎ In case of e-cash, both customer and merchant have to sign up with the bank or company issuing e-cash.
- ◎ Enables transactions between customers

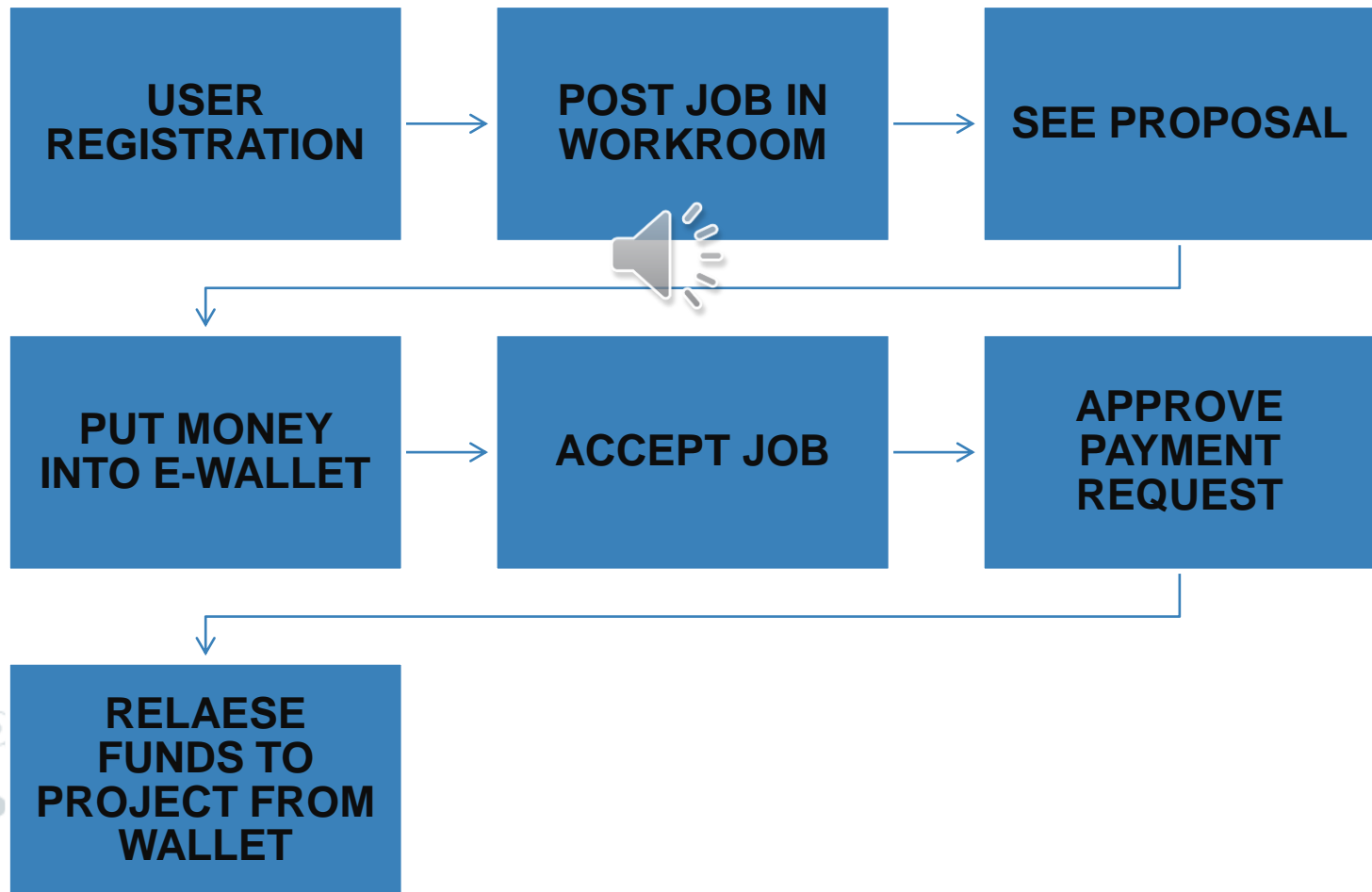


E-WALLETS

- E-wallet is a card with **microchip**.
- **Replaces cash & coins**
- **convenient & safe** 
- **Microsoft Wallet.**



How to access e-wallets



MICRO-PAYMENT SYSTEM

- small **payments on web** like billing by bank, financial institute etc.
- Universal acceptance
- comprehensive security.
- Allows vendors to sell content, information.

**MICRO** **PAYMENT**
PROFESSIONAL PAYMENT PROVIDER



PEER-2-PEER PAYMENTS



- Online financial transfer through e-mail address.
- Reduces risk of fraud & overdrawn a/c.
- Example **PayPal** services.



E-PAYPAL SYSTEM

- ◎ It enables the merchants or individuals to withdraw cash from their PayPal accounts.
- ◎ Allows customers to send their transaction money quickly & safe to anyone.
- ◎ To use it one should must get registered themselves .

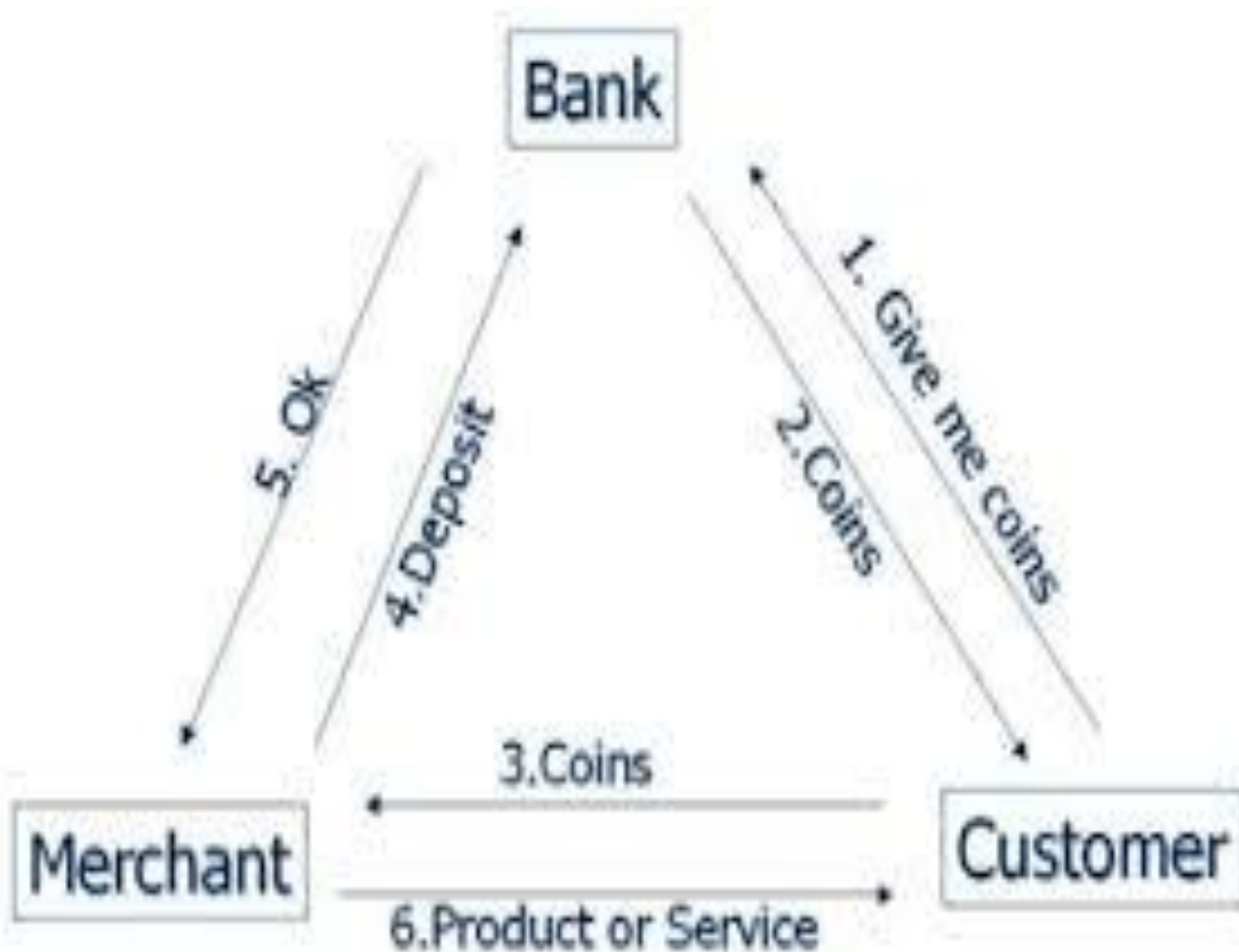
E-CASH

- ◎ Online payments via debit cards, credit cards or smart card are the examples of e-money transactions.
- ◎ E Cash is transferred directly from customer's desktop to the merchant's site.



E-CASH

HOW TYPICAL E-CASH SYSTEM WORKS?

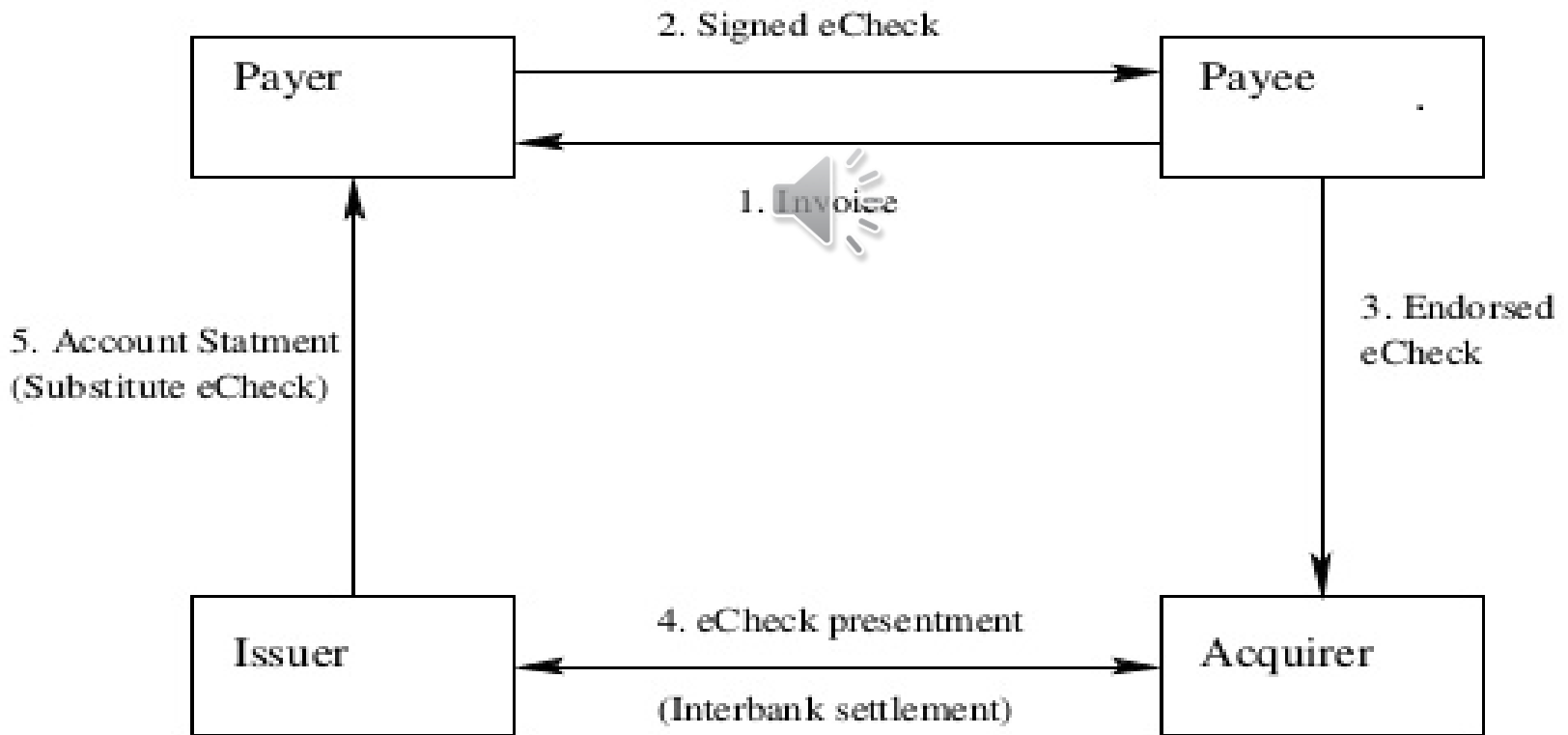


E-CHEQUE

- © E-Cheque is the result of co-operation between several banks, government entities, technology companies and e-commerce organizations.
- © These can be used for small and large



E-CHEQUE WORKING



ELECTRONIC FUND TRANSFER

- ◎ It is one of the oldest methods to transfer money.
- ◎ It is the groundwork of groundless and cheque-less culture, it is used to transfer money without any paper money changing hands.

Electronic Funds Transfer



Benefits of EFT

- ◎ Simplified accounting
- ◎ Improved efficiency
- ◎ Reduced administrative costs
- ◎ Improved security



ENTITIES



PAYER AND PAYEE

PAYER-A Payer is a person who makes the payment.

PAYEE- A Payee is a person who receives payment.



AS ISSUER OR ACQUIRER

The financial institution participates in payment protocols in two roles- as an issuer and as an acquirer. The issuer holds payer s' account and acquirer holds payee s' account and assets. The payee deposits the payment received during a transaction with the acquirer.



Trustee or Arbiter

Other parties that may be present in a payment protocol include a Trustee who is an entity that is independent from all parties . Trustee is asked to adjudicate any disputes between payer and payee



PAYMENT GATEWAY


Payment Gateways are the entities that act as a medium for transaction processing between the entities (e.g. mastercard visa) and Certification authorities (CA) . They issue public key certificates to entities.



TRADE IN PAYMENT

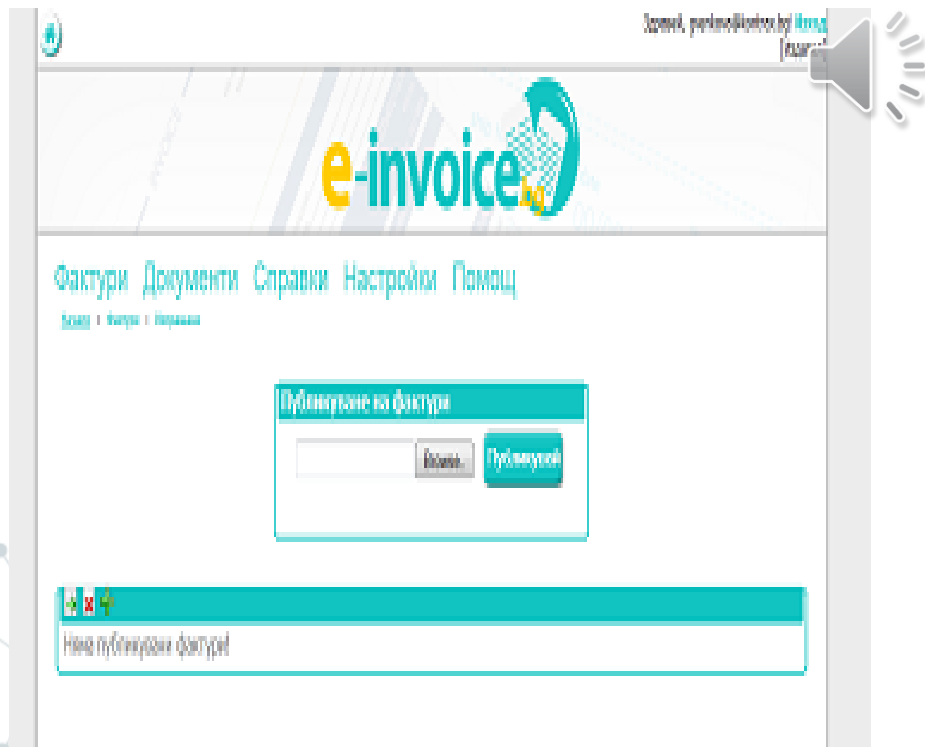


REGISTRATION

- ◎ **The payee must register themselves with the site of online service providers.**
- ◎ **By filling a form  and creating user ID.**
- ◎ **A Payee can access subscribed billing information and payments, simply by login his ID.**

Invoicing

In this phase, payee obtains an invoice for payment from the payor .



PAYMENT SELECTION AND PROCESSING

In this the payer selects type of payment (card based, e-cash, e-cheque) based on the type of payment payee accepts.



AUTHORISATION AND CONFIRMATION

In this, the acquirer on receiving payment details from the payee authorises the payment and issues a receipt containing the success or failure of payment.