An Indepth Understanding of eGovernance initiatives: eAuction- A Case Study Approach

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I.   Introduction:

The science market has become open and accessible to all in the international community without any restriction; the rapid explosion in Information Technology has played a vital role in this mission. The rapid growth of competition in the market and the consequent changes in economic conditions impose organizations and firms to implement new technologies to stay competitive. The Central, State Government, Judiciary, Autonomous Bodies, Boards & Corporations, PSUs, Joint Ventures, Statutory Bodies, Commissions and Councils have invested in numerous initiatives throughout the length and breadth of the country aimed at extending the benefits of information revolution to rural and remote area. The Government envisions providing good governance by establishing a Committed, Accountable, Responsive, Inspiring, Nationalist, and Genuine Government - CARING Government.

The rapidly changing pace of the global business world compels organizations to take quick, decisive action when considering new technological developments. The technological developments and movement toward a global marketplace over the past decade have forced companies to restructure their business practices in order to gain competitive advantage or even to survive. One aspect of the restructuring has been the transition of several business processes into the electronic environment of cyberspace, commonly referred to as e-Business. While e-Business includes all aspects of doing business in an electronic environment, Web based auctions and negotiations have become quite popular due to their implementation and integrations in electronic commerce applications. Online auction have become an effective approach in the buying and selling process employed in the rapidly emerging internet based electronic commerce platforms.

e-Governance: Objective
- Providing information speedily to all citizens
- Improving transparency
- Improving public services such as transportation, power, health, water, security and municipal services etc.
- Reduce Corruption

e-Governance : Development Models
The e-Governance Models are
- G2C : Government to Citizens
- G2B : Government to Business
- G2G : Government to Government

Figure 1: Governance Development Model

e-Auction:
e-Auction, commonly known as Electronic Auction.
The electronic auction (**eAuction**) is an e-business between auctioneers and bidders, which takes place

on an electronic marketplace. It is an electronic commerce which occurs business to business (B2B), business to consumer (B2C), or consumer-to-consumer (C2C).

The auctioneer offers his goods or services on an auction side on the internet. Interested parties can submit their bid for the product to be auctioned in certain specified periods.

The auction is transparent.

e-Auctions are negotiations conducted via an online platform.

Suppliers get the possibilities of improving their proposals based on market feedback and are considered to be the most transparent way of conducting negotiations.

e-Auction is the business-to-business or business-to-consumer or consumer-to-consumer purchase and sale of Supplies(goods) and Services using the Internet. e-Auction caters to the online Auction process from online Auction creation to Award of Auction(AOA). Using e-Auction the Departments\Auctioneers can create the auction, publish the auction, receive bids from the bidders, Approval the auction, evaluate auctions and finally publish Award of Auction. Using e-Auction, the bidders can search auction, submit bids for Approval online and track the status of their bids. Indian IT-Act 2000 has mandated the usage of Digital Signature Certificate (DSC) for e-Auction.

The most important types of auction are Forward auction and Reverse auction. These two auctions are calculated on based on their starting price. In the forward auction the price is increment and in the reverse auction the price is decrement.
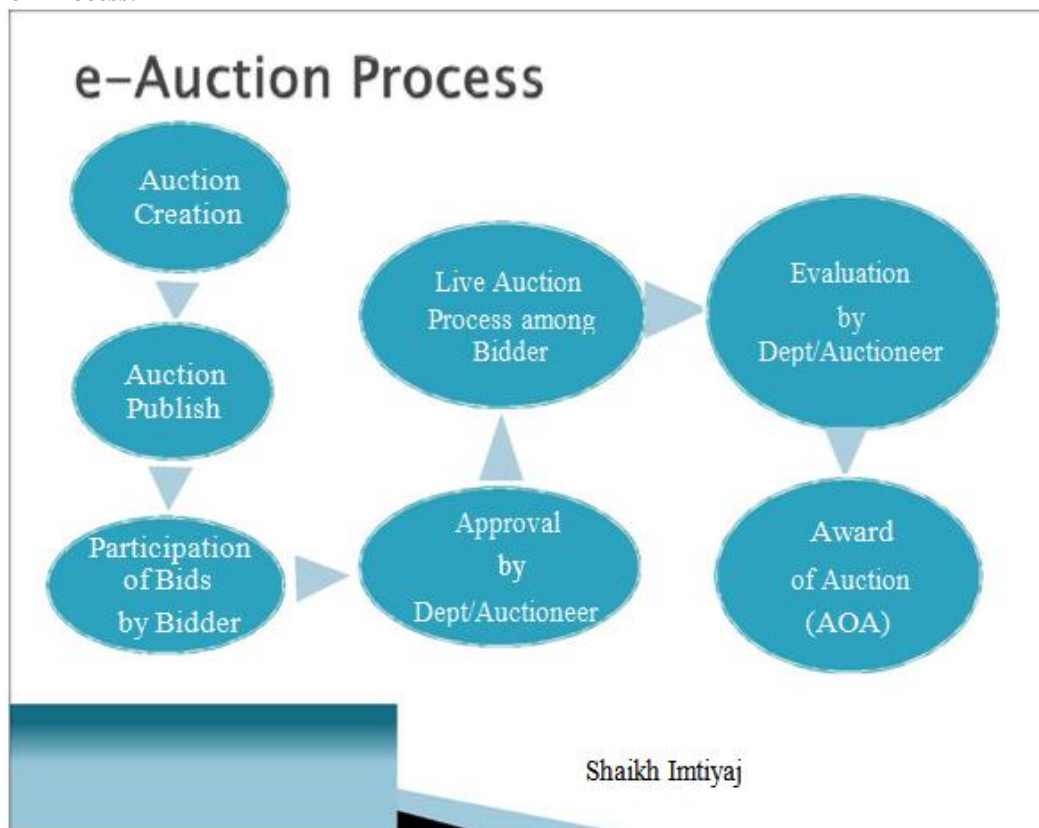
e-Auction Process:

Figure 2: e-Auction Process

e-Auction: Responsibilities
- **Creater of the Auction: -** The Auction will be created by the officer by using his/her Digital Signature Certificate, as per approved by the Department Nodal Officer.
- **Publisher of the Auction**:- He will be normally the Head of the Dept (HOD) of the concerned technical department and will be the responsible person for timely and accurately hosting of auction on the portal, as per approved by the Department Nodal Officer.
- **Approval of the Auction:** - The Auction will be viewed and Approved with the Digital Signature Certificates of Auctioneer/Dept.

☐ **Evaluator of the Auction: -** The Evaluator is the person who will evaluate the auction and upload the final decision from the knowledge of the live auction among bidders by Auction Evaluation Committee.

Benefits of e-Auction:

Benefits of e-Auction to Seller
▸ Transparency
▸ Increased Revenue
▸ Better Customer Relationship
▸ Real Time Monitoring
▸ Optimal Price Setting
▸ Lower Transaction Cost
▸ Lower Administrative Cost
▸ Liquidation

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Benefits of e-Auction to Buyers
▸ Transparency
▸ Convenience
▸ Opportunities to find unique items
▸ Better Customer Relationship
▸ Real Time Monitoring
▸ Lower Prices

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Figure 2: Benefits of e-Auction

Types of Auction:
Mainly there are two types of auction, one is Forward auction and another is Reverse auction.

Forward Auction-
In forward auction the starting price is gradually increasing on the basis of increment value provided by Auctioneer/Dept. within the time specified. The bidder who has quoted the highest amount will receive the AoA(Award of Auction).

Figure 3: Forward Auction

In the above figure of the Forward Auction, the Buyer1, Buyer2 up to Buyer n are the Bidders who quoted the amount and Supplier means Dept/Auctioneer.

Reverse Auction-

In Reverse Auction the starting price is gradually decreasing on the basis of decrement value provided by Auctioneer/Dept. within the time specified. The bidder who has quoted the Lowest amount will receive the AoA (Award of Auction).
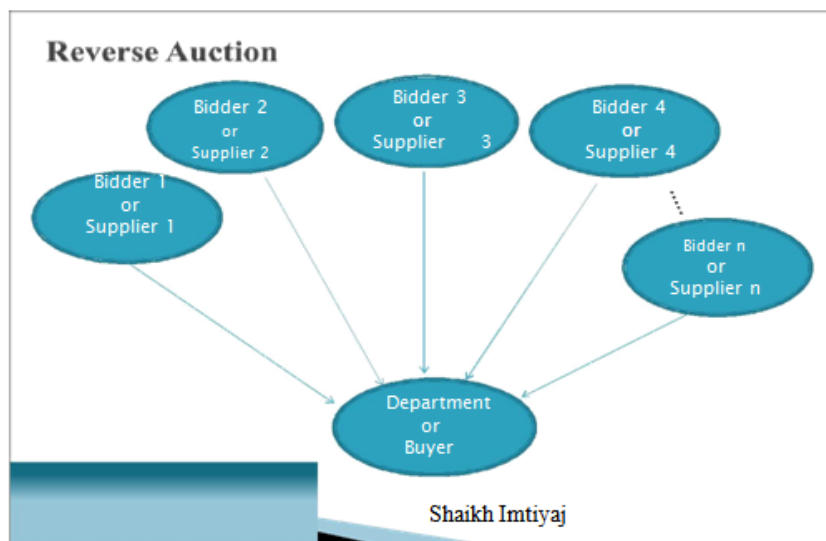

Figure 4: Reverse Auction

In the above figure of Reverse Auction, the Supplier1, Supplier2 up to Supplier n are the Bidders who quoted the amount and Buyer means Dept/Auctioneer.

e-Auction Risk:

One of the most critical issues in eAuction and negotiation systems is security. Security is related to many different aspects which are relevant to the protection of the involved parties against frauds, the authorizations of the participants, verification of the bids, the auctioneers integrity and bidders privacy .The key security issues in relation to the eAuctions involve several researches topics such as architectures of protocols, cryptography, DSC etc.

Digital Signature Certificates (DSC) can be presented electronically to prove the identity, to access information or services on the Internet or to sign certain documents digitally. DSC provides Authorization, Authentication, Privacy, Non repudiation and Integrity. IT Act 2000 in Government of India gives legal validity to electronic transactions that are digitally signed. A DSC provides high level of security for online transactions. You can use certificates to encrypt information such that only the intended recipient can read it. You can digitally sign information to provide assurance to the recipient that it has not been altered in transit, and enable verification that you actually sent the message.

II.   Conclusion and Future Work:

Online auctions have become a vital and emerging component to most consumers and business electronic commerce applications. e-Auction reduces the auction related crime is certainly a significant achievement on the way to a better , cleaner, honest society. This study focuses on different opportunities of G2B initiatives in India. The basic objective of research is to provide a model for better implementation of e-Governance application.

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