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IMPACT OF TECHNOLOGY IN SME FINANCING - A CASE STUDY OF HIMACHAL PRADESH

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Abstract:

The growth of modern technology and development of modern communication system largely impacted and changed payment systems the world over particularly during the current and previous decade. The electronic payment systems are becoming popular with the technological innovations being introduced in the payment systems. Previously, cash in the form of notes and coins were the main method of payments. The cheques and drafts facilitated the payment system. The modern technology has been introduced and implemented by the banks. The electronic devices making payment system easy and efficient. The usages of the automatic teller machines and plastic cards have changed the old payment systems by providing banking customers, the facility round the clock banking. The current study has been under taken to study and examine electronic payment systems, electromagnetic card, electronic banking and cheque truncation, besides knowing public awareness level and preferences as regards the payment systems and electronic banking. The study has been able to describe the ATMs convenience, models, networking and customer interface. The study has highlighted the various electromagnetic cards and innovations in this regards. The study has explained various forms of electronic banking. The cheque truncation has been explained. The customer awareness and preference level has been highlighted by the data obtained through structured questionnaire and statistical analysis.

The study revealed that modern electronic payment systems are indispensable. The use of

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electronic cards is helping the society to move towards cashless transactions. The electronic banking has facilitated convenient banking. The cheque truncation is inducing paper less banking.

Key Words: Technology; Cheque Truncation; Automated Teller Machine; Electromagnetic Card; Electronic Banking.

1.0: INTRODUCTION: AN OVERVIEW OF PAYMENT AND SETTLEMENT SYSTEM IN INDIA

The Reserve Bank of India (RBI) is the driving force in the development of national payment systems and has taken several initiatives for safe, secure, sound, efficient, accessible and authorized payment systems in the country. The Board for Regulation and Supervision of Payment and Settlement Systems (BPSS), a sub-committee of the Central Board of the Reserve Bank of India, is the highest policy making body on payment systems in the country.

In India, the payment and settlement systems are regulated by the Payment and Settlement Systems Act, 2007 (PSS Act) and the Payment and Settlement System Regulations, 2008. In terms of Section 4 of the PSS Act, no person other than the Reserve Bank of India (RBI) can commence or operate a payment system in India unless authorized by RBI. Reserve Bank has since authorized payment system operators of pre-paid payment instruments, card schemes, Automated Teller Machine (ATM) networks and centralized clearing arrangements.

The use of paper-based instruments like cheques, drafts etc., accounts for nearly 60% of the volume of total non-cash transactions and 11% in value terms in India. This share has been steadily decreasing over a period of time due to the increasing popularity of electronic payment systems.

The RBI introduced Magnetic Ink Character Recognition (MICR) technology for speeding up and bringing in efficiency in processing of cheques. Speed clearing was launched for local clearance of outstation cheques drawn on core-banking enabled branches of banks. This, the RBI introduced, to restrict physical movement of cheques and enable use of images for payment processing and framed CTS-2010 Standards for enhancing the security features on cheque forms.



The electronic payment system was introduced in the 1990s keeping in tune with the technological advancements in banks. The National Electronic Funds Transfer (NEFT) System, 2005 was introduced for batch settlements enabling real time transfer of funds. Real Time Gross Settlement (RTGS) System, 2004 was introduced to transfer of money from one bank to another on a real time (not subject to any waiting period) and gross (settled one to one basis without bunching or netting with any other transaction) basis.

1.2: REVIEW OF LITERATURE:

Rahman, Yaacob & MatRadzi (2016), in their study - An Overview of Technological Innovation on SME Survival: A Conceptual Paper, have revealed the potential of social networking as part of online marketing; as the online customers are greater than the typical offline customers. Also, the effect of online marketing, via social media, is more powerful and diverse due to its ability to reach customers regardless of geographical locations.

Bartoli, Ferri, & Rotondi (2013), in their study - SME financing and the choice of lending technology in Italy: Complementarily or substitutability have viewed that Lending Technology can be complementary, but reject the hypothesis that substitutability among Lending Technology is somehow possible for outsiders by means of hardening of soft information.

1.3: OBJECTIVES:

The objectives of the paper are:

- i) To study electronic payment system and electronic banking for SMEs.
- ii) To examine various electromagnetic cards in the context of SME financing.
- iii) To know the SMEs awareness level as a regards payment systems and electronic banking.

1.4: ELECTRONIC PAYMENT SYSTEMS:

The routine payment transactions are carried out at the teller counters and the cash counters in the banks. The processing of such transaction is done with the help of a computer system. The negotiable instruments are processed through bank transfer or clearing systems. In order to avoid queues and ensure faster payments the electronic systems are preferred.

Automated Teller Machine (ATMs)



In India, setting up of ATMs started on the recommendation of the committee headed by Dr. C. Rangarajan. The ATMs are strategically installed at such locations as airports, railway stations, hospitals, commercial centers, banks for use by the customers. The ATMs are used for withdrawal of cash, deposit of cash, deposit of cheques, ascertain balance in the account, obtain mini statements, etc.

The customers are provided with an ATM Card with unique personal identification number (PIN). The PIN should be kept secret to prevent any fraudulent transactions or misuse in the event of loss of the card. The magnetic strip fixed on the back of the card contains information about customers' accounts numbers and personal identification number.

The ATMs provide convenience to the customers by providing 24 X 7 access, fast transactions, providing acceptability across multiple bank ATMs and providing balance enquiry, mini statements, cheques book requisition, clearing cheque deposits. The ATMs installation is beneficial, in terms of operating costs, to the banks keeping in view the lower costs, accuracy in reconciliation, reduction of routine transactions rush, freeing staff for other productive work and cross selling. There are different models of ATMs in India.

Online ATM, for instance, is connected to the bank database. It provides online real time access to the customer accounts. *Offline ATMs*, meanwhile, are not connected to the bank database. The withdrawal is permitted up to a pre-set limit only. Yet another version of the latter, the *Stand-alone ATM*, is not connected to any ATM network. Transactions are restricted to the customer of the ATM branch and its link branches.

Networked ATMs, the most commonplace nowadays, are connected to an ATM network. The card holders can use their cards at any of the networked ATMs which provide anywhere anytime banking. *Cash Dispenser ATM* is without a depository. It is lower version of ATM. It provides cash withdrawal and balances only.

Banks joins together in clusters to share their ATM networks. The IDRBT has initiated the process of setting of a National Financial Switch to facilitate apex level connectivity of bank switches to facilitate enter operation ability of cluster at national level. The banks have adopted core banking solution which ensure a branch customer to becoming bank customers. The undernoted components of the ATMs provide the **customer interface**:

Video Display Monitor, Key Pad, Touch Screen and Slots like Card Reader, Cash Dispenser, Envelop Dispenser and Deposits Slots. The networks are being expanded by connecting more ATMs for increasing hits per day per ATM, providing e- ticketing facilities,



providing international payment network as VISA and Master Card besides establishing connectivity with post terminals at commercial centers. The intelligent auto teller and net ware management system called HWAK are special brands of auto teller machine which are very fast and provide excellent services.

Electromagnetic Cards

In India, the use of credit cards is restricted to small value personal transactions and helping the society move towards cashless transactions. Visa international and Mastercard International are largely tapping the India market.

A bank issues a credit card to the customers after entering into an agreement. The credit card is a plastic card of 8.5 cms X 5.5 cms dimension which bears the name and a sixteen digit code (as different from the account number of the account holder) containing validity date and specimen signature on reverse. The maximum card limit is advised to the cardholder. Many banks allow limited cash withdrawals. The credit cards are of different types:

Credit Card: The transactions value is debited to the card account. The cardholder has the option to pay the entire amount when debit to account or pay in installments within specified period generally after 50 days after which a service fee is charged.

Debit Card: Debt Card is the bank issued card which allows customer to withdraw funds from his account or make payment for merchandise by swiping the card at a machine with the merchant. The funds are immediately debited to card holder account.

Charge Card: Charge Card in which transactions are accumulated over a period of time, say a month, and total amount is debited to cash account. The customer is given 30 to 50 days to credit the account.

Smart Card: Smart card in which an integrated circuit chip is installed which contains memory and processor and is of International Standard size. The intelligent memory chip smart cards are being used in pay phones, identification, access control, voting and other applications. The processor smart cards are most advanced cards suited for banking and financial applications where re-use of card is allowed up to specified limit.

Member Card: This is used exclusively by members of a club or chain of hotels.

Electronic Banking:



Electronic Banking provides banking services across the bank branches with help of computers and ATMs, without visiting the branches by customers. Its variants are:

Anytime/Anywhere Banking provides banking services like deposits, withdrawals, requisitions, transfers, balance enquiry and mini statements with the help of ATMs installed at different locations round the clock.

Corporate Banking banks provide customer terminals right with help of computer, telephone and modem in the office of big business / industrial houses which facilitates customers to operate the account without visiting the bank branch.

Tele banking is provided by voice processing facility available with bank computers. The customers of the bank (caller) can call the bank any time and enquire his balance or transaction and can transfer funds between accounts. The bank computer is connected to a telephone link with modern. The voice processing facilities provided in the software identifies the caller, by keyboard and provides services with suitable reply.

Internet banking banks increase use internet as a channel for receiving instructions and delivering their products and services to their customers. The receipt and reply to customers queries is through email.

Mobile banking facilitates customer to check his bank balance or order a demand draft, stop cheque payment, request for a cheque book, see interest rates or see last five transactions round the clock.

Electronic Commerce: e-commerce is a digital parlance that enables business to business (B2B) transactions. It provides round the clock fast services at low cost.

Cheque Truncation:

Section 6 (b) of Negotiable Instrument Act defines truncation as: “a cheque which is truncated during the course of a clearing cycle, either by the clearing house or by the bank, whether paying or receiving payment, immediately on generation of an electronic image for transmission, substituting the further physical movement of cheque in writing”

Cheque Truncation is an electronic image of a cheque. Only bank clearing house can truncate a cheque and custody of physical cheque lies with them. Cheque Truncation substitutes the physical movement of cheque and thus saves a lot of time in transit, which indeed was the norm until a few years ago. Cheque truncation can be done by using MICR cheque having cheque number, city, bank branch and transaction code as pre-coded.



1.5: RESEARCH METHODOLOGY:

There are 39,927 micro, small and medium enterprises registered units in Himachal Pradesh of which 23.07 % are in district Kangra, 13.35 % are in district Solan and 10.14 % are in district Mandi, out of twelve districts of Himachal Pradesh. Out of these, about 90 % of the units are micro enterprises, who do not use the referred technology and hence kept outside the purview of this objective.

The districts Kangra, Solan and Mandi have been taken for sampling as representatives.

Table: 1 – Details of the Population and Sample Size

Population size	Sample size
Total registered small & medium enterprises units (micro enterprises excluded) (Representatives)	
3850	60

Method used to identify sample: (non probability sampling) convenient sampling with some features of snow ball sampling was used for the identification of sample. The research was conducted during the year 2016 - 17.

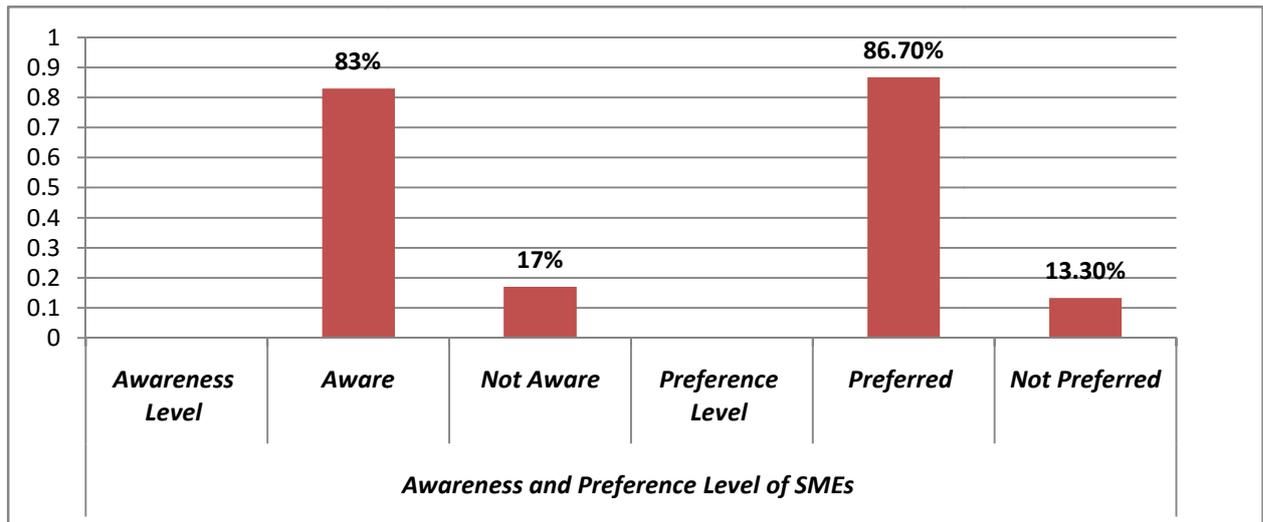
1.6: HYPOTHESIS:

Modern payment system and electronic banking are not highly preferred by SMEs at present. The chi-square test (χ^2) was applied. The calculated value of Chi Square at 0.05 = 78.77. The table value of Chi Square at 0.05 = 3.84.

Since the calculated value of Chi Square is more than table value, hypothesis is rejected. Hence we conclude that modern payment systems and electronic banking are highly preferred by SMEs at present. In order to examine the SMEs awareness and preference level for modern payment systems and electronic banking, a small survey by way of **structured questionnaire** was conducted in Himachal Pradesh, which revealed that out of the total 60 respondents, 50 respondents (83%) were aware of modern payment system and electronic banking, whereas only 10 respondents (17%) were not aware about this system. Further, the survey revealed that 52 respondents (86.7%) preferred modern payment system and electronic banking, whereas only 8 respondents (13.3%) preferred traditional payment system and branch banking.



Chart 1: Awareness Level and Preference Level of SMEs



Diagrammatically representation of results

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