A Generalized Framework for E-Contract

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ABSTRACT

With the growth of internet technologies, e-commerce activities are growing exponentially. It is being used in different IT applications. Electronics contracting is a major part of the e-commerce activity. Contract between the exchanging sides have been adopted as a solution that guarantees the right of participants and increases mutual trust. Electronic contract (e-contract) or Trading Partner agreement (TPA) can be done between the stakeholders involved including the payment authority, buyer & seller. Since the year 1998, open buying on the internet (OBI) protocol is being used for business to business (B2B) internet commerce. XML based frameworks such as BizTalk, commerce XML, eXML, eCo frameworks are increasingly being used to bridge the gap between the buyer and seller. Multiple e-commerce standards need to be integrated in order to have a standard framework. In this paper, the authors have proposed a generalized framework for e-contract considering the domain of e-commerce like B2B, B2C & C2C into consideration.

KEYWORDS


1. INTRODUCTION

E-commerce facilitates the data exchange in connection to the financial and payment aspects of business in day to day life. Ecommerce imposed its identity in business scenario in late 1970’s by facilitating online transaction using EDI & EFT. E-commerce became popular during the end of 2000 after introduction of security systems for data and financial transaction, and encourages business organisations of America and Europe to launch their business services using world wide web initially (Nyamaka, 2011). As per the UNCTAD Report (2000), Ecommerce is considered to be a novel and cheapest way of doing business. Over the past 20 years the exchange of information on buy-sell processes carried out on the web to bring demand and supply together for the B2B and B2C transactions (Rossignoli & Ricciardi, 2015).

Today, e-commerce has moved from the traditional proprietary networks to more open networks, such as the Internet. In e business transactions, the situations where there is not complete trust between the sender and receiver, an effective solution for authentication is required for the electronics data (Kaur & Arora, 2015). Trust is considered to be an important factor between the organisations and citizens for their service to the societies (Abunadi, 2015).

A contract is an agreement with legal force (Nditi, 2004). An agreement can be defined as the promises or a set of promises which is committed by the parties to each other for the consideration (Nyamaka, 2011). E-contract should have the provision for cancellation of order if it was made accidentally or by mistake by the consumers (Arora, 2016).
Any buy or sell online need to have an underlying contract. Any contract includes three essential elements, e.g., an offer, an acceptance, and consideration, which can be formed when one party or organization accepts an offer of another party or organizations (Gasmelseid, 2007). Information Technology Act legalised E-Contracts, but still majority people feel insecure while dealing it online (Bagade, 2016). With recent technological developments, a new system of contracting has emerged mainly incorporating writing and or oral agreements but using electronics as the channel to communicate the contractual arrangements. Jain & Bhatnagar (2016) analysed about the customer satisfaction with the effective customer dealing and grievance addressed by the service sector to maintained the credibility in the society. Alhawari et al (2016) also given emphasis on customer satisfaction in the highly competitive business environment by the organisations.

Today most business transactions are made electronically by replacing the traditional form of paper based contract. The traditional contract which generally based on paper documents are rapidly changing to online contract. The online contract process not only improves the efficiency, but also contributes less paper works and streamline the process. For the legal systems, it is a great challenge to apply for the existing law to the new technologies. Since two or more parties are involved in e-commerce to a Single Transaction, so here it can be said that Disputes are inevitable (Shah, 2016).

Creation of cyber contracts are entirely based on the electronics communication (Nynamaka, 2011). The use of ICT makes a remarkable impact in the legal and operational landscape of many businesses worldwide (Shaw, 2000).

However, irrespective of the widespread use of electronic contracting, business enterprises have some worries.

- A secure and reliable online e-commerce transaction. (Gasmelseid, 2007)
- Factor like trust between trading partner is also a major concern during transaction. Basically, but restricted to C2C, the Buyers worry about that if they pay the bill first, their commodities may not be delivered. While the Sellers worry about that if they deliver the commodities first, they may not receive the money (Jiang, 2010).

In this paper, we have made an attempt to generalize a framework for e-contracts taking the domain of e-commerce like B2B, B2C & C2C into consideration. The second section discusses the literature review broadly on architecture, language, standards and templates or process used in different framework. The third section gives an ideal e-contract process suggested by us. The fourth section gives a generalized framework for the e-contract taking broadly the assumptions made in the fifth section considering the various aspects. Concluding remarks are given in the last section.

2. LITERATURE REVIEW

There are broadly different modules of ecommerce like B2B, B2C, C2B, C2C, G2C. Where B stands for business, C for Customers & G for Government. e.g. Business to Consumer (B2C), in which consumer purchase products, services and information from the businesses and Business to business (B2B), in which businesses buy and sell among themselves (Shim, Pendyala, Sundaram & Gao, 2000). As per the information provided by Statista, “the most prevalent being B2B, B2C and C2C e-commerce among other existing ecommerce domain and 40 percent of worldwide internet users have bought products or goods online via desktop, mobile, tablet or other online devices. As of 2011, over 70 percent of all adult internet users in the United States made online purchases. E-commerce made up roughly 18 percent of the entire merchant wholesale trade sales in 2011, with a value of
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