



eCommerce and Avenues for CAs¹

Investments in Information Technology are continuously increasing with more and more enterprises as also the government opting to ride the digital wave. The rapid growth and confluence of information with communication technology has made cheaper information processing power readily and remotely accessible to all, making the world a global village with no barriers or boundaries. This integrated use of information with communication technology has increased the pace of transactions and services being provided digitally, not only by private and public enterprises but also by government entities. Information and Communications Technology (ICT) is opening new vistas of commerce breaking all barriers and boundaries in line with the phrase: "Geography is History". Business and Commerce, which was transacted in the physical world, is now becoming more and more electronic, resulting in new ways of delivering products and services to customers and integrating with vendors. eCommerce has become a buzz-word for Indian enterprises and it is an integral part of our daily life. The central and state governments have also initiated various measures for providing online services to citizens using the electronic medium. There are large number of websites providing any number of goods and services online. The Information technology Act 2000 among other things provides legal recognition for electronic transactions thus enabling growth of eBusiness and eCommerce in India. It is projected in the near future that enterprises which do not have a digital presence may not have a physical presence. This article provides an overview of eCommerce, types of eCommerce, benefits and risks and the role of auditors and accountants.

eBusiness and eCommerce

eBusiness: eBusiness can be defined as the integration of Web technologies with the various business processes of business. Business process can encompass the set of activities, which accomplish the marketing, sales, finance and manufacturing functions, etc. The synergy of business and technology is the single most important characteristic of eBusiness. Key business processes are being transformed through the use of Internet technologies. The transformation that occurs is what is known as eBusiness. eBusiness utilises information intelligence for identifying workflow efficiencies, monitoring competition, building partnerships, and marketing strategically. It involves electronic coordination of the distribution channel to work with suppliers and partners in delivering products effectively and efficiently to customers. eBusiness supports the integration of customer data at each point of interaction to strategically identify characteristics and preferences. It promotes optimisation of office operations such as order processing, purchasing, inventory management, and invoicing in reducing the cost of doing business.

eCommerce refers to the use of technology to enhance the processing of commercial transactions

between a company, its customers and its business partners. eCommerce is changing the way business is conducted. Traditional sources of competitive advantage are now being supplanted with the power and control shifting from suppliers to customers. Global markets are now accessible to even small enterprises and the traditional role of middlemen is getting drastically reduced. Many of the products and services, which were physical, are now available in electronic mode. eCommerce is a composite of technologies, processes and business strategies that facilitate the instant exchange of information within and between enterprises thereby strengthening the relationships with buyers, making it easier to attract new customers, improving and at times innovating service delivery to markets on a global scale.

However, it may be noted that quite often the terms eBusiness and eCommerce are used interchangeably.

eGovernance initiatives by Government

A brief overview of eGovernance initiatives by government at strategic levels are highlighted here.

eGovernance in India has steadily evolved from computerisation of Government Departments to initiatives that encapsulate the finer points of

¹ CA A. Rafeq: The author is a member of the Institute and can be reached at rafeq@vsnl.com.

Governance, such as citizen centricity, service orientation and transparency. Due cognizance has been taken of the notion that to speed up eGovernance implementation across the various arms of Government at National, State, and Local levels, a programme approach needs to be adopted, guided by common vision and strategy. This approach has the potential of enabling huge savings in costs through sharing of core and support infrastructure, enabling interoperability through standards, and of presenting a seamless view of Government to citizens.

The National eGovernance Plan (NeGP), takes a holistic view of eGovernance initiatives across the country, integrating them into a collective vision and a shared cause. Around this idea, a massive countrywide infrastructure reaching down to the remotest of villages is evolving, and large-scale digitisation of records is taking place to enable easy, reliable access over the Internet. The ultimate objective is to bring public services closer home to citizens, as articulated in the Vision Statement of NeGP. "Make all Government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realise the basic needs of the common man"

The eBiz initiative, being piloted by the Department of Industrial Policy and Promotion, seeks to provide comprehensive Government-to-Business (G2B) services to business entities with transparency, speed, and certainty. It aims at reducing the points of contact between business entities and Government agencies, standardising "requirement information", establishing single-window services, and reducing the burden of compliance, thereby benefiting stakeholders such as entrepreneurs, industries and businesses, industry associations, regulatory agencies, industrial promotional agencies, banks and financial institutions, and taxation authorities.

Benefits of eCommerce

eCommerce has its own challenges of implementation and risk management. However, successful implementation can provide immense benefits to enterprises. Some of the key benefits are given below:

- Reduction in costs to buyers from increased competition in procurement as more suppliers are able to compete in an electronically open marketplace.
- Reduction in errors, time, and overhead costs in information processing by eliminating requirements for re-entering data.

- Reduction in costs to suppliers by electronically accessing on-line databases of bid opportunities, on-line abilities to submit bids, and on-line review of rewards.
- Reduction in time to complete business transactions from delivery to payment.
- Reduction in inventories and reduction of risk of obsolete inventories as the demand for goods and services is electronically linked and implementation of just-in-time inventory and integrated manufacturing techniques are made possible.
- Reduction in overhead costs through uniformity, automation, and large-scale integration of management processes.
- Reduction in use of ecologically damaging materials through electronic coordination of activities and the movement of information rather than physical objects.
- Reduction in advertising costs, delivery cost, notably for goods that can also be delivered electronically and reduced design and manufacturing cost.
- Creation of new markets through the ability to easily and cheaply reach potential customers.
- Easier access into new markets, especially geographically remote markets, for enterprises regardless of size and location.
- Better quality of goods as specifications are standardised.
- Faster time to market as business processes are linked thus enabling seamless processing and eliminating time delays.

Risks of eCommerce

Despite the key benefits of eCommerce, there are a number of risks which cause concern for management and which need to be mitigated by implementing appropriate remedial measures. The risks associated with eCommerce are multi-faceted. The perception of risks is likely to be different to different people depending on who they are and what they do in business. To implement eCommerce by using available technologies for business advantage is a business decision and not a security issue. Implementing right level of security is a key enabler of eCommerce. To implement security, it is important to be aware of the risks, below is sample listing of risks of eCommerce:

- **Problem of Anonymity:** There is need to identify and authenticate users in the virtual global market anyone can sell to or buy from anyone, anything from anywhere. The risk being the web merchants may be bogus, and customers may be fictitious.

- **Repudiation of Contract:** There is possibility that the electronic transaction in the form of contract, sale order or purchase by the trading partner or customer may be denied.
- **Lack of Authenticity of Transactions:** The electronic documents that are produced in the course by an electronic commerce transaction may not be authentic. The document contents may not be reliable.
- **Data Loss or Theft or Duplication:** The data transmitted over the Internet may be lost, duplicated, tampered with or replayed.
- **Attack from Hackers:** Web servers used for e-commerce may be vulnerable to hackers. The web-enabled software and browsers may also contain bugs.
- **Denial of Service:** Service to customers may be denied due to non-availability of system as it may be affected by viruses, e-mail bombs and floods. The network may not be disrupted due to natural disasters.
- **Non Recognition of Electronic Transactions:** There is the problem of legal recognition of eCommerce transactions, as electronic records and digital signatures may not be recognised as evidence in courts of law.
- **Lack of Audit Trails:** Audit trails in electronic commerce system may be lacking and the logs may be incomplete, too voluminous or easily tampered with.
- **Problem of Piracy:** Intellectual property may not be adequately protected when such property is transacted during eCommerce. Rights of original owners through Copyrights, designs, trademarks and patents may be infringed.

Types of eCommerce

Business-to-Consumer (B2C) eCommerce

B2C eCommerce brings vendors and consumers together in an online marketplace in order to transact business. Typically, a B2C eCommerce business has a virtual store front for consumers to purchase goods and services eliminating the need to physically view or pick up the merchandise.

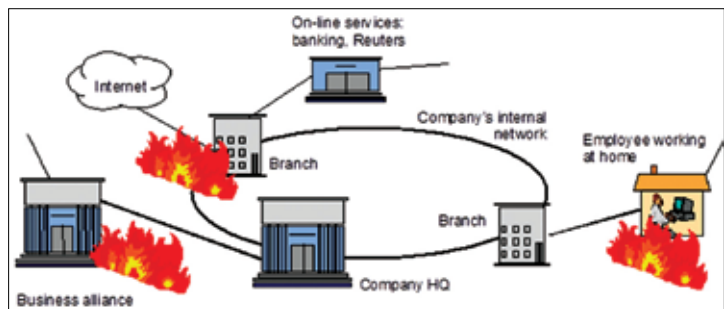
Consumer-to-Consumer (C2C) eCommerce

C2C eCommerce sites provide a virtual environment in which consumers can sell to one another through a third-party intermediary. The consumer is responsible for many aspects of the transaction inclusive of setting the initial sales price and bidding timeframe, shipping the product to the consumer,

and dealing with customer satisfaction issues. The eCommerce enterprise is responsible for displaying product and services, providing search capabilities, handling the financial aspects of the transaction, and providing other intermediary-type services. These stages include search, valuation, negotiation, payment, and delivery.

Business-to-Business (B2B) eCommerce

B2B eCommerce refers to businesses conducting electronic transactions with other businesses. B2B eCommerce includes a spectrum of business activities, such as financials, purchasing, inventory management, sales, advertising, payment and delivery systems, customer service, and many others. This segment is significantly larger than B2C e-commerce simply given the size and number of business transactions that occur daily in the international marketplace.



Risks of eCommerce

Business-to-Government (B2G) eCommerce

B2G eCommerce, also known as e-government, refers to the use of information and communication technologies to build and strengthen relationships between government and employees, citizens, businesses, non-profit organisations, and other government agencies.

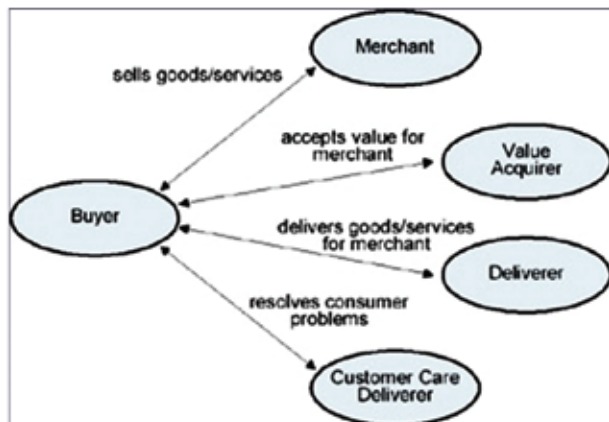
Mobile eCommerce

Mobile commerce (mCommerce) involves applications, mobile devices, middleware, and wireless networks. mCommerce is made possible by a wireless infrastructure with the means to access mobile applications including financial services, shopping, production location, and interactive games, among others. mCommerce is next-generation eCommerce because users do not need a wired connection to access the Internet and is increasingly becoming more prominent.

Business-to-Employee (B2E) eCommerce

B2E eCommerce, from an intra-organisational perspective, has provided the means for a business

to offer online products and services to its employees. B2E applications may include employee benefits and discounts, retirement account and insurance policy management, general announcements, and human resource policies, among others.



e-Commerce services and roles

Key Aspects to be Considered in Implementing eCommerce

Successful implementation of eCommerce requires involvement of key stakeholders and should ideally include representatives from: accounting/finance, internal audit, IT security, telecommunications, end users, system analysts and legal. Further, key trading partners, external auditors and representatives from other institutions such as banks, trading houses, brokers and other third-party services should also be involved to obtain valuable insight into the design and deployment of the eCommerce solution. Other key aspects to be considered are:

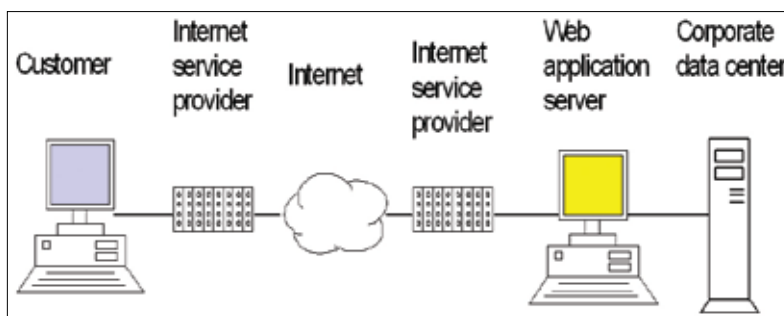
- Implementing appropriate policies, standards and guidelines
- Performing cost benefit analysis and risk assessment to ensure value delivery
- Implementing the right level of security across all layers and processes
- Establishing and implementing the right level of baseline (best practice) controls
- Integration of eCommerce with the business process and the physical delivery channels
- Providing adequate user training
- Performing post implementation review to ensure controls are working as envisaged.

Implementation Strategy for eCommerce

The strategy for implementing eCommerce within the

enterprise has to be driven by the overall business strategy and would depend on the level of maturity of business processes, current level of IT deployment and IT strategy. The strategy would vary from enterprise to enterprise. However, the following four-level approach indicates typical features of development and implementation of eCommerce in an enterprise:

1. **On-line presence:** Typified by a web site as a “virtual storefront”. This level has no real impact on business processes except within the marketing function.
2. **Integrated on-line business:** This occurs when on-line business activities are integrated with existing internal processes and systems. The intended benefit is substantial reduction in operational and transactional costs.
3. **Advanced on-line business:** At this stage, on-line capabilities are further developed. The content, inter-activity and technological capabilities of the web site are improved for better customer experience. Secure payment systems are included. The integration with processes and workflow is intensified, e.g., data warehousing, integrated call centres and a real strategy are developed for every stage of the supply chain. This step generates additional revenues at a lower cost and new ways of managing customer relationships.
4. **Full electronic business:** This means interacting and trading on-line with customers and business partners on a one-to-one basis. Dynamic relationships and additional revenues are created by cross-selling.



A typical eCommerce implementation

Involvement of CAs in an eCommerce Implementation

CAs can assist organisations by participating in the evaluation of the enterprises online activities both at pre-implementation and post-implementation stage. Several opportunities exist for chartered accountants as accounting and audit professionals to assist

management right from development of eCommerce business strategy to implementation and audit. CAs can assist in developing new procedures designed to account for varying tax revenue, which be transferred to enterprises across the country/globe. Working with the entity's legal staff in drafting policies to address trans-border flow of goods and services, and the proper accounting for revenue and expenses associated with these transactions is an additional project which would benefit from involvement by accounting and finance professionals. eCommerce will require CAs to re-examine the nature of their client's business practices and how the business will begin to record transactions which up until a few years ago, may never have existed within the enterprise.

CAs as Auditors can also participate beyond their traditional roles of evaluating financial internal controls and identifying potential operational control exposures. Their proactive role in assessing the nature of their organisation's Web-based business and eCommerce controls will be a value-added service which they can provide directly to organisational management and indirectly to the consumer. Auditors, for example, can perform a self-assessment audit of their client's web site and online portal by reviewing controls at all levels of business transactions in all stages from data capture to data storage and related compliance.

Specific Role for Chartered Accountants in eCommerce

Illustrative list of services which can be provided by CAs by proactively involving in their client's move to conducting business electronically (eCommerce) are given below:

- Joining the eCommerce design team at the initial stage of the eCommerce project's development, providing expertise on internal control structures.
- Assessing the business objectives and financial analyses for implementing eCommerce processes and services.
- Working more closely with the entity's marketing and/or sales department(s) to gain a better understanding of the "what's" and "whys" behind the entity's drive to conduct business electronically.
- Coordinating internal and external audit assessments, and providing or evaluating assurances for eCommerce and business relationships.
- Evaluating the impact of eCommerce activities on accounting, financial and legal reporting activities (e.g., revenue and expense recognition, foreign exchange activities, tax collection and filings, regulatory compliance, record retention, organisational structure).

- Performing operational reviews of end-user eCommerce requirements to determine if once implemented, eCommerce systems, will meet current and projected user requirements.
- Assisting in the continual evaluation of the eCommerce system in the phases of pre-implementation and post-implementation.
- Performing audits of the functional areas which both surround and support the movement of business electronically (e.g., Telecommunications, operating systems, networks, EFT systems, accounting and business processing applications, change control and new system development procedures, data warehousing, mining, and retention procedures, etc.).
- Performing operational audits to determine if the entity's usage of the internet is actually improving enterprise-wide information and work-flows, helping to redefine the way the organisation communicates with customers, and leveraging global resources.

Conclusion

The number of enterprises implementing eCommerce is increasing drastically with even small and medium enterprises using this medium. As eCommerce blossoms into the next business processing environment it is important to consider upfront issues relating to audit and control, security, backup and disaster recovery. Further, there could be issues pertaining to project management, authorisation and authentication, web design, marketing and customer services. All these issues need to be resolved by involving the appropriate stakeholders which include accounting, audit and security professionals. Chartered accountants can assist enterprises in successful preparing to compete in the virtual marketplace dominated by eCommerce by reengineering existing business practices. Accounting practices and policies across the board may also require extensive revision to allow the accurate analysis and recording of micro-payments, digital cash transactions, and multiple currency exchanges.

CAs should be ready to face a never ending list of technological advances aimed at making consumers' lives easier, fuller, and richer. However, if IT is not appropriately controlled, the basic internal and external control structures will erode leading to catastrophic impact on enterprises. CAs in their role as auditors must be able to function in an environment beset with a high degree of change and growing technical competencies of its professionals. The challenge is to learn technology as relevant and offer value addition services to clients. eCommerce is one such challenge and opportunity for CAs. ■