E Business
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Lecture-60
Online Auction Issues

Welcome back, this is my last lecture in this course and today we are going to continue our discussion on online auction issues. In fact, so far we have been talking about auction in general to have a background, but please remember even if we discuss all this in the context of in generic more generic context they are equally applicable to online auctions. After all in online environment what is happening, only you know you have better information flow okay. So the issues that we have discussed are valid, besides that in today's lecture we are going to look at some of the interesting issues which are related to online auctions alone.

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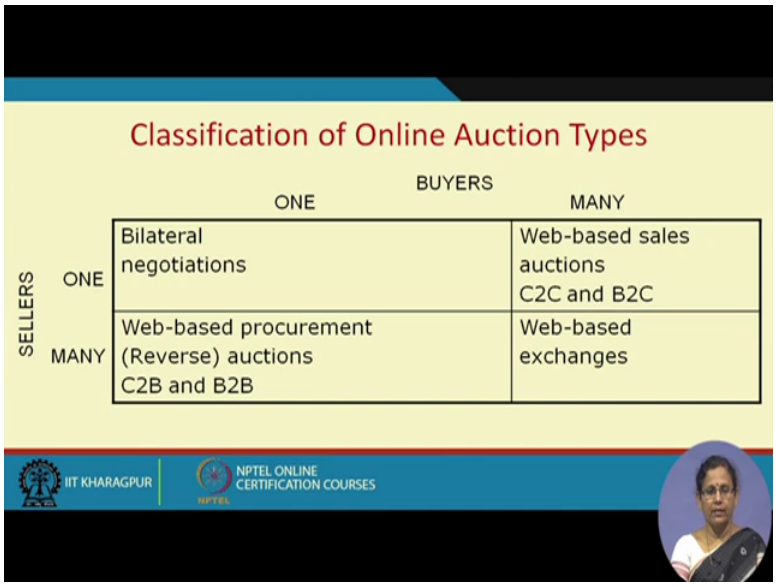

So in this online environment if you look at various auction types, depending on the number of buyers and sellers if you have one seller and buyer then basically it is a situation for bilateral negotiation and your online environment has to provide a facility for that. And if you have one seller and many buyers, it is a web-based sales auction and this web-based sales auction can be of both C2C and B2C type okay, B2C are your eBay, et cetera are your where specific customer who is not a business seller is trying to sell let us say some old laptop and another customer is buying, it is a C2C kind of setting, it can be B2C as well.

Similarly, if you have many sellers and one buyer, it is a web-based procurement setting where we call it reverse auction, it can be of C2B or it can be B2B. Many sellers who are

general I mean they are not business sellers can be interacting with a single business buyer similarly 2 business houses may continue, then you have web-based exchangers now let us try to see if you have many seller many buyer then let us try to see what are various design issues and how exactly those auction mechanisms fit into organisation business strategy.

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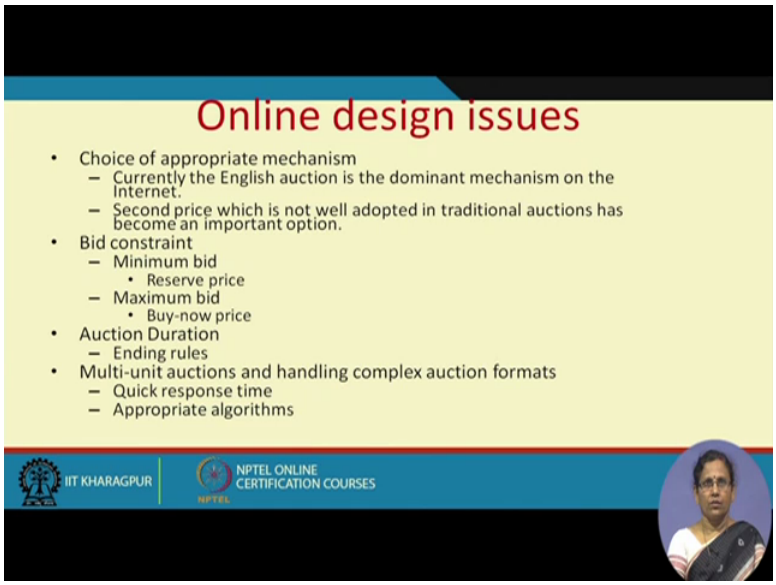

Now coming to the design issues, while choosing appropriate mechanisms because this competitive bidding happens with not much cause so therefore English auction which otherwise was not possible in case of many environments like that of let us say for example consider that of procurement setting, such competitive bidding like that of English auction was not happening, it was always tendering sealed bid. But now because the facilities are available and the buyers and sellers need not be coming together in one place, it has now become possible so most of this so English auction now has become a dominant mechanism over the Internet.

Now second price auction which is not adopted well in the traditional auction setting has become an important auction with little modification, then bid constraints are added with much ease like while setting up the auction the minimum bid value and maximum bid value are shown online then auction duration is an important design issue. Many auction houses and online auction brokers what they do, they have a fixed ending rule like after let us say 2 hours the auction will end, after 2 days the auction will end and some of them have flexible ending rule.

This ending rule is something which was not there in the traditional case, at least that flexibility was not implemented . There are some auction houses who wait for let us say for next, they decide that after for a duration after which during which a bid is not received they stop it, so which means the auction can go up to 5 days, 10 days, if the bids keep coming. But if the bits stop coming let us say for period of 30 minutes then assume that the auction has to end so the ending rule is not decided apriori. Then having multiunit auctions and complex auction format has become possible because of online environment but it requires innovation in terms of designing appropriate algorithm so that response time can vary I mean quickly response time can decrease.

Now, I was talking about different types of auction s and how it can be integrated into a particular businesses particular firm business models. Now look at this, they can have B2C I was telling B2C auction is a reality so B2C auctions from buyers from business houses to customers they can have these B2C surplus auctions. A firm may use auction to dispose its surplus inventory for example, consider a computer company computer manufacturer like that of Dell who is trying to a new and the old laptops because the new configuration has come up, the old laptops they are trying to sell.

They can sell it at a very low price or to sell that they conduct auctions, in fact many of the companies do that. In fact you search for that and you find out which all companies are selling their surplus items which are about to get expire over the Internet. Then there are many also use B2C as the regular sales channel, not their old or expired product. Then many even sell their second-hand goods, the second hand all the car companies now are taking their own car back and after rework and repair and proper maintenance they are selling it. So many of the second-hand many of the car companies you can find out they are auctioning their second-hand cars reselling their cars, okay.

Now there can be B2B surplus auction, for example consider while talking about Tata steel case we were discussing, Tata steel is using B2B surplus auction to sell not only Tata steel, almost all the steel companies they sell their through (())(9:00) auction they sell their scrap so it is a B2B surplus auction. There can be B2B procurement auction where and about this B2B procurement auction we have discussed extensively during E-procurement and reverse auction. Now all these are happening either the companies are having their own portal but most of the times they take help of intermediaries to realise these auctions.

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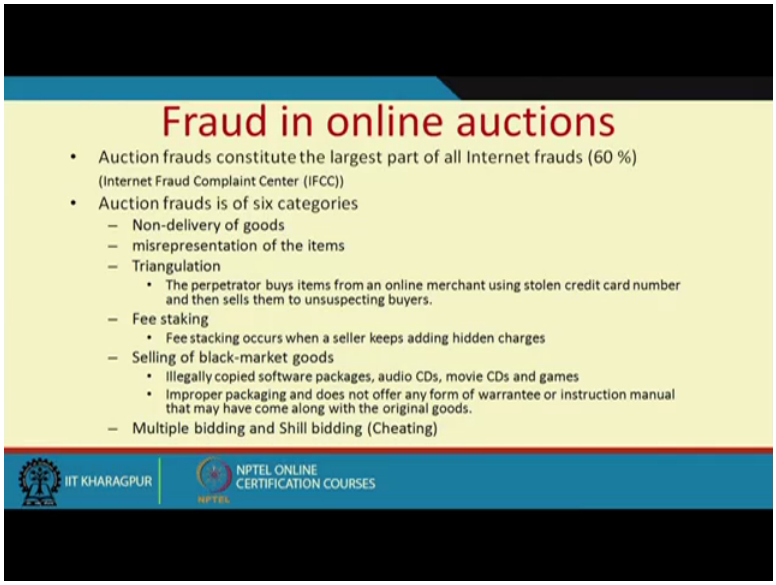

One very important phenomena in auction market is auction fraud and this is particularly true in case of C2C auctions. In fact this auction fraud constitutes the largest part of all Internet frauds. So this fraud can be classified into 6 categories; non-delivery of goods, misrepresentation of the items; item is shown as something else and while delivered it is something else, strangulation; here the perpetrator buys the item from an online merchant using some stolen credit card number and then tries to sell them in the online environment to unsuspecting buyers. Then fees taking; here the seller after the item is sold he adds many hidden costs to it so the price at which it is sold now there is a price hike. Then selling of black-market goods, all this look all these frauds are happening in the case of C2C kind of auction.

So here in this case they illegally copy software packages, audio CDs, movie CDs, et cetera, games, et cetera, and get sold. Then improper I mean such kind of markets come with improper packaging, does not offer any kind of warranty and so on. Then it has also given rise to another phenomena called I mean the phenomena called seal bidding, let us look at the kind of cheating that happens in the auction fraud market. Now what is cheating? Cheating is unlike other fraud categories that leaves no evidence no direct evidence of its occurrence, you will you will feel that cheating is happening but there is no direct evidence of its occurrence, so there are many reasons for which such cheating happens and what are various types of cheating we are shortly going to see and this is the phenomena very peculiar to C2C kind of auction environment and what are the reasons?

Reasons are false identity can be got, the false (())(12:04) false identity somebody can get very easily, today I have one email ID tomorrow I have something else, again falsely right my address and so on. Greater information asymmetry because both buyers and sellers are not in the same time and same space, they do not physically see the item or check it, there is information asymmetry what the buyer knows, the seller does not knows, what seller knows the buyer does not know and so on.

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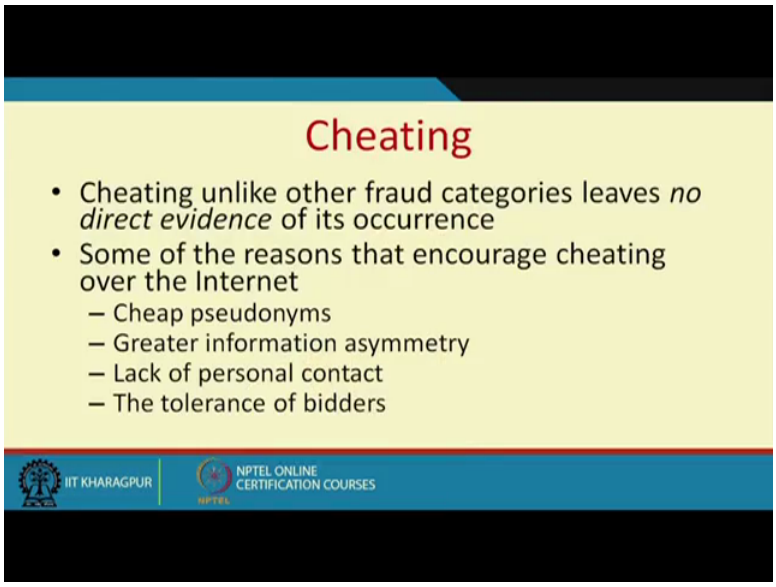

Lack of interpersonal contact and because in the C2C market for small things the cheating happens, individually nobody is is affected very much let us say I lost Rs 1000, Rs 1000 I can tolerate so let me not complain, see if everybody will complain, naturally it decreases. In fact now from earlier days now these frauds have decreased a lot because of active role of this intermediary these auction broker sites as well as government efforts. However, can be either induced by bidder or it can be induced by the auctioneer, so it is induced by the auctioneer who is auctioning the product, the seller himself taking up taking another name can bid on his behalf just for the purpose of driving other bidders to bid very high value

I am selling my product now I take a new email ID try becoming a bidder and bid very high value, so other real bidders in the market will get a false price signal and they will try bidding a very high-value. So when I find that the bid value has become very high, I now withdraw. The poor fellow was being driven by my false bids is ends up paying more for the product, this is called shill bidding. Then next is the bidding induced by the bidder, so the bidder himself can place multiple bids, I place a bid of Rs 100 then my next bid is Rs 1000, next bid is even high.

So when the bid values are, I will increase by bid values to that extend that other bidders because the values of that product is not that high other bidders naturally will not bid they will withdraw then I will also withdraw my higher bid unless otherwise there is provision in the site I withdraw so as a result my lowest bid becomes possibly the highest in the market so I get the item. Then this bidding rings which is very typical in the case of industrial buying and selling environment, consider a buying environment the bidders who are the sellers to the organisation, they collusively interact with themselves, they collude themselves and prior to the auction they interact and they decide how to control the market.

They decide that this is the highest price will be going up, even they can decide before hand in this particular setting for this particular auction who will be the buyer, they decide that the ring bidding the collusive set of bidders they decide who will be the winner and in the next instance when the bidding happens for another product, they again decide somebody else will be the winner and they control the market, the price they do not allow to go down below certain level. Now we will just have a look at how auctions happen at eBay specifically C2C auctions because eBay is the oldest auction broker in online environment so we will just have a look in fact, many of you must be transacting in eBay as a seller or as a buyer, this is pretty common today but still we will have just have a look at its auction mechanism.

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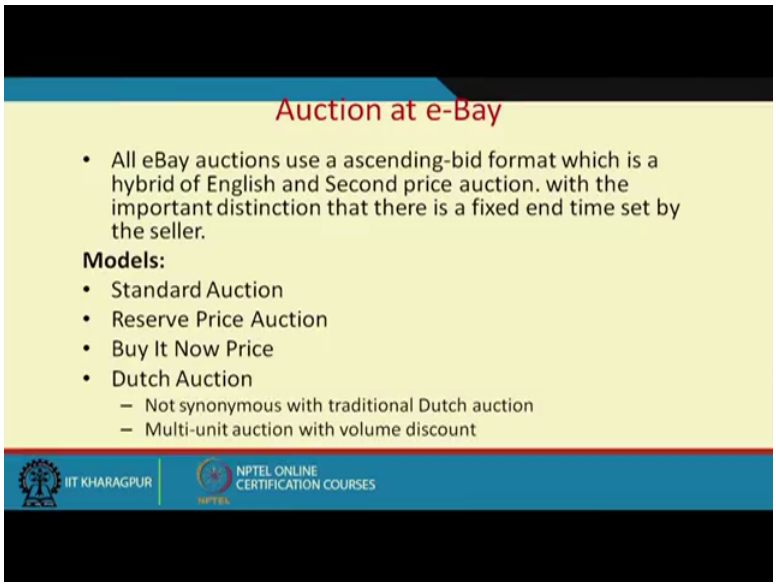

Now all eBay auctions use ascending bid format which is a hybrid of English and second auction price I mean the second price auction with the important distinction that there is a fixed end time set by the seller. So now it has many models, first one is the standard auction where the competitive bidding takes place, then there is a reserve price auction where the

seller puts a reserve price below which it will not be selling the item. Then there is buy now price which is actually the highest price, so if somebody before the auction starts if somebody offers or even in between the auction if somebody offers that highest price, the item is sold.

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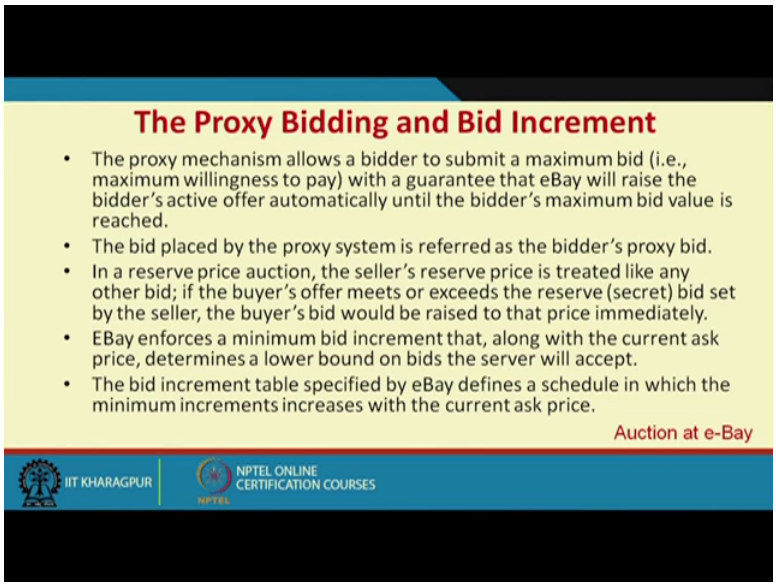

Then they also implement Dutch auction but this is not the Dutch auction that we discussed in one of the earlier classes, so it is not synonymous with traditional Dutch auction, it is basically a multiunit auction with volume discounts, they provide facility for proxy bidding with bid increment. Now in this proxy mechanism, the bidder sets this proxy sets certain parameters in this proxy bidder and proxy bidder now bids on behalf of the bidder, so it means the bidder need not have to be present all the time to chase how to bid. So how does it work?

This proxy mechanism allows a bidder to submit a maximum bid that is his maximum willingness to pay that is his or in other words while discussing economic considerations we talked about valuation, this is valuation of the product with a guarantee that eBay will raise the bidder's active offer automatically until the bidder's maximum bid value is reached. The bid placed by the proxy system is referred to as bidder's proxy bid. In the reserve price auction, the seller's reserve price is treated like any other bidder, so as soon as so when the proxy bidder encounters this value, it automatically brings my first bid to this reserve value reserve price value.

Now again eBay also enforces some minimum bid increment and as we have discussed earlier, this bid increment depends on the price range within which the bidding is taking

place. For a very high-priced product this bid minimum bid increment will be very high, for a low-priced product it will be very low. Then bid increment table is specified by the eBay itself and these proxy bidders follow this while outbidding the bidders.

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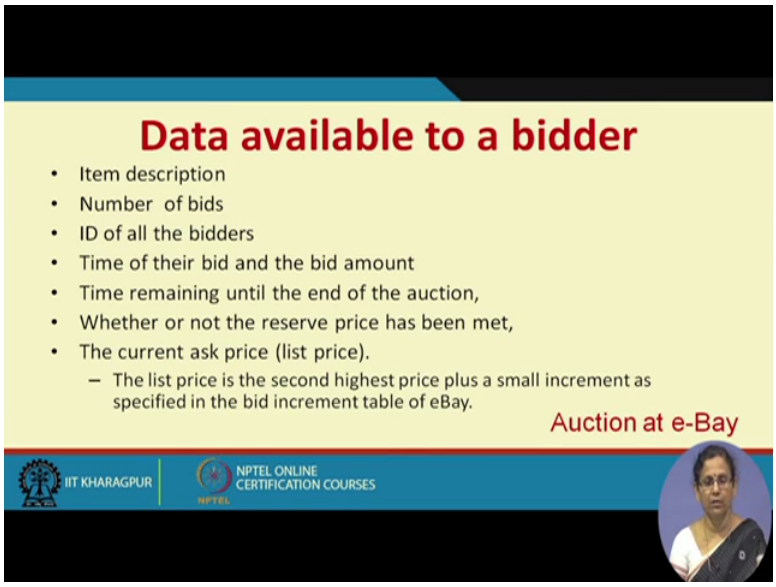

Now these are various data available to the bidder; item description, number of bids happened so far, ID of the bidders who are participating then time of their bid and bid amount, whether or not the reserve price has been made, the current ask price that is the list price, the list price is the second-highest price plus the small increment as specified in the bid increment table of eBay.

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This for people either personally or using through certain software, they are engaged in various bidding strategies, when they engage in bidding they follow various bidding strategies. Bidding strategies can be broadly classified into 2 parts; single bid engagement or multiple bid engagement. In case of single bid engagement either you can be an evaluator you decide your own bid and give it to the proxy bidder you can be late bidder do not use proxy towards the end you start bidding because you know the auction is going to end after let us say 15 minutes, you start bidding.

There are certain software which are called sniper software which allows which takes all the preference is for the bidders and who bid at exactly at the last time so that they are not into competition and know the exact market situation and just pay little bit higher that is following the bid increment table of eBay and get the item. Then many people are also while using eBay they are involved in multiple bidding, so in this multiple bidding scenario they will be participating in let us say I am interested to buy a camera, so many cameras are getting sold I will be parallely bidding in all.

My purpose of doing so can be 2 fold, either I am sceptic I do not know the I mean the I do not believe what the other bidders are bidding in a specific auction and for a similar product I try to explore with other products what is the true price. Or in the same item I can put multiple bids not multiple, same item I can put multiple bids to figure out whether people are actually other people are engaged in multiple bidding so to unmask the true price of the item I will keep I will provide multiple bids okay.

So with this we finish this lecture and I told you this is the last lecture of this particular series of lectures on Decision support system. In fact this is the last lecture of this topic that is E business this subject, so though we have I mean though we have discussed covered up almost every topic at length, now coming to this decision support activities in online environment we have considered only 3-4 decision support situation and explained that, it does not mean that specifically in E business setting the decision support is limited to this much, this should not give you this idea so in fact there are many more decision support systems.

In fact about 1 data source due to lack of time we could not discuss that data source is customer reviews. These customer reviews are and the companies are using customer reviews for many purposes, they are trying to find out sentiments of the customers, various aspects of the product which is being discussed. Even this customer sentiment is the market is getting related to stock price changes and so on, this is so this huge data that is getting generated that

can be used and decision support can be made out of that data and in fact this is one example of big data only. There are situations let us say another problem is, now many companies are having both online and well as (())(25:31) sales, so how to manage their inventory this kind of setting? How to distribute their products?

Let us say online environment I really do not know which I mean I just give my order, now it is the work of the online retailer to decide which is the nearest warehouse from my request point, whether the item is available there or not, if available it has to be sent to me and whichever warehouse is nearer to me I should be getting item. Again customers are asking for bundles of items, in 1 shopping cart they will be putting many items and one warehouse may not be having all the items so getting items from different warehouses, combining them together and sending it to the customer in an optimal way which minimises the company's cost is also a decision-making problem.

Similarly, your RFID we have discussed, GPS, GIS, many technologies we just discussed, with all these technologies many decision support situation can arise and can be implemented. But anyway due to lack of time we could not discuss all this but at least you have got sufficient idea about what a decision support model is besides knowing other aspects of E-business. With this I finish this lecture and this particular course, thank you very much.