

E-COMMERCE ONE TO ONE

BUILDING CUSTOMER SHARE IN THE INTERNET ENVIRONMENT

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INTRODUCTION

Since the early 1990s there has been movement in business towards increased personalization of goods and services for customers. This trend towards personalization is a departure from the aggregate marketing approach made possible by the advent of mass media such as television, radio and print. Labeled ‘One to One Marketing’, this new way of selling is actually a return to the old concept of dealing with each customer as an individual, customizing services and goods for that particular customer, and then retaining that customer throughout his lifetime.

Where it was easy to apply one to one marketing when a customer set was small and local, it became increasingly difficult to do this as our horizons expanded throughout the 1900s. With the advent of new electronic technologies, it has again become possible to reach out to individual customers, interact with them, and deliver customized goods and services that are exactly what that individual wants and needs. The World Wide Web is an emerging and important part of this return to personalization, and designers of electronic commerce solutions must be able to apply technology to enable businesses to compete and win in this vital area.

This paper describes the marketing and technical concepts driving the move towards personalization in electronic commerce. It proposes a methodology for determining the readiness of a business to compete effectively in the one to one arena, as well as a prescription for moving into position to exploit this exciting new opportunity.

ONE TO ONE MARKETING CONCEPTS

BACK TO THE FUTURE

In nineteenth century America before mass media, mass production, and mass transportation, retail businesses were very much a part of the community where they were located. It was common for a shopkeeper to know the hat size of every woman in town, what styles she liked and when she was likely to need a new one. Because he serviced a small group of customers, the shopkeeper was able to not only know what his individual customers wanted, he could deliver exactly what they wanted when they needed it.

As technology advanced, businesses became larger, and lost the ability to personalize the shopping experience. Shopkeepers could no longer remember every individual, much less interact with them. The cost of producing customized goods became prohibitive. Mass marketing was born, and most people alive today have not had the benefits of a personalized shopping experience in their day to day lives.

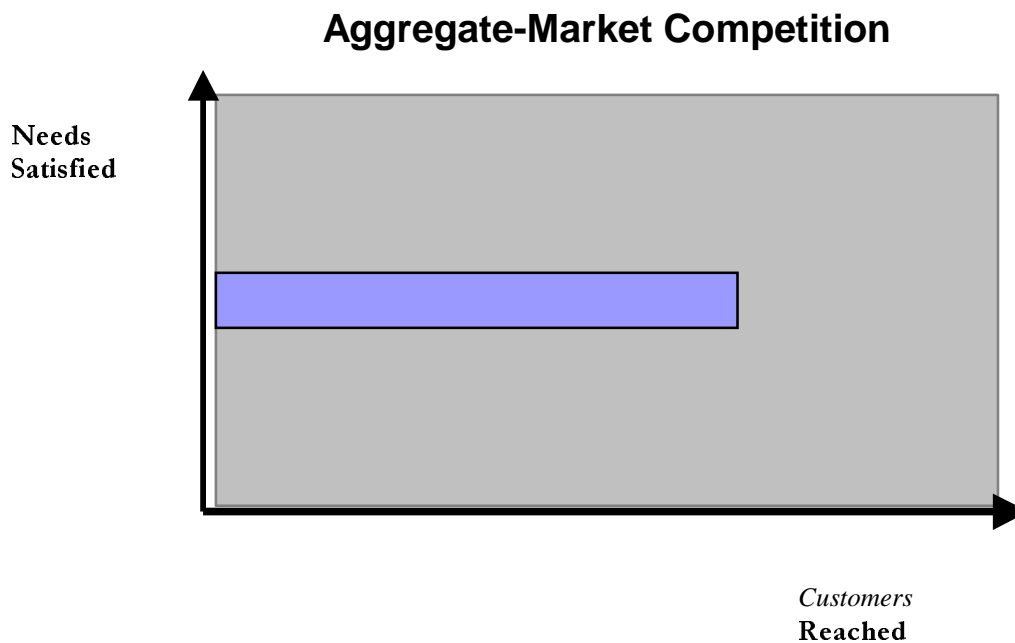
Ironically, computer technology, while denounced by many as an agent of depersonalization, has actually made it possible for business to come full cycle and return to high levels of individual attention and customization of products. Database and mass storage technologies make it possible to maintain, manage and analyze large amounts of customer information. New interactive media technologies make it possible to businesses to open dialogues with customers on a global scale. Modular assembly line technologies make it possible to deliver ‘mass-customized’ products to an individual based upon his specific needs.

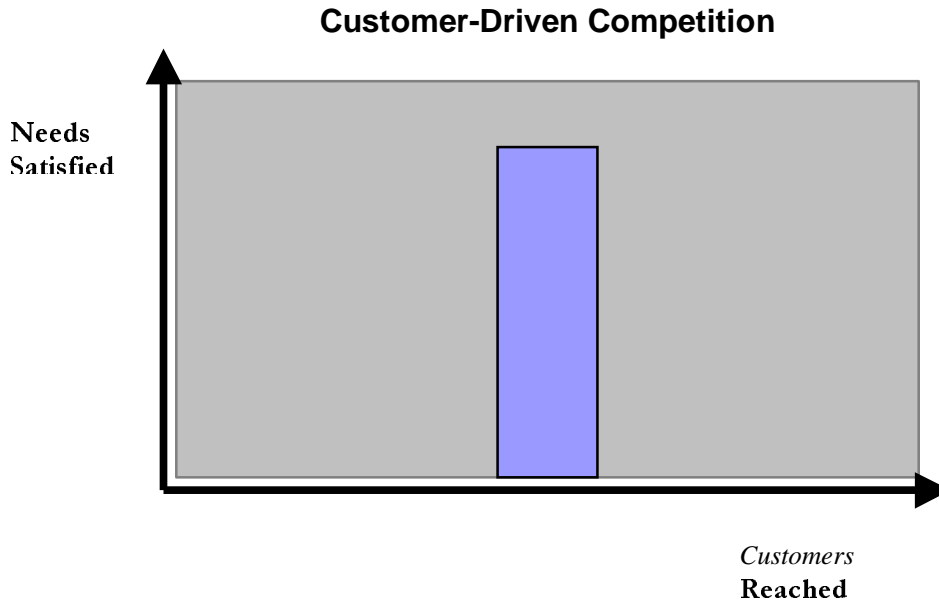
Electronic commerce on the World Wide Web is perfectly situated to exploit these new technologies, and to deliver integrated solutions to businesses that are striving to become one to one marketers. Changing a business model from mass or aggregate marketing to one to one marketing is an extreme challenge for business today, and electronic commerce is a bleeding edge solution to many managers. Personalization will play a large part in the success or failure of future electronic commerce initiatives - customers will begin to demand it, and to win in the marketplace business will have to learn how to deliver.

CUSTOMER SHARE VS MARKET SHARE

Traditional aggregate marketing operates on the principal of selling a particular product to as many new customers as possible by treating all customers from any single market or segment the same way, and getting as accurate a fix as possible on their average needs. Aggregate marketers look for ‘niches’, focusing on one product or service at a time, and then plumb the market to find as many customers as possible who want that particular product. They operate on a ‘push’ model, where they determine the product or service dimensions, and then use direct selling techniques to get the word out and convince the customer to purchase. The goal of aggregate marketing is to capture the greatest market share, reaching the most customers with a specific good or service.

Customer-driven marketing is oriented towards capturing ‘customer share’. This means satisfying a greater number of needs of each particular customer and growing that customer’s business through time. Customer-driven marketing requires interaction with individual customers to ascertain their needs, and the ability to fulfill those needs through customized products.





While these two different approaches to marketing seem in opposition, they can be used effectively together. Aggregate marketing can be used to attract customers, while customer-driven marketing can then be used to keep and grow those customers. Both strategies have a place in retail marketing, but techniques used to succeed with each are completely different. Businesses today are just beginning to understand the concepts behind the customer-driven model and how to use today's technology to achieve and grow customer share. Electronic commerce can be an effective means to interact with customers, remember their needs, and respond with customized goods and services. It is the job of system designers to help them learn how to use the medium to achieve effective results.

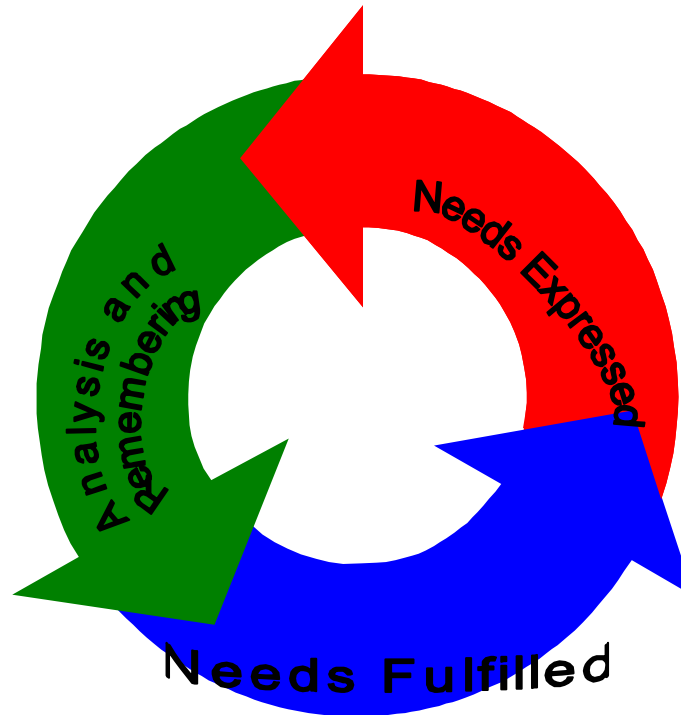
THE LEARNING RELATIONSHIP

In their book "Enterprise One to One", Don Peppers and Martha Rogers describe in detail the 'Learning Relationship' that occurs between a customer and a business.¹ This relationship can create formidable barriers to competition, and if developed properly can ensure the protracted loyalty of a customer base.

The basic principle behind the learning relationship involves a cycle of interaction with the customer. This cycle is comprised of the following segments:

- *The customer tells the business what he needs*

- *The business analyzes this information and remembers it*
- *The business delivers product based upon expressed needs*



With each iteration of the cycle, the business learns more about the customer and is able to deliver a more personalized product. It is the job of the customer to specify his needs accurately, and it is the job of the business to respond to those needs and remember them.

Once the learning relationship has been firmly established, ‘switching costs’, or the cost to the customer of moving to a competitor, become so high that even if a superior service is offered by the competition the customer will not switch. It would simply cost too much in time and effort to reestablish the relationship with another vendor.

This relationship can be an extremely powerful tool for any business interested in growing customer share. It can also be difficult to create the mechanism to establish effective learning relationships with customers. Key factors in development and maintenance of a learning relationship are:

1. The ability of the business to conduct meaningful dialogue with the customer.
2. The ability of the business to analyze and store information received.
3. The ability of the business to respond to requests for delivery of customized product.

Some businesses possess these capabilities now, others need help moving toward a goal of interaction and response. Once the decision has been made to move toward a customer-share orientation, tools exist which

can help to support this from developing dialogues with customers to delivering custom-built goods and services.

ELECTRONIC COMMERCE AND ONE TO ONE MARKETING

While there are many ways in which businesses can focus on one to one marketing, the internet and the World Wide Web in particular provide unparalleled opportunities to personalize the shopping experience. In fact, the more mature the web becomes, the more apparent it is that mass or aggregate marketing tactics are ineffective in this medium. By its very nature the web is a tool for interaction and personal selection, rather than a vehicle for mass marketing.

THE NATURE OF THE BEAST

The main commodity in short supply on the web today is the attention of the people who use it. To win the web marketing game, companies must compete to capture and sustain that attention. With the plethora of web pages and interesting sites available, mass marketing is becoming increasingly difficult to implement. Most companies who started out using those techniques are finding that mass advertising efforts on the web do not yield results to justify the expense.

While no definitive study has been done, of the millions of web sites out there somewhat less than 30% have prominent banner ads running. Most mass marketing on the web has been done by placing banner ads on high traffic sites such as portals, and enticing customers to 'click through' to the company's web site. These ads are expensive, and the percentage of customers who actually click through is extremely small. Moreover, a recent study by Media Metrix shows that while overall web page views have increased dramatically during the past two years, portal page views as percentage of total page views have remained constant. Portals captured about 15 percent of all page views from October 1996 to January 1998.²

What this means is that while the number of pages viewed by internet users is going way up, the percentage of page views at the traditional high volume portal sites is decreasing. With more web sites to choose from, users are becoming more savvy as to the sites they select, tuning out the mass marketers and honing in on the information they want. They are also remembering those sites through bookmarks and scripts, and returning again and again to the specific sites that serve them the best.

Unlike passive media such as television, the customer has complete control over his web experience. Users expect to interact with companies, and the 'push' model of advertising can be ineffective in this environment. It is too easy for users to tune out the noise and click to another site - after all, there are millions to choose from, not just 10 or 20 cable stations. People want to enter a dialogue with businesses, and they are far more likely to share information about themselves in a two-way dialogue with a company if they perceive a reward for their efforts. A business can not expect to request personal information if it is not willing to offer the customer some perceived value in return.

According to a recent IntelliQuest survey, 45% of users surveyed listed personally tailored information as a criterion for their returning to a web site. Of that same group, 36% required the web site to be highly interactive. Considering that personalization techniques are relatively new and immature, these are telling statistics. More telling still is that only 39% thought that the site needed to be visually appealing. More people felt that information tailored to their needs was a more compelling reason to bookmark a web site.³

APPLYING ONE TO ONE MARKETING CONCEPTS TO THE INTERNET

We have seen how one to one marketing works, and we've seen how the internet is a natural vehicle for exploiting this vision. We're ready to explore the specifics of e-Commerce One to One. Just what tools are available, how are they applied effectively, and what businesses stand to gain the most from building customer share via the internet?

EVOLUTION OF THE TOOLS

YESTERDAY

Personalization tools have existed in rudimentary form since the invention of cookies by Netscape. Cookies were the first method devised for exchanging information between a computer user and the server. A cookie is a small file that can be placed on the hard drive of the client computer. It contains information used to identify the originating server, and then typically contains information collected from the user via an input form. The server reads these files when the user reconnects at a later date.

Since cookies are small files, their usefulness is limited. They have been used in the past to contain login data from a customer so that the server recognizes him on subsequent visits. Many users are wary of having files written to their hard drive, and reports abound of the unscrupulous use of cookies. Browsers have an option to turn off the receipt of cookies, and some users take advantage of this because of general mistrust.

Whether or not these fears are warranted, the perception is in this case the reality. Developers can not rely upon cookies to capture information, as the user has control over the process. Still, cookies are in wide use today. To test this, select the option on the browser to alert you when cookies are being sent. It's amazing how many alert boxes will display in just a short internet session.

TODAY

There has been an influx of tools on the market in the last several years that greatly expand the possibilities for capturing and acting upon information from customers. These tools offer real-time capture and analysis of customer data, and are directly linked to powerful backend databases. While cookies can be described as 'client-centric', the next generation of tools is 'data-centric'. Data-centric tools capture and store details directly supplied by customers, as well as implicit data related to their movement through an internet site. No matter what the tool, this raw data is stored and categorized in databases for instant retrieval on subsequent customer visits. The amount of data obtained is far greater than that provided by cookies, and powerful application engines can turn this data into information that can be acted upon in a real-time environment, offering the customer immediate value in return for information shared.

Today's personalization tools can help a business develop the 'Learning Relationship' described earlier. They can help turn an transactional relationship into an 'annuity relationship' which increases in value over time

Today's Tools

Today's personalization tools fall into three main categories:

- Collaborative Filtering
- Rules-based
- Case-based

While most products offer capabilities across more than one of the main categories, they are usually stronger in one area than others, and can be placed in one area based upon their main strengths.

Collaborative Filtering

This group of tools is becoming extremely popular as a means of providing a sense of community on internet sites. Collaborative filtering products gather preference information from customers, then build a profile of likes and dislikes. The database of customer data is analyzed for patterns the customer shares with others, and predictions can be made on his preferences based on those of like-minded individuals. The predictions become better the more the customer uses the site, and as the business learns more about the customer, the time he has spent building that relationship produces more and more benefit to him as an individual.

An example of collaborative filtering in action can be found on Amazon.com, the internet retail bookseller. Every time a customer requests information on a specific title he is offered a list of titles that were selected by others who bought that same book. He can also request a personal recommendation list which uses his past purchases as well as those of others with like interests to offer an extensive list of books which he might like to add to his shopping cart. This list gets more specific and therefore more useful as time goes on.

Some products using collaborative filtering methods are:

- NetPerceptions (www.netperceptions.com)
- WiseWire (www.wisewire.com)
- LikeMinds (www.likeminds.com)

Collaborative filtering tools use extremely sophisticated engines to analyze database content, and generally involve programming an API to the web application server components. NetPerceptions runs in concert with an application server and backend database, and does the database analysis while depending on the application server to deliver information to the client. An advantage of collaborative filtering tools is that the database drives the analysis, which means that the operator of the system does not have to program rules or cases up front. All predictions are based upon data accumulated by customers, and therefore the system 'maintains itself'.

Rules-based Tools

These tools generate databases of user preference profiles and/or content profiles. Patterns are then transformed into assumptions, or rules, which are used to predict future likes and dislikes. When setting up

the system, the business must decide upon and program the rules, and once this is done, the product analyzes the data and takes action based upon those rules.

An example of rules-based tools in action can be found on the American Airlines site. American uses a product called BroadVision to analyze customer supplied information according to pre-defined rules. The individual customer then receives custom content based upon his customer profile and American's business objectives.

reference BroadVision web site for source of this info.

Examples of products using rules-based filtering include:

- BroadVision (www.broadvision.com)
- Personify (www.personify.com)
- GuestTrack (www.guesttrack.com)
- MicroMass (www.micromass.com)

While rules-based products require the business to define rules and enter them into the system, this allows a business to tie predictions and content generation to their specific objectives. Collaborative filtering products use the customer profiles to drive decisions, but rules-based systems are driven by the company's particular business rules.

Case-based filtering

These products use statistical modeling to turn a database into a set of cases, which users navigate by answering a series of questions. Used commonly in customer service applications, case-based systems require the business to enter a series of typical 'cases', along with a set of questions which help categorize user responses according to the case guidelines.

Wells Fargo uses a case-based system by Brightware, Inc. to handle customer's requests for banking and financial information. Customers respond to questions, and the software 'reads' the questions and routes them to the appropriate system for answering. The system uses cases set up by Wells Fargo to determine the answer to a customer's question. If the request does not fit an established case, it can be routed to a customer service agent for special handling.

reference the Brightware web site for the source of this info.

The following are some companies with case-based offerings:

- Brightware, Inc. (www.brightware.com)
- Acuity (www.acuity.com)
- Personify (www.personify.com)
- MicroMass (www.micromass.com)
- GuestTrack (www.guesttrack.com)

In addition, products such as NetPerceptions use case-based filtering to make predictions in the early stages of an application when a large volume of customer response has not been accumulated.

These products offer significant advantages to companies that have well thought out procedures that can be classified as cases. Most customer service organizations receive hundreds of similar requests for information, and case-based online systems can help streamline this area of business. Not only are questions answered quickly, the costs of a call center can be reduced by automatic answering of routine requests.

TOMORROW

The next generation of one to one marketing will add sophisticated backend data analysis tools to the equation. Tools are already available to mine vast stores of customer data, but use of these technologies is still emerging in the retail marketplace. Some companies, such as Virtual Vineyards, are realizing that the enormous amount of data captured by effective use of personalization tools on the internet has potential far beyond powering electronic commerce. Virtual Vineyards purchased a high-end data analysis tool from Personify to mine the customer database and extract information to be used not just on the web site, but by the enterprise as a whole.

While today's personalization tools accomplish sophisticated analysis and provide real-time value directly to the customer in the form of customized content and products, tomorrow's will enable businesses to analyze their customer data in detail to identify trends and make decisions that affect how the entire enterprise does business. Use of sophisticated data mining techniques will enable the development of new products and processes based on knowledge of the intersections between business data and internet data.

Before data mining can achieve its full potential there must be data to mine, and this is why today's collection strategies are a necessary precursor to the ultimate goal of true business intelligence.

Evolution of e-Commerce One to One Marketing

| | Yesterday | Today | Tomorrow |
|-----------------|---|---|---|
| Features | <ul style="list-style-type: none">• Cookies• User-Centric• User-interface based | <ul style="list-style-type: none">• Sophisticated server-based tools• Data-centric• Real-time | <ul style="list-style-type: none">• e-Business data mining• Offline analysis of internet and business data |
| Results | <ul style="list-style-type: none">• Transaction relationship• Acknowledgment of• User identit | <ul style="list-style-type: none">• Development of learning relationship• High switching costs• Transition from transactional relationship to annuity relationship• Data collected on customer base• Branding | <ul style="list-style-type: none">• New marketing campaigns• Enterprise-wide product analysis• Reformulation of existing products to target customers Development of new products and processes based on knowledge of intersections between business data and internet data |

PERSONALIZATION STRATEGY

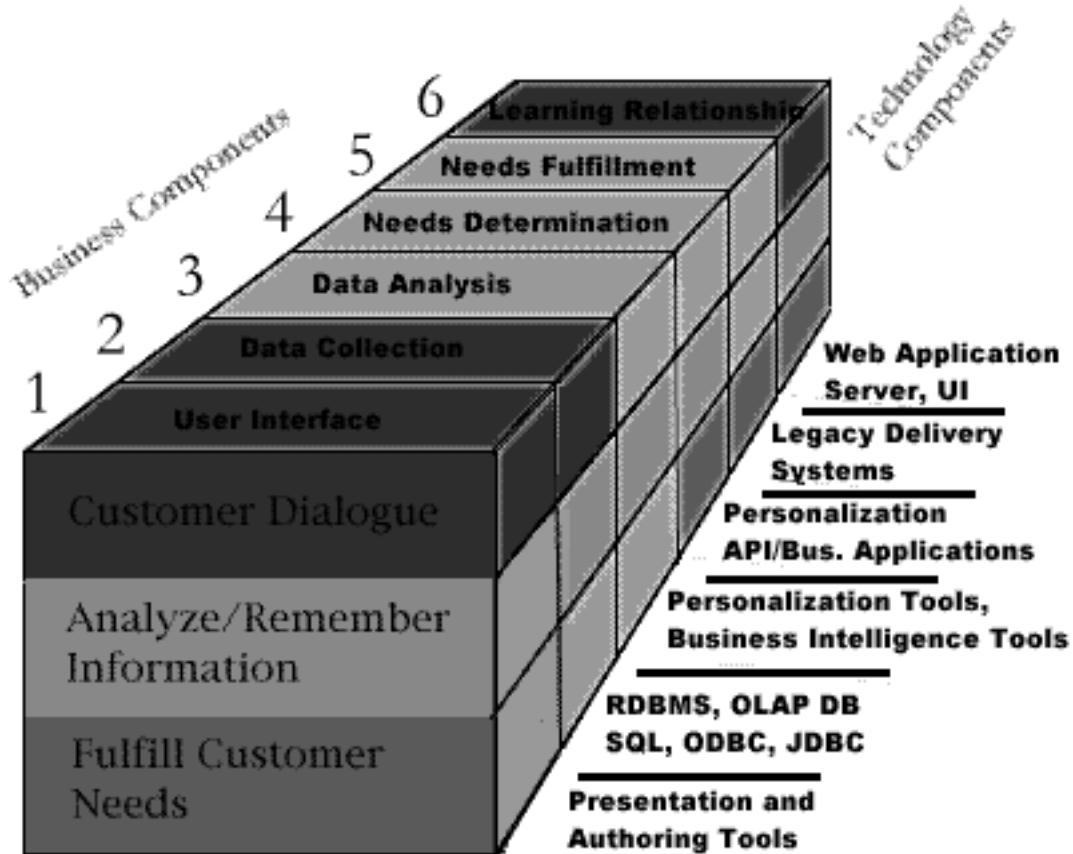
WHEN TO PERSONALIZE

When does it make sense for a business to make a move to a one to one marketing strategy on the internet? If a company is not ready to exploit this new strategy, what can it do to prepare itself to take advantage of the opportunities available?

Earlier, we discussed the cycle established in a successful ‘Learning Relationship’. This cycle of interchange and action is based on a company’s ability to perform three key functions:

- Engage in meaningful dialogue with customers
- Collect, retain and analyze customer information
- Act upon customer information received

A company must be able to execute in all three areas in order to complete the cycle and gain customer share. The following diagram shows these functions and what it takes to perform well. The top face of the cube shows the main business components involved in successful execution of each of the above customer functions, while the vertical face displays the major technical elements involved. The sections are color-coded to show the links to the Functionality Components on the face of the cube.



CUSTOMER DIALOGU

Effective customer dialogue requires the involvement of the IT department, but the terms of the communication must be set by the marketing, sales and customer service executives. The technology required to collect customer responses to requests for information is well established, but competent IT involvement is required to set up the software and the databases to accept the data. More important, however, is the marketing and sales department's commitment to providing incentives for customers to freely offer information of value to the corporation. In addition, the creative department is charged with the task of creating an attractive environment that invites customer dialogue.

It is important to remember that information retrieved from customers requires their consent and involvement. System designers must be extremely conscious of the fact that customers must find it easy to interact with the firm, and that they also expect a two-way communication - they expect to receive something from the company equal in perceived value to what they have contributed.

Internet users are reticent to contribute personal information, and almost paranoid about offering financial information. A business that wants to gather this information must be conscious of the barriers that exist and strive to offer better incentives than their competitors. Incentives can take the form of giveaways or sweepstakes or can be service-related, as in the learning relationship.

NEEDS ANALYSIS

IT efforts are important in data analysis, but marketing and sales input is also needed to provide business meaning to customer information. The customer information database can not belong solely to the IT department - it is also the domain of the business units which will make decisions based upon the information. Proper analysis of hard-won customer data is crucial to the next step of needs fulfillment. Customers can be lost forever if their needs are interpreted incorrectly. For example, a customer requests a recommendation list from a CD retailer. If he receives recommendations that disappoint him, he will quickly move to the competition.

NEEDS FULFILLMENT

Information is only as good as the firm's ability to act upon it. This layer of the cube is the most difficult for most firms to execute correctly, because it often requires major adjustments in delivery mechanisms. If a company collects valuable information on customer's needs, and then is unable to fulfill those needs, the information is worse than useless.

To execute successfully in this layer, a firm must tie its distribution system to the internet system, offering distribution channels which are fed by and responsive to the customer information received. This can be as simple as sending email to the distribution center, or can be as complicated as designing a customized product using specifications entered by the customer. Most firms find it a challenge to tie their backend legacy systems to new, real-time internet processes. Delivery of customized product based on customer specifications is a problem that requires the input of distribution, operations and logistics executives.

MOVING TOWARD PERSONALIZATION

Peppers and Rogers (footnote) define a method to determine a company's readiness for one to one marketing, and a strategy for migration. We will augment their general analysis by melding it with the component cube above to generate a specific prescription for applying internet technologies and business strategies to move a company to one to one marketing in the e-commerce arena.

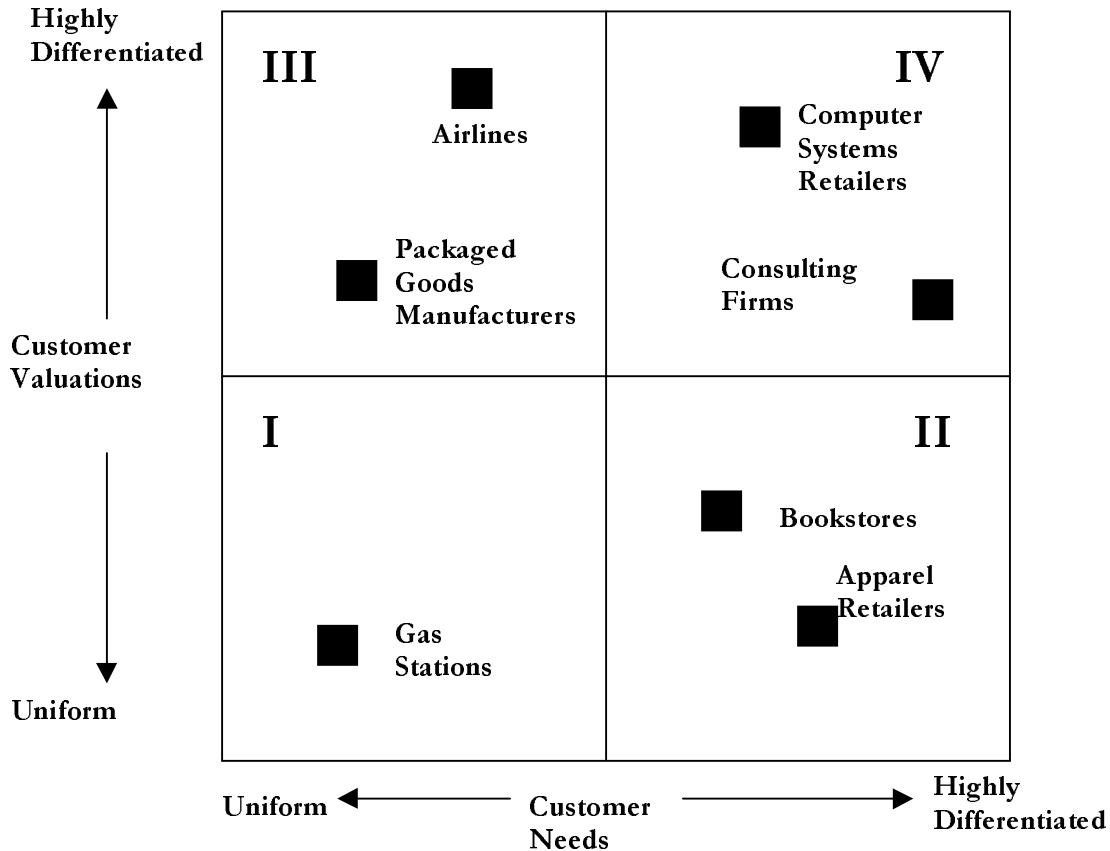
Peppers and Rogers emphasize differentiation of the customer base as the key determinant of a businesses ability to benefit from one to one marketing. They look at the differentiation in customer value, and the differentiation in customer needs.

Customer value is the value of a particular individual of group of individuals to the company's market share. Some firms have little variation in customer value - most customers contribute equally to the firm's revenue. Some have wide differences in customer value, as in the case of a computer manufacturer who serves both one-time purchasers as well as large-volume commercial purchasers.

Customer needs can be widely diverse, as in the case of a bookseller, who must stock a huge selection, or relatively uniform, as in the case of gasoline retailers.

The following diagram shows how customers can be placed in one of four quadrants based on the degree of differentiation in customer value and needs. Representative businesses are shown in each quadrant.

Customer Differentiation Matrix⁴



To determine its place on the matrix, a firm must take a hard look at its customer base. This may not be possible due to limited information. If it is not, the company must take steps to rectify that situation.

QUADRANT I

Companies in Quadrant IV stand to benefit the most from one to one marketing. These companies can offer goods and services tailored to different customer groups based on both diverse needs and diverse values. If they also possess the three key abilities listed above, they are already positioned to be extremely effective custom marketers.

Consider the case of Dell Computers, the computer retailer that operates extremely effectively as a one to one marketer. Dell is solidly in the fourth quadrant. It has a customer base with diverse value as well as diverse needs. Dell can effectively market to each customer based upon his specific needs, as well as provide custom programs for high-value customers.

Not only does Dell have a diverse customer base, it also has the ability to conduct meaningful dialogue with those customers. It can analyze the information obtained to offer better service, and to clearly define customer needs. Finally, Dell is set up to build custom product on short notice, using modular assembly of computer units based upon customer specifications. Their distribution channels are tailored to this specific strategy, and they exploit their capabilities effectively.

Recommended personalization strategies for Quadrant IV

| Strategy | Method | Component Layer | Critical Success Factors |
|---|--|-----------------|---|
| Gather information about specific customer needs | Surveys, clickstream analysis, customer profiles | 1,2 | Ability to collect and store data, user interface design, customer perception of value of dialogue |
| Expand the need set | Move beyond core product to analyze product-service bundle: billing, invoicing packaging, delivery, promotions, customer service | 3,5 | Ability to create and deliver specialized product bundle |
| Develop ancillary services | Look at enhanced need set: strategic partnerships, collaborative opportunities, value streams | 3,4 | Profitability of partnerships, customer perception of value stream |
| Validate customer values through transaction analysis | Data mining purchase histories, clickstream analysis | 2,3 | Accuracy of data, ability to store and analyze large amounts of data |
| Target customer service | Implement automated real-time customer service | 4,5 | Response time, accuracy of problem resolution, ability to escalate |
| Solidify customer relationships | Real-time personal acknowledgement, User interface design, customer dialogue | 1,2,3,4,5,6 | Effectiveness of user interface, accuracy of needs determination, customer perception of value received |
| Hone in on high-value customers | Customer ‘communities’, immediate recognition and special treatment | 1,2,3,4,5,6 | Effectiveness of user interface, accuracy of needs determination, customer perception of value received |

QUADRANT III

Businesses in Quadrant III typically have diverse customer value, but little diversity in customer needs. An example of a Quadrant III enterprise is an airline. Airlines have widely diverse customer values - ranging from frequent business flyers to families who book one vacation flight every two years. To an airline, it makes sense to cater to high-value business customers, and to spend less time on infrequent flyers. Airlines do not, however, see much diversity in customer needs. Basically, what their customers want is the same - to get from Point A to Point B. While there are some service differentiators such as first class seating, an airline seat is still pretty much of a commodity.

Quadrant III companies can use personalization techniques to solidify the high-value customer base by offering special programs to those customers. The internet can be used effectively to get to ‘know’ these customers individually, and to develop effective learning relationships with them.

Recommended Personalization Strategies for Quadrant III

| Strategy | Method | Component Layer | Critical Success Factors |
|--|--|------------------------|---|
| Validate customer value through transaction analysis | Data mining of purchase histories, clickstream analysis | 3 | Ability to store and analyze large amounts of data |
| Target customer service | Implement automated real-time customer service | 1,5 | Response time, accuracy of problem resolution, ability to escalate |
| Identify new customer value groups | Data mining, customer dialogue, transaction analysis | 1,2,3,4 | Ability to store and analyze large amounts of data, quality of customer dialogue |
| Solidify customer relationships | Real-time personal acknowledgement, User interface design, customer dialogue | 1,3,4,5,6 | Effectiveness of user interface, accuracy of needs determination, customer perception of value received |
| Hone in on high-value customers | Customer ‘communities’, immediate recognition and special treatment | 1,2,3,4,5,6 | Effectiveness of user interface, accuracy of needs determination, customer perception of value received |

To move towards Quadrant IV from Quadrant III, firms must communicate directly with individual customers to gain knowledge of a specific needs and preferences. It is possible to diversify the needs base by analyzing customer input. For example, the more an airline gets to know its individual customers, the more services it can provide to make a flight more enjoyable. Most business travel agents already have a profile on file for a particular customer, but his needs might change in particular situations. If this customer could pre-register online his preferences for a particular flight, he could conceivably make reservations to use business services at the airport, have last minute messages delivered to him, and have his drink order already prepared upon boarding.

The more information gained from direct dialogue with customers, the more their needs can be diversified. The key to moving from Quadrant III to Quadrant IV is to increase the customer dialogue and act upon that information.

Migration Strategies to move to Quadrant IV

| Strategy | Method | Component Layer | Critical Success Factors |
|--|--|------------------------|--|
| Gather information about specific customer needs | Create incentives to dialogue, store information | 1 | Ability to collect and store data, user interface design, customer perception of value of dialogue |
| Expand the need set | Move beyond core product to analyze product-service bundle: billing, invoicing packaging, delivery, promotions, customer service | 3,5 | Ability to create and deliver specialized product bundle |
| Develop ancillary services | Look at enhanced need set: strategic partnerships, collaborative opportunities, value streams | 3,4 | Profitability of partnerships, customer perception of value stream |

QUADRANT II

Quadrant II businesses are moving quickly to the internet already. These are companies whose customer set has highly diverse needs, but little diversity in customer value. Examples of this are book and music sellers, apparel and fashion retailers, and services retailers such as automotive services or tax-preparation firms.

The internet has been a natural vehicle for these firms because of its ability to serve diverse needs relatively inexpensively. Customers can often 'browse' an internet bookstore more efficiently than a physical one, spending time researching books before purchasing them. Music sellers can offer samples to customers very inexpensively, and offer high diversity in their catalogs at low cost.

Personalization tools can assist a Quadrant II business immediately by assisting in the process of registering customer preferences and delivering custom content based on those preferences. The example of the powerful recommendation engines used by Amazon.com has already been cited. These recommendation tools have also been used successfully by CD vendors such as CD Now, as well as movie-recommendation sites and financial services firms. When customers have diverse needs that must be remembered, the learning relationship developed over time can be the most powerful method to retain their loyalty.

Recommended personalization strategies for Quadrant II

| Strategy | Method | Component Layer | Critical Success Factors |
|--|--|-----------------|---|
| Gather information about specific customer needs | Surveys, clickstream analysis, customer profiles | 1,2 | Customer trust, ease of interface use, perceived value of information exchange |
| Fulfill stated needs | Recommendations, targeted marketing, custom content | 1,3,4,5,6 | Proper analysis of customer input, accuracy of predictions |
| Develop ancillary services | Look at enhanced need set: strategic partnerships, collaborative opportunities, value streams | 3,4 | Profitability of partnerships, customer perception of value stream |
| Target customer service | Implement automated real-time customer service | 1,5 | Response time, accuracy of problem resolution, ability to escalate |
| Solidify customer relationships | Real-time personal acknowledgement, User interface design, customer dialogue | 1,2,3,4,5,6 | Accurate identification of customer, attractiveness of ui, ease of information exchange |

Quadrant II businesses may not feel compelled to migrate towards Quadrant IV, but significant opportunities exist that should be considered. Almost all book and CD sellers have ‘frequent buyer’ programs. These programs offer untapped potential to gather information related to purchases and then produce personalized marketing based upon analysis of those purchases. The internet offers a low-cost way of increasing the value of frequent buyer customers by marketing directly to their expressed needs.

Migration Strategies to move to Quadrant IV

| Strategy | Method | Component Layer | Critical Success Factors |
|------------------------|----------------------|-----------------|----------------------------|
| Identify needs of high | Create incentives to | 1,2 | Accurate identification of |

| | | | |
|---|--|-----------|--|
| value customers | dialogue | | customer, attractiveness of ui, ease of information exchange |
| Cater to need set of high value customers | Customer ‘communities’, immediate recognition and special treatment | 1,3,4,5,6 | Ability to provide differentiated product set, customer perception of value of product |
| Expand the need set of higher value customers | Move beyond core product to analyze product-service bundle: billing, invoicing packaging, delivery, promotions, customer service | 3,4,5 | Ability to create and deliver specialized product bundle |

QUADRANT I

Quadrant I businesses have the least to gain by employing one to one marketing techniques in the internet environment. Gasoline retailers are an example of this type of business - most people purchase the same amount of gasoline, and most people view gasoline as a commodity with very little needs differentiation. Mass marketing techniques are traditionally used successfully here, and for good reason.

It is possible, however, for a Quadrant I business to migrate to another quadrant by using techniques to either increase customer interactivity or diversifying the needs set. For example, a gas station owner can conceivably track individual customers by license plate and create special volume programs for two or three car families. He could also track purchasing habits of busy families and create a ‘pump reservation’ system for them during special times of the day.

This migration process is probably one that should be started outside the internet marketplace. Once a Quadrant I business has moved itself into another quadrant either by expanding the diversity of the customer needs set or by identifying and targeting high-value customers, it is ready to consider an internet e-commerce strategy.

SUMMARY

Today’s marketing environment is changing rapidly towards a customer-focused model. Advances in technology have made possible a level of customer intimacy never before possible on large scale, and businesses are retooling to take advantage of the benefits to be gained by interacting closely with customers to deliver goods and services aligned to their specific needs.

The internet and the World Wide Web in particular are uniquely suited to help firms reach customers individually. The interactive nature of the web environment encourages dialogue with individuals, while sophisticated personalization software is emerging that can help a business analyze, remember and act upon information gained.

Electronic commerce can help a company open dialogues with its customer base. It can help a company analyze information, determine customer needs, and then provide a bridge to a firm's production and distribution systems. In some cases, electronic commerce can actually become a new avenue for production and distribution.

To take advantage of these new and exciting opportunities, businesses must understand this new environment and the steps they must take to position themselves to increase ability to interact with customers and to then deliver products according to their needs. This can require a firm to consider new methods of getting closer to customers, as well as new methods of production and distribution in order to meet their needs. The transformation will be easier for some companies than for others, but the handwriting is on the wall. Those businesses that ignore the move towards one to one marketing stand a good chance of losing customer share to the ones that understand and adapt.

FOOTNOTES

- 1 – Enterprise One to One, Don Peppers and Martha Rogers, PhD, Doubleday 1997. p. 14.
- 2 - *The Biggest Bang May Not Be The Most Effective*. Sean Carton, Copyright (C) 1998 ClickZ Corporation
- 3 - *One to One Web Marketing*, Deborah Kania and Cliff Allen. Copyright Marketing Competence, 1997
- 4 – Enterprise One to One, Don Peppers and Martha Rogers, PhD, Doubleday 1997. p. 64.