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A Study of Significant Characteristics of E-payment Regime in India

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ABSTRACT

The financial system is the pillar of any economy. Reliability and transparency are two keys behind any financial system of an economy to handle an increasing number of monetary transactions. In India, for a few years, the e-payment system has accelerated growth due to its popularity among citizens. In this article, the first aim is to understand the e-payments, the second aim is to acutely analyse characteristics of e-payment system and final aim is to find the features of the ideal electronic payment system. The article is constructed with exploratory research and secondary data. The data was assembled from books, journals, magazines, websites and other published sources available. This article provides an original comprehension of e-payment system, characteristics of the e-payment system and features of the ideal electronic payment system. The fundamental characteristics of the e-payment system are applicability, ease of use, security, reliability, trust, scalability, convertibility, interoperability, efficiency, anonymity, traceability, and authorisation type. The features of the ideal electronic payment service are reversals, immediate, compliant, final, freely accessible (non-discriminatory), anonymity, transparent and transaction amount neutral.

KEYWORDS: Financial regime, E-payment, Characteristics, E-commerce, World economy, Indian economy.

1. INTRODUCTION

Due to e-commerce, new monetary wants unfold, which doesn't exist during standard payment systems. Due to the emergence of e-commerce, a lot many different payment tools and mechanisms came into force so as to provide business transactions via the internet. That's why, new strategies evolved for e-payments by the stakeholders. Recognising this, just about all interested parties square measure exploring numerous forms of the electronic payment system and problems encompassing electronic payment system and digital currency.

Generally, e-payment systems could be designated into On-line MasterCard Payment, On-line Electronic Money System, Electronic Cheque, and Cards based e-Payment System. Each payment system has pros and cons for the merchants and purchasers. New payment systems are having the following edicts: convenience, cost, security, traceability, anonymity, acceptableness, and control. Most banks established e-commerce, which supports an e-payment system to endure in the hyper-fierce market. Indian economy is perceived as a cash-driven economy, but it's not lacking behind in embracing e-payment services both in banking and in the retail sector (Roy, 2015).

The financial system is the pillar of any economy. Reliability and transparency are two keys behind any financial system of an economy to handle an increasing number of monetary transactions. In this article, the financial system involves both banks and non-banks financial institutions which offer financial services to their intended clientele. Two indispensable services are fund transfer and financial clearing in comparison with other services of the payment system. The payment system is a decisive player in magnifying business growth, revamp financial intelligibility, reinforce reforms of

the sector. From the last two decades, the attitude and behaviour of customers have been changed substantially. Major causes for the same are the following:

- **Increased either volume or value of transaction:** Besides the numbers, the values of the transactions have also been grown due to people who are taking financial matters foremost important. Due to this new circumstance, there has been rapid development in all over globe activities of the financial market and payment triggered by such activity.
- **Technological enhancement:** There has been tremendous growth in banking and money sector in the last 20 years. It is because of the thriving net and development of data and communication technology. Due to which, shoppers and money establishments both have the flexibility and hence the resource to contrive ample funds quickly through the system and at a lower value.
- **Effect of globalisation:** Geographical boundaries of businesses have been demerged due to the effect of globalisation. The repercussion of this is a large number of money transactions are free-flowing across the countries. Corporates are having finesse silhouette in its payment mechanism are ready to shear prices and thereby successfully achieve competitive advantage. This will be achievable solely in cross-nation payment.

Substantial changes in developing countries have been noticed in various facet due to Globalisation and financial revolution. Few of the significant changes are: change in the consumer's taste and preferences, an increase in the demands of international products and opportunities of trading and investments. Technological advancements also played a condemnatory role in making the world borderless. Enhanced communication and information technology have also bestowed unbelievable chances in the world economy, counties are connected digitally with the help of the Internet. Electronic money is the outcome product of this digital confluence and further proved as an electronic replacement of cash. Trading in goods and services with electronic payment is not new to the world. The late 1970s, as well as early 1980's various schemes, were introduced to promote electronic payment or payment through a computer network. Aristotle (384 – 322 B.C.) said that "everything must be assessed by money; for this enables men always to exchange their services and so makes society possible."

2. OBJECTIVES OF THE STUDY

In this article, a frugal attempt is made:

- To understand and define the e-payment.
- To acutely analyse characteristics of e-payment system.
- To find the features of the ideal electronic payment service.

3. METHODOLOGY

The article is constructed with exploratory research and secondary data. The data was assembled from books, journals, magazines, websites and other published sources available. This article provides an original comprehension of e-payment system, characteristics of the e-payment system and features of the ideal electronic payment system.

4. E-PAYMENT

E-payment is the "exchange of monetary value online via the Internet, private networks or a combination of it" (Majhi *et* al., 2000). A quintessential e-payment transaction is where merchants accumulate revenue from customers when they pay online using electronic payment methods such as PayPal for goods or services. There are numerous risks involved while making payment electronically like fraudulent activities. Many users can participate together in reducing the risk of an electronic payment activity (Whyte, 2001). In spite of this, electronic transactions impart various benefits and convenience to customers, merchants and banks (Anderson, 2001). Distinct electronic payment methods have distinct risks and benefits.

5. CHARACTERISTICS OF E-PAYMENT SYSTEM

In settlement of financial transactions, varying researches are conducted in the field of the electronic payment system. The characteristics of electronic payment are flexibility, ease of use, trust, security, reliability, efficiency, traceability and convertibility can be observed (Lynch and Lunquist, 1996; Medvinsky and Neuman 1993). The literature has enumerated many characteristics which are as follows: usability, trust, anonymity, applicability, convertibility, efficiency, authorisation type, traceability, reliability, scalability and security. However, above-mentioned characteristics are mainly

focusing on the technical fragment of the electronic payment system which is moreover one part of the payment system. There are many places where the users recognise different facet of electronic payment systems when the transaction takes place, namely, applicability and convertibility. Still, there are other characteristics, which are experienced indirectly, but have an influence on users. To exhibit this variation, the delineate attributes of electronic payment can be divided into those that are recognised by users directly and those that are visible to users. Direct viewpoint about the user-related attributes is reliability, applicability, traceability, anonymity, security, efficiency, trust, convertibility and usability. Indirect perceptions regarding the technology-linked characteristics are scalability, authorisation type, divisibility and interoperability.

The research has analysed that users are not having an understanding and direct experience with 'indirect influence' characteristics and this division is reasonable. The research also endows that users with immediate effect get influenced and thereby accept electronic payment systems. To explain various characteristics such as user-related factors, political factors, and technological factors, varied traits of electronic payment systems are illustrated below. These can be revamped into requisite of the future system.

5.1 Applicability

The value of electronic payment system depends on what the user can attain from it. Recognition is the key behind applicability of electronic payment; more amount of recognition is there more the applicability of electronic payment systems. For example, cash acceptance is widely and thereby it has a high level of applicability. Different countries may have different applicability of a payment system. Examples of high applicability are credit cards and debit cards (bank cards), cheques are now uncommon in many European countries.

5.2 Ease of use

Ease of use or usability characteristic means paying with an electronic payment system without any complexity. Usability is an important characteristic and defined as "the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use" (ISO/DIS 9241-11.2, Part 11, 1996). Payments must be flawless, simple and fully automated. While paying through an electronic payment system, there must be minimum factors that could make process distracting or difficult to pay because it's a highly responsible task.

5.3 Security

Electronic commerce in a payment system must be unsusceptible to attack in internet conditions due to an open network system for internet services. In electronic cash systems, the issue of imitating is very important from a security point of view, therefore certainly no one should be able to produce electronic tokens on their own. Another concern is the design of electronic tokens; they should not be paid twice, which is commonly known as double spending for a single transaction.

5.4 Reliability

System reliability is very important from the user's point of view because the smooth running of an enterprise will depend on the availability of the payment infrastructure (Medvinsky and Neuman, 1993).

5.5 Trust

Although there are many attributes in this system are existing but trust is a foremost important thing. Proper validation required to bring the most attributes to the system. Trust is an indispensable attribute (Egger, 2000). Trust is an attribute in electronic payment systems that ensure personal information shared, money is safe, and the parties involved will not act against the user. Trust reflects the degree of confidence a user has on any electronic payment systems. The user trust's payment system because they believe money, spend will not be misused or stolen. Even with the imperfect system, users believe that vendors, banks and credit card companies will not use the information against them. Another perspective of trust is that other parties equally should have trust in the payment systems users want to use, based on this trusted user would be willing to conduct commerce.

5.6 Scalability

The demand for commercial use of the internet and the demands placed on a payment infrastructure are co-related. The payment infrastructure should be able to handle the addition of users

and merchants so that performance degradation can be avoided, thus it should be scalable (Medvinsky and Neuman, 1993). Systems those who require vendors and users purchase and additional hardware installation are the least scalable systems and hinder the development of electronic cash systems.

5.7 Convertibility

Users generally choose payment mechanisms as financial instruments as per their needs. Various payment schemes offer assorted services and applications for assorted users' needs and various payment schemes evolved as of now can expect the emergence of new systems. Representation of funds from one to another should be easily convertible.

5.8 Interoperability

Payment systems, which are not dependable on one organisation and facilitate 'n' number of willing parties to join, are known as interoperable. Thereby we can say that the technology used must have open standards. It is not always required to demand interoperability because the companies, which implements new technologies, treat them as experts and they offer benefits through the implementation of new technologies. Examples of interoperability initiatives are the SEMPER project, (www.semper.org) and CAFE project (Boly, 1994).

5.9 Efficiency

The ability of payment systems to accept "micropayments" has been discussed a lot. Less than a $1 is the amount for small payments and less than several cents is the amount for micropayments. The performance of small payments must be good without imposing high costs of transactions (Low *et* al. 1994). For processing small amounts, costs per transaction have to be low.

5.10 Anonymity

Anonymity characteristic means to protect identity, personal information and to provide privacy. In the case of the few transactions due to anonymity parties' identities can be protected. Anonymity characteristic ensures that revelation of identities and spending patterns of individuals is not possible at all. The cost of tracking a transaction should be more significant than the value of information that can be secured by doing so, in these cases anonymity is important. For example, payment through debit cards, the purchase is registered with both banks and vendors' databases. Debit card payments are not anonymous because it is possible to trace what was purchased and what amount was paid. Therefore, we can say that cash is anonymous as there is no direct information about the individual on banknotes. In the EU, counties there are various laws that restrict the use of personal information by authorities, banks and other parties.

5.11 Traceability

Anonymity is associated with the characteristic of traceability. How easy it is easy to trace the source of funds, money flows or link-spent funds to a customer through payment activities is known as traceability. There are various movies, for example, Fast and Furious, where police are able to trace individuals that are using credit cards in the US and worldwide. Therefore, it means credit cards are traceable. Traceability and Anonymity are two important characteristics that foster trust.

5.12 Authorisation type

Authorisation type means an ability of a system to perform payments not being connected to a central authority, (Asokan *et* al., 1997, Lynch and Lundquist, 1996) it has been discussed in the literature. It can be online or offline. An exchange of money without being connected to a network or a third party as a mediator is known as offline authorisation type. For example- exchange of cash and few electronic payment systems such as Mondex also provides this kind of service.

6. FEATURES OF THE IDEAL ELECTRONIC PAYMENT SERVICE

- **Compliant:** Irrespective of the domain of the system, it has to be complying with the licenses and the law.
- **Reversals:** The system payment systems should not be mistreated rather it must be flexible to the reversals
- **Freely accessible (non-discriminatory):** The electronic payment system must have a wide audience as cash and for individuals who consider them not creditworthy**.**
- **Immediate:** Instead of cash payment through the electronic payment system and the individual will receive an authorisation message.

- **Final:** Like cash, disagreement with a financial organisation or mediator is possible only when it is paid.
- **Transaction amount neutral**: Fees of the transaction is higher for a larger amount in comparison with smaller amounts.
- **Transparent:** This is a feature where an electronic payment system lets the sender know whether the payment made is received by the recipient or not. Instead of relying on any notification that whether payment is made or not, one can confirm through the visual receipt.
- **Anonymity:** Transactions happen amongst sender and receiver.

7. CONCLUSION

The financial system is the pillar of any economy. Reliability and transparency are two keys behind any financial system of an economy to handle an increasing number of monetary transactions. In India, for a few years, the e-payment system has accelerated growth due to its popularity among citizens. E-payment can be explained as collecting revenues from customers from merchants for the goods and services being purchased online using electronic payment systems like PayPal. The fundamental characteristics of the e-payment system are applicability, ease of use, security, reliability, trust, scalability, convertibility, interoperability, efficiency, anonymity, traceability, and authorisation type. The features of the ideal electronic payment service are reversals, immediate, compliant, final, freely accessible (non-discriminatory), anonymity, transparent and transaction amount neutral.

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