Transforming Business in the Marketspace

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Abstract

This paper presents a study of how the business models of organizations are getting transformed in the Marketspace created by the Internet and WWW. We use a model comprising the four P's - Product, Price, Promotion and Placement - and one C - Customer Relationship. We study how these four P's and one C are being transformed by the fundamental characteristics of real-time interactivity and global connectivity in the Marketspace.

1. Introduction

The Global Internet 100 study was first conducted in February 1997 [2,3]. The study explored the degree to which organizations across different sectors and geographical regions were transforming their business models to exploit the unique opportunities of the Marketspace created by the Internet and the WWW [5]. Some of the key findings of the 1997 study were:

- More than half of all surveyed organizations had established a significant commercial presence in the Marketspace. About fifteen percent of firms had pioneered the use of the Marketspace for full-fledged commercial use;
- About a third of all organizations had only a rudimentary commercial presence in the Marketspace; and
- Few organizations were rethinking how their business models were getting transformed in the Marketspace. While organizations had been investing in building technologically sophisticated sites, the Marketspace presence of most organizations was not very effective.

They tended to use their presence in the Marketspace simply as an additional channel on which to transport their existing business model.

About a year later, in February/March 1998, we decided to revisit the sites of leading firms across different sectors and geographical regions to see how their approaches to the Marketspace had changed over the last year. Some of the overall observations are as follows:

- Almost all leading corporations have a presence in the Marketspace. However, they have yet to rethink their business to take advantage of the Marketspace. Most firms are doing little beyond using the rudimentary publishing features of the Net. Most organizations have yet to implement new business models on the Net.
- Customer relationships have shifted into top position in terms of Web functionality emphasis. Corporations from all sectors and geographical regions are increasingly using their Web sites for customer service and for building customer relationships. This is a significant upward shift from last year when customer relationships was in third position after technology and products.
- Fascination with technology has decreased considerably. Last year, most firms were emphasizing the creation of technologically sophisticated sites. This year, firms in the top positions are moving towards technologically simpler sites, which allow easier and faster access to customers from across the globe.
2. A Unique Global Opportunity

The number of Internet users has been doubling in recent years. Such a phenomenon is not new. In fact, it has been this way for most of the last three decades since the birth of the Internet. It is only in the past three years that the growth of the Internet has reached such mind-popping large numbers that firms have been forced to realize that a phenomenon akin to a tidal wave is hitting the business community [1,4].

Today, it is thought that there are nearly 90 million Internet users in the US and Canada, and around 20 million in France, Germany and the UK. The Economist\(^1\) estimates that the number of users of the Internet world-wide will rise to 550m, or about 10% of the world’s population, by the year 2000. The question of total number of Internet users and their rate of growth is no longer relevant. The Internet is here to stay and will keep growing in size, eventually encompassing a major part of the population of the world. The Internet is creating a unique shared global knowledge and communication space, the likes of which has never existed before.

Of greater interest and question is the ability of corporations to leverage the unique Marketspace created by the Internet. This is the focus of this paper.

3. A Theory of Cyber-Transformation

This quest to learn more about how corporations are exploiting the unique commercial potential of the Internet lies at the heart of the Global Internet 100 study. The theory underlying the study is the Marketspace model, which was created in 1997 and also used in the previous Global Internet 100 study [2]. The marketspace model is built on two dimensions: a technological capability dimension and a strategic business dimension. The technological capability dimension comprises:

- **Interactivity**: due to the real-time on-line nature of the Internet, relationships between organizations and customers are becoming more interactive in the Marketspace. This is enhancing the richness of customer relationships and creating new paradigms of product design and customer service; and

- **Connectivity**: the open and global nature of the Internet is fostering the creation of a shared global Marketspace. The radical increase in connectivity enabled by the Internet is giving rise to new communication and co-ordination mechanisms both across organizations and customers, and also within groups of customers themselves.

The dual aspects of interactivity and connectivity are transforming the business models of organizations. We have chosen the classical strategic marketing model of 4Ps - Product\(^2\), Price, Promotion and Placement (or Distribution) for this research. This model has the dual advantages of simplicity and time-tested acceptance. We have augmented the 4Ps with one C - the additional dimension of Customer relationships as this aspect is not captured adequately by the 4Ps. The Marketspace model is depicted graphically in Figure 1.

![Figure 1: The Marketspace Model](image)

4. Design of Study

The Marketspace model was used to design a questionnaire that probed into the following research question: to what degree are the "4Ps + C" getting transformed due to the real-time interactivity and global connectivity of the Marketspace. More details about the specific aspects covered in the questionnaire are described in the Box Insert "Questionnaire Details". Each question in the questionnaire evaluated the presence of a certain feature and required a binary (yes/no) answer. The binary responses minimize evaluator bias and thus provide an objective basis to rank the surveyed companies. The evaluation of companies was randomized across different sectors - again in an effort to reduce evaluator bias.

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2. We use the term ‘Product’ to refer to both products (tangible and intangible) and services.
The companies selected for the study were chosen from the Fortune Global 500 list (1997 list based on 1996 company data). To achieve a good representation across sectors, the list was classified into nine groups: Electronics & Computers, Media & Entertainment, Finance & Insurance, Retail & Wholesale, Manufacturing, Travel & Transport, Chemicals & Pharmaceuticals, Telecom & Utilities and Mining, Oil Production and Refining. The sample of companies in the 1998 survey is not the same as that for the 1997 survey, though there are significant overlaps.

Fourteen of the leading companies (by revenue) from each of these sectors were chosen. Only 8 companies were present in the Global 500 list from the Media & Entertainment sector. In the Manufacturing sector since all the top 14 were automobile manufacturers, to get a more diverse profile, we selected the top 7 companies and the next seven involved in manufacturing products other than cars. In total, 120 companies were selected for inclusion in the study.

The web sites of all selected companies were evaluated during the months of February and March 1998, using the questionnaire developed, by a research team at INSEAD.

Most, if not all, of the firms surveyed are multinationals and hence it was very common to find different sites for each country, with possibly different languages and product offerings. Quite a few sites featured a global corporate home page which led on to links to local subsidiary sites. Frequently, there were wide differences across the sites of different subsidiaries of the same company, or across different national sites. As much as possible, an attempt was made to evaluate the best features of the available sites.

Many of the surveyed companies, such as Akzo Nobel, BP, GE and Thyssen have proprietary Intranets/Extranets which are accessible only to employees and/or suppliers and business partners. Due to the restricted access to these networks, they could not be evaluated.

**Questionnaire Details**

The overall evaluation for each dimension was obtained by aggregating a number of items related to the degree and extent to which the corresponding dimension has been transformed:

### Technological Sophistication

- The ease of navigation of the site;
- The degree of customization possible of the Web interface;
- Speed and ease of access to site features; and
- Advanced technological capabilities (such as video)

### Transformation of Products

- The availability of product related information on-line;
- The customization of products for individual or groups of customers; and
- The participation of customers in the specification and design of products.

### Transformation of Promotion

- The use of on-line advertising;
- The use of on-line promotions such as sales and discounts;
- The customization of on-line promotions;
- The participation of customers in on-line promotions; and
- Links with other organizations in organizing on-line promotions.

### Transformation of Pricing

- The availability of pricing information on-line;
- The dynamic customization of prices;
- The availability of on-line price negotiation; and
- The possibility to charge customers for only proportions of products consumed.

### Transformation of Placement

- The availability of on-line ordering;
- The availability of secured on-line payment;
- Real time processing of orders;
- Distribution of products on-line; and
- The involvement of partner organizations in on-line distribution.

### Transformation of Customer Relationships

- The provision of on-line customer service;
- The on-line identification and tracking of customers to provided customized services;
- The provision of on-line communications to customers;
- The creation of on-line communities for customers; and
- The solicitation of on-line feedback from customers.
5. Overall results

The overall degrees of achievement of the surveyed companies along the dimensions of the Marketspace model are shown in Figure 2. A first observation is that corporations have a long way to go to exploit the potential of the Marketspace. This has not changed from the 1997 Global Internet 100 survey where the achievements along the different dimensions also left much to be desired [2].

Except for the Customer Relationship dimension, the surveyed firms earn a cumulative score of less than 40% for all four P's - Product, Placement, Promotion and Price. This is important, particularly when one notes that the indicated scores are for the best site of a subsidiary or region within a firm. Thus, these are in a way, the most generous ratings of the surveyed firms. If it was possible to devise and use an objective methodology to arrive at an "average" score which accounted for the variations within each firm's site, the indicated scores would probably be much lower!

![Figure 2: Overall degrees of achievement along the Marketspace model dimensions](image)

5.1 Customer relationships is the priority

There is a distinct shift in the relative ordering of priorities in the 1998 survey. In the 1997 survey, the degree of achievement along the Technology dimension was the highest; Products came next with Customer Relationships in third place. Figure 2 shows that within a year, Customer Relationships has become the prime focus for the Marketspace presence of corporations.

Merck provides customer service on-line in the form of its product guides e.g. the ZOCOR guide, which informs consumers about the use of its products. Most media companies send e-mails to consumers about site and product updates e.g. Sony Music encourages the formation of clubs and memberships. CNN provides on-line chat services and bulletin boards for the free exchange of ideas. Airline companies also encourage consumers to register in their frequent flyer programs thus creating virtual communities of a particular kind. Most companies feature on-line magazines for encouraging professionals in the field to share their thoughts and expertise e.g. IBM and HP's Open View in HP Networking. IBM also provides on-line Support Services or trouble shooting services. Automobile manufacturers like Volkswagen and GM also encourage the formation of owner clubs.

This focus on Customer Relationships is not surprising given recent increases in the number of Internet users globally and the increasingly "mainstream" profile of cyber-surfers. The recently released GVU (Graphic, Visualization & Usability) Center's 8th WWW User Survey (www.gvu.gatech.edu) notes that the % of female WWW users has increased (to 38.5%) and the average age of WWW surfers has increased (to 36 years). In addition, there is a growing realization among corporations that the Internet has forever changed the traditional paradigm of marketing. Gone are the days of mass marketing and remote customer contact. The Internet has made it possible for companies to focus on building relationships with individual customers and to make direct and personalized contact with each customer. Even customer-savvy firms such as American Airlines and British Airlines are now trying to reach out directly to each individual customer in a personalized manner via the Web.
While a lot has been accomplished with respect to Customer Relationships, much remains to be done. Less than half of all firms try to identify or track customers and only about a fifth of them offer to keep their customers informed by sending email updates on product releases and other corporate events. Also, a small fraction of all surveyed firms encourage the formation of communities among customers. This is despite evidence which shows that cyber-communities increase loyalty and sales and make customers feel more connected to organizations [1,4].

5.2 Simplicity is virtue

In the 1997 study, a focus on building technologically sophisticated sites was evident. This has receded in the current study. Technology has taken a back seat to Customer Relationships. Many of the top ranked sites have relatively simple sites which focus on providing easily accessible functionality at the expense of dazzling technical wizardry. Firms have realized that most Web users are not willing to wait for more than 15 to 20 seconds for a page to load, something that is often not possible for pages rich in graphics and video. This is particularly true for users who access sites from locations outside the United States, as shown by studies such as the 8th GVU survey (www.gvu.gatech.edu).

Despite the relatively lower ranking of Technology, most companies make effective use of technology to make their site more attractive and to retain the attention of customers. Shell UK, for example uses Shockwave to provide the user with an animated outline of the whole process of exploring crude oil and getting it to the consumer as gas. Paramount, Columbia and Disney have clips and trailers of their films running online. Most of the media companies like Viacom, Time Warner, Sony Music and some manufacturing companies like Ford and GM have also set up a separate Internet Explorer channel to provide the user a constant stream of information about their products. Some companies like ING-Canada show their television advertisements on the web.

While most sites of the surveyed firms provide useful navigational aids such as site maps and search engines, very few give customers the ability to customize the site pages. Only about 15% of the companies provide a "Text Only" option which benefit customers with less powerful PCs or individuals accessing the pages from locations with slow Internet access. Most companies in the Media & Entertainment sector provide the option for "Push Delivery", i.e., sending product updates and other news to customers. Quite a few of the companies make their sites interesting by using animated graphics (84%), audio clips (34%), video clips (37%) and Javascript (67%).

5.3 Product customization is rare

Consistent with the findings of the last survey, the surveyed firms continue to record strong achievements along the Product dimension. All of the companies surveyed featured product catalogs in one form or the other, though with varying levels of detail. While most of the catalogs covered the whole product range, only a handful provided information or comparisons with competitor’s products. This is interesting because there are many "new" intermediaries on the Web who provide a free comparison of product offerings from competing firms. For example, virtual travel agencies such as Expedia.com provide comparisons of the different airline airfares for any particular route.

About a third of the surveyed firms provide expert systems, questionnaires or other forms of on-line help in choosing a product. Insurance companies for example have the customer answer a set of questions and then suggest the right policy. GM asks potential customers for the features they look for in a car and recommends a model to suit their tastes. Citibank poses a set of questions and recommends a suitable card.

Many companies make significant effort to provide value adding information on their products. Volkswagen provides tips for safe driving and helps consumers make the buy versus lease decision by guiding them through the relevant financial details. Merck provides a wealth of health-related information, including information on specific diseases and how to prevent and cure them, thus trying to educate the consumer about its products. Most chemical companies also provide detailed product specifications and information about the application of their products to aid the purchase decision.

A smaller proportion (1/5th) of firms allow users to customize products. Disney allows product customization by allowing buyers to customize commodities like mugs and mousepads and design custom greetings (via Design Online). Allyn & Bacon (the Viacom publishing division) allows college faculty to build custom books as course material, by selecting specific parts from available books. Automobile
manufacturers allow customers to add colors and features to build a custom car.

5.4 Promotions aim to seduce customers

Promotions in the Marketspace are similar in many respects to promotions in the "traditional" marketplace: price reductions, discounts and prizes. Most media companies feature drastic price discounts as a means for promotion, e.g., BMG USA offers 12 CDs for 1 cent and MTV's Music Boulevard features specially reduced CDs. Many companies also have special discounts on Internet orders. Bellsouth, for example, slashes $16 off all on-line orders.

However, the interactive nature of the Web provides firms with a unique ability to get customers to participate in promotions. About a third of all companies use on-line games and contests to retain the attention of customers. Volkswagen boldly advertises its New Beetle on its web pages and encourages visitors to enter the New Beetle contest to win one of those. Some retailers also adopt celebrity testimonials e.g. the Liz Taylor collection at J.C.Penney. Tesco offers free downloads of wine selection software and Wal-mart offers a large variety of specially priced products.

Promotions also come by way of links to related sites or sites which might be of interest to the user. For example, the Dutch financial power-house, ING Group, provides links to Dutch tourism sites from its home page. Companies also make the most of their Web presence for event sponsorships. For example, HP and UPS proudly proclaim their positions as official sponsors of the (recently concluded) Nagano Olympics and provide links to further details about the event. USPS features contests allowing users to participate and submit entries for designing new stamps.

5.5 On-line ordering is hampered by poor progress in pricing

About half of all firms allow on-line ordering of products. Given the physical nature of most products, only "soft" products are easily distributed on-line. However, most firms distribute product related information, such as dealer or store locations, on-line. Even many Oil and Chemical companies, which cannot distribute their core products via the Internet, have opened on-line stores through which they sell branded company merchandise. HP and NEC, which generally rely on third party retailers have set up their own on-line stores HP Outlet Center and NEC-Now which are company-operated. IBM also has a self-operated on-line store but it also provides links to several other on-line retailers which sell its products.

Most companies which allow on-line purchases ship goods via UPS or other air/surface mail. A small proportion (about 10%) provide hot links to third parties involved in on-line distribution and delivery. About a third of all firms allow for on-line payment. Concerns about on-line security are receding as evidenced by the diminishing prominence given to notices of security during the payment process.

True Internet commerce and on-line ordering is hampered by the fact that most firms fare relatively poorly along the Pricing dimension. About half of all surveyed firms do not display prices for their own products and less than 5% of the surveyed firms display prices for competing products. Less than 1% of all firms offered any form of dynamic price negotiation or customization to customers. The leaders along the Pricing dimension appear to be the Airlines companies which allow customers to make bids for specific tickets. GM's BuyPower and Ford Credit also provide limited price customization by pricing their cars according to customer specifications.

6. The Global Scene: Looking Wide and Far

An important goal for the Global Internet 100 study has been to survey a representative sample from across a number of geographical regions and sectors. Last year, the surveyed firms covered nine different sectors ranging from Airlines and Transportation to Financial Services and Traditional Manufacturing. Three major geographical regions were covered, with about half of the sample coming from North America and the other half being about equally divided across Western Europe and Asia-Pacific. The primary regional and sectoral trends from the 1997 Global Internet 100 survey were [3]:

- North American companies had succeeded in establishing a more comprehensive Marketspace presence as compared with firms from Western Europe and Asia. North American organizations had a lead on European and Asian firms in all aspects of the exploitation of the Marketspace.
- However, even North American firms had done little to exploit the transformational
impact of the Marketspace with relatively low scores for all dimensions of the Marketspace model. 

- ‘Soft’ sectors such as Financial Services and Media and Publishing were seen to have an edge over ‘hard’ sectors such as Traditional Manufacturing and Chemicals and Pharmaceuticals in the degree to which they were exploiting the commercial potential of the Marketspace.

The distribution of sectors and geographical regions for the surveyed firms in the 1998 Global Internet 100 study is shown in Figures 3 and 4. The sectoral distribution is very similar to the 1997 survey [3]. The geographical split is more biased towards Europe in 1998, with about 40% of the firms coming from the Continent as compared to 28% in the 1997 study. The major conclusions from the 1998 study are:

- North American firms continue to maintain their lead over their Asian and European counterparts. While the gap along the Technology dimension has reduced, North American firms have increased their lead across all of the other dimensions. This reflects the growing sophistication of North American firms with respect to their ability to exploit the Marketspace.
- Firms from the Media & Entertainment sector maintain a leading position across all dimensions. This is not surprising given the “soft” nature of their products and services. Other sectors which do well includes Travel & Transport, Electronics & Computers and Telecom & Utilities.
- The Chemicals & Pharmaceuticals and Mining, Oil and Refining sectors perform relatively poorly. The Finance & Insurance sector comes out as a mediocre performer despite the natural affinity of its products and services to the Marketspace.
- All sectors can improve their performance significantly as they typically achieve scores well below 50% for all dimensions of the Marketspace model.

**Figure 3:** Distribution of surveyed firms by sector

**Figure 4:** Distribution of surveyed firms by geographical region

### 6.1 A regional comparison

Figure 5 depicts the regional variations in the scores of the surveyed firms. American firms still lead their European and Asian counterparts in the ability to exploit the Marketspace. While the differences along the Technology dimension have become less dramatic as compared to last year, the differences across all other dimensions of the Marketspace model have become more acute.

The relative lead of American firms is not surprising because the Internet was born in the USA and even today, a dominant majority of all Internet transactions occur within the USA. However, there is be something to be said when Cisco is able to generate more than $20 million in sales through its Marketspace presence in one day while a concerted effort by several leading technology giants (such as Microsoft and Hewlett-Packard) along with over 140 European merchants could only generate sales for 350 products over a period of 2 months during the recently concluded e-Christmas experiment in Europe.
6.2 A comparison across sectors

Figure 6 presents a summary of our results across sectors.

Firms from the Media & Entertainment sector obtain the highest scores across all dimensions of the Marketspace model except for Price. This is not surprising when one notes that these firms are the "experts" in exploiting traditional media such as print, radio and television. It is perhaps only natural that they take the lead in exploiting the emerging media of the Marketspace.

Media companies are well positioned to conduct business on the net: their main product, information, is freely disbursed and easily customized by way of on-line memberships and mailing lists. CNN, a division of Time Warner has an excellent news site which continuously updates key stories and gives users the option of customizing the site and participating in discussions in chat-rooms or contributing to bulletin boards. Customers can have customized news summaries delivered to them via e-mail on subscription. Media companies do an excellent job at promoting the product with a liberal use of technology and thus it is not surprising to note that they score the highest along the Technology dimension, well ahead of the Electronics and Computers sector.

The Travel and Transport sector as a whole performs lower than the Media & Entertainment sector. There is some variance in the performance of firms from this sector with airline firms ahead of the rest. All airline sites surveyed allowed on-line bookings and reservations via a SABRE-like interface. Most airline
sites are not highly technology intensive, yet they allow all the features one would normally expect from a travel agent, and much faster. Enticing promotions and deals are advertised all over the page. Lufthansa and UAL also deliver the product on-line in the form of electronic or paperless ticketing. A lot of additional information about the products and services is provided such as: airport details, baggage information, in-flight movie schedule and food menus. Lufthansa also auctions tickets on-line.

Being in the business of building the infrastructure of the Marketspace, the Electronics & Computers sector has done quite well in exploiting the Marketspace. HP, which is ranked highest in our study within the sector has a web page which segments the business into key SBU’s. The site provides a lot of value-adding information on products in each segment, but on-line purchases are only possible for computing products via the HP Outlet Center. Detailed product specifications and prices are provided for all the products. HP provides a forum for consumers to exchange ideas: HP Openview.

Consumer electronics companies like Sony and Hitachi, also included in the same sector, provide detailed product catalogs with prices, but do not yet allow on-line purchases. Sony comes up high on the rankings primarily due to its media division, which measures up well.

Another related sector is Telecom & Utilities. Firms from these sectors also score well in the study. British Telecom, AT&T and Bellsouth allow on-line purchases of services and products. All of them promote their low prices and offer special deals for applying on-line. For example, Bellsouth offers a $16 credit on all on-line orders. BT guides customers through an interactive questionnaire to help them identify the product that best meets their needs and to subsequently purchase the product on-line.

The exploitation of the Marketspace is not even across the retail sector. Some organizations such as Wal-Mart, which is the highest ranked retail firm, has transferred their entire business onto the Web while others such as K-Mart have done little to exploit the Marketspace. Walmart’s Web presence is relatively simple from a technology point of view, but provides a neatly categorized and comprehensive product catalog with detailed features and prices. Promotions and special deals in the on-line store are similar to what one can find in a conventional Wal-mart store. Unlike many other American retailers, they also deliver outside the US.

Tesco of the UK is a European retailer, which does much the same as Wal-Mart, proving that European companies are not far behind in some areas. Tesco provides extensive value adding information such as on-line like recipes with each product and a wine-selector software for free download.

Companies in the Manufacturing sector are disadvantaged by the nature of their products. However, many companies, typically the automobile manufacturers, do very well. GM has a good Marketspace presence which allows customers to configure their dream car, add on different features, get a price quote for the car, and also checking for availability of the model at a friendly neighborhood dealer. Others, namely Volkswagen and Ford are not far behind. All automobile manufacturers manage to seamlessly integrate car financing into the whole car purchase process. For example, after choosing options on a favorite Ford and obtaining a price quote, the site leads you on to the Ford Credit section, where the customer is presented with several financing options, with detailed information on each possibility.

Companies from the Finance & Insurance sector were a disappointment. Most banks, from Japan in particular - such as Bank of Tokyo Mitsubishi and Nippon Life Insurance, have an elementary Marketspace presence and do not even attempt to conduct any business over the net. Better performers such as Citicorp provide good sites with detailed information about their products, and even delivers many services on-line (PC Banking and cards). Citicorp provides financial tools to enable customers to compute mortgage payments, school loan payments and other useful aspects.

Firms from the Chemicals & Pharmaceuticals and Mining, Oil & Refinery sectors cannot deliver their products on-line. Hence the web sites of many of these companies are little more than glorified corporate brochures. However, some firms have chosen to emphasize the delivery of information related to their products through their Marketspace presence. Merck, for example presents detailed information about a variety of ailments, their symptoms, remedies and relevant Merck pharmaceuticals. The Merck manual, which is essentially a product catalog, goes a step further by providing detailed product information and matching the illness to the cure. Interactive quizzes keep the customer interested and health care
professionals can exchange information via on-line forums. The Hoechst Marketspace presence is similar to that of Merck.

7. Conclusion

The results of this study are interesting because they demonstrate that much more can be done by most organizations in exploiting the Marketspace. One should keep in mind that the results described in this paper are true for the sample of large, global firms considered in our research. These are precisely the type of firms which today risk stagnation while being overtaken by agile new entrants who are moving into the Marketspace easily and fearlessly.

The reasons for the lack of exploitation of the Marketspace by traditional large firms are multiple and complex. They are more organizational in nature as opposed to being technology related. This is the subject of ongoing research by the authors.

References