

# Emergence of ICT in Commerce in India With Special Reference to Small Product Scale

**Asst. Abha Ruparel and Parit Ganesh Bandu**

Department of Commerce,  
Nirmala College of Commerce, Mumbai  
abhaamlani@gmail.com

**Abstract:** *In light of India's expanding economy, the article argues for the use of information and communication technology (ICT) in small companies. ICTs enter India via two different channels: the international employment channel of IT information businesses or the development channel of donor-driven services to close the digital divide within the country. Small enterprises offer organic, market-driven, self-sustaining local and context-specific ICT-based services that bring inexpensive services to previously underserved and information-poor environments. Whether ICT as service offerings in small businesses can support and develop a participatory eco-system that results in the growth of advantages to the player/entrepreneur and customer/user of technology appears relevant to consider. The majority of ICT-based or ICT-enabled enterprises, services, and products are formed by two elements, according to a case study in urban India. The character of the key figures pushing the industry 2. The product's local and changing customer relevance. The two can be combined to create a third opportunity, which has the potential to help firms shift to more aggressive consumer-oriented service offerings in order to maintain their current customer base and boost ICT infusion into regional markets.*

**Keywords:** ICT, Small Business, Ethnography, ICT for Development, Urban India, PC-based Services

## I. INTRODUCTION

Information and communication technologies (ICTs) deployment in India has followed two different routes. One is in the shape of cutting-edge IT parks that oversee technical support centres and back-end processing outsourcing under the management of IT-skilled and English-trained workforce. The second involves using a variety of proactive organisations such as governments, foreign donor agencies, NGOs, corporate enterprises, and academia to overcome the "digital divide." As a result, we observe a variety of ICTs in donor-supported rural development programmes to hyper-urban landscapes pushed by the global economy. Between them were a variety of tiny street vendors selling regional, reasonably priced, and immersive ICTs. Our contextual analysis of ICT-enabled small companies argues for their significant entrepreneurial contribution to ICT immersion despite being excluded from local governmental and non-governmental organisation facilities as well as worldwide corporate initiatives. These rely on overlapping, interdependent, and entrepreneurially motivated economic processes that frequently operate in particular spatio-cultural neighbourhoods through unofficial networks and practises. Although there are severe material and infrastructure shortages, there is persistent entrepreneurial agility to identify and grow service-driven demand and transform it into successful businesses. Minor shops and enterprises use a variety of work practises that are unique to the nature and scale of day-to-day operations, with some of them falling into the strata of the survival economy and others producing minor profits.

Our major arguments are that two variables form ICT-enabled organisations, services, and products: 1. The character of the key figures pushing the industry 2. The product's local and changing customer relevance. The two work together to create a third possibility, which can help organisations shift to more aggressively customer-focused service offerings in order to maintain and consolidate a local market. We provide evidence for our claims using findings from qualitative research, focusing on 1. PC-equipped companies 2. In these enterprises, the organisational entrepreneurial activity type. We use an ethnographic methodology to collect information from 16 PC-based small enterprises in Bangalore.

## **II. REVIEW OF LITERATURE**

In order to determine how well existing research on ICT adoption among small and medium-sized businesses (SMEs) fits with our case study in India, we give a brief assessment of the literature. To find pertinent research literature to frame data, we combined three themes. Using case studies from various contexts, the first subject discusses obstacles and gaps in SMEs' ability to successfully utilise computer technology and information systems. In the study literature on SMEs and case studies of ICT adoption across nations, we identified two common concerns: 1. information technology adoption in small and medium-sized company practises: influencing factors and 2. The benefits of processes in SMEs that are driven by e-commerce. They mention the development of organisational capability to compete in export and global markets (Zang et al 2007), knowledge management (Hsu et al 2007), internet use (Jaw & Chen 2006, Guo&Xu 2006, Tan &Ouyang 2004), introduction of enterprise resource planning (ERP) systems (Newman &Zao 2007), and e-commerce mechanisms. Our research shifts away from greater information system adoptions in organisational practises and e-commerce procedures, instead taking a closer look at small, local businesses and their ICT adoption strategies in response to changing local demand.

The second subject examines the use of ICT adoption to close the digital gap and put underdeveloped economies in a position where employing ICT for development may not be feasible right away (Molla&Heeks 2007, Galperin& Bar 2007). It notes a lack of study assessing how internal, external, and contextual imperatives affect these countries' level of e-readiness (Molla& Licker 20005, Heeks 2008).

The third theme uses the first two to frame studies on ICT uptake in India. Despite the fact that PC and internet adoption is continuing to rise, they are not the preferred form of communication, particularly in small business networks, which are the subject of this research. Much of India continues to be on the weaker side of the digital divide, suffering from ICT resource and infrastructure deficiencies, despite its fast growing global IT capacity. Bhagwat and Sharma (2006, 2007) note the lack of appropriate information system designs to supplement existing skills and offer competitive advantage to strengthen and grow business networks in their substantial work on Indian SMEs. Additionally, the majority of small businesses in India operate in the non-formal sector and are heavily reliant on shady dealings (Agarwala). Numerous studies have been conducted on the informal economy in both international and Indian contexts (Peattie 1980, Kulshreshtha& Singh 1999, Moyi 2003, Lugo & Simpson 2008), as well as on urban micro-entrepreneurs in India and their information and communication practises (Donner 2007).

These are small and medium-sized enterprises that are still operating and are considered to be part of the non-formal economic sector since their economic activities take place in a market where labor-driven services are exchanged. To maximise business potential, these build informal relationships with partners and staff members. However, there is comparatively less attention paid to tiny PC-enabled firms, particularly those operating in the informal sector and working off-the-books. As a result, we have a dearth of published research from which to draw broad conclusions regarding the relationship between small businesses and ICTs. Our ethnography fills a research void concerning ICT-enabled small firms and their contribution to the diffusion of ICT in underdeveloped economies.

## **III. FINDINGS**

In India, there is both abundance and scarcity. A state-driven or largely market-driven strategy to development has proven substantial difficulties in reaching significant portions of the population with the benefits of information technologies. The formal and informal economies both have a wide range of small companies between the two ICT adoption strategies. These provide communities that have not seen the full impact of the global ICT boom or development's outward reach with inexpensive, pertinent, and demand-driven ICT corporations (Rangaswamy 2007). Within their socioeconomic setting, these firms have grown naturally. They develop locally, call for little startup money, and slightly above average entrepreneurial abilities. Regarding ICT business configurations in urban India, we examine two connected issues: 1. ICT services that are contextually appropriate, creative, and commercially localised introduce and integrate technology into previously underserved situations. Businesses become crucial hubs for establishing these technologies. 2. Key business managers are crucial in transforming routine organisational strategies and instances of survival into more aggressive consumer-oriented service offerings for a local market.

Governments, universities, international organisations, businesses, and nonprofit organisations are just a few of the organisations involved in setting up ICTs in each given nation. Everyone is interested in how well ICTs perform and

what effect they have on a population after making significant infrastructure investments (UNDP 2004; Madon 2005; Kuriyan et al., 2006; Jhunjhunwala 2000). India has largely taken two different routes to ICT adoption. The first route linked the Indian economy's globalisation to the ICT growth. In this period, cutting-edge IT campuses, high-tech support centres, back-end processing offices, and customer support enclaves all came into existence. As an extension of the first, the second road saw government and non-government organisations scrambling to bring positive effects of ICT to areas left out of the boom. In order to address broader development issues like e-governance, education, and health, for-profit organisations, corporations, and academic research centres soon started investing in ICT for these "information poor" regions. In general, it was believed that access to information, whether it be about health, agriculture, education, or government programmes, would eventually encourage people to act on that information and empower themselves. But numerous studies (Ali and Bailur2007, Bailur 2007, Heeks 2005, Kurien et al 2007) have shown that technological efforts based solely on the faith held by donors and little planning are difficult to sustain in the long run, let alone empower these regions.

For the purposes of this article, the term "informal economy" refers to tiny firms, such as street shops, household businesses, and medium-sized retail businesses that use ad hoc organisational and accounting procedures. In uncontrolled and unconditional employment settings, family, kin, neighbourhood, or friendship networks make up the employee pool (Agarwala 2005)<sup>1</sup>. In developing economies, these micro, small, and medium-sized businesses are the main providers of employment, income, manufacturing, and services. For the millions of people in low-income groups, the diverse variety of commodities, services, trading, and retail represented by these firms likely represents their sole market. These are described as "firms that show a greater business focus and which deliver broader/longer term benefits of competitiveness, innovation, and exports" by Duncombe&Heeks (1999). All of the PC-based non-formal enterprises in our sample handle their human resources and technology in an efficient manner, with employees significantly outnumbering PCs. Owners must provide high-quality services to satisfy customers, and technical skills are crucial in raising client expectations. Customer engagement and computer use are actively balanced throughout working hours, with the former taking precedence over the latter's concerns.

- Not every employee uses a computer. There is always someone available to handle crucial non-PC related activities and face-to-face client solicitation. Only specific staff were permitted to use the PCs because many lacked the necessary skills and were afraid of breakdowns and time-consuming troubleshooting. Owners and managers drew a fictitious boundary to prevent future staff computer diffusion. The management of PCs was better for corporate organisation and cost when the organisation was smaller.
- The most efficient and cost-effective use of PCs is determined by function. For example, front-desk PCs were made specifically for accepting orders, while back-office PCs were used for service-related tasks like digital painting, CD writing, scanning, and photo editing. Additionally, employees were handled in accordance with their computing abilities for job. Function-specific software was also installed upon them. For instance, if internet access was not essential to corporate operations, PCs might not necessarily have it.
- clients were king - One of our subjects who runs a photocopying business says, "We are satisfied with two PCs. We have a reputation for good quality, and customers will wait for our service." There is a resounding consensus that the current ICT resources are enough to handle the workload.
- Owners are worried that adding new technology includes the cost of an employee who needs to acquire the specialised expertise or that of recruiting a person with the skill. The cost of a PC includes the cost of an additional employee. These companies buy the majority of their PCs from resellers with questionable technical support capabilities. An employee's dependability and reliability are important enough for owners to thoroughly check them out during the employment process and before entrusting a PC.
- A friendly combination of employees and technology was required to serve a client. Employees guaranteed the human interface in a transaction while technology ensured quality and speed. Even while this may be the case for larger businesses, the lack of funding, available technology, and corporate size make it difficult to balance resources while ensuring the spread of technology throughout industry. However, a persistently watchful and vivacious entrepreneur skillfully improved tech adoption, scale, diversity, and enterprise quality.

#### IV. CONCLUSION

Profitable small firms with access to ICT are on growth trajectories that are optimised for the needs of the local labour market. In order to organise, recruit, and coordinate opportunities provided by computing technology and the market, they also rely on the broader culture of informal business practises. An urban ICT-enabled small business, like a photocopy shop, would typically grow by first building a solid reputation among its clientele, adding computer-aided printing, expanding to internet-based services like mp3 downloads and internet surfing, and then meeting a demand unique to the neighbourhood. The breath occasionally extended beyond the immediate area.

It is obvious that these organisations must strike a balance between the costs of technology upkeep, qualified people and support, and growing their customer base. Shops that want to enhance their technology are aware of developments and take advantage of chances that are proportionate to market conditions and demands. However, technology is deftly introduced and used to profitably address market and labour problems. Therefore, two conclusions may be drawn from ethnographic research on ICT-based small product offerings: first, that localised adoption is changing and is driving business growth; and second, that entrepreneurial drive is advancing product range and business sustainability

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