

E-Businesses: Business Rules, Models, and Methods

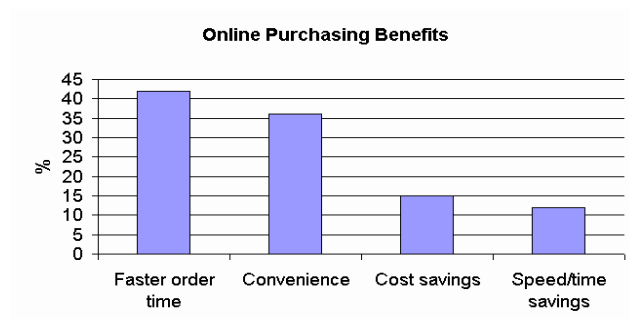
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Introduction

There are six major types of E-businesses, and this paper will focus on the rules that are used to run them and what each of them must do in order to thrive in today's competitive economy. The six types of E-businesses that we will be examining are:

- ? E-Governments
- ? Infrastructure Providers (Business-to-Business)
- ? E-Enablers (Business-to-Business)
- ? Infomediaries (Consumer-to-Consumer)
- ? Marketplaces/Storefronts (Business-to-Consumer)
- ? Trust Intermediaries (Business-to-Business and Customer-to-Customer)

To prove that E-businesses are not doomed from the start, we will define the main elements of each type of E-business, and those set of best practices that need to be followed when starting or re-engineering for each type to run effectively. We will do this by looking at certain business rules and focus areas that one particular type of E-business should use, while others should possibly steer clear of, so as to avoid expending unneeded labor, expenses, time, and other resources that will not help them in the long run. Finally, for each type of E-business we will provide an example of a successful company within that category, and explain what they have done in order to thrive. The following graph illustrates the advantages obtained when using online services:



<http://www.noje.gov.au/projects/ebusiness/Advancing/benefits/>

E – Government

Definition and Overview

E-Government is one of the most active and important forms of e-commerce websites. For years people have been complaining about the inefficiencies of the government and how it does not appear that they are doing anything to fix the problems that they have. That is where the government has decided to let the Internet do the problem solving for them. Many, if not all, government agencies have hundreds of people working for them and millions interacting with them. The overall feeling is that the government needs to have a way of making things easier and more efficient for people. There are too many websites and this can confuse people as to what the real answer to their question is. There are multiple things that one person might need from one part of the government. A person might just need information on how to fill out a tax form; however, there are too many government websites and many of them have conflicting information. Someone might want to be able to register his or her cars online and not have to go into the DMV. A person just wants to be able to complete the tasks that the government requires us to do but they would like an easier way to do it. The main purpose of an E-Government site is organization. If the government were to organize there operations better, things would be done more often and with less problems.

Focus Areas and Business Rules

- ? Cost Reduction. Probably the most important focus area for an E-Government site is to reduce the costs for what the government agencies are in charge of doing. Since there is no profit involved in government agencies, the way for them to make more money is to save it. An E-Government site can reduce the amount of people that need to work help lines. Also if the agency were to post all of the forms that they use online they could save money by not having to print as many. By automating all of the processes that can be done by a single person, the government could most likely save billions each year.
- ? Increase Productivity. This is the other main area of focus for the E-Government website. A lot of the time working for government agencies is a “hurry up and wait” situation. However, if the workers could find the information that they need from other agencies online, then they would be able to do their work more efficiently. This can also be looked at from the other end. If a citizen needs information they could just get it off

the website and not have to call up and use the time of a government employee to answer the question. With the increase of productivity, the agency will also be able to reduce costs, and that is most important.

- ? Increase Customer Participation. Another main focus area for the E-Government is to get the amount of people that need to be participating higher. For instance if a person forgot a tax form, in the past they would have to go somewhere and pick it up. Most likely this would not happen—they would just forget about sending that form in. Now that tax forms can be printed right in your own home, it will increase the amount of people that are dodging part of the tax process. The main focus of the real government is to serve the people and that is also what the E-Government should focus on.

Area of Less Importance

- ? Increasing Revenue. This is not a main focus of the E-Government website because most if not all government agencies are non-profit. So an E-Government site should just focus on reducing the costs that go into the operation of the agency.

Business Example: VA DMV - <http://www.dmv.state.va.us/>

The Virginia Department of Motor Vehicles website is an excellent example of what a well-formatted and well-operated E-Government website should be like. There is ease of use, and there is always a sidebar in case you need to go to another area of the website. On the website there is an area for online transactions (see graphic). On this webpage a person can do anything from a change of address to re-registering his or her car. There is an area where a person can test and see if they can obtain the vanity plate that they have been thinking of getting. The website also has an FAQ, which is always beneficial because many people are probably going to this website to find out the same information. By allowing people to complete these online transactions the VA DMV is reducing the amount of people that are going into the DMV building, and therefore can reduce the staff that they have on hand. This is going to reduce the cost of running the VA DMV. This is also going to help in customer participation, by allowing people to do these transactions online (because everyone hates going to the DMV). Lastly, by having these transactions and information online the VA DMV has increased productivity. For instance, if there is something that cannot be done online, a customer can print out the forms that

would need to be filled out upon arrival to the DMV building. The VA DMV has reduced costs, increased productivity, and helped in increasing customer participation. These are all the attributes of a well-operated E-Government website.

DMV Online Transactions

ORGAN DONATION gives us a special opportunity to help others.

Contact Us Office Locations Site Map About Us site search Go

DMV Home
Online Transactions
 Citizen Services
 Commercial Services
 General Information
 Forms and Publications
 Moving?
 Resources

Online Transactions

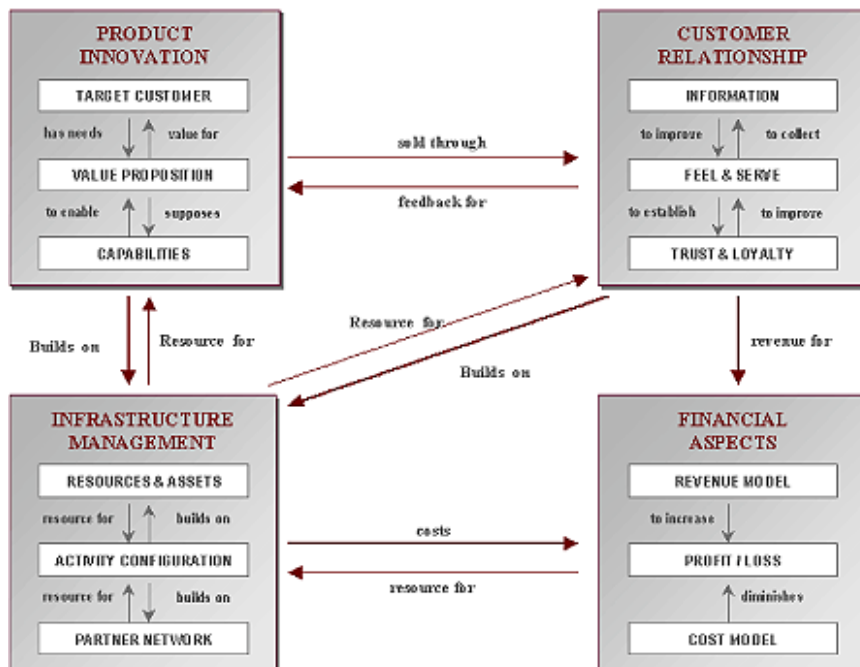
- [Address Change](#) * - Use this free feature to update your address with DMV. ([FAQs](#))
- [Administrative Hearing Request](#) - You can request an administrative hearing at no cost if you have been issued an order of suspension due to an insurance verification request.
- [Compliance Summary Request](#) * - You can use this free feature to find out how to reinstate your Virginia driving and/or vehicle registration privileges. ([FAQs](#))
- [Create a Plate](#) - Say it on your plate! Virginia offers more than 180 special license plates. Plus, you can personalize your plate with your unique message. ([FAQs](#))
- [Customer Inquiry](#) * - It's free! View some of the driver, vehicle and address information DMV has on file for you. ([FAQs](#))
- [Disabled Parking Placard Renewal](#) - Renew your disabled parking placard online today. ([FAQs](#))
- [Driver's License Renewal](#) * - Save yourself a trip to DMV. Click here to renew your driver's license. ([FAQs](#))
- [Driver's License Replacement](#) * - Have you lost your driver's license or do you need to update your address? You can purchase a replacement online. ([FAQs](#))
- [Insurance Verification](#) - If you have received a letter from DMV requesting information about your vehicle liability insurance policy, you can furnish that information at no cost using this feature. ([FAQs](#))
- [Organ Donor Status Change](#) * - Use this feature to change your organ donor status. ([FAQs](#))
- [PIN Administration](#) - A Personal Identification Number (PIN) is required to access certain transactions on our website. ([FAQs](#))
- [Plate Purchase](#) - Want a new look for your vehicle? Purchase a new ([FAQs](#))

Test-drive our interactive demonstrations!

Infrastructure Providers

Definition and Overview

Infrastructure providers are e-businesses that will aide any other company in creating an e-business (business-to-business). Infrastructure providers come in many shapes and colors. There are AIPs (Application Infrastructure Providers), which will host all the applications that a developing e-business needs. Then there are complete infrastructure providers. They will help in both the information, technological, networking, and business aspects of e-business. The goals of these companies are to make money off of other up and coming companies. They can also provide a service to companies that need some sort of process reengineering. If a company is not doing well, it could be because of the way that their business is run and that is where the infrastructure provider would come in. Finally, there are simple types of infrastructure providers such as ISPs (Internet Service Provider). Just by supplying another company with all of their Internet access and some form of networking structure, a company could make a lot of money. This basically means that most e-business enablers are also a smaller version of an infrastructure provider. Many companies will use infrastructure providers to outsource parts of their projects in order to reduce costs and the amount of time they would have to spend on something that can easily be provided by someone else.



The graphic above is the “basic e-model business framework” developed by the Information Systems Department (INFORGE) of the business school (HEC) of the University of Lausanne (UNIL). We have included this model to illustrate the role infrastructure providers play in the e-commerce e-model, and how important infrastructure management is to any e-business.

Focus Areas and Business Rules

- ? Focus on Customer Service. For an infrastructure provider, the customer is the other business, not the customers of the other business. In order to make it as an infrastructure provider, a company will need a good reputation amongst its customers. The best way for an infrastructure provider to get new clients is by word of mouth. Customer service will need to be a full time focus of attention. No matter when a customer needs help on the system that the infrastructure provider has supplied to them, they should be ready and will to help them.
- ? Be Able to Develop and Maintain Infrastructures for All Types of Businesses. An infrastructure provider has to be competent in all areas of e-business. The infrastructure provider must be able to scale to meet the needs of all types of businesses. When a customer wants a server that runs UNIX and all of the workstations to run LINUX, then there needs to be someone in the company that is competent in these areas so that the infrastructure provider can give them what they want.
- ? Advertising the Companies that They Serve. A large portion of the revenue that infrastructure provider get is from advertising the companies that they helped mobilize. The infrastructure provider will either place banners on their page or supply a links page to the companies they service.
- ? Have a Core and Overlay Structure. The infrastructure provider should have a core system that can overlay the requirements their customers have for their system. Having this type of work structure will help them save money since the core system is already built. This way the provider can spend more time tailoring the system to the specific needs of their client.

- ? Acquiring a Percentage of Customers' Transactions. Another area of income that is important to the provider is getting a percentage of the revenues that the customer is making from their transactions. This is a good way for a well-operated infrastructure provider to gain money, because if the company is supplying a quality system and helping its customers run the whole of their business, it can gain on any profit that is made.
- ? Focus on Overall Management. A lot of management is made up of important and difficult tasks that need to be done are a well-managed business. A lot of companies that need infrastructure providers to create a system for them also need to be shown how to run a business.

Area of Less Importance

- ? Marketing the Business. Most infrastructure providers will not be able to make the majority of their business contacts by advertising. This is not to say that it is not important; however, it is not the most important. Most of the companies that an infrastructure provider services will be referred to customers through another client.

Business Example: Hewlett-Packard (HP) www.hp.com

HP's main focus is on technology, no matter what field it is in. The focus that is going to be looked at is HP's infrastructure support portion of its business (HP labs). HP labs is focused on innovations and organization. Their website states that they are also mainly focused in research. The four main areas of their research are: adaptive infrastructure, security, rich media, and mobility. Some of the services and solution areas that they have focus in semantic web, trusted systems, information theory, and applications and technology.

One of the success stories that are posted on HP's web page was one where they help a company by the name of Anthropologie. Anthropologie wanted to move from outsourcing their website, order taking, and fulfillment to an in house system. The focus customers of Anthropologie were educated females, so they felt in order to be able to better monitor customer satisfaction and trends, they needed an in house system. HP made a recommendation to use Ecometry's retail application suite because it has been proven to create a workable cataloging and online fulfillment system. HP supplied a computer with the software and aided in the

transition to the new system. The final outcome of this venture with HP was that Anthropologie incurred about 30% less costs and 50% more sales.

HP has many success stories and this is because they focus on the areas that are important for an infrastructure provider. In the success story of Anthropologie they had great customer service, they advertised one of their other customers (Ecometry), and assisted in overall management by helping with training on the new system. HP is not only one of the leading suppliers in personal and business computers--they are also a very successful infrastructure provider.

E-Business Enablers

Definition and Overview

Businesses that use e-commerce technologies to provide an infrastructure to companies carrying out business over the Internet are called e-enablers. E-business enablers generally tend to build on traditional business structures in the same industry and combine them with technological enhancements in order to make themselves useful to the cyber world. An e-business enabler is an entity that provides a component or a functionality and adjunct services to enable other e-businesses (such as storefronts or infomediaries) to carry out their business efficiently and seamlessly on the Web. The e-business enabler is used to facilitate or enable the business processes of its customers in a transparent fashion. Since these customers are other businesses, this would classify enablers as business-to-business type companies.

The basic idea behind e-business enabling is to give an e-commerce site one-stop shopping that brings real savings to customers while delivering vast markets to the business. E-business enablers occupy the middle and take a piece out of the transaction pie. Various different kinds of e-business enablers include service enablers, online payment enablers, cross-platform communication enablers, and strategic enablers.

E-business enablers offer specialized functionality and ancillary services that allow members of a supply chain, or COINs, to extract value from transactions by adding value. They also offer products for e-business applications, services to enable e-commerce, and support for other e-business initiatives and services.

Focus Areas and Business Rules

- ? **Emphasis on Service.** E-business enablers must have proficiencies in billing, development, network management, and maintenance. This will supply the customer with all main business operations that are necessary for a well-operated business.
- ? **IT Operations.** This includes capacity planning, network strategy and operations, and database administration. E-business enablers have to supply their customers the technology needed in order for their business to function seamlessly. They also must be able to support and maintain their customers' infrastructure.
- ? **Sales and Revenue.** E-business enablers extract value from each transaction by aggregating interested, willing prospects with merchants in an environment of explicit permission. In addition to generating income from percentages of transactions, other revenues include licensing fees for functionality provided and partnership fees.

Business Example: Federal Express <http://www.fedex.com/us/>

Federal Express or FedEx as it is popularly known is a prime example of an e-business enabler. The FedEx Web site is widely recognized for its speed, ease of use and customer-focused features. It has long been a pioneer in harnessing the power of the Internet to provide fast, easy and convenient service options for its customers. The FedEx web site was the first web site to launch a package tracking application that was one of the first true corporate web services. This shows that FedEx uses Internet technology to increase the number of transactions that they can perform. A few years down the line, FedEx was also the first company to come up with the innovative option of offering a feature that allowed customers to generate their own unique bar-coded shipping labels as well as summoning couriers to pick up shipments.

The company is truly an innovator and has managed to re-invent itself in order to stay in the game. It has rolled out a series of customer-facing, online and wireless applications. These are integral to FedEx customers involved in e-business, and they aggressively push large customers onto the Internet, continuing to deploy cutting-edge technologies such as WiFi, Bluetooth and customer relationship management applications in-house. FedEx not only continues to innovate and offer its client new services such as FedEx's Global Trade Manager Service and online document completion, it has also been a leader in adopting the Internet in a superior way in its backend systems. FedEx does this by offering multiple methods for

customers to connect to its shipping, tracking and logistics systems over leased lines, direct connections, private networks and EDI (electronic data interchange). Through all of these technology driven services that create better customers service, FedEx should continue to be a dominate e-business enabler.

The screenshot shows the FedEx website homepage. At the top, there are links for "United States Home" and "Customer Support | Site Map". The FedEx logo is prominently displayed. Below the logo, there are three main service categories: "Package / Envelope Services", "Freight Services", and "Same Day Services". Under "Package / Envelope Services", there are sub-links for "Ship", "Track", "Rates", "Pickup", "Locations", "Transit Time", and "International Tools".

On the left side, there is a search bar with a "Go!" button. Below it, there are links for "Getting Started?", "Information Center", and a list of service types: FedEx Express, FedEx Ground, FedEx Freight, FedEx Custom Critical, and FedEx Trade Networks.

In the center, there is a large banner with a computer monitor and keyboard. The text reads: "Whether you're shipping packages, envelopes or freight, see what's new." Below this, it says "fedex.com Where the business of shipping gets done.™" and includes a "DEMO" button with a play icon.

On the right side, there are several promotional offers and links: "Apply Now - Save 10%", "Try Estimate Duties & Taxes - Free!", and "News" with links to "Our current operations statement regarding the conflict in Iraq", "FedEx Delivers Pandas from China to the Memphis Zoo", "FedEx Fuel Surcharge Information", "FedEx Safety and Security Update", and "More News...".

At the bottom, there is a footer with links for "Global Home", "Service Info", "About FedEx", "Investor Relations", "Careers", "fedex.com Terms of Use", and "Privacy Policy".

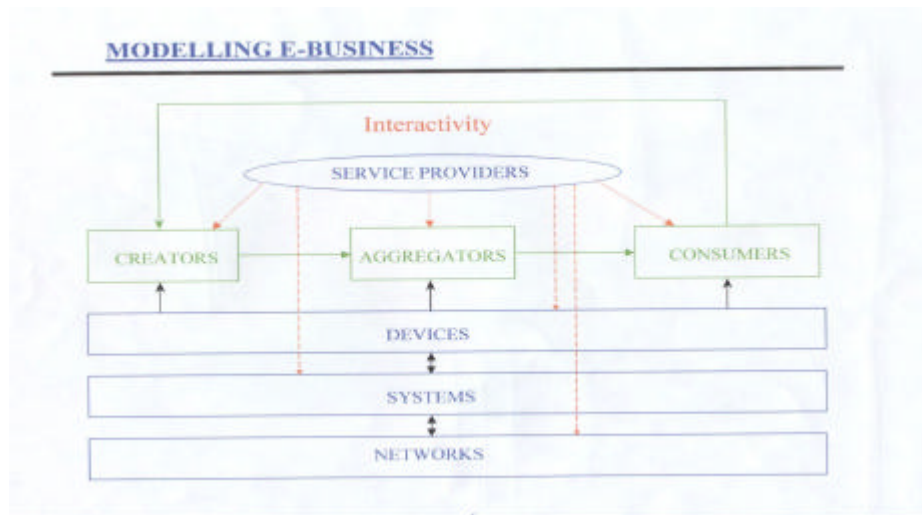
Infomediaries

Definition and Overview

An infomediary is defined as an entity that brokers content, information, knowledge, or experiences that add value to a particular e-business transaction. Infomediaries are also known as content aggregators--they bridge the gap between buyers and sellers and bring them together. An infomediary typically owns nothing; instead, it has to rely on partners for its success. They build trust between the transacting parties, namely the buyer and the seller. The target

community of an infomediary is the members of a virtual community, members of a value chain, or part of an industry's value chain and market segments.

The model below illustrates how all elements of e-business are connected, and the role of the infomediary. The infomediary is depicted as “aggregator” in the diagram.



(http://www.emf.be/regul/regul_presentation.htm)

There are four main types of infomediaries:

- ? Buyer Broker: Buyer brokers reduce transaction and search costs for the buyer by aggregating seller information, product information and evaluative information.
- ? Seller Broker: Seller brokers reduce transaction and search costs for the seller by aggregating and providing information about customers and prospects.
- ? Transaction Broker: Transaction brokers reduce search costs for both buyers and sellers by bringing both parties together. They also help to match the needs of the buyers and sellers as well as facilitate the transaction that takes place between them.
- ? Communities of Interest (COINS): These kinds of brokers reduce the transaction and search costs for a particular set of buyers and sellers with a specific kind of interest.

Focus Areas and Business Rules

- ? Be Proficient in Billing, Order Processing, and Invoicing. Infomediaries do not carry any inventory--they are used to connect buyers and sellers. This means that they have to be

able to facilitate the ordering and billing of all the products that are being passed through them. Infomediaries must have well-trained accounting departments to make sure that they can handle multiple transactions.

- ? **Customer Service and Personalization.** The main focus of the infomediary is to make the users want to come to their website to get the products that they need. Good customer service is necessary because in order to maintain profit the infomediary will need customer satisfaction and loyalty. Also, making the buyer feel like the website was made just for them will increase the number of customers that return to the website. The infomediary can take advantage of such technologies as “asp’s” or “jsp’s” to create dynamic web pages so that each time the user come to the web page it will be tailored to what they want.
- ? **Managing Partner Relationships.** In order for infomediaries to operate they will also need sellers. Infomediaries need to focus on the relationships that they have with the companies that want to sell their products through their website. The infomediary needs to make the seller feel that they will be able to profit from the relationship.

Area of Less Importance:

- ? **Warehousing/Product Storage.** The infomediary is not in charge of tangible goods. Physical products are held by the companies that create them until the infomediary is able to sell these products. Therefore, the infomediaries are not concerned with storage of the goods.

Business Example: <http://www.travelocity.com>

The online travel industry has been a good source of revenue generation in the currently unstable Internet environment. As Internet companies shut down by the dozens each week, consumers continue to swarm to Internet travel sites and airlines' web sites in record numbers, searching for bargain airfares, rental cars, hotel rooms and vacation packages. Three of the top five are: Travelocity.com, Expedia and Hotel Reservations Network, as well as Priceline and Hotwire. These are examples of infomediaries that all offer cheap airline tickets online.

Travelocity is an example of an infomediary between the airline industry and its customers in the sense that it relies on the airline industry for its business model to work.

Customers flock to Travelocity.com to get the best bargain prices on their tickets. It not only brings buyers and sellers together but also offers a variety of related services such as car rentals, hotel reservations, and cruises. Customers are able to access aggregated information about tickets online in one place. Travelocity has built trust with customers as well as the airline industry partners. Travelocity provides a valuable service to people looking for a cheap way to travel. It has become the sixth largest travel agency in the U.S. and has consistently been awarded the World Travel Awards for “World’s Leading Travel Internet Site”. It makes use of the Internet and the technological advantages it provides, in order to offer the best prices to its customers. Thus, Travelocity is a prime example of a successful infomediary.

The screenshot displays the Travelocity.com homepage. At the top, the logo reads "Travelocity.com A Sabre Company". A navigation bar includes links for Home, Flights, Hotels, Cars/Rail, Vacations, Cruises, Last Minute Deals, Guides & Advice, My Stuff, and Help. A search box titled "Find me the best airfare" is prominent, with options for "Flight Only" and "Save with Flight + Hotel". It includes fields for "From:" and "To:", and date pickers for "Depart:" (Apr 9) and "Return:" (Apr 11). Below the search box are buttons for "Search Now" and "One Way | Multiple Cities | Advanced Search".

On the right side, there is a large pink and yellow banner that says "MAKE ROOM FOR Spring" and "hotels are in bloom EVERYWHERE". Below this is a "Fare Watcher" section with a table:

From:	To:	Price
Boston	Orlando	\$193 +
Denver	Los Angeles	\$223 +

Below the fare watcher are sections for "Last Minute Deals" (e.g., "Best-Selling Air/Hotel Packages From \$252+tax"), "Cruises & Vacations" (e.g., "7-Night Caribbean Cruises From \$399 - \$100 Off"), and "Flights, Hotels & Cars" (e.g., "March Hoops College Basketball Deals From \$51").

At the bottom, there are links for "Tools" (Join Travelocity Preferred, Weather, Dream Maps, Mobile, Sweepstakes, Concierge) and "More Travelocity" (Student Airfares, Business Travel, UK, Canada, Germany). The footer includes the Sabre logo, copyright information for 2002-2003, and a BBB Online Reliability Program logo.

Marketplaces

Definition and Overview

Marketplaces, or storefronts, are based on business-to-consumer interaction over the Internet. Their websites contain information on the products they offer and/or the services they provide. They are exactly what their name says—a market, only transactions and possible services are carried out online instead of inside an actual store. These types of E-businesses may have an online presence only, or may also have a bricks and mortar store. Many marketplaces started out as only bricks and mortar stores, and then migrated to selling over the Internet, like Barnes and Noble. Others, such as Amazon, began their sales on the World Wide Web. The advantage to having an online presence is convenience for shoppers, and that is how marketplaces like the ones mentioned have been able to survive and become successful. In today's fast-paced society, being able to do all one's shopping from a computer, without having to leave the house or spend time at a physical store is a huge attraction for consumers. Storefronts may target a certain niche market (i.e., eToys mainly targets children or the parents of these children), Internet shoppers, or the public as a whole. The majority of their revenues come from the product sales, and also from making space available for other companies to advertise on their website.

Focus Areas

- ? Focus on a Combination of Selling Products and Providing Certain Services.
Marketplaces offer products and take orders online. After an order is placed, the business must focus on fulfilling the order and providing customer service and support if needed. Product sales are the main flow of revenue for marketplaces.
- ? The Website. The site for the marketplace is its main method of revenue. Since the website is the actual store, if it is complicated or not easily navigable, a customer may decide against placing an order and never return.
- ? Advertising. The marketplace needs to provide other companies a means of advertising on their site to increase revenues. The business also needs to do its own advertising to expand their customer base.

- ? Security. Customers will certainly not carry out a transaction online if they are in any doubt that their identity will be protected (Social Security number, credit card number, etc.). Marketplaces must ensure that customers feel safe, and that they follow through on their commitment to privacy and security.

Business Rules

Table 3. E-commerce requirements checklist.

E-commerce functions	Options
Registration	Registration before access Registration optional No registration
Customer profile	Yes, enforced Yes, optional No
Finding items	Lists Search mechanism Visuals
Buying	Shopping cart Order form display
Order processing	Automated Manual
Payment options	Credit card Debit card Electronic cash
Order tracking	Yes, real-time Yes, manual update No
Mailing list	Yes No
Product updates	Automated, real-time Automated, batch Manual
Contact	E-mail Contact details displayed
Autoconfirmation	Yes, after order capture Yes, after order processed No
Inventory management	Automatically linked to ordering Manual
International sales	Yes No

? Be Able to Begin New Customer Relationships Quickly (easy registration or order-placing), and End Relationships Quickly (rapid cancellation of orders). The purpose of a marketplace is to make shopping fast and simple, and to eliminate hassle for consumers, not create it.

? Be Able to Manage Multiple Relationships. The marketplace must have an ability to effectively manage its customer database, and be able to constantly update it and keep track of all changes. They must also be able to process and fulfill a multitude of orders, and follow-up on customer service and support for each.

? Have a Strong and Flexible Infrastructure. The infrastructure allows communication with possible customers and is imperative for keeping the website up and running. The physical infrastructure needs to be able to handle multiple transactions and changes, and the possibility of heavy traffic.

? Be Prepared for Growth and Encourage It. Marketplaces must have the capability for the possible expansion of product lines, target markets, and customer base (as mentioned above). The business must be continuously looking for new products to offer, new techniques for advertising and communicating with customers, and ways to improve their website and the services the offer. A storefront needs to stay on top of things, be open to change, and view it as a positive approach to development and increasing success.

Areas of Less Importance

- ? IT Operations. While security and site maintenance are certainly important to both the Internet shopper and the storefront, this does not mean the staff of a marketplace must spend their time focusing on technical issues. Security and the website are both focus issues, and the business should absolutely ensure that security and site maintenance are in tact. However, they will most likely outsource to make this happen. That way, people who are more experienced with that aspect of Internet transactions would be able to better handle the issues (see Trust Intermediaries).
- ? Developing and Maintaining the Infrastructure. Again, the infrastructure is important. One of the marketplace's business rules is to have a strong and flexible infrastructure. But along the same lines as IT operations, possessing a strong infrastructure does not imply that the marketplace should develop it. This is another area of possible outsourcing (see Infrastructure Providers).

The idea behind these two points is not to diminish the need for technical competency. The reasoning is simply that a marketplace should adhere to the business of selling products and providing services, and hire others to take care of these areas for them. A marketplace focuses on the issues mentioned above in the section Focus Areas, and should concentrate on those things such as customer service and order fulfillment. In addition, they should concentrate on ideas for innovating the website and making it secure, and finding and managing ways to make that happen—not physically doing the technical work themselves.

Business Example: eToys <http://www.etoys.com/etoys/index.html>

eToys is an online store that sells mainly children's toys, collectibles, learning toys, and video games. eToys recently re-opened their store (and therefore re-engineered their business to a certain extent) when KB Holding, Inc. bought their intellectual property and software in 2001. KB operates other retail stores (including KB Toys), but eToys is strictly a marketplace; there are no brick and mortar stores. They have no paper catalog, only a Web site, and they only accept gift cards or credit cards online. They ensure privacy and safety through the use of Netscape's Secure Server and VeriSign's "state of the art encryption technology" (etoys.com), and their Web site is certified through the Better Business Bureau Online.

eToys is a good example of how a marketplace needs to operate in order to survive. The way they operated their business before may not have worked, but now that they are concentrating on the right areas they have a better chance of succeeding. Since re-opening, they still offer the same brand names such as Fisher-Price and LEGO and the same “first-class customer service and dependable delivery” (etoys.com), but they have also improved many aspects of their business, including the Web site. Now that they are owned by KB Toys Inc., eToys is certainly able to focus more on the products they sell, as KB has been a toy retailer for 80 years. Since they don’t manufacture the toys they sell, they do not offer technical support for them. However, they do have a customer service department, a Help section, links to access “Your Account”, “Order Status”, “Shop Cart”, “Wish List”, and “Gift Center”, and an eToys Newsletter for customers. This focus on products and customer service, their improvement to the Web site, and their commitment to security are three of the four focus areas listed for their type of E-business. Advertising takes care of itself, since eToys promotes the companies that make the toys they sell.

As for business rules, eToys is certainly prepared for and encourages growth, as they are making a constant effort to improve their business. They have thus far been able to manage their relationships well, although it still remains to be seen whether or not they will continue to follow the necessary business rules for marketplaces. If they do so, eToys’ re-engineering (with the help of KB) will ensure future success.

Trust Intermediaries

Definition and Overview

Trust intermediaries provide security services over the Internet for other e-commerce sites. Specifically, trust intermediaries act as a third party that ensures the safety and secure delivery of customer information and funds being passed from an Internet buyer to an Internet seller. They take custody of the information and virtual payment being made the World Wide Web, thereby becoming an intermediary, and providing an element of “trust” for the two parties exchanging this private information. To build this trust, these types of e-businesses must target both the buyer of the goods and the seller of the goods (i.e., the marketplace and the Internet shopper), and sell themselves to each. Both of the parties involved in the transactions must be confident that their information will be exchanged privately and over a secure channel. For

example, as mentioned above, the trust intermediary VeriSign is outsourced by eToys. Instead of dealing with encrypting and decrypting customer information themselves, eToys employs VeriSign to do this job for them. This provides two benefits: reducing the amount of work that eToys has to do, thereby allowing them to concentrate on their focus areas and business rules, and conveying to the buyer that their payment information is in safe hands with VeriSign. The customer must be convinced that since eToys trusts VeriSign, the customer should also.

Focus Areas

- ? IT Operations. While other e-businesses may not focus on this because it is not their means of revenue, this is the area that the trust intermediary must focus on the most. There is a high level of skill involved with this type of e-business. Information technology concepts such as encryption and security services are the core aspects and competencies of the trust intermediary. An intermediary's customer must feel safe in using their services and making sure that the top of the line encryption is being used is vital. IT operations are what their businesses are based on, and they are being trusted to carry out these operations in the correct manner.
- ? Customer Satisfaction and Retention. The inflow of revenue for trust intermediaries stems from licensing fees and customer subscriptions. In the case of exchanging virtual money, they do not obtain a percentage of the transaction. Trust intermediaries must live up to their names and provide secure services that customers have confidence in, so that customers will continue to purchase their services and recommend them to others. By building a good reputation due to client satisfaction, and increasing their customer base, trust intermediaries will boost revenues from the continuing sales of their services.
- ? Advertising. Building a good reputation also depends on advertising. A trust intermediary should market itself to e-business sites in need of their type of services. They should also try to place advertisements on their clients' web pages so that people visiting the sites will know who is handling their transactions.

Business Rules

- ? Provide Secure Services. The nature of a trust intermediary is based on security, as touched on above in the IT operations focus area. The services they provide must be 100 percent secure, at all times, to guarantee the safe transfer of information. The information transferred must be unchanged, and passed over a secure medium. Trusted intermediaries must be technologically adept in the specialized security services that they provide.
- ? Build Customer Trust. The trust intermediary will not succeed if the parties using their services do not believe their information is in good hands. Trust intermediaries must prove themselves so that customers will not hesitate to use their services on a regular basis.
- ? Be Proficient in Billing, Order Processing, and Invoicing. Trust intermediaries provide a virtual escrow services for two parties. These types of e-businesses must be able to handle multiple customers and financial transactions. Money is a very sensitive area for everyone, and trust intermediaries are counted upon to handle the transfers safely. The information must be kept intact; it must be given to the seller in the same form as it was received from the buyer.

Areas of Less Importance

- ? Warehousing/Product Storage. As with infomediaries, trust intermediaries hold no tangible goods. They are not concerned with storage or delivery of goods, only the method in which they are paid for and the shared information that is needed for the transaction.
- ? Order fulfillment. Similarly, trust intermediaries are not concerned with the processing of a product order. Again, they only handle the payment for the order and the information exchanged that is necessary for the order to take place.

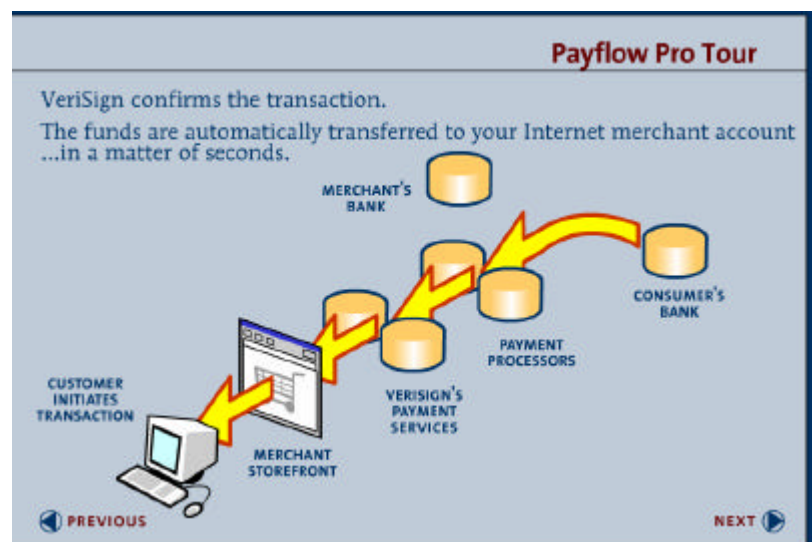
Business Example: <http://www.verisign.com/>

Until lately, VeriSign and CyberCash were the two most prominent payment-processing services available for Internet financial transactions. However, VeriSign recently bought out

CyberCash, and if a Web surfer navigates to www.cybercash.com, they will read the following statement: “VeriSign's global reach, unmatched experience, and market-leading Internet infrastructure now gives you access to a comprehensive set of products and services that enable you to offer customers a safe and efficient e-commerce experience.” This method of advertising is one of the focus areas that VeriSign has concentrated on in order to build a strong customer base. The “market-leading Internet infrastructure” is an example of the focus on IT operations, and offering “customers a safe and efficient e-commerce experience” alludes to VeriSign’s customer satisfaction and provision of secure services.

VeriSign’s motto is “The Value of Trust.” This is a two-part statement, explicitly pointing out the most important focus areas for trust intermediaries: payment processing (monetary value) and the promised security of those transactions (trust and its inherent value). This motto alone proves VeriSign’s commitment to their business operations, the secure services they provides, and customer trust.

Visiting the VeriSign website will prove to any potential customer how serious they are about their business. The fact that they are now a global company and have acquired CyberCash’s Internet payment business is a sure sign that they are focusing on the right areas and following the right business rules. This has turned VeriSign into one of the leading, most successful trust intermediaries in the market.



Conclusion

As seen in this paper, if an e-business follows the correct set of business rules for its type of business, it should be able to profit. This paper defines what each set of rules are for each business and how they should use them in order to succeed. Certain e-businesses have more technologically oriented business rules and focus areas, while others concentrate more on the business operations of the company and customer interaction (such as marketplaces). With the rise and fall of the .com era, many people are now skeptical as to whether the Internet is going to help their business prosper. However, this all depends on the way companies utilize the Internet and the functionalities it provides, as well as how they may use other e-businesses to enable their success (such as e-business enablers and infrastructure providers). This paper has also given examples of successful e-commerce companies that have followed the necessary set of rules for their businesses, and have driven themselves to become leaders in their market.

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