INFORMATION SYSTEMS FOR MAKING INTERNATIONAL PAYMENTS

Ikramovna Xumora
(TFI master)

Abstract: *Electronic payment systems are the preferred method in e-commerce since they are cheaper and more efficient. These systems make it possible for complete business transactions to take place solely through the internet. However, electronic payment systems bring about a number of issues for both the customer and the business. This paper will set out to review electronic payment systems for e-commerce and discuss some of the issues that are inherent in these systems. Solutions that are applicable to address the issues will also be highlighted.*

Introduction E-commerce has emerged as a distinct and important phenomenon in the business world and its influence in the business world is daily increasing. E-commerce promises to have a significant and positive impact on businesses everywhere. Policymakers and researchers are of the opinion that e-commerce is the future of business as its benefits become more evident. Zwass (2003) defines e-commerce as “the sharing of business information, maintaining of business relationships, and conducting of business transactions by means of telecommunications networks” (p.8). It offers many opportunities for businesses, as they are able to exploit the power of the computer and the internet in their everyday operations.The global potential of e-commerce has made it attractive for many companies that hope to achieve considerable gains from e-commerce activities. For e-commerce to take place, a payment system has to be implemented.

Electronic Payment SystemsSince e-commerce relates to selling goods and/or services over the internet, the issue of on-line payment system is intricately linked to the e-commerce phenomenon. Zheng (2008) articulates this need by noting that all commercial activities need some form of payment system in order for transactions to be carried out and e-commerce is not exempt from this. While offline payment methods can be employed in e-commerce, they would negate the advantages of efficiency and convenience that e-commerce promises to give. It is therefore important to employ payment methods that can be utilized in an online environment.

Electronic Payment (E-payment) technology is one of the most important aspects in the development of ecommerce and its development greatly influences the fate of ecommerce (Zheng, 2008). Bushry (2005) documents that electronic payment systems are already proliferating in banking, retail, and on-line markets.This underscores the fact that electronic payment systems are increasingly popular in many developed nations and electronic payments are becoming preferable to the use of cash in many scenarios. E-payment exhibits a number of characteristics that are different from traditional means of payment. To begin with, it introduces digital circulation which means that all payments are

digitized (Zheng, 2008). The working environment of e-payment is also based on the internet, which is a relatively open system platform. E-payment also makes use of advance communication means and it has a very high requirement for hardware and software facilities. These facilities are mandatory for supporting e-payments and without them; the payment system is rendered useless (Zheng, 2008). Electronic payments are very convenient for both the customer and the company. They are efficient since the processing takes place in real time and the company does not have to incur overheads that would be used on mailing out paper invoices and then processing the payment received from the customer later. There are a number of electronic payment systems utilized in e-commerce. The first is electronic cash, which is used in a manner similar to physical cash. Digital cash makes use of a sequence of binary numbers to represent an intrinsic value in a chosen currency. Electronic cash offers security for both the merchant and the customer since it is impossible to counterfeit the bank's digital signature. The merchant is also able to verify the validity of the payment made since he has the bank's public key.

The second type of payment is the prepaid system, which requires the user to pay in advance and then buy products or services. Debit mechanisms utilized in e-commerce include smart cards, which are virtual wallets that store electronic money. The fact that consumers are required to make the provision of funds before they engage in any commercial transaction guarantees availability of funds for online activities (Zheng, 2008). The e-wallet is the most commonly used e-payment system today and it allows small purchases to be made. E-wallets are typically linked to the user's bank account, which provides the money that can be used for online transactions. The third form of payment is the credit or post paid system, which allows a user to buy products and then pay for them later. Credit cards are the most common post-paid mechanism for a number of reasons. Credit cards help the e-commerce system to overcome the complexities associated with digital cash and electronic cheques (Bushry, 2005).

ISSUES WITH ELECTRONIC PAYMENT METHODS

E-payment systems are the driving force that stimulates more merchants to engage in e-commerce and more customers to make online purchases.The e-payment issue has risen to prominence as more and more traders bring their businesses into e-commerce. These issues have mainly been focused on the security and stability since a key requirement for e-commerce transactions is the presence of a secure, stable and efficient payment system.

Electronic Cash Electronic cash brings about a number of issues due to its digital nature. The first issue is with regard to counterfeiting. Zwass (2003) documents that fraud has always been an issue of commerce when dealing with hard currency. It is also an issue with digital cash and security remains a paramount concern in this e-payment system. Unlike minted money that is hard to replicate, digital money is represented in bits and bytes and this makes it easy to copy. In addition to fraud, electronic cash is also susceptible to double spending where a person spends the same digital cash twice since electronic coins can be copied by the user. The user can then proceed to use the money as payment

for two different transactions. Another issue is that the monetary value of electronic cash is not always stable. Currency fluctuations in the international market therefore poses significant problems for electronic money since sudden devaluation of currency will lead to great losses. Bushry (2005) demonstrates that the issue is over who will take liability when such events occur. Electronic money also suffers from relatively short life span. Most hard currency has a long life span and the holder of the money is assured that they can use their money for extended periods. Electronic money might have time limits imposed on it and after this time has expired, the money is worthless to the user. Clients also carry a big risk in having e-cash stored in their local drives. This is because if their physical storage devices are damaged, the e-cash stored on it is lost forever and it cannot be recovered. Zheng (2008) notes that this risk of loss is one that many consumers are unwilling to bear.

Prepaid system Prepaid systems are preferred by many businesses since the receipt of payment is assured. However, there are risks involved when dealing with pre-paid systems such as virtual wallets. Bushry (2005) warns that this electronic payment mechanism may suddenly become worthless. If this were to happen, the customer will be left with virtual currency that is of no value since nobody is willing to accept it. Hashim (2009) reveals that many SME managers are wary of using virtual currency because of these stability concerns. This concern is informed by the common perception that online trading is a high-risk affair that might jeopardize their businesses. Privacy in prepaid systems has been identified as one of the immediate dilemmas by the accounting information systems. Companies use e-commerce sites to reach potential customers and in some cases, transactions take place in this environment and electronic payment is used. Madieha (2002) observes that the usage of technical means to track down user's surfing and purchasing tendencies has raised significant privacy issues. Changing market trends have made personal data very important since it enables consumer tastes and preferences to be identified. For this reason, personal information has become a very valuable commodity and many players in the e-commerce industry are collecting, holding, processing, and using personal data at increasing rates. Boritz and Gyun (2011) demonstrate that personal information is gathered during the registration and ordering process as the customer is required to provide information such as name, address, and credit card number. Many customers are concerned that their personal information might be obtained by an illegal third party who might use it for malicious activities such as identity theft. For this reason, some people are opting our of e-commerce activities partially by browsing for products but paying offline. Since pre-paid accounts are linked to a user's real bank account, intrusion on the pre-paid account by an attacker over the internet might compromise the bank account with dire consequences for the user.

Madieha (2002) asserts that because of these factors, consumer confidence in e-commerce is significantly reduced. The user is unlikely to engage in online transactions when they have worries that their bank account can be compromised from this.

Post paid system A major issue with post-paid systems is that the overhead costs may be unjustifiable for the customer. As it is, charges are imposed on the individual whenever they use their credit cards to engage in e-commerce. When purchases are of low value, the transaction fees incurred make this e-payment method inefficient. Zheng (2008) notes that for micro payments (which are transactions involving very low payment values) even a small overhead or a minimum overhead may become unbearable. With post-paid systems, the client is issued with a physical card. This card is vulnerable to compromise since the information contained on the magnetic strip card can be copied, forged or altered. There is also real concern that hackers will steal and misuse credit card numbers given by the customer. Payment by credit card requires faith in the system security and as such, mutual trust is needed between seller and buyer. Without this trust, the buyer will not be willing to expose himself to risks by making payments using his credit card to a merchant that he does not trust. E-commerce businesses also stand the risk of suffering from internal fraud. In normal businesses, fraud is deterred by safeguards that have been developed over the years for traditional accounting. The same scenario does not apply in e-commerce where standards are still immature. This issue has made many small and medium-sized enterprises (SMEs) generally stay away from e-commerce (Hashim, 2009). This is an important factor in the expansion of e-commerce since SMEs are considered to be the lifeblood of modern economies.

Conclusion E-commerce is expected to dramatically change the manner in which conventional business is conducted. However, as more people become involved in e-commerce, some issues inherent in e-commerce are beginning to emerge. This paper reviewed electronic payment systems for e-commerce so as to articulate issues currently facing this aspect of e-commerce. It began by underlining the manner in which e-commerce differs from conducting commerce in the physical environment. The paper has confirmed the importance of e-payment to ecommerce and also discussed the various methods of e-payment that are available. The digital nature of e-payments makes them open to some issues including fraud and privacy violation. Most of the issues associated with electronic payment systems are a result of the fact that this systems are not well mature and they are still evolving. However, progress has been made and most of the issues facing e-payment systems have been addressed through technological advances such as better encryption technology. It can therefore be anticipated that as e-commerce becomes more expansive and e-payment methods mature, most of the issues will be addressed sufficiently. This will bring about customer confidence in e-payment and the future growth of e-commerce will be guaranteed.

REFERENCE:

1. Boritz, E. & Gyun, W. (2011). E-Commerce and Privacy: Exploring What We Know and Opportunities for Future Discovery. Journal of Information Systems, 25(2), 11-45.

2. Bushry, M. (2005). E-Commerce. New Delhi: Firewall Media.

3. Hashim, N. (2009). E-commerce and SMEs: The Need for Caution. Prometheus, 27(2), 125-140.

4. Madieha, A. (2002). E-Commerce and Privacy Issues: An Analysis of the Personal Data Protection Bill. International Review of Law Computers & Technology, 16 (3), 317-330.

5. Zheng, Q. (2008). Introduction to E-commerce. NY: Springer.

6. Zwass, V. (2003). Electronic Commerce and Organizational Innovation: Aspects and Opportunities. International Journal of Electronic Commerce, 7(3), 7–37.