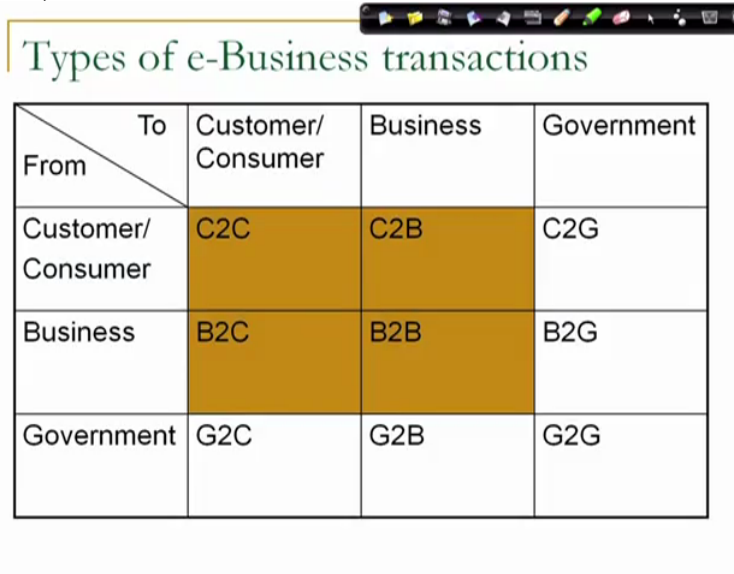


Course on E-Business
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Department of Industrial and Systems Engineering
Indian Institute of Technology Kharagpur
Module No 01
Lecture 02: Type of E-Business Transactions

Welcome back. In today's lecture, we are going to see various types of e-business transactions.

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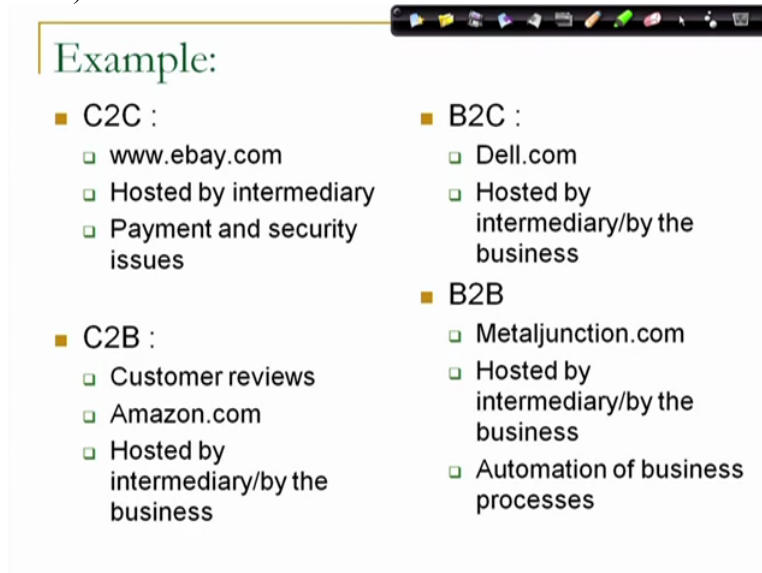
To \ From	Customer/ Consumer	Business	Government
Customer/ Consumer	C2C	C2B	C2G
Business	B2C	B2B	B2G
Government	G2C	G2B	G2G

So far what we have studied. We have studied, let us try to recapitulate what we have studied so far. We have defined the term business, defined the term commerce, we have understood that commerce is actually a subset of business and we saw over the years, how ICT has influenced the business. So coming to this types of e-business transactions, this is a very you know commonly known term that that is a C2C transactions, C2B transactions, B2B transactions, and so on.

So we put it in this grid where we have 3 entities-customer, business and government. And if the transaction is between customer to customer or consumer to consumer, we say it is a C2C kind of transaction. And if it is between customer and the business house, then it is a C2B. And if it is from a business house to customer, then it is B2C and if it is between businesses, it is B2B. And there are transactions which can happen from customer to government or government to business and so on but our focus will not be on those kind of transactions.

We will basically focusing the customer than business, these 2 entities. So basically we are going to discuss about 4 different kinds of transactions that is going, that happen in a business setting.

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Example:

- **C2C :**
 - www.ebay.com
 - Hosted by intermediary
 - Payment and security issues
- **C2B :**
 - Customer reviews
 - Amazon.com
 - Hosted by intermediary/by the business
- **B2C :**
 - Dell.com
 - Hosted by intermediary/by the business
- **B2B**
 - Metaljunction.com
 - Hosted by intermediary/by the business
 - Automation of business processes

To start with t, let us try to see what are the features of this C2C, B2C, et cetera and few examples of this. Then in each category, we are going to be discussing about the specific case. Now start with C2C. It is between consumer to consumer. Now it is obvious that the consumer themselves cannot have their own website. So there has to have this certain intermediary who will be helping them out. And the e-business, your eBay is a very well-known site for this where basically there are transactions, in fact eBay not only supports C2C kind of transactions, it also supports B2C kind of transactions.

We are going to see little bit more about it okay? But here in case of C2C transactions, there the site has to be, the intermediary which hosts the site and through which the transaction takes place, takes all the responsibility and he is responsible for security and payment system to deal with security and payment system issues as well. Then we have B2C kind of transactions where business house is directly dealing with the customer. So in this, as you know there is a very well-known company which directly deals with its customers through its website.

So it is again this particular thing, it can be, B2C transactions can be either hosted by the business to directly deal with its customers like that of Dell or it can also be hosted by some

intermediary like your Amazon or your eBay. In eBay, there are many merchants who have their stores in eBay. Okay? So it can be either hosted by a intermediary or it can be hosted by the business. Then, we have C2B kind of transactions where the customers interact with the business.

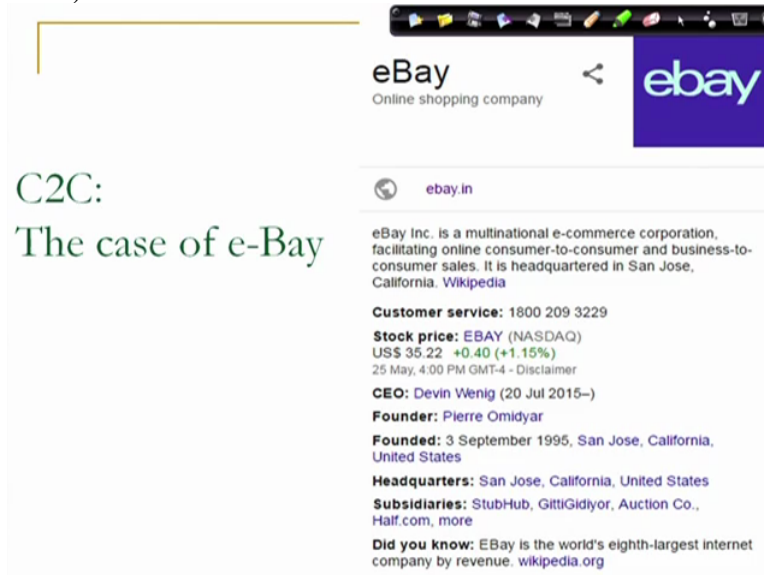
Now where are those transactions? With the introduction of web 2.0, actually the customers are able to give their views to the business. So those transactions where customers give their feedback and their reviews to the businesses, are termed as C2B kind of transactions. And there are and it has to be again hosted by a certain intermediary or by the business themselves and as you know, while you buy a book, you give reviews to the Amazon.

Is not it? Then, the 3rd one is actually B2B kind of transactions. In B2B kind of transactions, two business houses actually interact with each other. So it can be directly between 2 businesses or it can happen through a 3rd party as well. For example, metaljunction is a website whose case we are going to talk a little bit later. In this mentaljunction, is a 3rd party which actually connects the steel manufacturers and steel buyers.

Okay. But when it comes to B2B transactions, it need not always be by the 3rd party. Businesses can directly connect to another business. For example, suppose we talk about reverse auction. In reverse auction, one company buys certain material and it hosts the auction and many sellers participate, they compete with themselves and the transaction takes place. So that is again a B2B kind of transactions. And B2B transactions is not about the auctions only.

After the transaction is over, tracking your consignments, making payments and all sorts of activities that is associated with any kind of business, physical business, any information exchange activities, that also termed as B2B activities. Okay.

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The screenshot shows the eBay website interface. On the left, there is a yellow bracket and the text "C2C: The case of e-Bay". The main content area displays the eBay logo and tagline "Online shopping company". Below this, there is a section titled "eBay Inc." with a brief description: "eBay Inc. is a multinational e-commerce corporation, facilitating online consumer-to-consumer and business-to-consumer sales. It is headquartered in San Jose, California. Wikipedia". This is followed by several key facts: "Customer service: 1800 209 3229", "Stock price: EBAY (NASDAQ) US\$ 35.22 +0.40 (+1.15%) 25 May, 4:00 PM GMT-4 - Disclaimer", "CEO: Devin Wenig (20 Jul 2015-)", "Founder: Pierre Omidyar", "Founded: 3 September 1995, San Jose, California, United States", "Headquarters: San Jose, California, United States", "Subsidiaries: StubHub, GiltiGidiyor, Auction Co., Half.com, more", and "Did you know: eBay is the world's eighth-largest internet company by revenue. wikipedia.org".

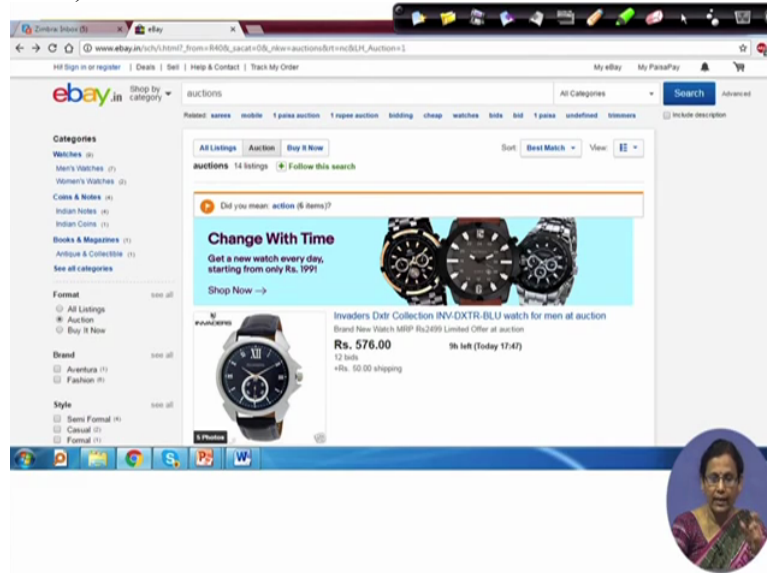
Now to start with, we 1st talk about eBay. eBay as you know, eBay is one Internet company. By a Internet company, we mean see I told in the 1st lecture as well that Internet or information technology is just some kind of tool which businesses are using to improve their processes, their business processes. That does not mean that businesses cannot run without information, communication technology. So the point that I am going to make it here is, businesses were existing, businesses are going to exist as well with Internet or without Internet.

But because of the Internet, some of the companies have come up. Here we will try to distinguish between brick and mortar business and web-based businesses. When it comes to brick and mortar businesses, we will, those are the businesses which are not existing for, because of Internet alone. They were existing previously as well. Okay? Consider about Tata motors, Tata steel, or any other company that way, SAIL or any other company, all of them were existing but right now as we saw that Andy Grove said that all the companies will have web interfaces, all of them have come to have their web interfaces as well.

But those are brick and mortar companies. But there are certain companies which do exist because of the, I mean which have actually surface because of the Internet and eBay is one such company. These are some of the details about the company. It is a multinational e-commerce corporation facilitating online consumer to consumer and business to consumer sales. What is

important here to note is, they facilitate consumer to consumer and business to consumer sales and there are certain other details about the company.

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Now look what the company does. This company has 3 ways of doing the transaction. Either somebody can sell his product. Now see, it as we have told, it facilitates both customer to customer as well as business to customer. So you have to 1st register yourself with the company as a customer or as a business, then only you can sell your product. Now that now it can either I mean the look at this, it offers 2 types of ways in which the product can be sold.

One is buy it now, where the seller whether it is a customer or whether it is a business house, they decide, they does display a price. And if anybody takes that, wants to take the product at that price, it will be immediately sold. Or, the other way to do this transaction is to go for auction. In auction, the item will be placed for example here. Here we have one example of a auction going on for some watch and it says that the it is actually how much time is left and how long it is going to continue and all.

And if somebody has to bid here, he has to again register. Both bidders and sellers are going to be registering here and in the process, because somebody wants to sell and somebody wants to buy and get registered, company also charges some money for this and that is how they make their profit.

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B2C: The case of Dell

Dell Inc. is a multinational computer technology company based in Round Rock, Texas and, along with Dell EMC, is a subsidiary of Dell Technologies, one of the largest technology companies in the world with 138,000 employees. [Wikipedia](#)

Customer service: 1800 425 2067

Technical support: 1800 425 8045

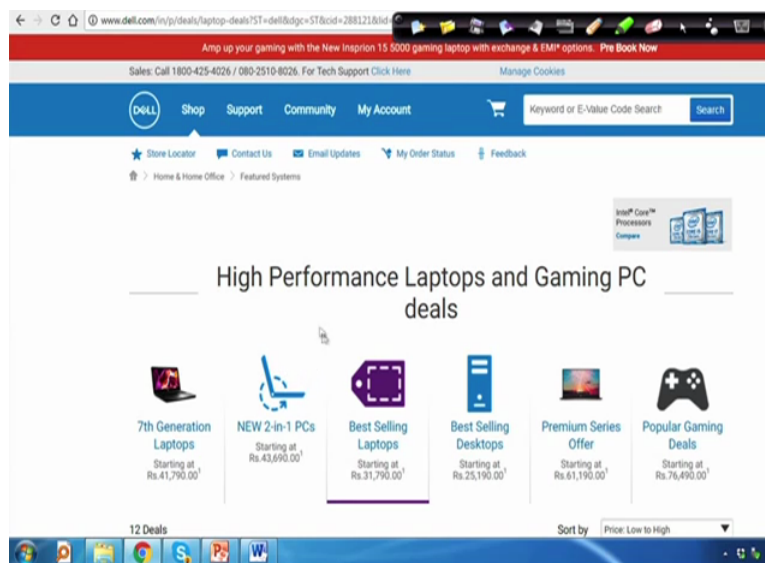
CEO: Michael S. Dell (31 Jan 2007–)

Headquarters: Round Rock, Texas, United States

Founder: Michael S. Dell

Founded: 1 February 1984, Austin, Texas, United States

Subsidiaries: Alienware, EqualLogic, Mozy, Dell A.S., more



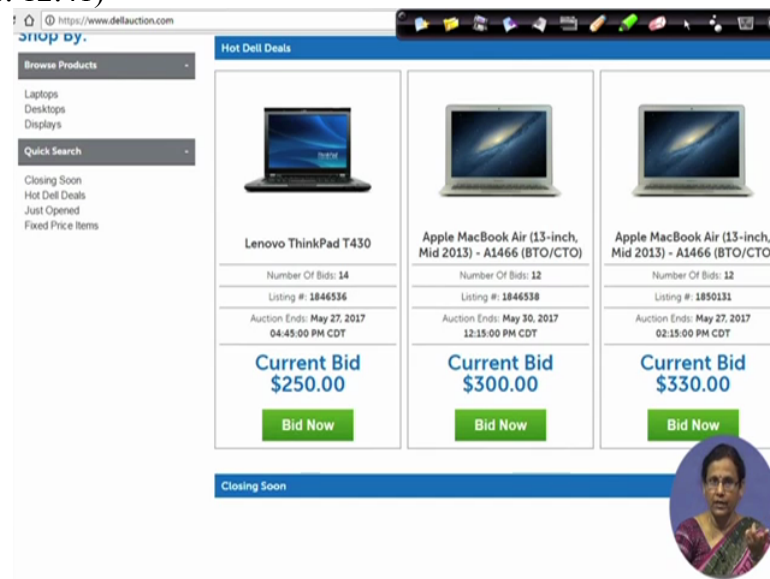
Then the 2nd case is about Dell, about B2C transactions. As I told you, eBay is also facilitates B2B transactions but the difference here is, difference here that I and there also it is B2C but I am showing this Dell's case specifically because Dell is the manufacturer itself. Dell is the manufacturer itself and Dell's computers can be sold through the physical channel through its supply chain partners. They can also show stuffs online okay?

So directly they because of this Internet, Internet has provided them a channel because of which they are now directly can interact with the customer. And in fact, I would like to add here is, Dell, though started very later than that of IBM and not doing that well, at some point of time

when the Internet became commercialised, it got the advantage because its selling strategy was, it was just selling through the retailers. It was not maintaining its proper supply chain.

So that is why, it got a lot of advantage. But anyway we are going to talk about it if we get time a little later. But this is just a page which shows that how the Dell sells its computers. Okay? All the high-performance laptops, gaming PCs, et cetera and it provides the best deal and so on. It provides the facilities through which you can search the product and get it and so on.

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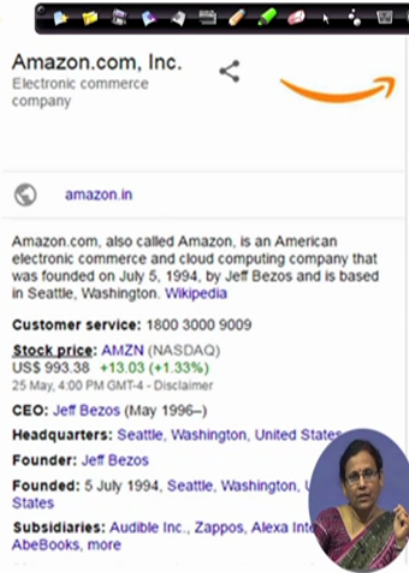


One important thing, there though it is dealing with its primary products directly with the customer but one important thing I would like to show you. This is again from Dell only and this is the auction from Dell. We saw the auction from eBay and where the 3rd parties, let us say you are as a consumer, you wanted to sell your laptop, your old laptop. You are buying a new one and you would like to sell your old laptop, you can sell it through eBay. Then what for this Dell is doing the auction?

If you look at this, they are actually not selling their own product. That is number 1. And if at all they are selling their own products, that is not their prime product. Look at this, they are actually selling laptop but they are selling actually somebody else's laptop. Okay? They have their own auction site for that as well. Okay? This is again a B2C kind of transaction but here the Dell auction is happening, it is just a facilitator for selling. Okay.

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C2B: The case of Amazon



Amazon.com, Inc.
Electronic commerce company

amazon.in

Amazon.com, also called Amazon, is an American electronic commerce and cloud computing company that was founded on July 5, 1994, by Jeff Bezos and is based in Seattle, Washington. [Wikipedia](#)

Customer service: 1800 3000 9009

Stock price: [AMZN](#) (NASDAQ)
US\$ 993.38 **+13.03 (+1.33%)**
25 May, 4:00 PM GMT-4 - Disclaimer

CEO: [Jeff Bezos](#) (May 1996–)

Headquarters: Seattle, Washington, United States

Founder: [Jeff Bezos](#)

Founded: 5 July 1994, Seattle, Washington, United States

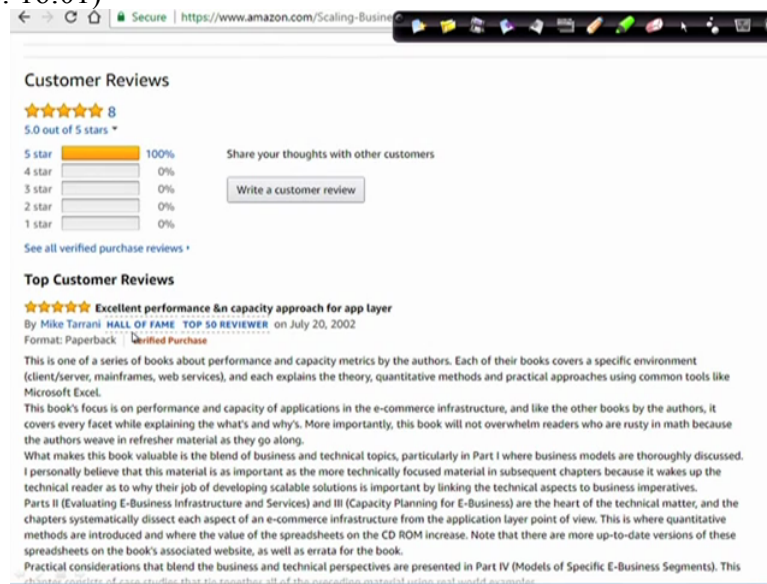
Subsidiaries: Audible Inc., Zappos, Alexa Internet, AbeBooks, more

Then the 3rd one is about C2B, consumer to buyer. Here one of the companies that we are going to talk about is Amazon.com. As you know, Amazon started as a bookselling company. Okay? Actually the 1st product that Amazon was started selling was books and its headquarter was Seattle, Washington, United States. And it is said that when the company started selling books, it was a Internet company. It was not very well-known then and people were not giving very importance to those kind of companies then, earlier days.

Later of course, they become very important. But they were not giving them importance. What this company was doing? They were actually had their I mean it was a small company and it was just near a very big bookseller, physical bookseller. So what this company was used to do? They used to get online orders. They used to get it from that physical bookstore and they used to provide. Do you understand?

To come to a physical bookstore, you have to actually reach, physically go but they were providing the catalogue. They need not have to maintain the inventory. Once they get the order, they used to go to the nearby book shop, physical book shop. Of course, nowadays they have their own inventory and all, that is a separate issue. But initially, they were doing like this. And later, that book store itself discovered what is happening to it and they also, of course now this bookstore I will not name it, they have their own channel, online channel.

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Now look, this is the customer review of a book that I am going to refer, Scaling for e-business. Look how nicely people have given their books. They consider both star rating as well as they get top customer reviews written and not only that, look at when they get the customer review, they also verified customer has actually purchased item. Then only they considered the review to be authentic. Okay? This is the review, this is the rating and to tell you, actually now a lot of research is going on where these people are, see in this process, huge amount of reviews are getting generated.

Huge amount of reviews because now the customers have facility to give their feedback about the product, huge amount of. Now it is not possible for human being to go through each and every review to find out the gist of what all are happening. A lot of research is going on where actually these reviews are studied automatically to understand customer sentiments, to categorise these reviews into different categories, on what topics they are talking about and so on.

But anyway, here the idea is we are actually the B2C transactions are those where the customers can actually give feedback, the C2B transactions are those where the customers actually interact with the business through giving feedback, mostly through giving feedback.

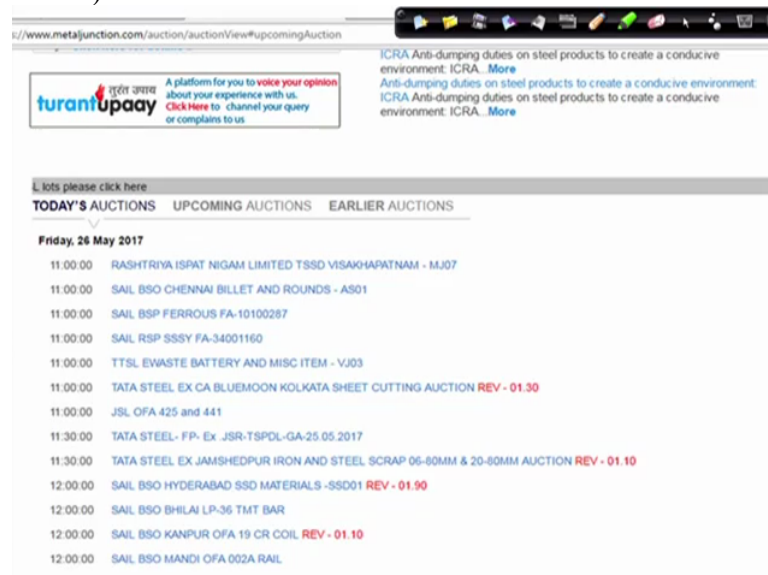
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The 4th category that is important to us is actually B2B kind of transactions. This B2B kind of transactions as I told you, this is between 2 businesses. Either it is hosted by the business themselves or it is hosted by the 3rd party. The case that we are going to discuss here is the metaljunction. This metal junction is a 3rd party which provides this buying and selling services to many other companies. Initially, they started their work with steel companies only but now they have expanded.

So this is their website and you can see some testimonials from various users. You can in fact visit the website and you can find out the details. So what exactly they do? They do both buying and selling transactions. What do they make, the steel companies buy. It is not about only steel. They can facilitate in buying many other stuffs as well. Okay?

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And when it comes to selling, basically again they sell products through auction. So now this is one listing of auction listing where you have your, you have many companies, Rashtriya Ispat Nigam Ltd, then SAIL, there is another thing from SAIL and all of them actually sell you know what? All of them try to sell their waste material, the steel, the scrap and so on. So this is about selling, this actually facilitates in those kind of selling. And of course I do not have anything for buying.

Okay now, come to though we are not talking about many businesses and all, we are about government transactions but we will be taking some time to talk about the kind of G2C and C2G kind of transactions.

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Examples:

- G2C: paying taxes, and applying for benefits
- C2G: Answering public queries, Taking suggestion from citizens
- G2B: Registration, renewal of licenses
- B2G : Selling product to government buyers
- G2G : e-payment between government organizations

Coming to this G2C kind of transactions, coming to customer, paying taxes, applying for various benefits, et cetera, those can be categorised under G2C. Then coming to C2G, your answering public queries, taking suggestions from citizens, those are C2G kind of transactions.

Then there can be G2B kind of transactions about registering a company, renewal of licence and so on. Then there can be B2G kind of transactions which is about selling products to government buyers. There can be G2G kind of transactions which may be some examples can be the e-payment between government organisations. So with this actually, we talk about various kinds of transactions that can happen in a business environment.

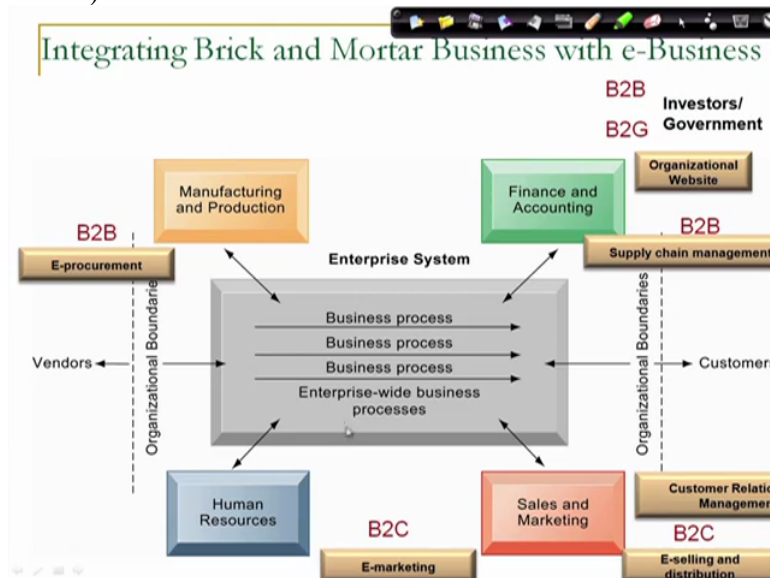
To summarise it, we have 3 entities here, customer, the business and the government. And basically our focus was on customer and the business and in this category, we had 4 kind of transactions-C2C kind of transactions which has become possible only because of Internet, there are B2C kind of transactions which again has become possible because of Internet. Otherwise, directly contacting the because we saw in value in the supply chain, the value delivery network of the supply chain that you for example Dell, can Dell directly contact you to sell its laptop? No.

You have to buy it from some retailer or nowadays, online. Okay? So this B2C transactions are also become possible because of the Internet. And this B2C kind of transactions have have not only I mean the transactions because of B2C, many security issues are coming in and the

payment things are coming in. Those things are also to be handled by the B2C. And Bs2C can be hosted by the companies themselves or it can be through the intermediary.

Then there are C2B. C2B is again because of the Internet . And the 4th category that is B2B, B2B transaction was always happening but only thing is that with IT, many other facilities have come up. Let us just try to look at it, what it is.

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Now when we talk about the value chain of a company, try to remember the value chain of a company. We had some 5 primary business processes 5 primary business activities and there are many reporting activities as well. So here is the scenario presented here. Basically, we had some major subsystems of every business. Let us say finance and accounting, manufacturing and production, human resources, sales and marketing.

And all these subsystems cannot actually independently exist. They are interrelated and information has to flow among them. Okay? So how the information flow? Through various business processes. So now the information system which integrates all these 4 areas and in turn makes the business processes automated within the organisation are called the enterprise systems or ERP. I was talking about the brick and mortar companies, so every brick and mortar companies nowadays most of the companies will have the ERP system which integrates their their individual subsystems.

Now as I know companies cannot exist themselves. They are dependent on their vendors, they are dependent on their customers. They interact with their investors and government and so on. So in the context of a business organisation which is brick and mortar, if they interact with their vendors, they have a subsystems there called e-procurement subsystem and they carry out B2B transactions over there. Similarly, when they directly contact their customers, when they when they contact their customers, either it can be directly they can contact their customers where they will have a B2C kind of transaction.

But in this B2C kind of transactions, you need to maintain the relationship with the customer. You keep to track of the customer, you know nowadays all of us are acquainted with such kind of customer management systems. Users come back just we were talking about this washing machine. Suppose your washing machine does not work, what do you do? You make a complaint. How do you make a complaint?

You may, you can complaint by sending them some, through their web portal, you can just drop some mail or you can call their customer number or whatever you do, if you mark properly, everywhere you are connected with them. They will tell you that you have actually sent a email on such and such date or you have made a call and so on. So how how are they managing it? They are managing through some customer relationship management software.

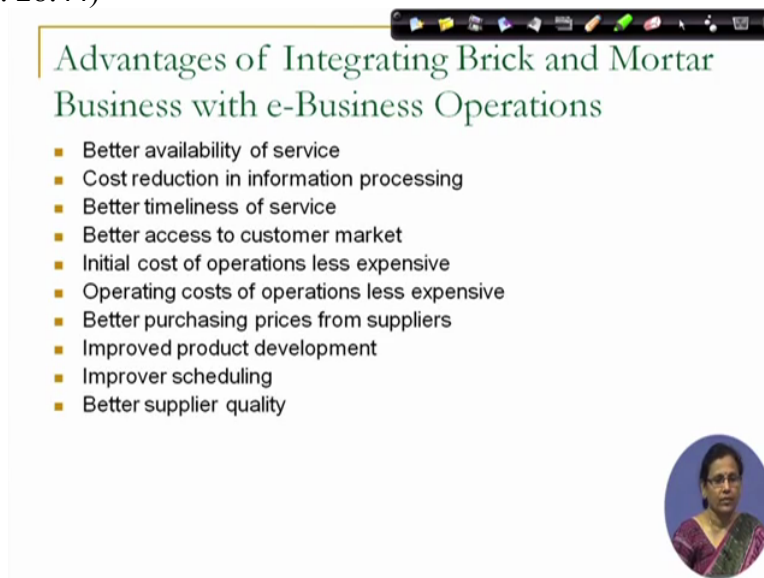
So all these B2C transactions, have to be managed through customer relationship management but if again you are going through your physical channel to your end customer, you have to have B2B kind of transaction. So you need to have a supply chain management system which is not the part of enterprise system which is again you have to contact enterprise system has to be connected with a supply chain management.

Then, for sales and distribution, you can have e-selling and distribution. Again, you can have e-marketing way for supporting your customers. And your organisational website through which you are actually publishing your financial details and all, your investors can communicate with you. Through your organisational website, they can know your, i mean the the transaction that has happened with them, the details it can be the, they can get it.

And through government also, you can, the government can get all your details from your organisational website. So your organisational website, supply chain management system, customers relationship management system, e-selling and distribution, e-marketing, e-procurement, all these things need not be part of your enterprise system though they have to be integrated with your enterprise system and because of which you have to have proper interface modules within these interface systems.

But they do have to exist independently. They do exist independently because of, there is some reason as well. The reason in the sense, let us say e-procurement system. You are contacting with a 3rd party. I mean the 2, either you can take help of 3rd party for e-procurement or you can have your own e-procurement portal. Whatever may be the case, you will not allow your, allow the outsiders to access your own enterprise system. So it has to be a different portal altogether which has to in turn be connected to your enterprise management system.

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Advantages of Integrating Brick and Mortar Business with e-Business Operations

- Better availability of service
- Cost reduction in information processing
- Better timeliness of service
- Better access to customer market
- Initial cost of operations less expensive
- Operating costs of operations less expensive
- Better purchasing prices from suppliers
- Improved product development
- Improver scheduling
- Better supplier quality

So these are the advantages of brick and mortar business with e-business operations. Better availability of service, cost reduction in information processing, better timeliness of service, better access to the customer market. Through B2C, now they are connecting. Initial cost of operations are less expensive because things are online. Operating costs of operation are i mean the cost has reduced because mostly things have gone paperless and they have many of the things

are automated, better purchasing price from the suppliers where one example is we were discussing about reverse auction.

In reverse auction, actually you can you can make your suppliers compete with each other to reduce the price. Then, improved product development, taking input from your customers as you know if you can have, now you have websites which can help you customise your product. Is not it? You go to Nike's website, you can make your own shoe. Is not it?

So there are many websites which will be actually helping you to customise your product. So you can, your product development can be improved. You can have improved product development, you can have improved scheduling and you can have better quality, supplier quality control. But anyway, we will be talking in detail about all these benefits when we talk about the functional areas of I mean when we see e-business has affected the functional areas of the business. So thank you very much.