



STATUS AND SCOPE OF E-COMMERCE IN AGRIBUSINESS IN INDIA

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ABSTRACT

In today's agriculture and the food supply chain in general, there appears a history of quick adoption and assimilation of new technologies, especially cost reduction technologies. Agriculture was identified as one of the great promises of e-commerce due to the high level of fragmentation present in the supply chain, large volumes traded, and homogeneous products only reinforced the expectations. Internet technology has provided the possibility for cost reduction and demand enhancement along the food supply chain through the use of e-commerce. This paper encapsulates the status of Information Technology and Agriculture in India, e-business platform for Indian Agriculture market and challenges as well as strategies in adoption of e-commerce in agribusiness sector in India. The present study starts with a pitching to e-commerce and agriculture along with general framework for e-commerce adoption followed by different business models supporting e-commerce adoption. But e-commerce is still relatively primitive, but today more and more companies want to publish on the Internet itself, as this is essential to remain competitive.

Key Words: E-Agribusiness, Agriculture, e-business, e-marketing and Supply- Chain

Introduction

The successful of internet Information and Communication Technology (ICT) together with Internet is making it possible to share vast amount of knowledge and information and is driving all round socio-economic changes and growth. There has been a tremendous rise in the Global internet usage and for a developing country like India this growth has been phenomenal. In the world, India is the third largest base with internet users of around 120 million. By 2015, India is expected to have an incremented growth with 320- 360 million internet users making it the second largest user base in the world. With the prospective to double its economic contribution from the Internet in the next three years, India's GDP will grow from 1.6 percent to 2.8 to 3.3 percent by 2015. India can achieve a broad-based Internet impact by aiming for the digital inclusion of nearly 40 percent of its population, to reach a user base of 500 million by 2015, rather than the likely target of 330 million to 370 million.

Indian Economy has a major contribution from the agricultural sector. Research, extension and farmer's efforts all contributed significantly to increase the food grain production from 50 million tons in 1950-51 to land mark achievement of an estimated production of 275 million tons of food production in 2017-18. The entire requirement for food grains is proposed to touch 300 million tons by the year 2020-21. To meet this high demand a proportional growth rate of nearly 2 per cent per annum is required in food grain production and a 4 per cent per annum growth rate is required in agriculture. So there is an urgent need of pulsating, active and inventive approach that need to adopted to achieve a growth rate in agriculture and thus the farmers are served better. National policy on ICT in agricultural extension set up by the government has looked forward to transform agriculture into a driving force for improved economic growth within a market-oriented policy framework by promoting agriculture commercialization and diversification. The government introduced a number of policies to resolve critical issues restricting the agriculture performance, including:

1. Development of agricultural information based websites to give information about various crops, soil conditions, weather and pesticides.

2. Strengthening of India's agricultural marketing system by publishing daily market information, such as minimum, maximum and modal prices for commodities and their varieties.
3. Establishment of gyan-choupals (knowledge centers) in villages for effective and timely transfer of knowledge to farmers.
4. Use of modern information technology to promote communication between researchers, extension workers and their farmer clients for cost effective transfer of technologies and information.
5. Envision services in agriculture as a Mission Mode Projects (MMP) in order to provide information to the farmers on pesticides, seeds, different government schemes, eco-friendly fertilizers, recommendations on soil fertility, effective management of crops, Weather and agriculture produce marketing.

The direct effect of these policies is the ability of the agricultural stakeholders to contact, collect, analyze and use information to understand market signals and respond to it appropriately. First step is to improvise the available information system in all its different phases that is from the collection of commodity price in various key markets, analyzing the information that is received and finally broadcasting the information to farmers. Second step is the right application of the available price information on market development so that there will be an improved production choice and intelligent selling on product during non-peak periods.

An increasing number of agribusinesses are looking to the Internet as a marketing, management, service, and coordination tool. As a business tool, the Internet has proven to be an enamoring concept for many individuals and corporations. Presence online is increasingly seen as a necessity to business existence.

Goals are expressed as garnering more customers, increasing public awareness of the company and its products, promoting strategic or policy-related positions, and selling more products. There are many widely varying predictions of the potential of doing business over the Internet. Yet, confusion abounds concerning exactly what is happening, how much potential exists, and what businesses should be doing to take advantage of it. The very nature of e-Business can be confusing, even to the experienced marketer. Both suppliers and customers perceive many

obstacles to successful e-Businesses, e-Marketing, or e-Commerce. In order to successfully cultivate online market share, companies are compelled to design marketing strategies specifically for the Internet economy. Early evidence indicates building new market models based on rapidly changing technologies is not easy. Therefore, the purpose of the paper is to compare traditional business and E-Business models and integrated strategies based on the current literature and industry discussions of the most appropriate models.

At present, most of the elements of e-Agribusiness have been around in practice and literature for years. Yet, their unique application in the context of rapid technological change made it relevant to compose definitions of the following terms:

e-Business: business that uses computer media and involves a minimum of two players. e-Business focuses on management and strategy. e-Marketing, e-Commerce, and e-Agribusiness are subsets of e-Business.

e-Marketing: moving elements of marketing strategies and activities to a computerized, networked environment such as the Internet. In more detail, e-Marketing is the strategic process of creating, distributing, promoting, and pricing goods and services to a target market over the Internet or through digital tools.

e-Commerce: business conducted over the Internet in which a financial transaction or binding commitment to exchange of goods/services occurs. e-Commerce is a subset of both e-Business and e-Marketing as shown in the following e-Business Continuum.

Agribusiness: includes the agricultural input sector, the production sector, and the processing manufacturing sector: farmers, providers of farm inputs, processors of farm outputs, manufacturers of food products, and those who transport, sell, and/or prepare food products

e-Agribusiness: is simply an e-Business that has a focus on agricultural goods or services.

Growth of e-Commerce in India

The e-Commerce sector has seen unprecedented growth in 2014. The growth was driven by rapid technology adoption led by the increasing use of devices such as smartphones and tablets, and access to the internet through broadband, 3G, etc. which led to an increased online consumer base. Furthermore, favored demographics and a growing internet user base helped aid this

growth. In terms of highlights, the growth shown by homegrown players such as Flipkart and Snap deal and the huge investor interest around these companies displayed the immense potential of the market.

With the entry of e-Commerce behemoths such as Amazon and Alibaba, the competition has further intensified. Both these international players come with deep pockets and the patience to drive the Indian e-Commerce market. Also, their strong domain knowledge and best practices from their international experience give them an additional edge. Additionally, these companies have been part of markets where they have seen the e Commerce market evolve and are aware of the challenges and strategies to address issues thereof. Indian companies realize this, and are therefore aiming to continue their focus on expanding sellers and selection on their platforms, innovating on multiple customer touch points, and providing seamless and rapid delivery services in order to compete with the international entities. Competition is expected to continue, with these e Commerce companies experimenting with different ways to attract customers and increase online traffic.

The Indian government's ambitious Digital India project and the modernization of India Post will also impact the e-Commerce sector. The Digital India project aims to offer a one-stop shop for government services that will have the mobile phone as the backbone of its delivery mechanism. The programme will give a strong boost to the e Commerce market as bringing the internet and broadband to remote corners of the country will give rise to an increase in trade and efficient warehousing and will also present a potentially huge market for goods to be sold. For India Post, the government is keen to develop its distribution channel and other e-Commerce related services as a major revenue model going ahead, especially when India Post transacted business worth 280 crore INR in the cash-on-delivery (CoD) segment for firms such as Flipkart, Snap deal and Amazon. Both these projects will have significant impact on increasing the reach of e Commerce players to generally non-serviceable areas, thereby boosting growth. India's overall retail opportunity is substantial, and coupled with a demographic dividend (young population, rising standards of living and upwardly mobile middle class) and rising internet penetration, strong growth in e-Commerce is expected. From an investment perspective, the market is a primarily minority stake market, with maximum traction in early-stage deals. Such early stage funding will help companies develop a strong foundation to start from. With such

strong market prospects and an equally upbeat investor community, we look forward to many more e-Commerce companies from India entering the coveted billion-dollar club.

e-Business Models Defined

The three e-Business markets most commonly discussed are – Business-to-Business (B2B), Business-to-Consumer (B2C), and Consumer-to-Consumer (C2C). Decisions on the business model are driven by the market the e-Business is entering, plus product, firm, and industry attributes. These are critical because of implications on the integrated strategies of a firm. Media reports and literature from the past two years show the consequences of not adequately evaluating business models – well-profiled downfalls of e-Businesses now blamed on the application of unsustainable business models. The desire for first-mover advantage drove much of the early dot.com craze. Business models were centered on using unique technical ideas to capture large amounts of venture capital available in a robust economy, regardless of the business viability of the idea. Some firms were simply launched with the idea of burning through venture capital and making profit on the “flip” – sale of the intellectual assets to another company who might or might not apply them to a productive business venture. Businesses are now beginning to understand that first mover advantage should not be priority (Butler, 2001) there may be first mover disadvantages. Hanson (2000) describes two main business models for an e-Business: the improvement-based model and the revenue-based business model. Improvement-based ventures use the Internet to create internal efficiency savings, increase marketing effectiveness, and change consumers’ attitudes. These are indirect benefits because they do not immediately lead to a new sale and do not immediately generate revenue from customers. Yet, cost savings and efficiency are often major reasons firms attempting e-Business. Other leading reasons for improvement-based Internet ventures are category and brand building, expanded customer service, and product enhancement through online information or products. Revenue-based business models on the Internet take either the provider-based revenue approach or the user-based approach. Provider-based models have fees paid to the web site by other companies wanting to reach the site’s users – content sponsorship and retail alliances are prime examples. Revenues in user based models come directly from transactions – product sales, pay-per-use fees, user subscriptions, and bundled sales.

Online Business Models

To get the maximum benefit from e-Commerce business, a large number of companies are adopting different innovative ideas and operating models including partnering with online marketplaces or setting up their own online stores. Some key operating models include the following:

- Marketplace and pick-up & drop is a model where sellers often partner with leading marketplaces to set up a dedicated online store on the latter's website. Here sellers play a key role of managing inventory and driving sales. They leverage on high traffic on the marketplaces' website and access their distribution network. However, the sellers have limited say on pricing and customer experience.
- Self-owned inventory is a model where the e-Commerce player owns the inventory. The model provides better post purchase customer experience and fulfilment. It provides smoother operations due to ready information on the inventory, location, supply chain and shipments, effectively leading to better control over inventory. On the flipside, however, there are risks of potential mark downs and working capital getting tied up in inventory.
- Private label reflects a business where an e Commerce company sets up its own brand goods, which it sells through its own website. This model offers a wide-ranging products and pricing to its customers and competes with branded labels. Here, margins are typically higher than third-party branded goods
- White label involves the setting up of a branded online store managed by the e Commerce player or a third party. The brand takes the responsibility of generating website traffic and providing services by partnering with payment gateways. It helps build trust, customer affinity and loyalty and provides better control of brand and product experience.

E Business Strategies

Differentiation Strategy	Merits	Demerits
Gain Speed and mover advantage	Cutting edges, meeting needs, decreasing risk, lowering price	Requires Flexibility, increases risk, may require a large amount of capital
Build Brand name	Easy name recognition, gives buyers assurance	It requires a large amount of capital
Use Portal development	Builds barriers entry	Requires a large amount of capital, delaying profitability
Pursue niche strategies	Focus and become an expert in one competitive arena	It may be risky
Enhance Customer relationship	Build barriers to entry, can meet customer needs better	Possible loss of power

Application of e-Agriculture

Application of e-Agriculture encompasses all agriculture and infrastructure projects in which ICT has the potential of enabling the empowerment of the community. Such as:

1. Providing Internet Demand Based Agriculture Information through ICTs helping farmers to access information on commodity prices.
2. Practices for cultivation crop care and in forging direct relationships with potential buyers in order to provide better value for their produce.
3. Helping farmers to access information on commodity prices.
4. Multipurpose community centres enhancing access to the farming community.
5. Information related to not only agriculture but also impacting other areas of life such as education, health and products required for daily needs besides facilitating between the village community and the rest of the world.
6. e-Agriculture also provides information needs of various players in the agri value chain.

Scope of e-Agribusiness

1. There is a great scope for e-agribusiness in agriculture, specially in horticulture and processed products. Mango, grapes, spices etc. has large demand in national and international market.

2. Products like sugar, tea, processed agri. products, dairy products beverages etc can also sold online to gain more profit.
3. Farmers get up-to-date information about the market and can sell their produce through the electronic medium.

Major Advantages of e-Agribusiness

1. **Global Market:** e-Agribusiness provides a virtual global distribution market place. Internet is used by millions of people throughout the world and therefore, conducting business through this new system is unlimited and endless.
2. **Inventory Costs:** e-Agribusiness helps to minimize inventory costs many times by adopting just in time systems. It also enhances the firm's ability to forecast demand of an industry more accurately.
3. **Consumer Service:** The cost incurred towards customer and after sale services generally account for not less than 10 % of the operating costs under e-agribusiness. Many of the services may be put on line along with improvement in product / service in quality.
4. **Distribution Period:** Under e-Agribusiness, the customers place orders immediately on the net and goods are delivered under normal way.
5. **Easy reach:** With the help of internet small and medium size companies also get an opportunity to provide information on its products and services to all the potential customers in the world over with a minimum cost.
6. **Direct link:** Through internet, companies can establish a direct link to customers and critical suppliers or distributors to complete transactions or communicate trade information more easily.

Obstacles in e-Agribusiness

1. Computer illiteracy and unawareness about e-commerce.
2. Problems in internet connectivity.
3. Language problems.

4. Load shedding of electricity.
5. Persistence of middlemen in supply chain of agriculture.

Evolution of e-Agribusiness

The evolution of e-commerce in the agribusiness sector is picking up slowly due to certain factors such as rate of adoption of internet by producers as well as consumers as a business tool; their scale of operations and the size of the market. Evidence suggests that producers with large-scale operations are migrating online. Another factor is the magnitude of the benefits accruing to participants in e-commerce. Although it is probably too early to tell which model will dominate, online companies have the potential to become vast hubs of economic activity linking the supply chain within a vertical industry segment and connecting with horizontal supply chains operating across industries. In the process, some of the third party e-agribusiness sites are likely to fail because of strategic and operational constraints, inefficiencies in operation or shortage of capital. E-commerce is not just business but more about strategy than technology. The current dotcoms could be replaced by business that have integrated the Internet into their strategy and achieve real financial returns. It does certainly appear that the foundation “bricks” (traditional agriculture) of agriculture are beginning to view e-commerce as a business imperative. The traditional agribusiness companies have strong market share positions as incumbents and some are determined to fight to retain their customers. After a slow start in the e-commerce arena, there has been a flood of announcements from traditional agricultural companies regarding the creation or unveiling of B2B strategy. Some companies with significant market share as buyers are also establishing procurement sites. Live examples that can be quoted here are the e- Choupal of ITC and procurement sites of Cadbury India Ltd.

The Important top 10 things the e-Commerce companies need to do to accelerate growth

Customer Experience

As the customers progress from research to purchase to fulfilment stages, their expectations change fast. e-Commerce companies need to understand these change drivers and adapt their proposition accordingly. Easy transitions between ordering on tablets, mobile phones or PCs will have to be facilitated. Besides, convenient multichannel returns and delivery options need to be developed along with the provisions of touch and feel the product before buying. They should

also ensure sufficient after sales service and support. Online product reviews and ratings, videos, more advanced sizing and fitting tools should be provided.

Technological Advancements

e-Commerce companies constantly have to upgrade their offerings with changing technology. For instance, shopping through mobiles have truly arrived, they need to devise easy to use mobile apps for their websites. They need to ensure that their websites have the required speed to do fast business, especially during sale, deals and discounts. Solutions enabling seamless integration of back-end and front-end infrastructure, customer experience enhancement initiatives, integrated inventory management and analytics would be crucial for the e-Commerce firms.

Convergence of online and off line channels

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Delivery Experience

With lack of integrated end to end logistics platform, the e-Commerce industry is facing issues related to procurement operations and transportation. Online purchases from Tier-2 and Tier-3 cities are expected to significantly increase, thanks to the emergence of low cost smartphones. However, poor last mile connectivity could act as a deterrent. Keeping control on logistics and on ground fleet management, especially courier companies, is essential for growth.

Payments and transactions

India continues to be a cash-based society due to limited banking and credit card penetration. This, combined with a lack of consumer trust in online merchants, has forced companies to offer CoD services, which imposes significant financial cost for firms in the form of labor, cash

handling and higher returns of purchased items. Data protection and the integrity of the system that handles the data and transactions are serious concerns. Companies should take necessary action for management even if this imposes a cost on them.

Tax and Regulatory Environment

Laws regulating e-Commerce in India are still evolving and lack clarity. Favorable regulatory environment would be key towards unleashing the potential of e-Commerce and help in efficiency in operations, creation of jobs, growth of the industry, and investments in back-end infrastructure. Furthermore, the interpretation of intricate tax norms and complex inter-state taxation rules make e-Commerce operations difficult to manage and to stay compliant to the laws. With the wide variety of audience, the e-Commerce companies cater to, compliance becomes a serious concern. Companies will need to have strong anti-corruption programs for sourcing and vendor management, as well as robust compliance frameworks. It is important for the e-Commerce companies to keep a check at every stage and adhere to the relevant laws, so as to avoid fines.

Operational framework

Business models have been evolving rapidly in the e-Commerce sector largely due to heightened competition and the inability of players to sustain high costs. Companies in e-Commerce will need to adapt and innovate constantly to sustain their businesses. Furthermore, several of these companies entered into the e-Commerce industry as startups and have grown to a huge size aided by the continuous growth in the market but lack well defined capabilities and organizational structure. System building, financial and talent management become key.

Customer acquisition

The customer acquisition costs in Indian e-Commerce have been climbing rapidly due to intense competition between multiple well-funded players. Only 2% of website visits currently result into transaction. Thus, there is a gap between potential and actual buyers. Coupled with high transaction costs, this area could pose serious problems. In the US, 75% of consumers have stated that they will usually switch between brands, and for the rest of the world, this rate is 60%, according to Ecommerce Foundation. This suggests companies should constantly work on their brand positioning.

Conclusion

It is concluded that how internet based e-commerce will transform agribusiness is still indeterminate. Supply chains may become more efficient. Stronger connection between producers and consumers may result in more differentiated products that meet consumer needs. E-commerce offers an alternative venue of promoting and marketing agricultural products that has a benefit of reaching extensive geographical populations and providing detailed product information at a relatively low cost. Markets may become more transparent. As the Internet transcends geography the globalization of the sector may become a reality. Transformation is about change and change creates winners and losers. The winners will be the fast innovators best serving consumer's needs. The losers are likely to be those unwilling to catch this powerful technological tool and adopt the trend. As Charles Darwin says, "It's not the strongest of the species that survives, nor the most intelligent; it is the one most adaptable to change".

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