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ADOPTION OF ECOMMERCE IN MSME SECTOR

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ABSTRACT

This paper provides a perspective that how the technology is changing the landscape of business organisation. The approach towards technology in the form of ecommerce has been reviewed and the various activities under the scope of ecommerce have been mentioned. This paper highlighted the need on the part of SME for the adoption of ecommerce technology. The model of TAM has also been analysed to provide a basis to SME sector for initiation of electronic commerce in their organisation. The result shows only three independent factor namely (organisation culture , social influence , technology competency) were statistically significant . Organisation culture emerged as most important factor influencing the adoption of ecommerce. the chi square test indicate type of business , occupation , education did not influence the adoption level among meme .

INTRODUCTION

The internet has paved the way for development of technological innovation in the form of ecommerce. it was in the early 1970 with the technology like: electronic fund transfer (EFT) initiated and after this organisation transfer their document electronically and with the development of electronic data interchange (EDI) which broaden the horizon of business by allowing them to place order and conduct electronic Fund transfer by using computers (sawanibi,2001). EDI was the only way for digital exchange of information up to the year 1990(sung chi, Lawrence,2006).The existence of geographical user interface (GUI) and

the navigability of world wide web (WWW) that has transformed the usage of internet (yan tian ,2008) .The combination of development and technological innovation has paved the way for emergence of ecommerce (menon meera 2014).The ‘pizza hut ‘ was the first to initiate change by launching their first virtual website and have received their first digital order .the pharmaceutical firm named Baxter healthcare applied ecommerce with the usage of telephone modem for reordering supplies . Basically internet has accelerated the growth of ecommerce as internet architecture along with the improvement in software architecture and development tool has brought power in the hand of companies. As per Jose Gvarges, ecommerce was there in life of the people before the advent of internet. In electronic commerce the element of ‘commerce’ constitute as one of the operative function and the electronic component merely a way through which the function of commerce facilitate and as it uses information system (IS), information technology (IT) or information and communication technology (ICT) as means of serving commercial ends (whitely ,2000).

The Philip kottler writes his book of marketing management on the assumption that “the company’s marketing strategies and the models are need to be built as per requirement of internet .the organisation for economic cooperation and development has supposed the concept of ecommerce for SME sector as earlier it was only concentrated towards the larger business organisation .The disadvantage related to size has been overcome by enabling internet as key factor to secure new customer base and to extend their geographical reach(chong,2008).The convenience of time and cost are the major influencer which bring customer towards internet. In today’s world consumer rely more on the opinion of others before going to purchase so here the impact of social media can be seen .social media act as simulator which further develop the online marketing (marketing 2.0) .the one to one relationship is created with this consumer express their needs, preferences and choice and idea about products in their social channel that influence future purchase (caschera et al 2009).

SCOPE OF ACTIVITIES OF ECOMMERCE

The usage of ecommerce differ from organisation to organisation .different organisation approached technology from different perspectives and for different motives. Technology could be applied as a management information system, as a marketing perspective or as a business strategy. When the approach towards ecommerce is on marketing perspective we need to concentrate on consumer. The purpose for which ecommerce could be used by business organisation vary from online purchasing of product ,contacting supplier through e-mail to marketing and selling their product through their website which further can be divided into upstream (business to business or B2B) and downstream (business to consumer or B2C) activities (girish S.atal,2014).it is not possible to adopt single model of ecommerce .different firms applies ecommerce for fulfilling their different perspectives e.g. cockcala used internet as primarily an information medium .the firm like Microsoft for them it is like a medium of communication. The

ecommerce could be utilised into different faces by having only static presence on the web or using it as a adjunct to traditional business or it could be integrated into existing business process for creating virtual business structure (Stephen char ,et .al). Levy and powell in 2002 found that it is not required for an organisation to follow single path ,but they may adapt their own transformation path .the usage of ecommerce by SME can be through use of website ,online sales support, electronic data interchange (EDI) and internet based supply chain management (SCM). There are evidence on literature which shows that application like online advertisement ,SCM and EDI helps to increase ecommerce performance and sales .the advent of web 2.0 bring new opportunity with the services such as blogs ,social networking,wikis,website ,tagging ,social bookmarking ,multimedia sharing ,podcasting and all. The usage of these new applications of web 2.0 will bring efficiency in performance of ecommerce (Oai et al, 2001).

REVIEW ON ADOPTION OF ECOMMERCE

The literature defines the ecommerce in a very general way as per their perspective all transaction which can be conducted electronically comes under the scope of ecommerce. similar to their perspective swatman (1996) define ecommerce as “any activity or process which can be enabled electronically “. There exist another perspectives which relate ecommerce activity with the internet accordingly ecommerce include all those activities that applies internet technologies but there exist a point of contradiction .the similar conflict exist when lauden and traver define ecommerce by taking internet as only outlook .the scope of ecommerce is not limited up to internet but ecommerce include business process which can be buying ,selling, sharing or exchanging product data or information .the essential element in all these processes is that all this is done through electronic communication media between the two parties with a well built payment system .to summarize it we can conclude that “ Ecommerce applies computer network and electronic technologies to integrate all organisation’s proceses,activities and services directed towards buying and selling of products and exchange of information of company’s fund “(as per chang 2008,chaffey 2007,rainer &ceigieliski 2011,rayport & jawarski 2002). There can be found closeness between the term ecommerce & e business can be used interchangeably (as per Rainer &egelski 2001) .damanpour& Madison 2001 is also having the similar perspective they regard it as both comes under business activity that to enhance value &access market opportunities with transition of internal and external relationship has created new connected economy to rule upon .shinder (2007) also having the same opinion as mentioned above that there exist no difference between ecommerce and ebusiness.laundon &traver (2009) define a system of business support e commerce by providing infrastructure upon which ecommerce build up its operation.

ADOPTION OF ECOMMERCE IN MSME

Today, business have changed the perception they have about themselves, they are not just flexing their muscle but we can see pioneering enterprise which quickly mastering the shift from 'me to we'. organisation are expanding their horizon by tapping arena of digital business, digital customer and even digital devices with the usage of network (Accenture technology vision 2015") Ecommerce have influenced the process of many organisation as the ability to embrace change is very much required to transform the landscape of business organisation (ITC).ecommerce bring in light the drivers through which an organisation could grow and mark their presence in the international market (chin yung ,2018).to mark their online presence ,the firm is required to adopt the appropriate technology ,need to built up their capabilities in handling logistics with the access of network and internet to make this implementation happen. It laso clarifies the procedure which an organisation has to go through to attain the maximum potential from ecommerce in terms of improved result and reduce cost by removing all intermediaries in the value chain process. There is requirement of essential key elements for the adoption of ecommerce. The business need to have an electronic network called internet, then the availability of physical digital product and services are required. The path essential for the adoption of ecommerce need to be carefully planned .the aspect of creativity on the part of manger is required to make this adoption happen (sawhney & zabin 2001) .the adoption of ecommerce is gradual ,complex process with integrated ecommerce capabilities (Daniel et al 2002). The benefit offered by the ecommerce is one of the key influencer for the adoption of ecommerce. The literature also emphasized perceived benefit as one of the important determinant for the adoption of ecommerce (mehreten et .al ,2001;kutlu &ozturan ,2008; grandon and Pearson ,2004 ;al-quirim ,2007 ;beauty et al ,2001). The benefits include increased sales, improved communication with customer, supplier and employees with easier order tracking (Baldwin et al, 2000). As per auger (2001) compatibility of ecommerce application with the current business practices are need to be required as compatibility affect the rate of adoption of innovation (sparling et al ,2007) . The adoption of ecommerce could be seen as continuum which includes variety of application as consisting of series of innovation which need to be consider as an essential aspect of adoption (Chong 2008, ET. Al).

EBUSINESS & MSME

Electronic business or Ebusiness has revolutionize the business organisation by using internet as a legitimate communication medium .Digital trend has changed the way of thinking of business organisation regarding strategies,process redesign and informational gathering (lee et al ,2011,akhavan et al 2006). A new connected world has been created by the enterprise where customer habits, preferences and context are applied to make experience of the customer simple, delightful and personal (Accenture tech vision) .The phenomenon of ebusiness not only include buying and selling of goods and services but also servicing customer ,collaborating with business partner ,conducting e learning and processing

electronic transactions. The model of ecommerce is hybrid i.e. brick and click which combine strength from traditional and applied it in pure web approaches .zhu and karlmer ,2003 define e business as platform which utilize internet as medium to conduct value chain activities (including sales, customer service,procurement,information sharing and coordination with supplier to integrate information technology infrastructure. As per damanpour and Madison, 2001 E business is an activity driven towards creating value and exploit market opportunities by adopting new rules of connected economy. Ebusiness transactions are under the control of a firm which are digitally enabled as a mechanism to provide support to ecommerce exchanges (Ravi and whinstone, 2001). A new term coined by O reilly (2005) as web 2.0 include applications such as social networking sites, wikis, blogs, podcasts, instant messaging, discussion forms audio and video conferencing and presentation system has been widely used for small business in collaboration with other business (barley et al 1991;curren et al 1993) which have overcome many of disadvantages inherent in small business. The network of collaboration provides small business a broader resource base that initiate small business to innovate and compete in the global business environment (Lindeman et 2009).

ECOMMERCE IN INDIAN MSME

The fast paced growth of ecommerce industry in India represents an unprecedented opportunity for sme. The access of internet has enable msme to tap global market which has not been possible before .the Indian ecommerce market is expected to grow to US\$200 billion by 2026 from us\$ 38.5 billion of 2007 (by IBEF) . the ecommerce industry been directly impacting the micro ,small & medium enterprises in India by providing means of financing ,technology and training and has a favourable cascading effect on other industry as well. no other technology has revolution the life of human as information technology does .the it has led the foundation of new civilization by connected world as global village (by Seymour et al).the new online behaviour has been created by the Indian entrepreneur with their 'innovative instrict' has enable them to develop a technology platform and to embrace digitalization (deloitte) .the flagship program initiated by the government of India namely ,digital India ,make in India ,start up India ,skill India and innovation fund to support the ecommerce ecosystem and to overcome the challenges related to ineffective rural internet penetration and lack of skilled manpower (deloitte). The research conducting by Boston consulting group titled 'capitalizing on India s digitally influenced consumers from buzz to bucks which shows that Indian internet user use internet for product use or for many other purposes. This show how internet support consumer from pre purchases stage to purchasing of product. The report highlighted the need on the part of msme.it has been observed and verified in many studies that sme are actively involved in integrating ecommerce into their business process (bombast et al, 1993; cragg and king 1993; dos Santos and prefers 1998; massey, 1986. As with the advent of ecommerce sme can 'level the playing field with big businesses and enjoy

the privilege of location and time independence with ease of communication (Grandson et al, 2004).

TAM AND SME

Technology acceptance model by Davis analyse business adoption and its impact on organisation performance from the perspective of consumer and business. in this theory it is behavioural intention which determine actual behaviour which is further determined by attitude towards and perceived usefulness. It was developed by Davis in 1985 to provide understanding to the user about the acceptance of technology. TAM provide,” phenomenon to understand the effects of external factor on internal beliefs, attitude and intention “. This model depicts attitude of potential user towards adoption of technology which is function of two major beliefs; perceived usefulness and perceived ease of use. The perceived ease of use has causal effect on perceived usefulness. Azeen & fishbein has defined perceived usefulness as a belief that individual have on the technology .ease of use is the least requirement of physical and mental effort on the adoption of technology. The tam model has been expanded and modified by other studies .the most important were TAM 2 (venkatesh and Davis 2000) and UTAUT (venkatesh et al 2003). The different factor that influence user behaviour here are performance expectancy, effort expectancy, social influence and facilitating condition has been taken in extended version of TAM. it has been used as reliable and robust method for predicting the behaviour of individual with regard to acceptance of technology . Tam model has been tested in different technology (e.g. ATM, email, netscape, access, internet, word and excel). The result is consistent with the theory of model that perceived usefulness and ease of use are the major drivers that influence the attitude towards adoption and which further effects intention to apply it (E Grandson, J M; Pearson, 2004).

Table -1 adoption variable and measures

variable	measure	references
Adoption of E-commerce	1 connected to internet with email but no website	Looi (2005)
	2 static ecommerce that is publishing basic company information on web without any interactivity.	
	3 interactive e commerce that is accepting queries, e mails and form entry from users	
	4 transitive e commerce that is online selling and purchasing of product and services including customer service	
	5 integrated web that is website is integrated with supplier, customer and other back office system allowing most business transaction to be conducted electronically.	

This model by Looi (2005) was used to determine the current level of the adoption of e-commerce by SME’s. Table 1 above indicates the measures used to establish the current

level of e-commerce adoption by SMEs in Punjab. The measures 1 to 5 are explained in the Table 1 above. The five independent variables adopted from Looi (2005) such as government support, IT infrastructure, social influence, technology competency and organisation culture were used as factors that motivates or hinders the adoption of e-commerce.

DATA COLLECTION, ANALYSIS AND DISCUSSION

Primary data was collected from the population of 120 SMEs in Ludhiana, Punjab. A simple random sample size of 180 from that population of SMEs was selected to participate in the survey. Out of 180 SMEs who were selected for the survey, only 120 finally responded, thus giving a response rate of 67%. The reason for low response could be ignorance of the importance of such kind of study by SMES, while some are afraid to disclose information some it may be matter of unwillingness. Before the questionnaire was administered to SMEs

, it was subjected to pre-test by 6 individuals on questionnaire design, clarity

and language. Respondents were asked to be critical in the comments and feedback. Constructive feedback was received and the questionnaire was adjusted accordingly. The data was checked for any errors or missing value and data was entered into Excel spread sheet for analysis. No missing value was detected. The questionnaire used was from previous studied that had tested reliability and validity of the instrument used. A few reversed scale items were transformed into the normal scale. The table below shows the mean values,

standard deviation, Cronbach Alpha, skewness and Kurtosis of final distributions of the indicators for the independent variables.

Table 2: Average values, Standard deviation, Cronbach alpha, Skewness and Kurtosis of final distribution of the indicators (n=48).

construct	mean	std deviation	kurtosis	skewness	cronbach alpha
organisation culture	1.7	0.55	0.81	0.06	0.88
social influence	1.78	0.56	-0.39	0.44	0.85
technology competencies	2.65	0.49	0.9	0.39	0.7
I T infrastructure	2.61	0.55	0.48	0.04	0.69
govt support	2.68	0.47	1.14	0.53	0.69

Table 3 suggests Cronbach Alphas are in the range of 0.7 or greater, while the other parameters were within expected limits. The data were analysed using descriptive statistics,

Pearson's chi-square test of association and multiple linear regressions.

independent variable	coefficient	p- value
organisation culture	0.588	0.001
social influence	0.518	0.001
technology competencies	-0.293	0.044
IT infrastructure	0.186	0.205
govt support	0.072	0.625

Table 4: Correlation of the Independent Variables with the Level of Adoption of Ecommerce

* Significant at 95% confidence level

** Not significant at 95% confidence level

The positive Pearson correlation coefficients of organisation culture and social influence 0.588 and 0.518 respectively indicate that the variables are positively correlated with the adoption of e-commerce, while the low p-value of 0.001 indicates that the relationship is significant at the 95% confident level. This result simply reconfirmed findings by Chiliya, et al. (2011:28-36). The positive Pearson correlation coefficients of it infrastructure and government support 0.186 and 0.072 respectively indicate that the variables are positively correlated with the adoption of e-commerce. However, the high p-value of 0.205 and 0.625 indicate that the relationship was not significant at the 95% confident level.

Technology competencies indicates a negative -0.293 which means that the variable is negatively correlated with the adoption of e-commerce, while the low p-value of 0.04 indicates that the relationship is significant at the 95% confident level

CONCLUSION

The objectives of the study were to determine the current level of e-commerce adoption in city Punjab and to assess whether the independent variables motivates or hinders the adoption of e-commerce by SMEs in city Ludhiana and the relative importance thereof. This study indicates that the Service sector was at level 2 of the adoption status which indicates they have emails and website that allows for advertising, detailed display of company's products and services, searching, form-filling, on-line enquiry/ booking/ reservation and etcetera. Retail and Other sectors (Telecommunications, Financial Service, Construction and Property management) were at level 3 of the adoption status which indicates they have a simple website for advertising purpose and minimum interaction using emails. Catering sector was at level 4 of the adoption status indicating that they use the emails only for business purpose in their company (No company website). This study highlights the importance of understanding the knowledge about the potentials of e-commerce. Although many SMEs agree that e-commerce is important to them, some industries have not yet

embraced the adoption. This lack of understanding in some industries could lead them to believe that they have plenty of time to adopt e-commerce. Not only does SMEs need to understand the new e-commerce business model, but they also need to believe that commitment will reap comparative advantage. In other words, they need to perceive that benefits of e-commerce will outweigh the costs.

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