

EVOLUTION OF E-COMMERCE IN INDIA

Challenges Ahead (Part 1)

*M.M.K. Sardana**

[Abstract: Starting slowly in 1995–96, e-commerce in India is poised for rapid growth in the years ahead with increasing internet penetration and availability of budget smartphones. Early e-commerce entrepreneurs in India used the internet as an effective medium for facilitating matrimonial alliances, travel-related transactions and recruitment process. In recent years, owing to robust growth in e-commerce business, customers are experiencing “empowerment” in marketing. That is, the market players not only offer high-end products at competitive prices, but also compete among themselves to satisfy customer needs through assured and timely home delivery of products (with guarantee) as well as return of goods (after delivery) at no cost to customers. Building client trust through a secured online payment system using high-speed internet has also helped drive up sale of goods and supply of services, both tangible and intangible. Access to technology, foolproof system of logistics, and big investments are required to put such arrangements in place. However, on account of increasing customer demand for discounts laced with best services, profit margins would be minimal. Therefore, only the high-ticketed players who have access to capital, technology and the means to develop or hire adequate infrastructure would sustain. Further, growth in e-commerce industry attracts mergers and acquisitions, which is already in sight and may accentuate. Merger and acquisition as a strategic choice for maintaining competitive advantage will help expand the horizons of e-commerce and bring structural changes in the economy. The existing laws, through constant evolution, are trying to cope with legal, tax, competition and other regulatory issues; all the same, these issues will keep coming to the fore until acceptable new understandings within national and international jurisdictions emerge. Challenges arising out of these would be brought out in the Discussion Notes that will follow as Part 2 and Part 3 of this Note.]

Over the millennia, communication technologies have been revolutionizing the management of commercial activities. In the 19th century, the cheap steam powered print technology and the introduction of public schools gave rise to print-literate workforce with the communication skills to manage the increased flow of commercial activity made possible by coal and steam power technology. In the 20th century, centralized electricity communication—the telephone, and later radio and television—became the primary communication mediums to manage more complex industrial enterprises and mass consumer culture. Today, Internet communication technology has not only made the entire system interactive, integrated and seamless, but has also created whole new opportunities for cross-industry relationships. Information networks across countries have been democratized and

* The author is a Visiting Fellow at the Institute.

enabled nearly one-third of human population to share music, knowledge, news, and social life on an open playing field.¹ Such an all-pervasive reach of communication technology has enabled entrepreneurs to conduct business transactions without even meeting in person. This mode of transacting business through communication technology, commonly known as internet, is what has come to be known as “electronic commerce” or e-commerce (EC). EC is not just about buying and selling; it is about electronically communicating, collaborating and discovering information. It has come to impact a significant portion of the world—affecting businesses, professions, and of course, people. The term EC was coined in the early 1990s when internet became commercialized and users began flocking to participate in the World Wide Web.

The earliest example of many-to-many EC in physical goods was the Boston Computer Exchange, a market place for used computers launched in 1982. It wasn’t until 1994 that e-commerce really began to accelerate with the introduction of security protocols and high-speed internet connections, allowing for much faster connection speeds and faster online transaction capability.²

Internet was introduced in India in 1995 and the first wave of e-commerce started soon thereafter. At about the same time it got its start in the US in an accelerated manner. The most common users were Business-to-Business (B2B) users such as micro and small enterprises (MSMEs) who lacked the requisite financial resources to market their products and services to potential clients through traditional media such as newspapers and television. India’s first online B2B directory was launched in 1996. Trade through B2B portals increased the visibility of MSMEs in the market place and helped them overcome the barriers of time, communication and geography. B2B activities include purchasing and procurement, supplier management, inventory management, payment management, and service and support amongst the organizations as also between organizations and retailers.

¹ Rifkin, Jeremy (2012), ‘The Third Industrial Revolution: How the Internet, Green Electricity, and 3-D Printing are Ushering in a Sustainable Era of Distributed Capital,’ *The World Financial Review*, April 1.

² Hazelton, Bill, ‘History of E-Commerce,’ Spirecast, August 19, 2009.

According to an estimate, these are reaching the level of \$100 billion per annum. The scope of B2B transactions has also broadened over the years, which includes promoting investments, trading in stocks and forging financial alliances.³

Business-to-Consumer (B2C) e-commerce also took off at around the same time in 1996 in the form “matrimonial portals” that were developed to facilitate alliances among Indian families. This initiative was followed by the introduction of online “recruitment portals” in 1997. Internet was proving to be an efficient medium that enabled employers and job seekers to connect with each other. Also, since this medium was faster, it did away with the delays involved in print media. Obviously such initiatives could not be significantly intensified or replicated quickly in other businesses because the supporting ecosystem had yet to be put in place. Internet had yet to penetrate and the user base was small. Also, the slow internet speed was limiting the growth of e-business mode. Slow growth was further compounded by low consumer acceptance of making purchases without “feeling” the product and the supporting logistics infrastructure had still to be developed.

The landscape was to radically change with the introduction of Low Cost Carriers (LCC) in the aviation sector in 2005 giving boost to air travel in India manifold. Travel related information, flight schedules and ticket booking facilities were available online through ICC portals. The Indian Railways had already developed their portal for online ticket booking and for providing travel related information. Thus, Indian travellers got introduced to e-ticketing in a significant way. The benefits of this mode of acquiring tickets over the conventional mode were many: convenient, time saving and also with relatively no cost and time incurred on purchasing the ticket. In India, travellers using public transport constitute a large section from across regions and those transcending economic gradations. The wide scale customer satisfaction in the e-ticketing sector encouraged e-retail and instilled confidence in entrepreneurs to enrich customer experiences by launching multiple online websites in 2007.⁴ The B2C

³ [E-commerce in India: Evolution, Growth and Challenges](http://www.slideshare.net/mslgroup/2ecommerce-in-india-evolution-growth-and-challenges), a Report by MSLGROUP India, a part of the Publicis Groupe, www.slideshare.net/mslgroup/2ecommerce-in-india-evolution-growth-and-challenges

⁴ [Rebirth of E-commerce in India](http://www.slideshare.net/mailforveena/ernst-and-young-rebirthof-ecommerce-in-india-report), a Report by Ernst & Young, www.slideshare.net/mailforveena/ernst-and-young-rebirthof-ecommerce-in-india-report

segment has matured to include a wide spectrum of businesses. Value-wise, this business segment, despite its impressive annual growth over the years, has a long way to go on par with B2B, largely due to high-value transactions in B2B segment⁵. The share of revenues in total B2C until 2011 from the travel segment has been dominant at 81%⁶. Online shopping excluding travel and ticket has been of the order of \$2 billion in 2013 according to ACCEL India and is expected to grow to \$8.5 billion in 2016, i.e. rising annually at 63%. Also, the number of shoppers in this segment would grow from 20 million to 40 million, i.e. a CAGR of 25%. According to ACCEL India, the average value of order jumped from INR 1080 in 2012 to INR 1860—reflecting a jump of 67%; and, it is estimated to be INR 3600—assuring a modest rise of 25% per annum. The rise in average value of order is significant of the growing comfort among customers with e-shopping, especially with segments such as jewellery and home decor. Fashion wear and accessories generated revenue of \$278 million in the year 2012 which rose to \$559 million and is expected to further rise to \$2811 million, reflecting an impressive growth. Revenue generated through mobile phone infrastructures increased eight times in 2013 over 2012 and is projected to be 27 times in 2016. This is reflective of increasing connectivity and mobile website applications. There has been an impressive fourfold increase in women influenced sales in 2013 compared to 2012 and is estimated to be twenty-fourfold in 2016, reflecting inclusion of “special interest” products offered online, for e.g., baby care and motherhood products over and above fashion and jewellery products. Trends suggest that more and more secure financial modes such as credit/debit cards, net banking, etc., are being adopted and the COD (cash on delivery) mode has started declining. Projections made above for e-retail are modest when it transpires that of the 247 million mobile shipments in India in 2013, online sales were only 4 million, i.e. 2 % of the total. The corresponding figures in regard to books were 600 million and 45 million (7%) and in regard to jewellery and fashion wear less than 1% online sales. E-retail business, including average order value per month and the annualized growth rate of online shopping, has increased on a year-over-year basis with increasing internet usage. The number of internet users shot up from 140 million in

⁵ *Op. cit.* 3

⁶ *Op. cit.* 4

2012 to 213 million in 2013 and is projected to be 400 million in 2016. Of the total internet users in India, 60% visit e-retail sites and amongst these, the percentage of buyers as well as the number of orders per buyer has been steadily rising. The Indian e-commerce market has thus begun to mature and displays characteristics close to that of China, which traditionally has conversion rates of 3.5 %. The corresponding figure for the Indian Market is 2.70% (in 2013) and is projected to be 2.90% in 2016. Annualized online shopping is likely to jump to \$8.5 billion from the realization of \$1.9 billion in 2013 and this figure is exclusive of e-ticketing for travel related business.

In India, retail market composition in 2012 was 92% in unorganized sector and 8% in organized sector, of which only 0.2% was online. In 2013, this composition stood at 9.1%, 8.7% and 0.3%. E-commerce is a small sliver of Indian retail.⁷ Therefore, there is tremendous scope for increased share in the online segments, particularly when government is targeting to ensure that every Indian owns a smartphone by the year 2019. The main objectives of the Digital India programme of the Government of India are (i) to ensure that every Indian citizen is digitally connected to the government, and (ii) use the smartphone as a tool for empowering Indians (for doing online retail transactions and providing various other services).⁸ The prospect of buoyancy in e-retail is enhanced by the fact that the working women segment has been growing; in 2013 it constituted nearly 10% of active internet users. Women have traditionally influenced the domestic buying patterns in India, particularly among the mobile middle income groups. The e-retail entrepreneurs are bringing forward more and more products such as baby care, artificial jewellery, home decor, fashion wear and fashion waves and with positive effects on this segment of business. Percentage of young people in the total population of India is another factor that positively contributes to the e-commerce segment. This group prefers to buy latest products online, while also gaining access to special offers, from the comfort of their own surroundings. It is because going over the specifications of the

⁷ [India E-commerce](http://www.slideshare.net/AccelIndiaVC/accel-partners-india-india-ecommerce-insights-march-2014), a Report by ACCEL PARTNERS India, 2014, www.slideshare.net/AccelIndiaVC/accel-partners-india-india-ecommerce-insights-march-2014

⁸ 'Digital India: Government to Ensure a Smartphone for Every Indian by 2019,' Zeenews.com, August 25, 2014.

product of their fancy studying, comparing competing websites, and then arriving at the optimum price is easier and safer than depending on a smooth-talking salesman who may be interested in pushing a product solely on the consideration of his share in the sale profit.⁹ According to an estimate, 40 million young people in the age-group of 19–24 may be drawn to e-purchasing in the next three years.¹⁰

In the same vein, many regions of the country such as North East, Central India, Coastal Orissa, Hill States in the Himalayan region and areas of Rajasthan & Gujarat in western India have tremendous potential of entering the e-retail segment once internet penetration gets its way and smartphones become freely available.

Currently, only 17% Indians use internet compared to 50% in Brazil, 66% in Russia and 40% in China and percentages shopping online are 9%, 31%, 45% and 47% respectively. The size of the Indian e-commerce market is \$1.88 billion compared to \$13 billion (Brazil), \$16 billion (Russia) and \$106 billion (China) and the average expenditure by an individual in these countries is \$93, \$421, \$533 and \$380 respectively.

It transpires from the preceding paragraph that internet retail is not a new phenomenon in India, it saw its share of popularity in the late nineties and in the early 2000s with the success of matrimonial and recruitment facilitation sites followed by e-ticketing sites which are still performing well. In other sectors, on the one hand, there were multi-media portals largely catering to the needs of the NRI's looking for means to send gifts to India; on the other hand, the average Indian kept himself/herself away from actual purchase, not being sure of the quality of products ultimately delivered and with no assurance of customer service.

Over the years, the scenario has changed. Internet penetration is surely accelerating and there is a generational change. That is, today's generation spends hours in front of a screen—be it a computer or a smartphone—not only in search of products which catch their fancy, but also to be ahead of others before the products are

⁹ Kashyap, Nitisha, 'Delhi Guys Beat Girls to Online Shopaholic Crown!' *The Times of India (Delhi Times)*, September 17, 2014.

¹⁰ *Op. cit.* 8

launched in bricks-and-mortar stores. Entrepreneurs, too, on their part are “alive” to respond to customer demand and are eager to win their loyalty through assurance of better customer care and service. Also, web portals are designed in such a way that they can delight and attract the average consumers.

Online retail market has its own unique models—varying from vertical focused players dealing in specific categories such as apparels, electronics and baby products to multi-category players dealing in multiple categories.¹¹ Some entrepreneurs maintain their own websites to provide merchants with functional “virtual” stores to sell products, including merchandise. It is, in its most literal sense, like creating a virtual mall environment. Participating merchants play up on the brand value built by the owner of the website not just to introduce and vend their products, but also to garner interest of those who generally indulge in virtual window shopping. Traditional brick-and-mortar stores can also extend their reach beyond physical confines. In such malls, each seller (merchant) quotes a price and defines the products. However, the billing and delivery infrastructure is common for all merchants listed on a particular website and is carried on a cost-sharing basis between the merchant and the individual hosting the site.

In the early years of e-retailing in India, e-retailers prepared web catalogues of products offered by their partner merchants and displayed them on the portal. Once an order was placed, the concerned merchant was notified who would then supply the goods to the customer. Such early entrants in the field of e-retail were spared of investment on warehousing and inventory costs and also on logistics. However, such an arrangement did not provide to the e-retailer control over timely deliveries and quality of the product actually dispatched. The new age customer demands utmost assurance of timely and quality supply including the right to return the unsatisfactory supplies at the vendor’s cost. Thus, more and more e-retailers prefer the inventory holding model, which enhances their ability to honour their commitments to the customers. Part of the enhanced cost of maintaining inventory is met by their ability to order in bulk, qualifying them for higher discounts on the purchases made. Such e-

¹¹ *Op. cit.* 4

retailers, as they analyse customer demand pattern, can price the retail items to their optimum advantage.

As per global trends, with the increasing penetration of internet and easy availability of affordable smartphones, there is bound to be accelerated growth in e-commerce. In fact, it may outstrip the projections being made, provided the related logistic framework keeps pace with the spread of internet. It is reported that in 2013, the number of parcel checkouts in existing e-commerce portals exceeded 100 million. In years to come, not only would parcel checkouts increase remarkably, but also the rising competition would force e-retailers to operate on shorter timelines—consistently and predictably—at negligible delivery costs to them at their doorsteps along with traceability solutions and convenient reverse logistics. There is obviously an urgent need for capital investment to place operational assets in position, which are capable of accommodating vagaries of e-commerce customer orders such as free delivery, order rescheduling, cancellation, returns and cash on delivery with the features of traceability while minimizing turnaround time. A distinguishing characteristic of e-retailing is the proliferation of delivery points and the need to move small parcels to these delivery points spread across the country and at affordable cost with the shortest turnaround time.

A pertinent feature of the Indian Market is that, at present, FDI in B2C segment of e-commerce is not allowed but there is no such barrier in B2B segment. Thus, inventory led e-retailing cannot be supported by FDI whereas market based e-retailing can get such support. More and more e-retailers on date are practising marketplace models with suppliers' storing on their behalf and delivering as per the requirement projected by the retailer. In order to build an efficient delivery system under the present scenario it would be best to convert inventory stocks into parcels of varying sizes and pushed down the chain efficiently without drying up at any of the intermediate nodes in the downward stream. The balance between inventory and the flow of stock to the supply nodes would then be dynamic and the motion of this flow would be dictated by the vagaries of the orders of the customers. Upstream management has to be sensitized to the "push" by the customer to pass the

equivalent stock down the chain. The design of such a network would also be dynamic as more and more products of varying shelf life and considerable urgency get included. Similarly, there would be particularized requirement depending upon the size, dimensions and fragility of products in an environment of heightened commercial activities on the emergence of intermediate supply and production nodes.

With the expected take-off of the e-retail business (transcending to Tier II and Tier III towns), e-commerce majors like Flipkart have set up captive logistic businesses, e.g. E-kart, and have gone ahead with setting up of regional warehouses with the intention of increasing the supplier base across the country to achieve low transportation cost by ensuring delivery from the nearest supplier or regional warehouse. Similarly, Amazon India is building capacities with its logistic arm Amazon Logistics. However, in the long run even such enterprises would have to have third parties to supplement their reach to cover the entire country and also maintaining rational delivery costs. Ebay has successfully entered into service level agreements with third party logistics companies and also courier companies in preference to a captive logistics setup of its own. With the exponential growth in e-retail on the horizon, major third party logistics companies like Gati, DHL, FedEx, UPS, would play a crucial role in the last-mile delivery.

Increasing projections of e-retail across the country should be a wake-up call for the Airport Authority of India to include the possibility of increased flow of sorties from the logistics companies supporting e-retail while the Authority plans for air connectivity to smaller towns. Similarly, while Railways run parcel trains at their end, it should be ascertaining the requirements of this segment of the economy.

The activities surrounding e-commerce would have a spill-over to infrastructure and logistics, which will be towards warehousing, sortation and delivery contents. This will create 75000 additional jobs during the period 2017–20, over and above the existing level of around 25000.

Though the profit margins in e-retail business in India have not been significant, there are large expectations. Global e-retail giants like Rakuten and Alibaba are eyeing an entry into the Indian e-retail market taking cue from Amazon, which announced a USD 2 billion investment operating on marketplace model (B2B). Fructification of FDI investments by global giants in B2B mode would result in better infrastructure and robust supply chains.¹² Walmart, through its B2B e-commerce segment, has planned to roll out the online e-commerce platform to members of its Best Price Modern wholesale stores in Guntur and Vijaywada—expanding on the facilities already available in Lucknow and Hyderabad.¹³ Snapdeal will hire 1000 software engineers and set up at least three new development centres in the country as part of its plans to plough marquee investor funding into building proprietary, disruptive technologies to make online shopping even more seamless for consumers. This addition of engineering talent, which seems to now form the backbone for most e-commerce companies, is happening as Snapdeal nears a run rate of \$2 billion (Rs 12,000 core) in annualized sale. Snapdeal has a registered user base of 25 million and seller base of 50,000; which is expected to double in the next six months. The e-tailor, which has investors like Ratan Tata and Azim Premji, will hire 400 engineers in Bangalore to set up its second development centre next to the one in NCR which employs 300 engineers. Pune and Hyderabad are other cities which the company is looking at to set up development centres in.¹⁴

While the growth potential of e-commerce in India is tremendous, there is intense competition in the market because the increasing access to information allows consumers to find the most competitive price for a product/service, thereby increasing the satisfaction level. Operators who are unable to invest in technology and infrastructure to maintain the loyalty of the ever-demanding consumers would have to bow out by merging or assimilating with the operator who has superior staying power. Thus, mergers and acquisitions in the e-commerce segment in India have been significant. Mergers and acquisitions in the Indian e-commerce space so

¹² Evolution of E-commerce in India: Creating the Bricks behind the Clicks, a Report by ASSOCHAM & PWC India.

¹³ 'Wal-Mart E-commerce Push to go PAN-India,' *Hindustan Times*, September 21, 2014.

¹⁴ Dhamija, Anshul, 'Snapdeal to Hire 1,000 Software Engineers in 12 months,' Tech News, *The Times of India*, September 20, 2014.

far, including 2014, have increased 187 per cent, compared to 2013 (the entire 12-month period). The year 2014 has already seen six deals (worth \$310 million), as against 12 deals (worth \$ 108 million) last year. Mergers like that between Flipkart-Myntra seem to be a “strategic move” triggered off by common investors of the merging companies, namely Tiger Global, Accel Partners, Sofina with a view to fight Amazon and be proactive to take on the challenges that would be brought on in the technology, logistics, retail and brand segments. Existing e-commerce companies will have to scale much more to be bought out.¹⁵

The Alibaba Group of companies handling e-tailing business in China has created history with their outing at New York Stock Exchange (NYSE) by coming up with the biggest IPO ever—raising USD 28.8 billion on 14th September whose valuation was put at USD 223 billion. The success story of Alibaba Group at NYSE is reflective of the robust growth of the Chinese e-commerce industry. China has emerged as a leader among all other countries in B2C and C2C purchases and the year 2013 will be remembered as the one in which China surpassed the US as the world’s largest digital retail market. In regard to the growth of e-tailing in China, Jack Ma, founder of Alibaba, expressed: ‘In other countries, e-commerce is a way to shop. In China it is a lifestyle.’ A little over a decade ago, China’s path to e-commerce leadership would have been difficult to foresee. In 2000, China had yet to develop e-commerce applications and had only 2.1 million internet users. Payment systems and physical delivery systems, too, were yet to develop. But in 2013, the picture changed drastically with 600 million internet users, and, revenue growth between 2009 and 2012 was above 70 per cent compounded. By 2015, e-commerce transactions in China are projected to hit USD 540 billion, 10% of retail transactions, and by 2020, China’s e-commerce market is forecasted to be larger than that of US, Britain, Japan, Germany and France combined. China has its share of homegrown e-commerce players and occupies a sizeable share of the Chinese e-commerce market; in fact, China handles a greater number of transactions than its well-known global competitors. Alibaba is one of those homegrown companies and the total merchandise sold by them in 2012 was greater than that of eBay and Amazon

¹⁵ Balakrishnan, Reghu, ‘VCs Ride on E-commerce Mergers,’ *Business Standard*, May 29, 2014.

combined. In 2016, it may surpass Walmart as the number one retail network in the world. Its C2C company Taobao, created in 2003, does not charge any commission from either the seller or the buyer and runs on the revenue generated through online advertising; it is China's C2C market leader with 80% market share. Taobao's B2C company Tmall, created in 2008, has grown to account for 51% of B2C market in China and is a virtual mall which allows merchants to set up their own-brand pages (instead of creating standalone websites) on a commission basis. These two companies together dominate the Chinese market and sell anything from sports cars to shoe laces.^{16, 17} Such a spectacular performance would not be possible but for the concerted social media influencing consumer behaviour, smartphone proliferation and secure payment portals. Further, the introduction of advanced electronic tools would help develop a robust delivery infrastructure as part of the move towards revenue sharing among the participating partners. Thus Alibaba, with its success with IPO, would have necessary capital to expand its reach in a technology-enriched environment. The Indian majors can expect challenges and opportunities to come their way. The Indian e-commerce market, by world standards, is yet to flower; nevertheless, it has immense potential with digitalization policy as the primary goal of the government. Market is poised for further consolidation as major players from US and China compete to enter the market. Manufactures from outside India would be the ultimate gainers because the growth of manufacturing in India has been on the decline. Chinese companies have major incentive to seek foothold in India as their manufacturing sector would be further boosted by whetting the appetite of the growing internet-enabled middle class in India.

E-commerce has narrowed down the role of intermediaries between buyers and sellers to the mutual benefit of both parties. Internet technology lowers transaction costs.¹⁸ There is added stimulus to employment creation and infrastructure

¹⁶ E-commerce in China: Driving a New Consumer Culture, KPMG, 2014.

¹⁷ Hoffmann, Serge, Bruno Lannes and Jessica Dai (2012), China E-commerce: Heading toward RMB 1.5 trillion, a study by Bain & Company.

¹⁸ Earlier, the process of addressing and stuffing envelopes or putting up posters or distributing handbills, and so on, proved to be expensive and time consuming. But now, thanks to the internet-based social networking system, it has not only become easy to disseminate information to both vendors and customers, but also makes do with much less administrative overhead.

development. New market opportunities are emerging. Thus, e-commerce has strong implications at micro and macro levels. Sumanjeet in his paper¹⁹ has highlighted strong implication of e-commerce on economic and social activities with the potential to transform the future of economic and societal landscape. This paper has taken up some areas of economy, e.g. transportation, intermediation, agriculture, labour market, taxation, cost, price and competition, and money. There is evidence of efficiency gains in resource use and allowing higher consumption resulting in higher growth. With e-commerce comes cost reduction, be it search cost, administration cost, distribution cost or even labour cost. However, all these opportunities are yet to materialize into profitability, e.g. in agriculture sector. The area of e-taxation is a challenging concern, both domestically and internationally. With the emergence of growth of digital money in the economy, the chances of fraud may increase.

¹⁹ Sumanjeet (2011), 'Emerging Economic Models in the Age of Internet and E-commerce,' *Global Journal of Business Management and Information Technology*, Vol. 1, No.1, Pp. 53–68.