**CA3 exam question**

**Ecommerce**

**1. What is e-commerce? Discuss B2B2C and C2B2C model giving proper examples.**

**Definition:-** Electronic commerce, known as ecommerce, is the buying and selling of goods or services electronically on the internet. It can also refer to other online activities, such as auctions, ticketing and banking.

**Business to Business to Consumer (B2B2C)**

In B2B2C ecommerce, a company sells products to another company which are then sold to consumers. An example of a B2B2C arrangement is when a wholesale distributor sells merchandise to retail stores that then sell the merchandise to end users. The B2B2C model is comprised of three parts: the first business (the business of product origin), an intermediary, and the end user.

There are several different ways the B2B2C model can be used in eCommerce applications. For example, a company could partner with another company to promote its products and services, giving the partner a commission for each sale.

The primary advantage of the B2B2C business model for eCommerce companies is the acquisition of new customers. This is an important consideration for new eCommerce companies that need a way to rapidly grow their customer base.

**Advantages of B2B2C Ecommerce:**

One of the key benefits of B2B2C eCommerce is that it allows businesses to reach a larger audience. By selling products and services to other businesses, businesses can tap into new markets and sell to customers they would not normally have access to. This can be especially beneficial for small businesses, who may not have the resources or contacts

In addition, B2B buyers are often more willing to purchase high-value items, due to their greater purchasing power. BtoB buyers also tend to be more loyal than B2C consumers; this is because they have a vested interest in the success of the supplier, which means that they are likely to return and purchase again from them if they receive excellent service.

**Disadvantages of B2B2C Ecommerce**

The main disadvantage of B2b2C eCommerce is that it can be more complicated and time-consuming than traditional B2B models. In order to be successful, businesses need to have a good understanding of the needs and requirements of both B2B and B2C customers. They also need to have a well-developed eCommerce platform that can accommodate the needs of both types of customers. In addition, businesses need to be able to manage two separate customer databases and fulfill orders from both B2B and B2C customers.

**Examples of B2B2C website**

Despite the challenges, B2B2C eCommerce is becoming increasingly popular due to the many advantages it offers over traditional B2B and B2C models. There are several examples of successful B2B2C businesses. Below are some examples of companies that use B2B2C website.

With the rise of eCommerce, Amazon is one of the world’s largest eCommerce. Amazon now uses a business model that can be summarized by saying they are both B2B and consumer-facing. This means being able to sell your products directly onto their website while also providing fulfillment services for those who don’t want or need much hassle with shipping times – all without leaving any room on costs like taxes.

Microsoft is also a B2B2C company that has been an innovator in the computer industry for decades. They have many products to choose from, including Windows and Office 365 with Business Feature Pack which is perfect if you’re looking into starting your own small business or just need more productivity on a budget!

Brick and Mortar Dealers refer to the traditional street-side business that offers their products or services face-tooth in offices, storefronts, and even online. The best example could be your local grocery store near you – it has a physical location where people can go when looking for certain items like foodstuffs.

**Consumer to Business to Consumer(C2B2C):**

Consumer to business to consumer (C2B2C) is a business model that is commonly associated with e-commerce transactions. In C2B2L, a business acts as an intermediary between two consumers who exchange goods. This exchange is a business transaction in which one of the individuals acts as a seller and the other acts as a buyer.

**C2B2C**, an acronym for **Consumer to Business to Consumer**, is a business model in which **a business purchases products from consumers and resells them to other consumers**. An example of this is electronics recycling or resale, where the C2B2C business buys used cellphones from consumers, refurbishes them and then resells them.

Alternatively, C2B2C is a business model in which a **consumer sells a product directly to another consumer, but using a business as an intermediary**. That is, the ownership of goods passes directly from the selling consumer to the buying consumer, but in the middle is a business facilitating the cusstomer's discovery of items for sale and taking a fee for processing the sale transaction. **eBay** is the classic example of this second form of C2B2C commerce.

**2. Define Electronic Data Interchange. What are the components of Electronic Data Interchange?**

Electronic data interchange (EDI) is the electronic transmission of structured data by agreed message standards from one computer system to another without human intervention. It is a system for exchanging business documents with external entities.

EDI refers to a family of standards and does not specify transmission methods, which are freely agreed upon by the trading partners.

The wide adoption of EDI in the business world facilitates efficiency and cost reduction. EDI is used in such diverse business-to-business relationships as:

* Interchanges between health care providers and insurers
* Travel and hotel bookings
* Education
* Supply chain management
* Administration
* Tax reporting

**Components of EDI**

Electronic Data Interchange (EDI) has three major components. They are:-

* Trading partners
* Translation software
* Communications

**Trading Partners**

These are business organizations that agree to exchange business information, data and documents via EDI. Small, medium and large organizations that are involved in various types of business activities are part of this group. For partners that dare to trade options that are now being made available are endless.

**Translation Software**

This software written in some of the most popular platforms regulates most of the operations. Some of its main features include,

1. It is dual purpose software and it converts files to or from an EDI format called a ‘document’
2. A document is known as an EDI message and the definition specifies the content and sequence of the data to be included
3. In the case of outbound business information, data or documents (we will refer to as document), an internal application file format is translated into an EDI format
4. For inbound documents, the EDI format is translated into an EDI format
5. For inbound documents, the EDI format is retranslated into an internal application file format
6. It is not necessary for trading partners to use the same translation software, nor is it necessary for them to have similar hardware platforms
7. Software and hardware independence is one of the major advantages of EDI

**Communications**

The transmission and reception of ‘document’ between trading partners using compatible hardware and software, which best suits their requirements.

**3. What role does SCM play in Business-to-Business model.**

Supply chain management is the management of the flow of goods and services and includes all processes that transform raw materials into final products. It involves the active streamlining of a business's supply-side activities to maximize customer value and gain a competitive advantage in the marketplace.

* Supply chain management (SCM) is the centralized management of the flow of goods and services and includes all processes that transform raw materials into final products.
* By managing the supply chain, companies can cut excess costs and deliver products to the consumer faster and more efficiently.
* Good supply chain management keeps companies out of the headlines and away from expensive recalls and lawsuits.
* The five most critical elements of SCM are developing a strategy, sourcing raw materials, production, distribution, and returns.
* A supply chain manager is tasked with controlling and reducing costs and avoiding supply shortages.

**5 Parts of SCM**

**Planning**

To get the best results from SCM, the process usually begins with planning to match supply with customer and manufacturing demands. Firms must predict what their future needs will be and act accordingly. This relates to raw materials needed during each stage of manufacturing, equipment capacity and limitations, and staffing needs along the SCM process. Large entities often rely on [ERP](https://www.investopedia.com/terms/e/erp.asp) system modules to aggregate information and compile plans.

**Sourcing**

Efficient SCM processes rely very heavily on strong relationships with suppliers. Sourcing entails working with [vendors](https://www.investopedia.com/terms/v/vendor.asp)to supply the raw materials needed throughout the manufacturing process. A company may be able to plan and work with a supplier to source goods in advance. However, different industries will have different sourcing requirements. In general, SCM sourcing includes ensuring:

**Manufacturing**

At the heart of the supply chain management process, the company transforms [raw materials](https://www.investopedia.com/terms/r/rawmaterials.asp) by using machinery, labor, or other external forces to make something new. This final product is the ultimate goal of the manufacturing process, though it is not the final stage of supply chain management.

**Delivering**

Once products are made and sales are finalized, a company must get the products into the hands of its customers. The [distribution](https://www.investopedia.com/terms/d/distribution-management.asp)process is often seen as a brand image contributor, as up until this point, the customer has not yet interacted with the product.

**Returning**

The supply chain management process concludes with support for the product and customer returns. Its bad enough that a customer needs to return a product, and its even worse if its due to an error on the company's part. This return process is often called reverse logistics, and the company must ensure it has the capabilities to receive returned products and correctly assign refunds for returns received.

**4. Discuss the ECommerce architecture and its components in detail with the help of a diagram**

There are several different types of ecommerce architectures to choose from, but here we’ll highlight three of the most common types, how they function and what advantages they hold for your business.

**1. Two-tier.**

A two-tier architecture refers to two components of your ecommerce business that function on two sides of the architecture. The first is the client side, which is where the user interface runs, and the second is the server side, which holds database data.

**2. Three-tier.**

Although the simplicity of the two-tier architecture might work for some businesses, others may need more functionality. This is why the three-tier ecommerce architecture includes the same components as the two-tier but with one additional tier: the business side.

**Presentation layer**

Just as it sounds, the presentation layer is the part that is presented to the customer. It is the user interface and communication layer of the architecture, where the customer interacts with the website on the frontend, and the application collects data and processes requests from the backend.

**Business layer**

The business layer, also known as the application or service layer, is at the center of the application. It uses business logic, a specific set of business rules, to gather and process information, and it can also add, delete or change information in the data layer.

**Data layer**

The data tier, also known as the database layer, is the final layer used to store data and process requests. This information may be stored using a relational database management system such as LINQ or SQL.

**3. SaaS.**

For smaller and/or newer ecommerce businesses, an out-of-the-box ecommerce solution may be a better fit. This kind of architecture uses [Software as a Service](https://www.bigcommerce.com/blog/licensed-saas-solutions-ecommerce/) (SaaS), which hosts software and data in the cloud and is accessible from various web browsers.

With full product catalog and backend functionality, SaaS allows you to get your site up and running in no time, since the provider is in charge of maintenance, hosting and site performance.

Other than simply forming the structure of your website, a strong ecommerce architecture holds a number of other advantages that are bound to help you scale your business.

**5. Write about the internet technologies essential and relevant to Ecommerce.**

1) ERP for e-commerce

2) Omnichannel platform

3) Chatbots

4) Recommendation systems

5) Smart Search

6) Retention pop-ups

7) Pricing Tools

8) Social media monitoring

9) Indicator analysis tools

10) Payment Integration Systems

11) Blockchains

12) Remarketing

13) Augmented reality

14) Bigdata

15) Cloud computing

**1) ) ERP for e-commerce**

Um [**ERP for e-commerce**](http://smarthint.co/erp-para-ecommerce/) is a software capable of managing all areas of your virtual store, such as [invoice issuance](https://blog.tiny.com.br/tiny-erp/geracao-automatica-de-notas-fiscais/), finance and inventory control, for example. This technology can bring several benefits to your digital business, because in addition to automating and optimizing tasks, it also generates reports that can help you in decision making. Therefore, it is certainly an indispensable technology for any e-commerce.

**2) Omnichannel platform**

When it comes to technology for e-commerce, the use of platforms **[omnichannel](https://www.smarthint.co/en/omnichannel/" \t "_blank)** it's a trend to increase profitability and stay ahead of the competition.

With this feature, it is possible **integrate sales and communication channels** of the company, such as virtual and physical stores, applications and [social networks](https://www.smarthint.co/en/social-listening/), to carry out a single effort to attract, serve and [customer retention](https://www.smarthint.co/en/retention-strategies-virtual-store/).

**3) Chatbots**

Chatbots are robots that interact with humans via online chat and are undoubtedly one of the top technologies for e-commerce today. Using this feature ensures 24/7 customer service through a **fully automated communication** with resources of [**artificial intelligence**](http://smarthint.co/o-que-e-inteligencia-artificial-exemplos/).

**4) Recommendation systems**

O [**recommendation system**](http://smarthint.co/o-que-e-um-sistema-de-recomendacao/) is one of the most effective e-commerce technology resources in attraction, conversion e customer retention. It uses data analysis to compose a [**smart virtual showcase**](http://smarthint.co/o-que-e-vitrine-inteligente/) com product suggestions, facilitating the purchase journey and increasing conversion rates. These windows can be [Custom](https://www.smarthint.co/en/personalization/) or not for each client, depending on the objectives of each virtual store.

**5) Smart Search**

A [**smart search**](http://smarthint.co/busca-inteligente-ecommerce) is today one of the main technologies for e-commerce, as it optimizes searches within the virtual store. This is extremely important, as 60% of [online sales](https://www.smarthint.co/en/online-sales-strategies/) comes from [search field](https://www.smarthint.co/en/search-field/). Also, it's no use having the product the customer is looking for if you can't show the right results quickly.

**6) Retention pop-ups**

Os [**retention pop-ups**](http://smarthint.co/pop-ups-de-retencao-para-ecommerce/) aim **generate urgency**for the consumer at specific stages of the buying journey — such as on product pages, or in situations of [abandoned cart](https://www.smarthint.co/en/abandoned-cart/) —, seeking to generate interaction with the customer.

**6. What is ERP? What are the limitations of ERP? List the benefits of ERP.**

Enterprise resource planning (ERP) is a platform companies use to manage and integrate the essential parts of their businesses. Many ERP software applications are critical to companies because they help them implement resource planning by integrating all the processes needed to run their companies with a single system.

**Disadvantages of ERP systems**

The effort involved in **integrating an ERP system**shouldn't be underestimated. It can be **time-consuming**, **costly,** and **difficult**to transfer data and maintain a certain level of quality over time.

**Implementation**

An ERP system isn't introduced into a company overnight. The implementation requires a considerable amount of **time and effort**.

**Employee training**

For such a system to serve its purpose, every employee must be informed about the implementation and subsequently use it. This often requires **training and education**.

**Advantages not immediately visible**

The often expensive and complex implementation of the ERP system doesn't bear fruit immediately. The key here is to remain patient and have **realistic expectations**.

**Customizations**

The possibility to customize ERP systems is a **blessing and a curse**at the same time. On the one hand, this option is one of the reasons for the usefulness of this software, but on the other hand, there are also disadvantages and problems that can come along with it.

**Complexity**

There is no question that ERP systems can be a powerful tool to move a company forward. However, the numerous possibilities it brings with it also lead to a **high level of complexity**.

**Advantages of ERP Systems**

Whether you opt for integrating or connecting your shop system with an ERP system, getting the most out of this venture should be a priority. In this part, we are highlighting some of the advantages that ERP can bring to the table:

* Backup of all company data in one place
* Automation of certain work processes
* Integrated information between all departments
* Acceleration of collaboration between employees in different departments
* Facilitation of accurate tracking of inventory and sales
* [Facilitation of fulfillment](https://getbyrd.com/en/fulfillment/)
* Creation of a single point of analysis and reporting
* Single trusted, internal source of information
* Elimination of single-purpose software
* Integration of systems and services
* Enables standardized processes

**Benefits of Enterprise Resource Planning**

Improves Accuracy and Productivity

Improves Reporting

Increases Efficiency

Increases Collaboration

**7. Explain ERP Implementation Lifecycle**

The ERP implementation life cycle is the eight-step process of deploying enterprise resource planning (ERP) software, from the planning stage through go-live and beyond. A typical ERP implementation life cycle lasts for six months to a year, but don’t think it’s all about software.

Though the implementation of an ERP system looks slightly different for each company, every ERP implementation life cycle is made up of eight standard stages—all of which are critical to the project’s success.

**Step 1: Planning and Organization**

* **Getting leadership and IT buy-in for the project.**
* **Assembling your ERP implementation team.**
* **Choosing your deployment option**

**Step 2:**[**System Selection**](https://www.acumatica.com/how-to-choose-a-cloud-erp-system/)

* Just as you convinced the leadership team, you’ll now need to convince your team members that the new ERP technology will benefit them and the company.
* Defining your requirements.
* Developing a project plan with the ERP implementation team and your employees.
* Choosing a partner. The ERP vendor is as important as the software.

**Step 3: Installation**

**What happens in this step will depend on the ERP deployment option you chose during Step 1. If you chose to deploy your new ERP solution as a cloud-based instance, you will have no software installation requirements and little to no installation lead time.**

**Step 4:**[**Data Migration**](https://www.acumatica.com/blog/cloud-erp-implementation-migrating-data/)

Once your chosen ERP system has been installed, company data must be filtered (to remove any incorrect or redundant data) and then entered and/or moved into the new solution’s database. This includes “basic records” like customer, vendor, and item master files; bills of material;

**Step 5:**[**Training**](https://www.acumatica.com/blog/cloud-erp-implementation-planning-for-training/)

Employees you designate as Subject Matter Experts (members of the IT team, the finance team, etc.) should receive specialized training during this part of the ERP implementation process, so they can teach others to use the ERP software

**Step 6:**[**Testing and Validation**](https://www.acumatica.com/blog/cloud-erp-implementation-developing-test-plan/)

This step involves creating and applying a detailed testing plan, which will measure user acceptance and help you determine if the ERP system fits your needs out-of-the-box or if modifications should be made.

**Step 7:**[**Go Live**](https://www.acumatica.com/blog/cloud-erp-implementation-going-live/)

* [Big Bang](https://www.acumatica.com/blog/cloud-erp-implementation-going-live/#:~:text=Big%20Bang,of%20the%20business.): The new ERP system is activated and used exclusively going forward.
* [Phased](https://www.acumatica.com/blog/cloud-erp-implementation-going-live/#:~:text=Phased%20Approach,time%20and%20cost.): The new ERP system is activated in phases to minimize disruptions in operations.
* [Parallel](https://www.acumatica.com/blog/cloud-erp-implementation-going-live/#:~:text=Parallel%20Operation,in%20both%20systems.): Both the legacy system and the new ERP system run at the same time.

**Step 8: [Ongoing Improvements and Feedback](https://www.acumatica.com/blog/cloud-erp-implementation-ongoing-improvements-feedback/)**

The ERP implementation process doesn’t end at Go Live. From there, as your employees use the software and as your business evolves over time, you’ll gather user feedback and make ongoing improvements and adjustments to the system.