



## A CONTEXTUAL STUDY TO EXAMINE THE CHALLENGES FACED IN IT ADOPTION BY SMALL FIRMS IN HARYANA

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### Abstract:

*Economic development of a nation is directly related with the amount of industrial development. The enlargement of industrial sector leads to a larger and proper utilization of natural resources, production of goods and services, creation of employment opportunities and improvement within the general standard of living. India has additionally making efforts to develop the country's industrial base since independence. It has framed numerous policies geared toward development of industries within the public and private sectors. Special stress has been laid on SSI. SSI plays a key role in the planned development with its benefits of low investment, high potential for employment generation, diversification of the industrial base and dissemination of industries to rural and semi urban areas. P.N.Dhar and H.F.Lydall in introduction to their book, "The Role of Small Enterprise in Indian Economic Development" have ascertained that 'The promotion of small scale industries has been widely recommended as one of the foremost acceptable means of developing industry in over populated backward countries', (Ministry of Small Scale Industries , Government of India , 2006).*

**Keywords:** Economic Development; Small Firms; Developing Industry.

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### 1. Introduction

After Independence, the foremost task for the government was to realize fast industrialization of the country within the overall framework of a state. The set objective of economic growth with social justice was kept in while making overall strategy of industrial development. Large, medium and small industrial units have been allotted a reciprocally complementary role with a view to facilitate an integrated and harmonious growth of industrial sector as a whole. Industrial Guidelines of the Administration of India and the particularly State-owned Governments have been inspiring the small scale enterprises so as to fulfill the objectives of decentralization of industries, employment generation and entrepreneurial development.

These days all types of organizations using ICT (Information and Communication Technology), not merely for cutting cost and enhancing efficiency, yet also for giving preferable services to the customers. Governments also, all over the world, are embracing ICT to offer superior services to their citizens. The selection of ICT by the organizations needs business environment strengthening

the trust, open competition, security, standardization and also availability of financial resources for ICT.

ICT increasingly play an important role by enabling manufacturing firms to achieve dramatic progress in productivity benchmarks through their entire range of manufacturing processes and enabling firms to seamlessly integrate with their domestic and global suppliers and customers. Indian manufacturing companies need to ensure that business processes critical to competitiveness are IT enabled. The adoption of IT can help them to survive with the new challenges. Today all types of organisations adopting information technology around the globe, not only for reducing costs and getting better efficiency, but also for providing better customer services **Li and Gao (2003)**. Small firms adopting IT in business operations through buying and selling products online, using IT to communicate with customer, maintaining records, E- payment etc **Adewoye and Akanbi (2012)**, **Gallego et al. (2011)**. Adoption of IT also playing vital role in marketing practices of small firm's. Today more and more service provider entering in the market. but with the help of IT small firm's can aware the customer about their new services through text or E- mail, they can provide timely information about services etc **Atkinson (1988)**. To compete with the competitor small firm can also online promote their services. Many studies **Dholakia and kshetri (2004)**, **Tan and teo (1998)** described the factors influencing the IT adoption like internal pressure (fast communication, security, computerization of records etc) and external pressure (Government pressure, competitive advantages, new market opportunity etc). Adoption of IT also effect on firm performance (Financial and non- financial performance). Financial performance related with profits and turnover of firm. And non-financial related with IT knowledge of human capital.

Enterprise	Investment	
	Manufacturing Sector	Service Sector
<b>Micro</b>	Does not exceed twenty-five lakh rupees	Does not exceed ten lakh rupees
<b>Small</b>	More than twenty-five lakhs but less than five crore rupees	More than ten lakhs but less than two crore rupees
<b>Medium</b>	More than five crores but less than ten crore rupees	More than two crores but less than five crore rupees

## 2. Literature Review

**Tan and Teo (1998)** examined the factors influencing the adoption of the internet. The main objective of the research was to rank internet applications, benefits of adopting the Internet, reasons for not adopting the Internet in Singapore. The study based on primary data. A field survey of 500 randomly selected companies was used to collect the data. The study concluded that internet adopters had found the internet useful for concerning with their customers and suppliers. Employees and individuals used the internet to convince top management. The research also explained the three main reason of adopting internet, convenient access to worldwide information, establishing a global presence and extending worldwide reach.

**West and Berman (2001)** examined the impact of revitalized management practices on the use and efficiency of these information technologies and other factors that outline information technology in local government, such as stakeholder pressures and demands, and policies and procedures. This study was based on a national survey of city managers, in cities with a population

of more than 50,000, conducted during the spring and summer of 2000. The study concluded that information technology improved organizational effectiveness through the use of revitalized management practices. The study also suggested that to meet many challenges, of information technology required development of interpersonal skills such as active listening, trust building and information sharing.

**Bosma et al. (2002)** investigated the value of human and social capital investments for the Business Performance of Start-ups. The study was based on primary data. The data was collected from Dutch entrepreneurs. Determinants of entrepreneurial performance were human capital, social capital, financial capital controls. The study concluded that investments in human and social capital enhanced entrepreneurial performance and also helped in survival, profits and generated employment.

**Dholakia and Kshetri (2002)** revealed the factors impacting the adoption of the Internet among SMEs. The main objective of the research was to examine internal and external factors which contributed to the adoption of internet. The primary survey was used for data collection. Questionnaire and survey method used for data collection. Logistic regression was used to observe the relationships between internal and external factors and SMEs' contribution with the internet. The study concluded that to affect firm behaviour regarding internet adoption was very challenging in terms of increasing the level of website ownership among SMEs.

**Doms et al. (2003)** examined the relationship between investment in information technology and retail firm performance. The study measured the labour productivity and productivity growth for data collection micro data from two census bureau surveys from the 1992 and 1997. The census of retail trade contained information to measure the labour productivity and the surveys had different sampling methods like census of retail trade, assets and expenditure survey etc. The result showed that firms that invested in IT equipment or capital in 1992, enjoyed higher productivity. The computer investment in entry and exist.

**Chuang et al. (2009)** studied the extent of the adoption of ICT. In this particular study composition effect of top management managerial characteristics was investigated on the adoption of ICT in SMEs, Upper echelon theory was the base of the study. Various hypotheses were formulated with regard to management characteristics of top management team to the extent of the adoption of ICT in various functional areas. Data was analyzed with the help of multiple regression and analysis and revealed that the effect of the age alignments, the education structure and group heterogeneity of uppermost organization team on the level of ICT adoption in Medium and Small Scale Enterprises.

### 3. Need of the Present Study

On the view of competitive advantage, from last five years and after demonetization small firms also spending money on Information technology. This study will provide insights on how adoption of IT helps the small firms to survive. In the review of literature, it has been found that most of the studies discussed the IT adoption pattern of firms and also various variables like workers connected to Internet, computers per employee, IT expenditure per employee, workers with personal computers, etc. [**Kulu and Tatoglu (2003)**, **Koellinger (2008)**, **Tan et al. (2009)**].

However, most of the small firms have very limited understanding and awareness about IT adoption pattern. But none of the study conducted on adoption of IT in business operations and market practices. The present study will focus on awareness and adoption of IT in business operation and market practices among the small firms. Most of the studies on factors, motivating the entrepreneur to invest in IT, have been carried out in developed countries [Tan and Teo (1998), Bosma et al. (2002), Morikawa (2004), Wu et al. (2006), Gallego et al. (2011), Olise et al. (2014)] and a limited number of studies [Tan et al. (2009), Lee et al. (2009)], Adewoye and Akanbi (2012)] have been conducted in developing countries. The present study will also focus on the adoption of IT among the small firms in the developing nation of India. Different studies have discussed the factors like decreasing cost, increasing profit margins, motivation level among the employees, information exchange etc. But have not shed light on how these factors influence the use of IT in small firms and how small firms invest in IT. This will be the focus point of the present study. Most of the studies [Harrison et al. (1997), Dholakia and Kshetri (2002), Zehir et al. (2010), Moriones et al. (2013)] researched on IT investment in manufacturing sector and in medium and multinational companies. A very limited number of studies have emphasized on the relationship between investment in IT and the performance of small scale firms in service sector, which will form the centrifugal point of the current study. [Mahmood and Mann (1993), Doms et al. (2003), Santhanam and Hartono (2003)] discussed only financial performance, but this study will also discuss the non-financial performance like human capital that helps to improve the firm performance. Unger et al. (2009) and Martin et al. (2013) reviewed only previous studies and done a Meta analysis. Sang et al. (2009) analyzed only five variables of human capital, but not discussed the contribution of human capital in IT adoption. This study will highlight how human capital affects the capacity and performance of firms. Many variables and factors positively contributing to better performance have got get attention of both researcher and entrepreneur. Findings of the current study will benefit various stakeholder including government and research institutions as well as academicians, the community and the entrepreneurs to improve the competitiveness of the small firms.

#### 4. Conclusions and Discussions

In this study, utmost efforts were made to avoid any kind of biasness in selection of firms or respondents and efforts were made to cover all types of firms so that the population is well represented and finding of the study could become most relevant. Majority of the respondents were male although few female businesswomen that was expected as female entrepreneurs are very less across all over the India as compare to male entrepreneurs. Regarding the use of ICT tools, most widely used tools were, e-banking, online payment to vendors, and online receipt of payment and Email respectively. And in the lowest use category, the ICT tools were government information, and social networking. Overall combined use of ICT among small and medium enterprises of Punjab was fairly used. Overall use of ICT was significantly same among medium and small scale enterprises (as suggested by the results of t-test). This could be due to rapid progress in the digitalization across the nations the use of ICT among small and medium scale enterprises is also improving day by day. It was also found in the results of the study that extent of use of all ICT tools among small and medium scale enterprises was almost same except the online receipt of payment from customer tools and feedback from customers.

## 5. Limitations of the Study

Most important limitation of the study was to contact the right person in the firm. Only the management level personnel were authorized to provide the information or someone actually using ICT tools, but with the permission of the management. The administrations of firms were in general quite skeptical about sharing the information. It was in general a mammoth task to convince them to provide the information. Many times the respondents did not show any interest. Monetary expenses and limited time were another constraint in the execution of the study.

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