6- CLASSIFYING E-COMMERCE

6-1 Identifying transacting partners

It is a method for classifying e-commerce is by identifying the partners directly involved in the transaction. An informal version of this framework is being applied in the use of the terms business-to-business (B-to-B), business-to-consumer (B-to-C) and consumer-to-consumer (C-to-C). But what exactly does this mean?

The framework that is summarized in Figure 1.4 identifies a range of relationships based on the party that initiates the transaction and the party that accepts the transaction. The party originating the e-commerce transaction also includes the facilities for initiating and fulfilling it. For example in the case of B-to-C, a business sets up a website that invites and enables consumers to buy their products and then fulfills the purchase.

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<tr>
<th>TRANSACTION ORIGINATING FROM AND BEING FULFILLED BY</th>
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<td>Transaction Initiated &amp; Accepted By</td>
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<tr>
<td>Business</td>
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<td>Consumer</td>
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<td>Government</td>
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<td>Peer</td>
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Figure 6.1 Classification of e-commerce by transaction partners
But the consumer actually initiates the transaction by requesting and then accepting the purchase. So there are a number of exchanges that take place between the parties before the transaction is completed fulfilled. Each of the categories identified in Figure 1.4 are described as:

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1. **Business-to-Business (B-to-B)**

The exchange of products, services or information between business entities. According to market research studies published in early 2000, the money volume of B-to-B exceeds that of B-to-C by 10 to 1. B2B e-commerce sales will reach $1.13 trillion by 2020 in USA only, currently more than $700 Billion.

Web-based B-to-B includes:

A. **Direct selling** and support to business (as in the case of Cisco where customers can buy and also get technical support, downloads, patches online).

B. **Industry portals** where a purchasing agent can shop for supplies from vendors, request proposals, and, in some cases, to make a purchase at a desired price.

C. **Information sites** provide information about a particular industry for its companies and their employees. These include specialized search sites and trade and industry standards organization sites. E.g. www.mfgtrade.com/ is a leading portal for B-to-B news.
2. **Business-to-consumer (B-to-C)**

The exchange of products, information or services between business and consumers in a retailing relationship. Some of the first examples of B-to-C e-commerce were amazon.com and dell.com in the USA and lastminute.com in the UK. In this case, the ‘c’ represents either consumer or customer.

3. **Business-to-Government (B-to-G)**

The exchange of information, services and products between business organizations and government agencies on-line. This may include:

A. E-procurement services, in which businesses learn about the purchasing needs of agencies and provide services.

B. A virtual workplace in which a business and a government agency could coordinate the work on a contracted project by collaborating online such as online meetings, review plans and manage progress.

C. Rental of on-line applications and databases designed especially for use by government agencies.

According to the Gartner Group, B-to-G revenue is expected to grow from $1.5 billion in 2000 to $6.2 billion in 2005.

4. Business-to-Peer Networks (B-to-P). This would be the provision of hardware, software or other services to the peer networks.

5. **Consumer-to-Business (C-to-B). This is the exchange of products, information or services from individuals to business.** A classic example of this would be individuals selling their services to businesses.
6. Consumer-to-Consumer (C-to-C). In this category consumers interact directly with other consumers. They exchange information such as expert knowledge where one person asks a question about anything and gets an e-mail reply from the community of other individuals.

The other form for this service type of opinions about companies and products, for example epinions.com. There is also an exchange of goods between people both with consumer auction sites such as e-bay and with more novel bartering sites such as swapitshop.com, where individuals swap goods with each other without the exchange of money.

7. Consumer-to-Government (C-to-G). Examples where consumers provide services to government have yet to be implemented.

8. Consumer-to-Peer Networks (C-to-P). This is exactly part of what peer-to-peer networking is and so is a slightly redundant distinction since consumers offer their computing facilities once they are on the peer network.

9. Government-to-Business (G-to-B) Also known as e-government. The exchange of information, services and products between government agencies and business organizations. Government sites now enable the exchange between government and business of:
A. Information, guidance and advice for business on international trading, sources of funding and support, facilities (e.g. www.dti.org.uk).

B. A database of laws, regulations and government policy for industry sectors.

C. On-line application and submission of official forms (such as company and value added tax).

D. On-line payment facilities. This improves accuracy, increases speed and reduces costs, so businesses are given financial incentives to use electronic-form submission and payment facilities.

10. Government-to-Consumer (G-to-C) (Also known as e-government).

Government sites offering information, forms and facilities to conduct transactions for individuals, including paying bills and submitting official forms on-line such as tax returns.

11. Government-to-Government (G-to-G) (Also known as e-government).

Government-to-government transactions within countries linking local governments together and also international governments, especially within the European Union, which is in the early stages of developing coordinated strategies to link up different national systems.

12. Government-to-Peer Network (G-to-P) As yet there is no real example of this type of e-commerce.

13. Peer-to-Peer Network (P-to-P). This is the communications model in which each party has the same capabilities and either party can initiate a communication session. In recent usage, peer-to-peer has come to
describe applications in which users can use the Internet to exchange files with each other directly or through a mediating server.

14. **Peer Network-to-Consumer (P-to-C)**. This is in effect peer-to-peer networking, offering services to consumers who are an integral part of the peer network.

15. **Peer Network-to-Government (P-to-G)**. This has not yet been used, but if it was, it would be used in a similar capacity to the P-to-B model (see below), only with the government as the party accepting the transaction.

16. **Peer Network-to-Business (P-to-B)** Peer-to-peer networking provides resources to business. For example, using peer network resources such as the spare processing capacity of individual machines on the network to solve mathematical problems or intensive and repetitive DNA analyses which requires very high capacity processing power.

### 6.2 Degree of digitization

There is another framework created for the categorization of e-commerce into different configurations based on the degree of digitization of the product or service sold, the process of the transaction and the delivery agent. The three main dimensions can be isolated as:

1. **Traditional commerce, where products or services are physical, the process of the transaction is physical and the delivery agent is physical**

For example a corner shop stocks newspapers that are bought with cash over the counter and are taken away by the customer out of the shop.
However, in reality in today’s world, it is very rare that a business is truly traditional because of the use of EPOS systems for payment (electronic point of sale systems).

2- Pure e-commerce, where products or services are digital, the process of the transaction is digital and the delivery agent is digital.

For example, software update services of companies like Microsoft, Cisco, Symantec; downloading of electronic books.

3- Partial e-commerce, where either one or two of the dimensions are physical. For example in the case of booksellers Amazon, the products (books) are physical, the process is digital and the delivery agent is physical.

Classifying e-commerce by degree of digitization is a useful way for managers to

1- Analyse the range of products/services they sell, the processes of carrying out and finalizing the transaction and the way the product/service is delivered. By identifying the areas that could potentially be digitized, organizations can re-engineer their business processes to improve efficiency, reduce costs, access global markets and benefit from the advantages presented by e-commerce and e-business.

Q Why Classifying e-commerce by degree of digitization is a useful way for Managers?