UNIT - IV

Electronic Markets

Markets are a fundamental feature of modern capitalism and have a long history behind them. During the Middle Ages in England, for example, fairs and markets were organized by individuals under a franchise from the king. Organizers of these markets not only provided the physical facilities for the markets, but were also responsible for security and settlement of disputes in the trading. Throughout history, some traditional markets have diminished in importance while new ones have gained in importance. For example, stock and **commodities** markets, previously not significant, now play a vital role in the world economy. Regardless of changes, the fundamental functions of markets remain the same: to match buyers and sellers, enforce contracts, and provide a price mechanism to guide the trade.

Electronic markets are markets connected through modern communications networks and powered by high-speed computers. In an electronic marketplace, buyers and sellers do not have to be in the same physical location in order to interact. A classic example of electronic markets is the Nasdaq stock market. Nasdaq was launched in the 1970s, long before the widespread use of the Internet, and it does not have an exchange floor. Essentially, Nasdaq is a huge electronic network connecting investors, brokers, and dealers, allowing various parties to exchange information and buy and sell securities. With the explosive development of the Internet, electronic markets will play a more important role in people's everyday lives. The World Wide Web has become the universal **interface** for electronic markets. People can use the web to access various electronic markets virtually from anywhere at any time. Ordinary investors can use the Internet to conduct online trading through online brokerage firms, and customers can bid for various products at online auction houses such as eBay.

- Place buy and sell orders and receive electronic confirmations as soon as the order is executed;
- Check account balances;
- Receive real-time price updates;
- View historic account activities;
- Track the portfolio performance on a real-time basis.

Online trading is not only flexible and easy to use, it also incurs lower costs. Online brokerage firms are able to charge customers lower commission fees since they no longer have to employ a large staff to field phone calls from customers. The savings in overhead costs from replacing human

brokers with Internet-based communication systems are passed on to investors in the form of lower fees.

The popularity of online trading has resulted in a new category of traders known as day traders. Some individual investors use online brokers to make dozens of trades per day, many times on the same security.

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Online Shopping :

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Consumers find a product of interest by visiting the website of the retailer directly or by searching among alternative vendors using a shopping search engine, which displays the same product's availability and pricing at different e-retailers. As of 2016, customers can shop online using a range of different computers and devices, including desktop computers, laptops, tablet computers and smart phones.

Buying products or services at a retailer or shopping center is called business-to-consumer (B2C) online shopping. When an online store is set up to enable businesses to buy from another businesses, the process is called business-to-business (B2B) online shopping. A typical online store enables the customer to browse the firm's range of products and services, view photos or images of the products, along with information about the product specifications, features and prices.

Online stores usually enable shoppers to use "search" features to find specific models, brands or items. Online customers must have access to the Internet and a valid method of payment in order to complete a transaction, such as a credit card, an Interacive-enabled debit card, or a service such as Paytm. For physical products (e.g., paperback books or clothes), the e-tailer ships the products to the customer; for digital products, such as digital audio files of songs or software, the e-tailer usually sends the file to the customer over the Internet. The largest of these online retailing corporations are Alibaba, Amazon.com, and eBay.

Advantages

Convenience (Save time and Strain)

Online stores are usually available 24 hours a day. Customers could purchase goods online and in the event of a problem with the item (e.g., the product was not what the consumer ordered or the product was not satisfactory), consumers are concerned with the ease of returning an item in exchange for the correct product or a refund.

Information and reviews

Online stores must describe products for sale with text, photos, and multimedia files. Some online stores provide or link to supplemental product information, such as instructions, safety procedures, demonstrations, or manufacturer specifications. Some provide background information, advice, or how-to guides designed to help consumers decide which product to buy. Some stores even allow customers to comment or rate their items.

Price and selection

One advantage of shopping online is being able to quickly seek out deals for items or services provided by many different vendors. Search engines, online price comparison services and discovery shopping engines can be used to look up sellers of a particular product or service. Another major advantage for retailers is the ability to rapidly switch suppliers and vendors without disrupting users' shopping experience.

Use your coupons

There's always a coupon voucher to be found and applied. Chances are big appliance stores are in direct competition with online marketplaces, so they might offer discount vouchers with 10 per cent off to entice you.

No crowds!

The best reason to shop online by far – who wants to scrum their way through a crowded store. Set up your laptop and sit with a shortbread biscuit and mug of tea. Bliss.

Disadvantages

Fraud and security concerns

Given the lack of ability to inspect merchandise before purchase, consumers are at higher risk of fraud than face-to-face transactions. When ordering merchandise online, the item may not work properly, it may have defects, or it might not be the same item pictured in the online photo. Merchants also risk fraudulent purchases if customers are using stolen credit cards or fraudulent repudiation of the online purchase. Also, hackers might break into a merchant's web site and steal names, addresses and credit card numbers, although the Payment Card Industry Data Security Standard is intended to minimize the impact of such breaches. Identity theft is still a concern for consumers. Computer security has thus become a major concern for merchants and e-commerce service providers, who deploy countermeasures such as firewalls and anti-virus software to protect their networks.

Lack of full cost disclosure

The lack of full cost disclosure may also be problematic. While it may be easy to compare the base price of an item online, it may not be easy to see the total cost up front. Additional fees such as shipping are often not visible until the final step in the checkout process. The problem is especially evident with cross-border purchases, where the cost indicated at the final checkout screen may not include additional fees that must be paid upon delivery such as duties and brokerage.

Privacy

Privacy of personal information is a significant issue for some consumers. Many consumers wish to avoid spam and telemarketing which could result from supplying contact information to an online merchant.

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Online Purchasing :

Businesses buy a diverse set of products and services, ranging from paper clips to computer systems, from steel to machinery. At the broadest level, the purchases can be classified into *manufacturing inputs* and *operating inputs*.

Manufacturing inputs are the raw materials and components that go directly into a product or a process. Operating inputs, by contrast, are not parts of finished products. Often called maintenance, repair, and operating (MRO) goods, they include things like office supplies, spare parts, airline tickets, and services.

Operating inputs tend not to be industry specific; most every business needs computers, copier paper, and cleaning services.

- Online purchasing is the technology infrastructure for the exchange of data and the purchase of a product over the internet.
- It is used in B2B e-commerce for providing customer with an online method of placing an order, submitting a purchase order or requesting a quote.

  Eg: car purchasing
- The customer may visit the site to find information .Internet provides him with an easy way to ship for different products so that he can compare features, functionality and price online.
- For B2B transactions, online shopping may entail an extranet, a private website that include .information that business partners may need to conduct business.
- On the site of the manufacturer, it provides standard product copy, product features, logos, case studies, technical specifications and product availability on his site.

- By accessing business partner's online shopping site, the retailer can be ensured that the picture matches the product and the product will be available in the necessary quantities for promotion.
- Online shopping for B2B transactions speeds up information gathering and access process, providing timely access to accurate information.
- Online purchasing is defined as the infrastructure to allow the purchase of products over the internet.
- If a customer is interested in buying products can go to respective website.

A virtual Wallet/e-Wallet/Digital Wallet:

One of the real frustrations of online shopping is all the forms you have to fill out whenever you shop at a store for the first time. E-Wallets, which provide an alternative method of filling out forms for each online purchase, can help. Early e-wallets required large client down loads and each technology had to be supported by each individual store. They also required a credit card clearing house to update the e-dollar amount in each e-wallet. Digital wallets cut the drudgery by filling forms automatically. IBM sells its digital wallet software to banks for individual branding.

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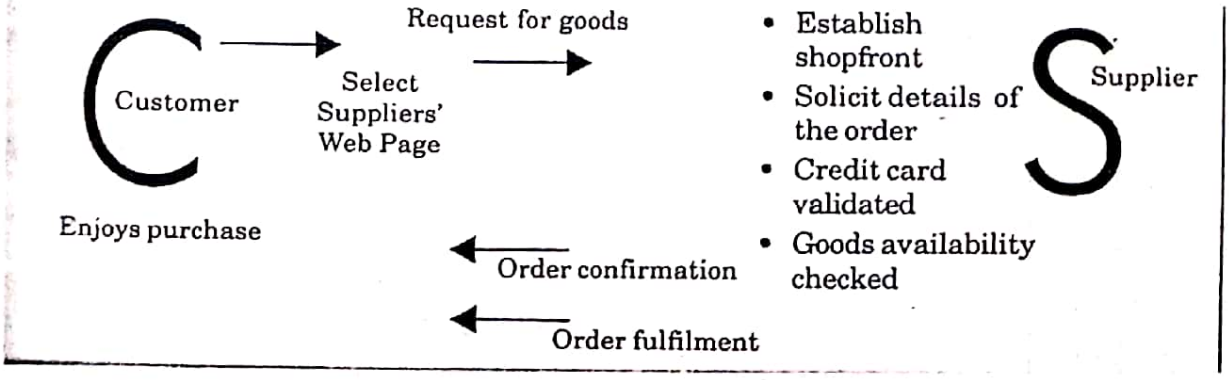
Three models of Electronic Market :

Electronic market is a virtual trade area, where deals are struck on a computer screen over a network. There are Three Models of electronic market. They are

1. Broker Model
2. Customization Model
3 Contact Model

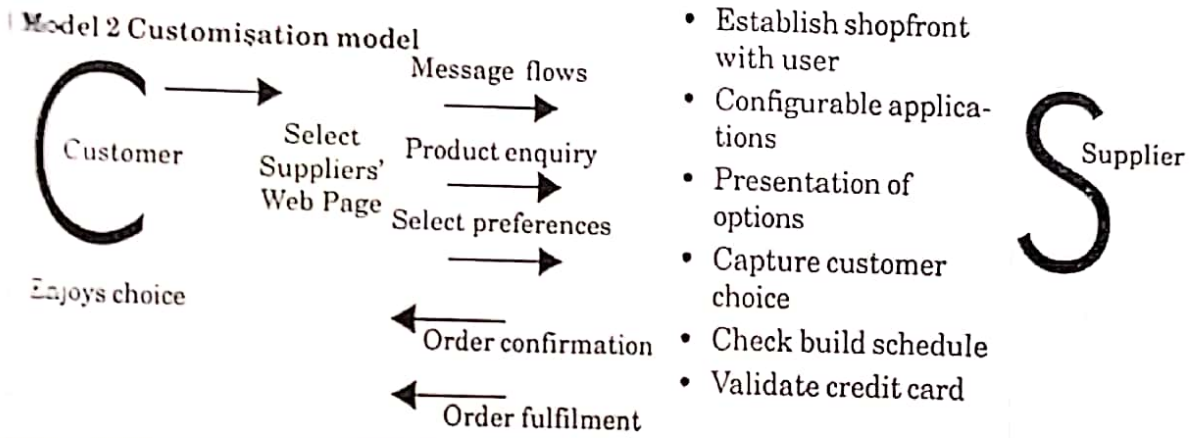
Model 1: Broker model :

The interactions with a bank to validate the customer's credit card and possibly with subcontractors to arrange for the delivery of goods are complex. Other than presentation and marketing which are done else where at amazon.com, the picture is a simple one that the supplier doesn't really have to add much. This may be a simple extension of existing channels to the market.



2. Model 2 Customization model :

If the supplier has some measure of control over the product being sold – either the ability to configure it or complete governance of production, then the sequence of interactions between the customer and supplier would be as below.

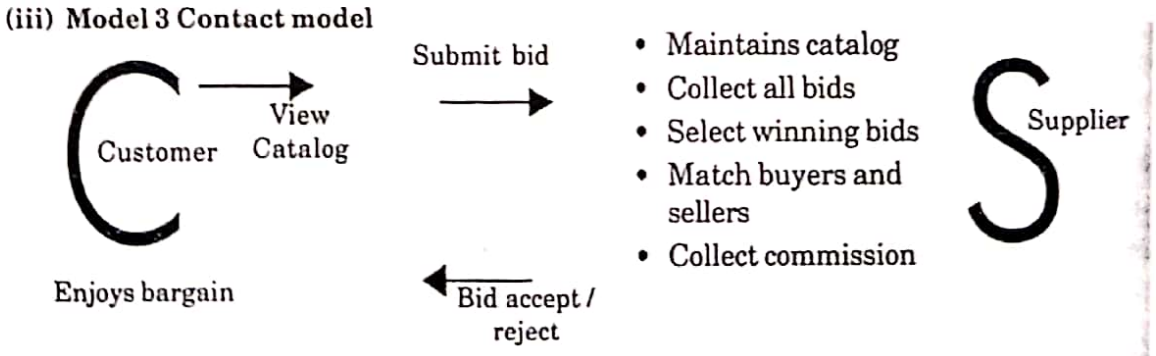


Eg: hotel and airplace seat reservations.

3. Model 3 Contact model :

This model is emerging in internet business is one where the prospective business submits a big against the catalogue which may be accepted by the supplier – rather like a sealed bid auction.

The aim of the electronic business is to match a customer who wants something with a supplier willing to sell it for a price that has been bid. As against the first model, nothing is changed about the product being sold. The ides is to provide with a mean of shifting their product for an optimum price. The sequence of interaction in this case is as follows.



Market category:

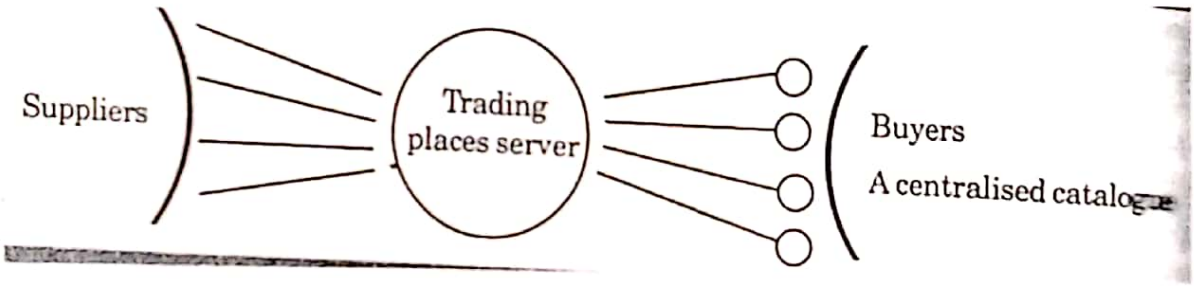
Markets are categorized by the dominant three distinct types in e-business.

They are seller, buyer and open.

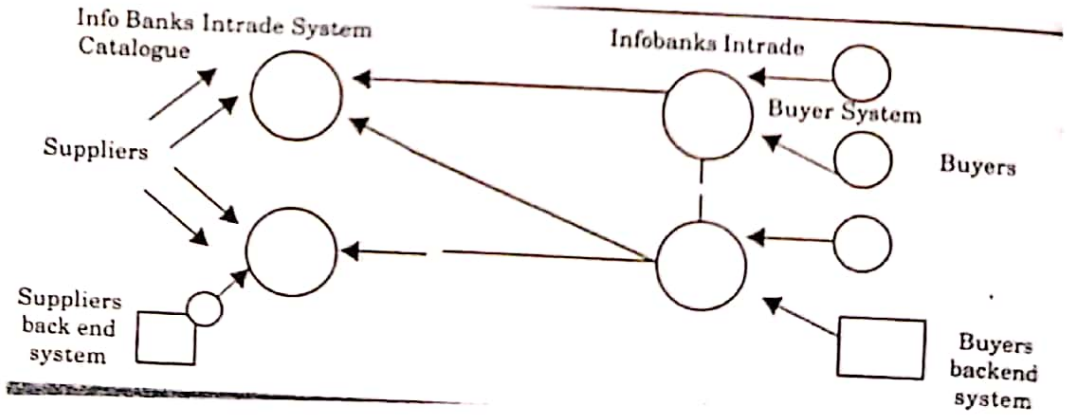
Seller driven market: Large, dominant retailers and manufacturers who set the price. Their brand or product is sought after, its price is not really for negotiation.

Buyer driven market : Many people selling in the market with similar or competitive goods, only a small number of dominant buyers are looking to get the best deal.

A **Centralized catalogue** fits well in the seller driven market more appropriately. Suppliers enter product and service information onto a central system that the buyers then search. Focus is very much on the central data store which is controlled, managed and secured.



A **Distributed or Retail catalogue** fits well in the buyer driven market more appropriately. Instead of one big (supply) catalogue, the distributed architecture takes feed from a variety of suppliers and aggregates the information into a form that the buyers can use.



Open market:

There are also open markets in which the buyer and seller negotiate on a free market, where the behavior of the market itself sets price. Most companies are setting up trade online and service their customers through this new channel to market unilaterally. The supplier will be advertising product or service in some kind of catalogue. Business customers will only use the online medium if

it offers significant advantages over traditional means. They will be motivated to be able to transact quickly and efficiently and may well be put off by complex sites offering a shopping experiencing.

One of the crucial factors affecting the success of a trading application especially for small/medium enterprises(SMEs) without really a strong brand will be how effectively new buyers are attracted to the site.

A supplier will submit details of their site to the different search engines and may commission advertising banners, and directory listing at web portals and other strategic websites.

Buyer market:

In this environment, an organization has sufficient power as a buyer that they are able to dictate terms to their suppliers. In order to trade with the buyer, they must participate in the buyer's own market.

The participation will extend to the publication of their product portfolio in a particular catalogue format and the acceptance of purchase orders via the market place.

Goods purchased can be grouped into two types

1) Business critical procurement such as raw material and components for the manufacture of product for retailer.
2) Non critical items used for MRO such as stationary, IT equipment etc.

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B2B Hubs / E-Hubs:

Business-to-business commerce on the Internet is generating a lot of interest. The appeal of doing business on the Web is clear. By bringing together huge numbers of buyers and sellers and by automating transactions, Web markets expand the choices available to buyers, give sellers access to new customers, and reduce transaction costs for all the players.

Business Purchasing

To understand e-hubs, it's useful to understand what businesses buy and how they buy. Businesses buy a diverse set of products and services, ranging from paper clips to computer systems, from steel to machinery. At the broadest level, the purchases can be classified into *manufacturing inputs* and *operating inputs*.

Manufacturing inputs are the raw materials and components that go directly into a product or a process. Operating inputs are not parts of finished products. Often called maintenance, repair, and operating (MRO) goods, they include things like office supplies, spare parts, airline tickets, and services.

Classifying B2B Hubs

By applying this two-way classification scheme—*manufacturing inputs* versus *operating inputs* (the "what") and *systematic sourcing* versus *spot sourcing* (the "how")—we can classify B2B hubs into four categories ("The B2B Matrix"):

The B2B Matrix :

THE B2B MATRIX

How businesses buy	What businesses buy: operating inputs	What businesses buy: manufacturing inputs
	MRO Hubs	Catalog Hubs
systematic sourcing	Ariba W.W. Grainger MRO.com BizBuyer.com	Chemdex SciQuest.com PlasticsNet.com
	Yield Managers	Exchanges
spot sourcing	Employease Adauction.com CapacityWeb.com	e-Steel PaperExchange.com Altra Energy IMX Exchange

- *MRO hubs* are horizontal markets that enable systematic sourcing of operating inputs.
- *Yield managers* are horizontal markets that enable spot sourcing of operating inputs.
- *Exchanges* are vertical markets that enable spot sourcing of manufacturing inputs.
- *Catalog hubs* are vertical markets that enable systematic sourcing of manufacturing inputs.

In MRO hubs, the operating inputs tend to be low-value goods with relatively high transaction costs, so these e-hubs provide value largely by increasing efficiencies in the procurement process. Many of the best-known players in this arena, MRO hubs can use third-party logistics suppliers to deliver goods, they can disintermediate, or bypass, existing middlemen in the channel without having to replicate their fulfillment capabilities and assets.

Yield managers create spot markets for common operating resources like manufacturing capacity, labor, and advertising, which allow companies to expand or contract their operations on short notice. This type of e-hub adds the most value in situations with a high degree of price and demand volatility, such as the electricity and utilities markets, or with huge fixed-cost assets that cannot be liquidated or acquired quickly, such as manpower and manufacturing capacity.

The exchange maintains relationships with buyers and sellers, making it easy for them to conduct business without negotiating contracts or otherwise hashing out the terms of relationships. In fact, in many exchanges, the buyers and sellers never even know each other's identity

Catalog hubs automate the sourcing of non commodity manufacturing inputs, creating value by reducing transaction costs. Like MRO hubs, catalog hubs bring together many suppliers at one easy-to-use Web site. The only difference is that catalog hubs are industry-specific. They can also be buyer focused or seller focused—that is, some catalog hubs essentially work as virtual distributors for suppliers; others work primarily for buyers in their negotiations with sellers. Catalog hubs often work closely with distributors to ensure safe and reliable deliveries.

Aggregation and Matching

The market-making mechanism that is appropriate for MRO and catalog hubs is quite different from the mechanism used by exchanges and yield managers. E-hubs create value by two fundamentally different mechanisms: aggregation and matching.

E-hubs that use the **aggregation mechanism** bring together a large number of buyers and sellers under one virtual roof. They reduce transaction costs by providing one-stop shopping. PlasticsNet.com, for example, allows plastics processors to issue a single purchase order for hundreds of plastics products sourced from a diverse set of suppliers. The aggregation mechanism is static in nature because prices are prenegotiated. An important characteristic of this mechanism is that adding another buyer to the e-hub benefits only the sellers. And adding another seller benefits only the buyers. The reason is simple: in an aggregation model, buyer and seller positions are fixed.

The aggregation mechanism works best in the following settings:

- The cost of processing a purchase order is high relative to the cost of items procured.
- Products are specialized, not commodities.
- The number of individual products, or stock-keeping units (SKUs), is extremely large.
- The supplier universe is highly fragmented.
- Buyers are not sophisticated enough to understand dynamic pricing mechanisms.
- Purchasing is done through prenegotiated contracts.
- A metacatalog of products carried by a large number of suppliers can be created.

Unlike the static aggregation mechanism, **the matching mechanism** brings buyers and sellers together to negotiate prices on a dynamic and real-time basis. For example, Altra Energy makes a market in energy and electricity by allowing industry participants to list bids and asks on specific quantities of liquid fuels, natural gas, and electric power. The matching mechanism is required for spot sourcing situations, where prices are determined at the moment of purchase. The matching mechanism can also take the form of an auction, as is the case with FreeMarkets.

In the matching mechanism, the roles of the players are fluid: buyers can be sellers, and vice versa. Therefore, adding any new member to the e-hub increases the market's liquidity and thus benefits both buyers and sellers. While catalogs benefit only from the aggregation mechanism, exchanges benefit from both aggregation and matching. Therefore, successful exchanges will reap greater benefits from being first movers. In fact, it is likely that the first exchanges or yield managers to achieve scale will take on natural monopoly characteristics. That makes matching a more powerful business model than aggregation. At the same time, however, the matching mechanism is far more complex and far more difficult to scale.

Matching is a more powerful business model than aggregation, but the matching mechanism is far more complex and far more difficult to scale.

The matching mechanism works best in the following settings:

- Products are commodities or near-commodities and can be traded sight unseen.
- Trading volumes are massive relative to transaction costs.
- Buyers and sellers are sophisticated enough to deal with dynamic pricing.
- Companies use spot purchasing to smooth the peaks and valleys of supply and demand.
- Logistics and fulfillment can be conducted by third parties, often without revealing the identity of the buyer or seller.
- Demand and prices are volatile.

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B2B Marketplace :

Merchants should always be looking for ways to grow their business by selling more products to more customers. One way B2B merchants are doing this is by selling on online marketplaces. For many B2B sellers, online marketplaces are an untapped opportunity as they provide easy access to large new audiences. In this article, learn what some of the top B2B marketplaces are and how you can successfully sell on them. By extracting fees for the transactions occurring within the B2B marketplaces, market makers can earn vast revenues. And because the marketplaces are made from software—not bricks and mortar—they can scale with minimal additional investment, promising even more attractive margins as the markets grow.

But as new entrants with new business models pour into the B2B space, it's increasingly difficult to make sense of the landscape. In this article, we introduce a classification scheme that gives order to the seeming chaos of the new B2B marketplaces, which we call electronic hubs, or e-hubs. By explaining how the different types of e-hubs work and how they create value, we hope to provide useful guidance not only to entrepreneurs looking to launch e-hubs but also to the many buyers and sellers developing strategies for capitalizing on B2B e-commerce.

Advantages of Selling on B2B Marketplaces

It doesn't matter if you're a manufacturer looking to distribute your products to more customers or a distributor looking to expand your sales channels, you can use B2B marketplaces. These online marketplaces have many advantages for sellers.

1.Low-entry Cost

First, they have a low-entry cost. Sellers don't have to create or develop their own eCommerce platform. You don't have to spend as much on marketing because the marketplace is responsible for

the look and feel of the platform. While you do lose some control, marketplaces don't require a lot of upfront investment.

2.Easy Set-up

Marketplaces are easy to set up. You won't spend weeks, months, even years setting up a storefront. Instead, you just need to create an account and load your product information to start selling. Sellers can get up and running fast on new platform.

3.Access to New Audiences

The most important advantage of a marketplace is the access to an already engaged audience. You don't have to build the audience yourself. This expands your reach to new customers, even globally. Marketplaces can also be great way to test out new products with different markets. You can strategically pick a few products and see how they do. Depending on its success, you can pull or push out the products.

Choosing an Online B2B Marketplace

The other tricky part about selling on online marketpalces is choosing which one to sell on.

If you've done any research yet, you'll find that there are many choices to choose from. Their popularity coupled with the advancement of technology has led to the creation of many different marketplaces – from those that serve broad audiences to a trend of new marketplaces that serve very niche markets.

Consider the type of products or services that you sell. It's worth researching to see if there's a niche marketplace that reaches the specific audience you want to sell to.

Top Online B2B Marketplaces

In no particular order, here's a list of the top online B2B marketplaces to sell on:

Alibaba – Launched in 1999, this Chinese-company serves millions of buyers and suppliers globally.

ThomasNet – Leading online platform for B2B seller discovery and product sourcing with over 500,000 suppliers on its platform.

IndiaMart – India's largest B2B marketplace with over 3.5 buyers and a selling model similar to Alibaba.

eWorldTrade – This US-based platform is the world's fastest growing B2B portal and services more than 220 countries.

TradeIndia – India's second largest marketplace with over 3 million registered users.

EC21 – Established in Korea and operates three different marketplaces for China, Korea, and globally. It has over 2 million members, 7 million products, and 3.5 million buyers.

DHGate – Online marketplace for wholesale consumer products with about 1.2 million sellers globally and 10 million buyers.

Amazon Business – Specific B2B portal for Professional Sellers to reach business customers on Amazon.

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B2B Exchanges :

Definition

Business-to-Business (B2B) exchanges are electronic marketplaces in the Internet where suppliers and buyers interact to conduct transactions. B2B marketplaces can be defined as a World Wide Web site where goods and services can be bought from a wide range of suppliers.[1]

Online exchanges vary according to the size and number of companies using them and the type of commodity traded. There are successful exchanges in markets as diverse as energy, textiles and logistics. Online exchanges allow participants to trade straightforwardly with a wide variety of buyers and sellers. Two of the biggest factors driving the growth of exchanges are that large businesses can use them to reduce stock holdings while small businesses can bid collectively to earn volume discounts or to jointly deliver a large contract.

Types of Marketplaces / Exchanges

There are three types of e-marketplaces marketplaces based around a specific industry sectors; marketplaces based around products and services; marketplaces focused on the functions.[2]

1. Marketplaces based around a specific industry sectors are called vertical marketplaces. Petroleum industry is an example. Those help buyers source goods and services that are largely specific to industries.
2. The type of marketplace which is formed around a wider supply market that cuts across several industries is called horizontal marketplace. Examples include the marketplaces for maintenance, repair and operating (MRO) goods such as safety and office supplies. The value of the horizontal marketplaces is that they efficiently match the needs of the one with the offerings of the other.
3. The marketplaces focusing on functions gain value from concentrating functional capabilities and quality services. For example they help HR departments manage employee benefits; help companies dispose of excess inventory and so on.

Benefits and effects of Exchanges

- expand everyone's market reach
- generate lower prices for buyers
- cut the costs of buyers' operations
- higher potential profits for manufacturers with lower procurement costs
- Increase extent and liquidity in the market

- Lower inventory requirements
- Greater transparency and more orderly markets
- Elimination of geographical and time zone barriers
- Removal of distribution channel blockages such as agents and brokers

Barriers in Usage

Trust is an important issue for B2B e-marketplaces. The most important trust issues for participation in B2B e-marketplaces are the following:

- security.
- confidentiality.
- transparency, in particular of the terms and conditions of the contract and the transaction procedure.

Trading models for B2B exchanges

1. Catalogue aggregators – must be neutral, independent sites that are operated by a third party if they are to bring many competing sellers together to earn buyers trust in the information on the site.
2. Post an browse (one–on–one negotiation) – just like a private members room, apost and browse function creates a virtual community, a group of people interested in buying or selling a particular productthat make a connection through a web based bulletin board.
3. Auction markets – the ability of multiple buyers and sellers to collectively set price for a wide range of people and services represents a radical departure from the older, fixed price model in industrial age. Buyers and sellers driven auctions will became popular because of the scale, reach, interactive and real time attributes afforded by the internet.

Examples of B2B Sites

- http://Steeltrading.com Based in Switzerland, Steeltrading.com is the market leader of European B2B exchanges in the steel industry; it allows both steel buyers and sellers to initiate, negotiate, and conclude transactions online. Its platform also provides other services, which directly affect firms' complementary processes.
- http://1city.biz A digital platform that primarily manages auctions for large customers, 1city.biz recently launched a new initiative, called the "Procurement Executive Circle," that may have a greater effect on the networking capabilities of participants.
- http://Bravobuild.com - construction business
- B2B EXCHANGE APPAREL ACTIVITY - customers like Liz Claiborne, Federated, Saks, Department of Defense

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