

The Covered Bazaar on the Internet

Culturally Specific Alternatives to “Web-Marts”.

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Abstract. To be competitive in today’s marketplace, companies must expand their commercial activities beyond national borders. Responding to the needs of customers, e-commerce models have been developed that make sense in a globally networked world. A problem with most global e-commerce models is a flattening of cultural diversity, with little regard to local identity. This paper presents a cultural metaphor for online shopping – that of a bazaar. The bazaar model accommodates specific cultures and relies on 3D information technology and virtual worlds. The metaphor is extended to a general culturally specific model for e-commerce.

1. INTRODUCTION

Over the past decade, the Internet has evolved from an exotic “place” populated with academics and scientists to a common marketplace for the general populace. The global network of electronic infrastructure has played a significant role in this expansion but the technology itself is not the factor driving the business revolution. The changes are driven by the interaction of information technology and customer demand [1]. Gone are those days in the early 1990s when the Internet was populated mainly with research papers, scanned texts and some downloadable software from university research laboratories. The Internet has become the medium of what Vernadsky¹ [2] calls “noosphere” - the next step in the evolution of the biosphere of the Earth. The developments in the latter half of the 1990s illustrate that the common information environment that supported the development of a common scientific approach to the world (the basis of the “noosphere”) has had an effect of homogenising the networked global population.

A contribution to the weakening of both economic and cultural diversity in the epoch of transition into the 21st century is the push towards globalisation at any cost. The latest advances in information and communication technologies (ICTs) have been touted by Internet enthusiasts as the catalysts that lead to greater world democracy and prosperity. Little thought has been given to the possibility that the values and communication preferences inherent in

¹ Russian scholar Vladimir Vernadsky, whose works in philosophy and psychology have been translated in English in the late 1960s and early 1970s, foresaw these processes and their product in a holistic manner. In 1943, in his book *Scientific Thought as a Planetary Phenomenon*, he introduced the term *noosphere*, which he considered to be a new layer in the evolution of the Earth, appearing on top of the biosphere

these technologies may not be universal. In fact, the consequences of new communication technologies could be a homogenous “McWorld” [3, 4]. The alternative to such global homogeneity is what Barber refers to as “Jihad”² – the reaction that occurs when diverse cultures try to preserve their identity. However, the apparent dilemma between Jihad and McWorld may not be so intractable [5]. Indeed, there are examples that demonstrate points between Barber’s dichotomy. Thailand’s use of CMC technologies, for example, allows for both global connectivity (but in a “thin” culture) and the preservation and enhancement of local cultural values and communicative preferences (a “thick” culture) [6].

Another contribution to the weakening of both economic and cultural diversity in the epoch of transition into the 21st century is the two processes of discontinuity and rapid change. Even the most basic of human activities have lost much of their idiosyncratic individuality as these activities, of necessity, conform to standard protocols and operating procedures.

An example of such a basic human activity is the common task of shopping. The rapid expansion of e-commerce on the Internet, and the speed with which societies are adapting to the notion of doing business and shopping electronically, creates the perception that e-commerce is a natural evolution in this information age. Although scholars are cautious about issues such as security [7-9], trust [10], health and lifestyle [11, 12], very little research has been carried out to evaluate the effect of global e-commerce on indigenous and local cultures. The current environments, metaphors and processes of Internet commerce have perhaps the most potential to adversely impact on cultural identities. While new technologies are capable of creating and archiving user and product profiles, developers and researchers in the field are only beginning to consider how cultural profiles can assist in the global marketplace.

In this paper, we describe the development of e-commerce in the context of the various metaphors currently used for online shopping. We explore the metaphor of a 3D marketplace and the implementation of such a model in e-commerce systems. Finally we discuss the efficacy of culturally diverse e-marketplaces for maintaining the integrity of languages and cultures along with global economic communities.

2. THE EVOLUTION OF E-COMMERCE

The evolution of the media and underlying technology for e-commerce on the Internet can be divided into several distinct phases. During the first phase, in the early 1990s, the Internet was used primarily for information dissemination via e-mail and static Web pages. The Internet was a complementary information channel to magazines, radio and TV for distributing product information. The transfer of information lacked security and integrity.

The second phase, from the mid to late 1990s, saw security and privacy protocols being added to a variety of transaction processing services. This addition opened the Internet to a variety of commercial and corporate uses. The development of dynamic Web pages and database-driven Web sites added a spin of interactivity. E-commerce also borrowed some ideas from research in computer supported collaborative work (CSCW) [13, 14].

The current phase of e-commerce is connected with the development of intelligent technologies like data mining, online analytical processing (OLAP) and sophisticated search engines. These technologies are used for creating both product and user profiles, and for adapting the behaviour of the e-commerce system to individual combinations of these profiles. They require the development of new interfaces and business models.

This dramatically changed computing universe – the networked microcomputer and advanced communication networks, deregulation of telephone services, expansion of Internet

² “Jihad”, an Arabic word, means struggling or striving. In the West, especially in the media, “Jihad” is generally translated inaccurately as “holy war”.

technologies beyond the boundaries of academic and research institutes, the flat pricing structure offered by the Internet – made it possible to deploy the new technologies for e-commerce. By some estimates³, there are about 8 billion dollars in transactions annually over the Internet, generated from 60,000 commercial web sites. These figures contrast dramatically to the early days of e-commerce when most ventures, especially small and medium sized enterprises, were not profitable. A study conducted by Activmedia [15] found that e-commerce revenue leapt to \$132 billion in 2000. Recent research by the GartnerGroup, according to Leung [16], shows that the phenomenal growth of e-commerce is being driven by business-to-business (B2B) generally, and B2B trading communities specifically. Trading communities, such as Commerce One's Marketsite⁴, provide an environment or "marketplace" in which goods can be traded.

Unfortunately, many commercial entrepreneurs, who hope to be successful worldwide, fail to understand the real-world obstacles of international business-to-consumer (B2C) e-commerce. They do not take into account technological, commercial and cultural differences. Differences in telecommunications environments severely limit the development of online markets. Differences in commercial practices affect global online markets. For example, in Germany, two-for-the-price-of-one offers and promotional gifts are illegal; in Sweden, toy advertisements cannot be aimed at children. Another important factor in the success of a global online market is sensitivity to cultural and linguistic differences. English may be regarded as the language of the Internet by many, but in France, for example, a Web site that is specifically aimed at the French consumer must, by law, be in French [17]. English Western-style web pages need to be redesigned, translated and adapted to individual nations. Cultural and linguistic differences therefore increase the cost of cross-border e-commerce.

Scholars [18], research agencies⁵ and business analysts are attributing the unprecedented scope of innovations in the way business is conducted to the emerging e-commerce technologies. We begin by exploring the pathways through which business is conducted. Marketing channels are the central element in models of e-commerce. They are defined as "systems of independent organizations and technology that make products and services available to the consumer in a useful and accessible form" [18].

There is a divergence in the classification of the major models in e-commerce [18, 19]. The focus of this paper is on the direct B2C model. This business model intensified the competition for customer attention in the marketplace while largely ignoring the cultural and linguistic divergence among customers and business environments in different parts of the world. The lack of cultural and linguistic sensitivity in the direct B2C model could be one of the reasons why B2C e-commerce is lagging behind B2B (business to business) e-commerce.

3. BUSINESS TO CONSUMER (B2C) MODELS

Perhaps the most popular and visible B2C model on the Web is the *web mart* (or digital storefront). The model is a result of the creative merger of two shopping metaphors: the mail-order (catalogue) business⁶ and the shopping mall/supermarket.

The *mail-order* business has survived more than a century. The first catalogue sales began in the United States at the end of 19th century, when two major mail-order companies, Montgomery Ward and Sears Roebuck,⁷ were established. The obvious advantage of this model

³ <http://www.netquest1.com/ecommerce1.htm#overview>

⁴ <http://www.commerceone.com/>

⁵ <http://www.activmediaresearch.com/>

⁶ In its first years, Amazon.com operated as a mail-order book retailer with relatively small stock-list.

⁷ In 1872, Montgomery Ward and Company of Chicago started the first mail-order-house. Richard Sears, who started with selling cheap watches, teamed with watch repairman Alvah C. Roebuck to form Sears, Roebuck and Co. in 1886.

was a decrease in the amount of time needed for shopping. The disadvantage was the limitations of the media (paper) to represent the qualities of the goods.

The *shopping mall* model flourished with the growth in the popularity of automobiles and the expansion of road systems. The automobiles and road systems provided the underlying technology, and efficient large chain stores lured the customers. Customers were willing to travel relatively long distances to reach a large store that offered a variety of products at relatively lower prices. The key factor for a chain to compete effectively and achieve profitability at low prices was purchasing in volume. Not surprisingly, the same principle worked for the customers – the volume at low prices compensated for travel time and expenses. As customers were now purchasing in volume, families found it useful to have a shopping list (usually a cumulative list on which a household places its needs) as they negotiated massive supermarket aisles with their *shopping cart* (in which the needed items are placed). The shopping cart is the vehicle for transporting needed items from the supermarket shelves to the cash register and subsequently to their automobile.

The combination of the catalogue and the supermarket metaphors formed the underlying metaphor of the popular *Web-Marts*⁸. Figure 1 shows a typical example. Variations across Web-Marts are very small – where they do occur they are mainly in the layout. Consistent with its composite counterpart, Web-Marts feature a link to browse catalogue items and a link to view the contents of the shopping cart as items are placed in. For full-scale shopping, a user generally enters the mall with a login name and a password.



Figure 1. The “front” Web view of a typical “Web-Mart”.

Figure 2 illustrates what a customer finds inside a “Web-Mart” – a typical catalogue page which is usually equipped with a search engine. To some extent, search engines change the shopping strategy from browsing (through the catalogue) to selective searching (for a specific product). However, the selective searching strategy will work if the customer not only knows the language (English in most cases), but also the specific term used to label that product.

⁸ The term *Web-Mart* is introduced to emphasise the analogy with Wal-, K- and other-Mart stores.



Figure 2. Inside the Web-Mart

Similar to the procedure in the physical supermarket, the virtual shopping cart metaphor allows customers to accumulate and store lists of items they wish to buy as they continue to shop. The underlying technology that supports the shopping cart metaphor is a database of catalogue information. Formalised in a database form and interfaced with web stylesheets, the product catalogue on the merchant server supplies the information that is displayed when the product is retrieved. The database that is used is a collection of product specifications, availability, shipping information, stock levels, on-order information and other data. Figure 3 illustrates an enhanced shopping cart metaphor. In this example, the shopping cart technology is enhanced with a facility for “chatting” (talking online) with a shop assistant.



Figure 3. Shopping cart technology enhanced with chat assistance.

The data model and the content of the database depends on the type of product. A music CD store, for example, may include a downloadable sample file with a music segment from the CD, as illustrated in Figure 4.



Figure 4. Music Web-shop.

Perhaps Amazon.com, with its range of products that include books, videos, music, CDs, DVDs, electronic cards, consumer electronics and toys, remains the most widely recognised example of a database-driven Web-Mart. The online catalogue handles millions of product offerings, providing sophisticated data analysis of sales histories, product reviews, in-depth descriptions and cross-references, to guide customers according to some expectation about individual interests.

Personalisation is part of the strategy of Amazon.com. This feature suggests that the database keeps a record of all previous transactions, including items purchased, shipping and credit-card information. Combined with information from the customer database, it builds a user profile “on the fly”. Based on previous purchases and cross-referencing with customers who bought similar products, it presents a list of recommended titles to the customer (Figure 5). This suggests that the site employs OLAP technologies which, by some criteria, identify similar products. By building and analysing customer profile data, such computing systems provide a customised (but fairly uniform) service, driving sales of additional items without human participation.

For the purpose of this paper, we can state that the man-machine system has the property of *symmetry*, which perhaps is reflected in the structure of the database – a symmetry between the *product* and the *human* sections⁹. This symmetry points to dehumanisation of the commercial environment.

It is difficult if almost impossible to establish a contact with a physical person behind the fabulous walls of the Web-Marts. Some modern sites, as illustrated in Figure 3, offer an access to a life channel, similar to the customer telephone lines. The attempt to connect on the live chat, shown in Figure 6, demonstrates the analogy with a telephone scenario.

⁹ A parallel can be drawn to Gogol’s “Dead souls”, where the product were the names and profiles of dead people.



Figure 5. Sales history and cross-reference to customers with similar preferences are features of amazon.com's site.

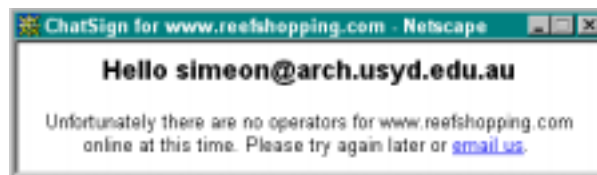


Figure 6. Chat service in a "Web-Mart", simulating a telephone service.

The auction is another metaphor that provided a successful model for the e-business environment. With this model, information about the prices of a large number of potential buyers in the market for a particular product can be obtained at a relatively low cost. The auction model provides some assurance in effective matching of buyers and sellers. Vickrey [20] offered four models of simple auctions, assuming that buyers hold independent, private evaluation of the product value. Vickrey's auction models established the de facto standard for the auctions of consumer goods in B2C e-commerce. eBay.com, the company which was a pioneer in Web-based auctions, attempted to bring in ideas from networked communities to e-commerce (note the "Community" section in Figure 7). There are also two additional operations compared with the Web-Mart: (i) announcing the product, and (ii) bidding for a product.



Figure 7. eBay.com - the entrance to the auction.

The attractiveness of e-auctions is that the customer is not only a buyer – the customer is able to offer his/her own goods for sale. Thus, the second generation e-commerce sites combine both models, as illustrated in Figure 8.



Figure 8. Combining the supermarket and the auction metaphor.

Although the models presented here have some variations on the Internet, the look, feel and functionality of the e-commerce sites are very similar. More importantly, the advantages of these types of e-commerce sites are convenience and lower prices. Consequently, there has been an expectation that online merchants will slowly overtake physical shopping malls. However, even the most ardent fans of Cyberspace agree that present Web commerce cannot replace the variety of emotion, social and cultural experience of shopping in the hustle and bustle of the physical world. One of the reasons for the cultural flatness of e-commerce is “bandwidth colonialism” [21], or US dominance. The structure of the Internet and bandwidth costs give the US an overwhelming advantage for dominating global e-commerce. As Flynn [22] claims, “Julius Caesar conquered Gaul with Roman legions, but the US is doing it with Mickey Mouse, and the Internet”.

The dominant Western culture is certainly evident in the models discussed. These models have basically eliminated the notion of the “marketplace”. Westland and Clark [18] refer to this phenomenon as a “placeless marketplace that we call a *marketspace* – one that is nowhere yet everywhere”.

4. E-COMMERCE TODAY

The e-commerce landscape today, therefore, features three major trends away from the models of a decade ago.

1. Products are changing from mass produced to custom made.

As Amazon.com and other similar major B2C e-commerce sites have demonstrated, customisation has become the key to success on the Internet. The product is not just “for the consumer” but for a specific individual who has a name, a title, an address and a history as well as emotions such as hopes and fears. The product needs to be made available in a way more innovative and cost effective than a competitor company can offer.

2. Production is changing from mass production to job specific.

While automation enhanced mechanisation and the drive toward more mass production, knowledge engineering and data mining have increased flexibility and make customisation possible at an affordable cost.

3. The market itself is changing from a mass market to a niche market.

The shift to unique products for a specialised customer base is becoming the very essence of e-commerce.

However, current e-commerce models are still dominated by the shopping mall/supermarket metaphor. This metaphor and its associated functionality correspond to Western lifestyle and shopping habits and thus continue to foster a homogenous McWorld. The success of such models in many countries, where shopping traditionally includes a social element along with bargaining and negotiations, is tenuous. The authors’ experiences in Turkey, for example, demonstrated that the social element is an essential part of a commercial transaction. The pre-purchase activities vary from a few minutes talk over a cup of tea (*çay*) to a half-day excursion to show the cultural history of the product. To demonstrate how cultural integrity can be preserved in online shopping, we use the metaphor of a bazaar as an e-commerce model.

5. CULTURAL SENSITIVE E-COMMERCE

When engaging in commercial activities across cultures, one must be sensitive to the multidimensions of culture, which include language, religion and artifacts as well as values, cognitive style, and time and space orientations. Culture encompasses a set of norms that a group of people consciously or unconsciously agree to in order to facilitate a homogenous and harmonious coexistence.

Initially, the Internet was an open forum, an Internet “bazaar”, in which the diverse cultures could participate freely. However, with the commercialisation of the Internet generally, and the popular supermarket metaphor in particular, globalisation has resulted in homogenisation and a flattening of cultural diversity. An enormous export market exists in addressing foreign markets – going global is no longer an alternative but a necessity for today’s business.

While the Web has helped to remove – or dilute – national borders, there are many issues that still need to be resolved. There are just seven countries where English is the primary language spoken and these seven countries represent 30% of the world's economy and 8% of the world's population [23]. Obviously there is a large potential market that is not catered for by parochially-minded businesses. Global e-commerce is most often limited by a narrow worldview that sees all countries at all times the same. Obviously cross-cultural e-commerce has its costs. Developing web sites specific to just the major national languages of the world can be a barrier to embarking on an e-commerce venture. However, companies cannot hope to participate in a true global e-commerce environment without being concerned about cultural sensitivity.

We propose that a major step in embracing cultural diversity in e-commerce is the use of metaphors that have cultural and social meaning; metaphors to which customers can relate. The example we give here is the bazaar metaphor for online shopping. For Islamic countries, the most common mode of shopping is the bazaar, in which prices are negotiated and transactions are accompanied by specific cultural experiences and emotions.

6. THE BAZAAR

One of the most notable ways in which a bazaar differs from a supermarket as a marketplace is price flexibility. The prices for each product in a bazaar depends on a variety of factors, including the season (peak or off-peak), the bargaining experience of the seller, the tenacity and culture of the buyer, and the manner in which the buyer handles the preliminary social etiquette. Most bazaars open early in the morning and continue until sunset.

The word *bazaar*, originating from the language of Uygur, means marketplace on the Silk Road. The word conjures up images of bustling and prosperous trading activities. In the marketplace, all types of fine items are carefully selected to cater for the need and taste of different customers. The markets of Islamic cities are one of the greatest achievements of the Islamic peoples. Economy and religion are the two principal pillars of the Islamic bazaars, which symbolise their difference from other markets. Two famous bazaars illustrate the atmosphere and power that could be infused into an online metaphor.

The *Kapalı Çarşı* ('Covered Market' or Grand Bazaar) in Istanbul, Turkey, houses thousands of shops and stalls where merchants display a variety of goods. Starting from a small *bedesten* (warehouse) built in the time of Mehmet the Conqueror, the bazaar grew to cover a vast area. The foundations of the Covered Grand Bazaar were built after the conquest of Istanbul by the Ottomans.

The bazaar grew in time with additional shops and halls. The arcades and halls were covered with arches (Figure 9) to form a series of covered streets leading to a central avenue. Streets are named according to the trades, such as gold and silver sellers, carpet sellers, slipper sellers, bootsellers, booksellers, etc. Shoppers can buy colourful carpets, clothing, copperware, jewellery and many other items. Consisting of more than 4,000 shops, the Grand Bazaar is a maze of narrow streets where you can buy a bangle, a carpet, or just browse. This great covered bazaar is not simply a complex of buildings but a city covered by hemispheric domes with 18 entrances.



Figure 9. The arches of the Grand Bazaar, Istanbul, Turkey.

The *Souq al-Hamadiyyeh* bazaar in Damascus, Syria (Figure 10), is the city's main market. It features long streets covered with high canopies, lined with booths and shops and bustling crowds. The shops are narrow and shallow, filled with goods of every kind, and shopkeepers sit in front of the shop ready to haggle with the passing crowds. It is noisy as men bargain back and forth. Barbers invite passers-by to have their hair cut. Their shops are always full. A crowded as numerous as that in the galleries of the Palais-Royal throngs the bazaar all day long.



Figure 10. The Souq al-Hamadiyyeh bazaar in Damascus, Syria.

As in the Grand Bazaar in Istanbul, each type of product has a street or part of a street and is known by the product name. For example, there is the Street of the Saddlers, Street of the Slipper Merchants, Street of the Spice Men, and many others. The longest and busiest thoroughfare is the famous Street Which Is Called Straight.¹⁰

¹⁰ Note that it is the street is “called straight” which doesn’t necessarily mean that it *is* straight.

7. THE BAZAAR METAPHOR FOR E-COMMERCE

We envisage that a bazaar universe (a “world” in Active Worlds) would appeal to cultures to whom the marketplace is a rich environment, such as the bazaars described in Section 6. Virtual worlds have the potential to provide commercial environments that transcend time and space. The development of virtual worlds has emerged from computer-mediated social spaces [24] that supported the needs of large, loosely-knit virtual communities.

Unlike the 2D desktop interface, 3D interfaces can create an experience of immersion. Under the right circumstances, users are able to mentally project themselves into a virtual space. One way this has been accomplished has been with 3D graphics. Another demonstration of immersion has been with MUDs¹¹, which are based purely on textual description. MUDs show that a rich, consistent presentation of a virtual space, even without sophisticated display technology, can be vividly experienced in the imagination of the user. The development of virtual worlds is inherently about creating places that mimic the physical world, but not necessarily restricted by 3D geometry [25]. This gives the person a feeling of being at some place, even though they have not physically moved from their home or office.

An example of an environment that creates a sense of place is Active Worlds¹². Active Worlds is a 3D modelling environment that includes avatars of the people in the virtual world. This environment provides a sense of place by presenting a 3D world in which the person can walk, talk, teleport, and look around. Although it is object-oriented, Active Worlds emphasises the 3D models of the contents of the world. It is used primarily for social interaction and as access to documents on the WWW. Because other users are present in these spaces, social interaction is facilitated.

The bazaar universe is, of course, developed in a local language. Within the bazaar universe, there are spaces for different types of goods – for example a “gold room”, a “carpet room”, a “slipper room”, and so forth. Waiting at the entrance of each space are animated avatars¹³ with whom potential customers can converse. The avatars are the counterparts of the shop assistant in the shopping mall, as shown in Figure 3.

The avatars’ behaviours correspond to particular cultures. Non-verbal behaviour, in particular, is highly culturally specific and constitutes 60% of interactive messages. For example, an Indonesian would use the right thumb rather than an index finger when pointing to a person; a Japanese smile can mean appreciation but it can also mean feeling embarrassed or sorry for another person. Transactions are carried out by negotiating prices with avatars.

¹¹ MUD is an acronym for either Multi-User Dungeon or Multi-User Dimension. A MUD is a form of a virtual world, a virtual meeting place which contains objects and people which behave (in principle) in a similar way to real-life equivalents. The system is based on rooms which can contain objects and where people can meet. In general, activities are restricted to the current room. MUDs weave a virtual world around the user by providing a first-person perspective of one's environment.

¹² Other examples are TAPPEDIN, and TeamWave. TAPPEDIN is a learning environment. The large community is supported in a campus-like environment with virtual buildings that are similar to physical buildings in function. TAPPEDIN uses a model of the “room” as the basic component and varies the types of rooms by changing the text description and image of the layout. People in TAPPEDIN are also represented as objects that move around the building, but the person object does not have a geometric representation or presence. TeamWave is a multi-user environment that groups documents and desktop tools into rooms. The organisation of the collaborative environment is defined by the users, where rooms are basically containers similar to folders in a filing cabinet. People in the environment are represented by an image and properties such as email address, phone number, etc. Communication occurs in a chat room style of talking.

¹³ Avatars are 3D representations of people in virtual worlds.

Using culturally specific shopping bots¹⁴, customer profiling can be developed. Bots have a great potential in data mining, finding patterns in enormous amounts of data. A customer profile may include information about negotiation skills, level of risk taking, and the ratio between an initial offer and the settlement price.

8. A CULTURALLY-SPECIFIC E-COMMERCE MODEL

The bazaar e-commerce model (or any other metaphor for a specific culture) can be represented as in Figure 11.

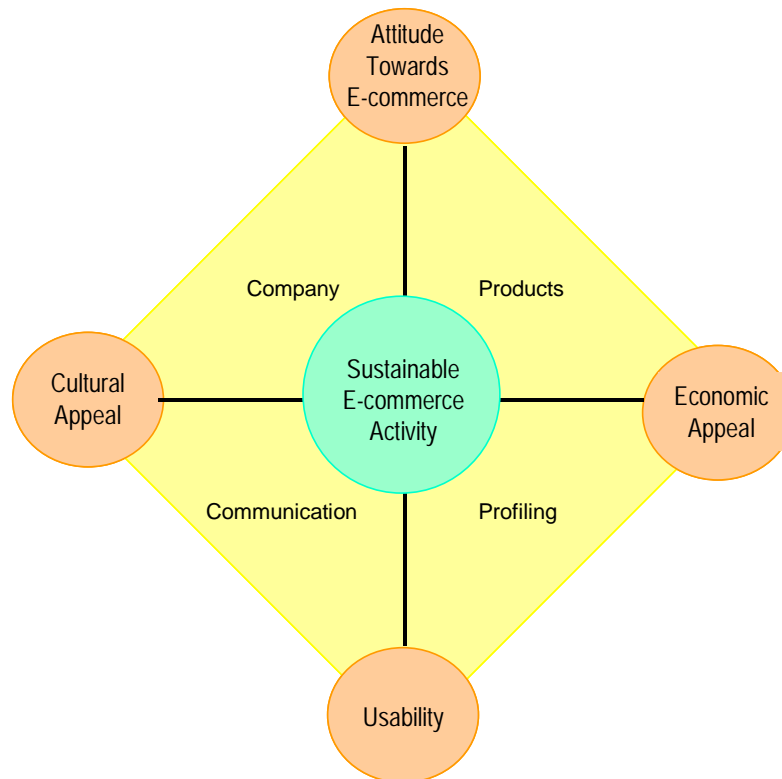


Figure 11. A culturally-specific e-commerce model.

The four key components for developing and sustaining e-commerce in the global marketplace are consumers' attitudes towards e-commerce as well as the cultural appeal, the economic appeal, and the usability of the site. These key components must be consistent with product integrity, a strong organisational culture, communication that facilitates frequent and personalised seller-buyer interactions, and ongoing profiling of consumers.

It is not sufficient to have a multilingual or national e-commerce sites. E-commerce sites must provide "zones" for customers who are unified by a common culture. Culture zones are markets that share not only resource needs but also cultural mores.

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¹⁴ A bot is a software tool for digging through data. A bot is given directions and it brings back answers. The word is an abbreviation of *robot*, which is derived from the Czech word *robota* meaning work.

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