

Electronic business: A business model can make the difference

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Electronic commerce has such well documented advantages that if a business does not engage in doing so, one must question the wisdom of management.

Abstract

The major growth in this transition will be from established 'bricks and mortar' businesses, where 'going online' appears relatively simple and easy to do. Designing a website to sell and buy online is easy and certainly offers advantages over traditional business practices.

However, the real potential for successful e-business is in the choice of a correct business model. That design selection is critical to assuring that the major components of e-business are appropriately included, and that they all relate to assuring customer satisfaction.

This article describes the path to business model conceptual selection and unique design for 'bricks and mortar' businesses to assure success in e-business. The critical components; supply chain management, cost reduction, relationship marketing and adding value, all relate to trading information for inventory and assets. The formula for doing this, a careful integration of these

factors, serves to satisfy customers – the key to e-business.

Introduction

Electronic business (e-business) has created fundamental changes in the way businesses operate, and the changes are permanent¹. The advantages of e-business are so compelling as to overcome the cultural resistance to change necessary to make e-business work. These profound changes involve a fundamental restructuring of business strategy, including process re-engineering, analysis of supply chain, new partnering relationships, and a customer focused attitude.

Electronic commerce (e-commerce) is often confused with e-business, however they are different. Electronic commerce is a part of e-business; it is

the part that has to do with buying and selling goods and services by using a data communications network instead of a paper or telephone (voice) system.

First generation efforts to conduct e-commerce preceded the Internet. In the second generation most businesses progressed in e-commerce to where they could conduct sales transactions electronically. E-commerce is a major improvement in business management, but we need to marry this function with other capabilities to convert an organisation to an e-business. We are now in the third generation of e-commerce, the integration of information technology infrastructure to create an e-business.

E-business includes connections of electronic sales to other parts of an organisation that relate internally to finance, fulfilment, staffing, marketing, customer service, etc, and externally to customers, suppliers and ultimately improved supply chain management. When an organisation recognises the strategic importance of this new business approach and embraces a new business model, thereby making a fundamental commitment to this process integration, it can move on to become a comprehensive e-business². The successes of Amazon, Yahoo!, eBay, Google, and so on, well known pure e-businesses, are just a small sample.

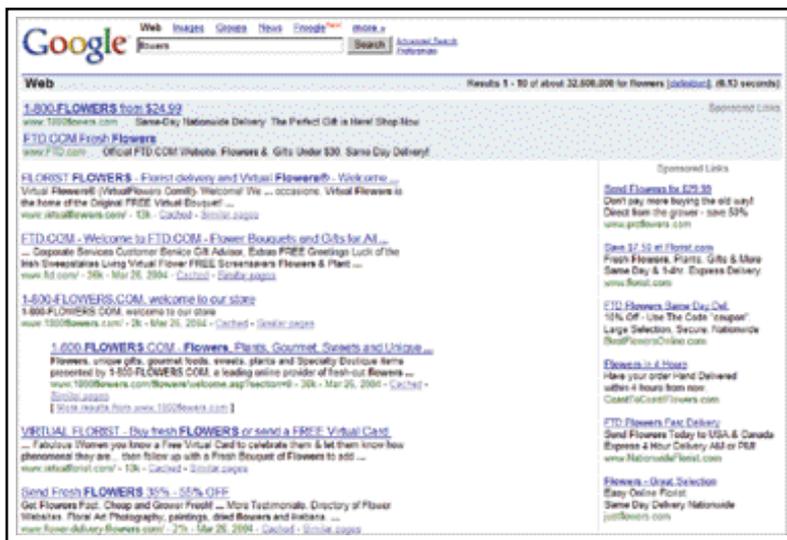
However, the thousands of 'bricks and mortar' businesses yet to make their entry into e-business are where our attentions are focused in this article.

These organisations require careful design work in developing the business model to extrapolate and amplify their traditional success to an online presence.

Business models

A useful definition³ of an e-business model is:

'A description of the roles and relationships among a firm's consumers, customers, allies and suppliers that identifies the major flows of product, information, money



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and the major benefits to the participant.'

There are eight ⁽³⁾ infinitesimal e-business models:

1. Direct to customer;
2. Full-device provider;
3. Intermediary (portals, agents, auctions, aggregators and others);
4. Whole of enterprise;
5. Shared infrastructure;
6. Virtual community;
7. Value net integrator;
8. Content provider.

Also in selecting a business model one must consider the following six areas ⁽³⁾ :

1. Strategy;
2. Organisational structures;
3. Business processes;
4. Value chain;
5. Revenue stream;
6. Core competencies.

Business models should be crafted through value imperatives and each business should seek to define a model unique to its business⁴. The model they portray is a statement of an organisation's direction along a path to a conclusion, and the means to that conclusion is the technology necessary to marry organisation to process and collaborations. There is no definitive off-the-shelf business model, however, six ⁽⁴⁾ value imperatives used to map a business model are:

1. Logistics;
2. Relationships;
3. Channels;
4. Capital and cost structures;
5. Branding;
6. Value adding intermediation.

Another view⁵ of web-based business models provides the following list of nine generic e-business models:

1. Brokerage;
2. Advertising;
2. Infomediary;
3. Merchant;
4. Manufacturer;
5. Affiliate;
6. Community;
7. Subscription;
8. Utility.

This taxonomy is not meant to be exhaustive and does provide for combinations of models to be blended to serve a given business strategy.

Five business level strategies⁶ that are affected by the e-commerce mode to be used are:

1. Value adding;
2. Differentiation;
3. Cost leadership;
4. Focus;
5. Growth source.

The major areas of e-commerce described are:

- 1 Intra-business;
- 2 Business-to-business;
- 3 Business-to-consumer;
- 4 E-commerce applications within the value chain.

The way information technology is viewed within an organisation is central to the way e-commerce is established.

The four areas identified previously are but a small fraction of e-business model descriptions, but serve to suggest the divergence that currently exists. In addition there are also many examples of unique, hybrid, models in use for e-business. It may be too early in the maturation of e-business to expect convergence concerning business models, or perhaps convergence is a disservice in

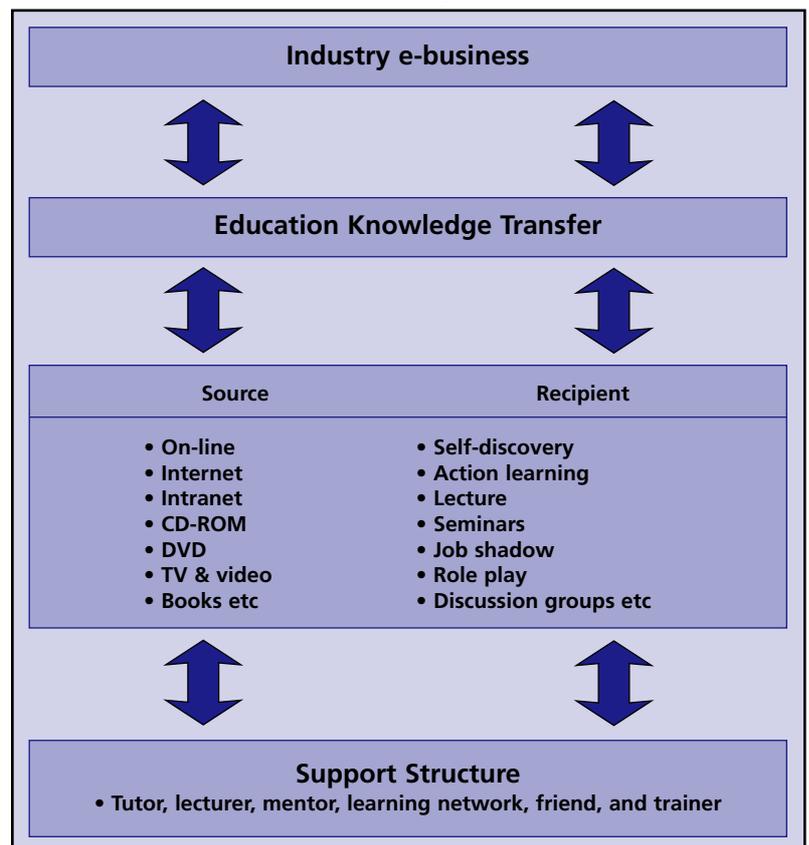
an area that should remain 'free-wheeling' and open for continued innovation. There is help in the form of many consulting companies that offer services and these solution providers can design or select an e-business model relevant to an organisation's business strategy.

The role of trust

Successful e-business depends on a level of trust between parties to a transaction that is not normally evident in traditional business dealings. Trust means that the parties to a transaction will not attempt to exploit the weakness(es) of each other. Trust is also based on knowing the rules of engagement (business ethics) and believing that the other party will abide by them.

Traditionally, people do business with their neighbours, partners, known suppliers or with people they know. However, buyers and sellers may not have a physical location or a 'bricks and mortar' presence when conducting e-business, hence the participants are faceless entities. The lack of this physical presence or the lack of prior experience with an electronic transaction increase the apprehension of parties to the transaction; trust, thus, becomes an important factor in the business

E-business: knowledge transfer from higher educational institutions to industry



Transfer Education to Business (Owens and McManus, 2004)

E-business is good business

equation in a way not present in a traditional business transaction.

Trust in supply chain relationships is essential for successful e-business. Trust is further compounded when the transaction occurs between parties in different countries or is of

technology can reduce transaction costs and enhance trust between parties to an e-business transaction⁷. The business model that takes advantage of this (an inter-organisational information system that substitutes for lengthy trust

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a global nature. How might an organisation include trust in its business model? It is acceptable to suggest that a business strategy includes a commitment to do business ethically and to earn the trust of customers, however including trust in the business model may be difficult to undertake in practice. Trust, or the lack of trust, may be the most significant factor affecting the global expansion of e-business.

The interplay between trust and

building dialogues) can offer substantial savings in time and cost of business transactions.

Integrated Enterprise Architecture Information Technology Architecture (ITA), also called Enterprise Architecture (EA), or Integrated Information Technology Infrastructure (ITI) and sometimes referred to as Integrated Enterprise Architecture (IEA), contains the blueprints and standards used to

explain how organisations' information processes work together⁸. An IEA should include the business activities performed, how they are organised, where they take place, the data and information flows, and the technology used to make all this happen. An organisation may have standards for its hardware and software and still not have a complete architecture. Developing an IEA is difficult and can often fail if the architecture and the standards are too rigid.

IEA by itself has little value as an individual technique; it needs to be linked to the organisation's business strategy. The foundation of an architecture (the backbone) including basic communication tools, electronic mail, voice mail, communication software, network operating system, cabling etc, should be standardised. The top level of the architecture should be flexible enough to support a wide range of applications; an open system approach, which allows necessary exceptions to the architecture. Most business organisations are a non-integrated collection of legacy systems, databases, web pages and back-office infrastructure systems. Changing to an integrated model is not a trivial task.

IEA can serve as the basis of an effective e-business model. As previously discussed, the next wave of e-business growth will most likely come from traditional 'bricks and mortar' businesses, some rather reluctantly migrating to the web. Migrating to an IEA requires a detailed plan and substantial effort, but the payoff can be rewarding. Benefits can include improved ability to share and effectively process information amongst the supply chain partners, reduced costs due to resource sharing, improved customer service, faster response and cycle time and the ability to respond faster to changes in technology and the marketplace.

Alternative view of e-business models

Traditional 'bricks and mortar' businesses entering e-business in the

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future will consist largely of small and medium sized organisations. Some traditional businesses have chosen to separate their e-business from the 'bricks and mortar' business. This is a mistake. Integrating the two business forms can offer substantial advantages in supply chain management, inventory reduction, decreased administrative expenses and economies of scale.

How to implement this integration and what business model to use is the challenge to address. The start of this effort must be the design of the IEA. This effort will not only integrate the two business forms, but can lead to the elimination of some unnecessary and costly processes in traditional use. The specification of architecture for an existing organisation usually results in business process re-engineering (BPR) and improved efficiencies before entering into e-business.

A useful insight ⁽³⁾ in suggesting three important questions in seeking to design the appropriate model for e-business:

- Who owns the customer relationship?
- Who own the customer data?
- Who owns the customer transaction?

This contribution focuses business model development to considerations of the important role of the customer, customer service, transaction data and customer relationship management. This is the

central core of e-business. The considerations highlight the difference between traditional business and e-business, especially in product and service areas that have become, or will become, essential commodities. Successful businesses will distinguish themselves by customer service, and owning the transaction and customer data that will allow an organisation to better meet the needs of its customers. This data is the new intellectual property for an e-business; the data market researchers want to buy and competitors covet.

If the issue of trust between buyers and sellers and between trading partners in the supply chain is introduced into the equation, the outline of a new e-business model begins to take shape.

An e-business model for a 'bricks and clicks' organisation can be derived from three tenets:

1. The model is subservient to the enterprise architecture;
2. The model is based on ownership (to the maximum extent possible) of the customer;
3. Strong customer relationship management is developed from deep trust between the parties to the business transaction.

Business integration, IEA and customer ownership are all precursors for the major tenet of this model; customer relations. There are not many 'Tescos' in this world, and

References

1. Owens, J D (2002). 'A framework for E-business Learning.' Manufacturing Engineer Journal, IEE Press, Vol. 81, No. 4.
2. Sain, B; Owens, J D and Hill, J D (2004). 'Advances in e-procurement: A focus on the product/buying situation.' The Management Services Journal, Vol. 48, No. 6.
3. Weill, P and Vitale, R (2001). 'Place to Space'. Harvard Business School Press, Boston, MA, USA.
4. Earle, N and Keen, P (2000). 'From dot com to dot profit.' Jossey-Bass, San Francisco, CA, USA.
5. Rappa, M (2000). 'Business models on the web.' <http://digitalenterprise.org/models/models.html> (Accessed 01/07/05).
6. Fruhling, A L and Digman, L A (2000). 'The impact of Electronic commerce on Business-Level Strategies.' Journal of Electronic Commerce, Vol. 1, No. 1.
7. Welty, B and Becerra-Fernandez, I (2001). 'Managing trust and commitment in collaborative supply chain relationships.' Communications of the ACM, Vol. 44, No. 6.
8. Cherian, E J (2001). 'The Leap from Electronic Commerce to E-business.' ABAS International Conference, Brussels, Belgium, 23 July 23.

there probably will not be many 'Amazon.coms', but there will be many small and medium size businesses that will compete with large businesses and amongst themselves. Customer service will be the distinguishing factor

Discussion

The ownership of a customer relationship means that one entity in the e-business chain knows more about the customer than any other party to the transaction. The ownership can be exclusive or shared, but the dominant owner often enjoys a closer business relationship with the customer. Where this closeness is high, providing detailed information about the customer, the owner has an opportunity to tailor exclusive services and products for the customer for future sales.

In conclusion, a customer relation is the single most decisive factor for success for e-business and subsequently must be the core tenet of an e-business model.

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