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E-Business Models Implicit in Comparable American and German Corporate Websites

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Abstract

This paper offers a multi-trajectory framework of e-business readiness, and assesses the e-business readiness of selected, comparable German and American companies based on an analysis of their corporate websites. Armed with our framework, we identify the different e-business strategies, or what we call e-business trajectories, theoretically available to the firm and analyze which one it has chosen to pursue in what way and to which degree. We propose a model of e-business strategy and apply it to websites of comparable American and German firms.

Introduction

This paper offers a multi-trajectory framework of e-business readiness, and assesses the e-business readiness of selected, comparable German and American companies based on an analysis of their corporate websites. The term "e-business" represents the entire range of Web-based external transactions available on a firm's website (Kauffels, 1998). External transacting parties include customers in the wider sense (Kotler and Armstrong, 1996): individuals and households as well as businesses (suppliers, buyers, distributors, agents, partners, and others).

We identify the different e-business strategies, or what we call e-business trajectories, theoretically available to the firm and analyze the trajectories comparable American and German firms have chosen.

Classifications

Hoffman, Novak, and Chatterjee (1995) identified six distinct functional categories of commercial Web pages from a marketing perspective: [A] Destination Sites: 1) Online storefront, 2) Internet presence; [B] Web Traffic Control Sites: 3) Content, 4) Mall, 5) Incentive site, and 6) Search agents. Schubert and Selz (1999) provide a sophisticated Web assessment model that attempts to capture how within the context of electronic markets technology affects marketing practice. After braking down the market transaction into 3 phases--information, agreement, settlement--and a community component, the authors proceed to list technology-based criteria that Web sites need to realize for successfully adding value in each

phase. In the information phase, Web assessment is based on the interface, structure of content, information quantity, stored customer profile, product and service combination, availability of goods, performance of the system, and savings (see also Mundorf et al , 1999). The agreement phase is characterized by the site's ability to adjust the customer profile and guide ordering, the possibility of customized products, transparency, security, and interactivity. Finally, the settlement phase is marked by the degree to which payment services are integrated, existing customer profiles are used, tracking service, and after-sales support (see Schubert and Selz, 1999). Schubert and Selz's model is very prescriptive and argues that technological progress challenges traditional sales and marketing activities.

Quelch and Klein's descriptive model (1996) looked beyond the US market to suggest four types of websites, two with a global perspective: 1) communication and customer support sites, 2) service and transaction sites, 3) international communication and customer support sites, and 4) international service and transaction sites. Rask (1999) offered a typology of commercial Web pages based on the company's "earnestness" with which it focuses on the new medium. Earnestness in his typology is based on the "interaction intensity" the companies hope to achieve with their Web presence. Rask's three interaction types – Brochure, Manual, and Shop – differ in interaction intensity because they all pursue different marketing "purposes." Interaction intensity is a measure of the complexity of the website interaction between firm and customer, increasing from brochure to manual and finally to shop. Rask (1999) states that not all companies are able to use the shop strategy or even the manual strategy. In fact, some firms in his study actually reduced their interaction intensity over time.

By combining Quelch and Klein's classification and Rask's interaction intensity model, we develop an E-business Readiness Map. Our theoretical view differs from Rask's structure in that we see the types (i.e. brochure, manual, and shop) as endpoints of independent developmental trajectories whose combinations results in multiple intensity levels which are mapped out in a three dimensional space. The term trajectory depicts a company's dynamic process of moving, for example, from a basic transaction orientation to a full-fledged one. However, the objective of our map is not to trace this transit but to provide the firm's current location. For example, a company that follows mainly the

communicative trajectory (brochure) but also has a shop orientation is on a different intensity level and must be mapped differently than a company that has not initiated a shop or manual trajectory. To account for these differences we propose a multilinear rather than uni-linear model of e-business evolution. This multi-trajectory mapping model allows us more analytical power than existing classifications. With such a model, we offer a comparison of the Web strategies implicit in the corporate websites of US companies and their German competitors.

Proposed Mapping Model

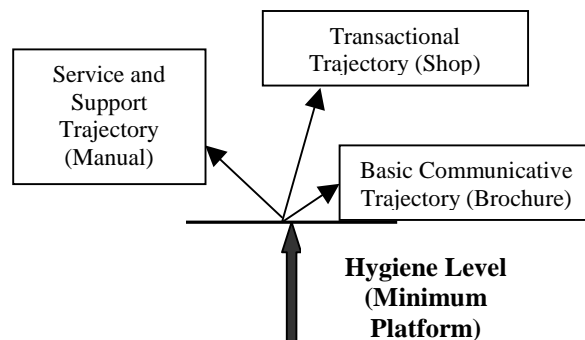
The proposed mapping model of e-business readiness is descriptive, not prescriptive. A typology of Web marketing strategies needs to recognize that some companies might want to evolve into transactional e-tailers and others might prefer to use the Internet primarily for communicative or service and support function. These strategies are neither cumulative nor predicated on each other. That is, to be a shop, a firm does not necessarily have to incorporate all the features of firms pursuing a brochure or manual format. Thus, we suggest three distinct trajectories leading to three singular endpoints (Table 1).

Table 1: Possible E-Business Orientations

Trajectory	Brief Descriptive Characterization	Endpoint
Communicative	Purely informative content about company's existence, strengths, offers.	Brochure
Supportive/Service	Offers customer support like FAQ, upgrades.	Manual
Transactional	Site equipped to generate sales.	Shop

Before any trajectory can be successfully launched, a minimum degree of web presence needs to be established. Such a universal cut-off point determines what we call the hygiene level of e-business readiness. This is the fundamental platform of e-business readiness that any company must achieve before any differentiation of trajectories can occur (see Figure 1). Unlike a stage model that suggests a successive evolution from one endpoint to the next, our model allows for a differentiated development of all three trajectories independent from each other. Thus, it is not a single endpoint but a combination of all three trajectories that describes the Web strategy's interaction intensity. Such a more complex model generates a more accurate representation of a company's Web strategy in a three dimensional space.

Interaction Intensity Level



Using these trajectories, we develop an analytical tool that 1) allows us to locate the company's current position on the map of strategic possibilities, 2) to indicate the interaction intensity level associated with the "geographic" location of the firm, and 3) to compare location and intensity level of German companies with that of American competitors.

Trajectories and Endpoints

Brochure: Communicative Trajectory

The communicative trajectory has as its endpoint the brochure. Offering product displays and information, the brochure is essentially sophisticated advertising online. The interaction intensity between customer and site is naturally very low and is only slightly enriched via email links. A good example of this type is the BMW website in Germany and the Kroger site in the US.

Manual: Service and Support Trajectory

The service and support trajectory is pursued when the firm's goal is to offer a manual to its customers. This can include a Frequently Asked Questions section, software upgrades for existing hardware, a customer service email link, and order tracking information. The manual is more complicated to operate for the company. Special software has to be installed to handle the interaction complexity and intensity. If successful, it can be very lucrative because it reduces customer support costs dramatically, even more so in the global context (Aspen, 1998; Hoffman and Novak, 1997). An example is the IKEA web strategy. The company's Web page allows for extensive searches of the product catalog. It also offers support for the assembly of their furniture, a FAQ list, and design tools for customers who want to be creative. However, no sales are made online.

Shop: Transactional Trajectory

The transactional trajectory aims at using the computer-mediated environment mainly to generate sales. The main purpose is to offer and sell the company's products and services. Brochure and manual orientations

may or may not be used. Some shops –Kingsbook.com, for example, an online bookstore that focuses solely on the transactional trajectory – simply provide the basic information needed to finalize the sale. Others, such as Amazon.com, pursue not only the transactional trajectory but the service and support and communicative trajectory as well.

Global Orientation

In most discussions about the various trajectories firms can pursue and the different interaction intensities they can choose, the aspects of internationalization and globalization have been overlooked. This neglect must be redressed because one of the chief reasons for the attractiveness of the Internet for the commercial sector is its internationalization of markets in the Information Age (Dholakia and Dholakia, 1999a, p. 34-35; Dholakia and Dholakia, 1999b, p. 304). International customers add value but rarely costs. Thus, the communicative, support and service, and transactional trajectories must be evaluated also for their ability to interact with an international audience.

German and American Comparisons

Using the multi-trajectory framework, we can explore the Web strategies of selected American and German companies. We formed five pairs consisting of an American and a comparable German firm (see Table 2). The companies were chosen for their similarities in product offering and customer profile. In other words, they can be considered competitors in the global marketplace. The pairs are chosen subjectively to cover some of the larger industries. We do not claim that these companies are necessarily representative of their respective industries or that they are leading edge in e-business strategy. These companies simply serve as examples on which to demonstrate the functionality of our trajectory map.

Table 2: German-American Competitor Pairs Studied in January 2000

German	American
Volkswagen (Volkswagen.de)	General Motors (gm.com)
Miele (Miele.de)	General Electric (ge.com)
Deutscher Paket Dienst (dpd.com)	United Parcel Service (ups.com)
Lufthansa (Lufthansa.com)	Delta (Delta-Airlines.com)
Deutsche Telekom AG (Telekom.de)	AT&T (att.com)

We wanted to know whether different strategic orientations could be inferred from comparable corporate websites. Therefore each company's website was examined to identify its respective "trajectory mix", i.e. its emphasis on reaching each of the three endpoints (Brochure, Manual, Shop). In addition to the three trajectories and endpoints, we assessed the company's international or global orientation. This information allowed us to assess the interaction intensity implied in the firms' websites. This is then represented visually in the multi-trajectory map (see Figure 2). We provide an illustrative discussion of one competitive pair.

Volkswagen and General Motors

Volkswagen (VW) and General Motors (GM) are two of the largest car manufacturers in the world. Both companies have performed successfully in recent years in local and global markets (Green, 1999; Guilford, 1999). In some respects, however, their Web strategies seem to differ.

Volkswagen uses the Web mainly for communicative purposes. The company excels in presenting its product line in a computer-mediated environment, creating in effect an e-brochure. It offers detailed information about its cars, minivans, and small trucks. In addition, customers can find information about leasing and financing, car insurance, and servicing. The site does not provide much of a service and support function for customers who already own a VW car. For instance, there is no FAQ or posing area where owners could ask questions and find answers to possible problems regarding the cars they own. For VW direct bank customers who have been financing their car the site offers no access to account information or transaction. Furthermore, the site offers a link to the VW Club but one cannot join online.

VW's transactional trajectory is quite underdeveloped. While it is true that the (bold means this was written more or less verbatim by one reviewer) German law and binding contractual relationships between dealers and car manufacturers prohibit manufacturers to sell cars directly to consumers, direct purchase is not the only characteristic of a shop orientation. However, the only two customer-related options offered online are personal model configuration and a "store locator". After configuring one's "dream car" the specifications can be printed out and send or email directly to the dealership. Because VW has no integrated dealer inventory search function, the customer cannot find out whether the car is available at a dealership near by, or anywhere else in Germany or Europe for that matter, or how long it might take the contacted dealership to get the car for a test drive. In addition, VW does not offer to the customer to search dealerships for the best price of a desired model or have dealerships submit closed bids for a regular or configured car.

All these possibilities are open to VW and to its dealership network potentially benefiting both parties through synergy effects. On the other hand, in the German corporate market Volkswagen is already one of the largest online retailers. Corporate customers can customize and configure their cars online with direct connection to manufacturing. Globally, VW makes an effort to cater to the non-German speaking marketplace. Its website is offered as full-text foreign-language version in 19 countries worldwide. However, regarding the transactional trajectory VW leverages the Internet even less globally than it does in Germany. In the US market for example where restrictions on direct sales are minimal, the company does not use the Internet as a distribution channel to end consumers at all. Moreover, the Web site does not offer the car configuration function as the German site does.

General Motors's Web presence is much more comprehensive than that of VW. In communicative terms, the website not only offers the usual sections concerning the company's products and services but also a virtual auto show and company tour. The interactive "GM Experience Live" show is an excellent way of representing the company and its products to the visitor. In addition to a full brochure strategy, GM aggressively pursues the service and support trajectory. For example, potential customers can explore financing opportunities online, calculate quotes and rates, and apply for a contract. GM customers can access their accounts online, choose and change payment options, refinance, and so forth.

For visitors searching for a GM vehicle, the site offers a "Good Deal" section. If the visitor does not find the desired car, she can specify her preferences and receive an email notification as soon as an offer comes in. Finally, the GM site has a clear commitment to the transaction trajectory. In essence, the shop is realized on the GM Web page. A visitor can specify what car he is looking for and locate it online using the GM search engine. In addition, the site assists him in finding the best price among all GM dealerships and in contacting the dealer with the offer. In sum, the GM site is poised for high interaction intensity by emphasizing the brochure, the manual, and the shop equally strong. The website also tries to cater to the global marketplace by offering links to 50 countries worldwide. GM, however, does not offer full-text foreign-language versions – it links mainly to English-language sites.

Company	Brochure	Manual	Shop	Globalization	Interaction Intensity
VW	++	+	+	+	Medium
GM	++	++	++	+	High
Miele	++	+	0	+	Low-Medium
GE	++	++	+	0	Medium-High
DPD	++	+	0	+	Low-Medium
UPS	++	++	++	++	Very High
Lufthansa	++	+	++	++	High
Delta	++	++	++	0	High
Telekom	++	++	++	+	High
AT&T	++	++	++	+	High

- 0 not emphasized
- + somewhat emphasized
- ++ strongly emphasized

Table 3: Trajectory and Interaction Intensity of German and American Companies

Discussion

Within the multi-trajectory model of e-business readiness proposed here, we find differences between the members of each pair. With the exception of Telekom, all German companies demonstrate a tendency to have websites with lower interaction intensities than their American competitors. While all of German companies have fully realized the brochure format, only Telekom has done the same for the manual. All German companies do emphasize the service and support trajectory on their website, but overall not as strongly as their American counterparts. The Internet has been discovered by many customers as an interactive and fast avenue to get information, help, and advice on all thinkable topics. The least they thus expect from companies' websites is fast and accurate product-related information. The risk firms take with an under-emphasized service and support trajectory – perhaps because of concerns about overwhelming interaction intensity (Rask, 1999) – is high, especially considering the global impact of virtual word-of-mouth diffusion (Stauss, 1997).

The transactional trajectory is the weakest of all parts of the trajectory mix. In other words, shops are even less emphasized in the Web strategies of German companies than the manual and the brochure. Only Lufthansa and Telekom have emphasized or realized the shop online while *all* of the American websites offer a "shop". Overall, we observe a clear bias among German companies to develop Web strategies that focus on communicative and service and support functions.

Our study shows that German companies demonstrate much more sensitivity concerning the intricacies of the global-local nexus. Offering full-text

foreign-language websites, all German companies try to *localize* their communication. No American company makes such an effort. Indeed, none even offered a Spanish version!

Conclusions

We presented and applied a multi-trajectory model of e-business to five pairs of competing German and U.S. firms. Our multi-trajectory model is based on the assumption that the companies can pursue three main trajectories on the Web: communicative, service and support, and transaction. Therefore, companies have to make a decision as to whether they want to emphasize one, two, or all three possible trajectories. Moreover, companies must make a conscious decision whether they wish to apply their trajectory mix to a local (national) or global audience. Any decision regarding the trajectory mix as well as the globalization aspect affects the interaction intensity a company is exposed to on the Internet. The question about what constitutes an appropriate trajectory mix for a firm is a complex one and cannot be answered in isolation from competition. With our multi-trajectory model we can give an answer as to what particular interaction intensity a company has opted for and how its strategy compares to that of a competitor's (see Table 3).

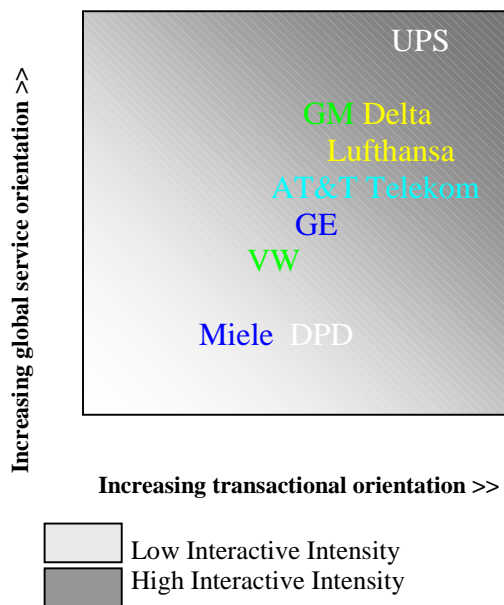


Figure 2: Companies' position in the Multi-Trajectory Mapping Model

Figure 2 maps the companies according to their interaction intensity. Combining the different trajectories yields the company's location. For example, UPS consistently scored the highest and Miele and DPD scored fair on the support and service trajectory but weak on the

transaction trajectory. Therefore, UPS is very high on the intensity map while DPD and Miele are not.

Of course, our study should not be seen as a comprehensive survey of German and American companies' Web strategies. Indeed, all we wanted to accomplish was to develop a useful model for assessing a firm's Web approach and to suggest with some examples how such a framework could be used empirically. The managerial relevance of our model lies in the fact that a firm can locate its position on the multi-trajectory map with ease. More importantly, in one glance the firm can compare its own position with that of its competitors. Armed with this knowledge, a company can make better decisions about future directions concerning its marketing mix in general and its Web trajectory mix in particular.

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