Customer Relationship Management and Interface Redesign: A Study on the Web site Design on the eBay Web Sites on Cultural Perspectives

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ABSTRACT

This study is focused on the cross-cultural issues in the post-adoption phases of customer relationship management (CRM) for an international electronic marketplace, which operates in more than 30 countries. In particular, we focus on how the electronic marketplace modifies its interface redesign for addressing the different tastes of users from different cultural backgrounds. We hope this study can address to how cultural and language differences affect the interface redesign of CRM, which is part of the enterprise system, in the multinational and global context through a qualitative study.

Keywords:

Culture, Customer Relationship Management (CRM), eBay, Electronic Marketplaces, Qualitative Study.

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INTRODUCTION

Nearly all the major players in Business-to-Consumer (B2C) E-business are equipped with an enterprise system, which provides various types of services for the companies (Chang et al., 2010). The services provided include enterprise resources planning (ERP), customer relationship management (CRM), supply chain management (SCM), etc., which can be generally grouped into enterprise systems (ES). In this study, we are in particular interested in the CRM issue as it is the key component of the B2C E-business operations, which helps to retain online customers. Thus, extensive studies have been conducted in this inter-disciplinary area between information systems and marketing (Gefen & Ridings, 2002).

This study reports a case study on eBay (http://www.ebay.com), which is the major electronic marketplace providing a gateway for small and medium enterprises and individuals to conduct E-business online. As at April 2013, eBay has a network of 38 Web sites, which are designated to serve the users from different nations. Through analyzing the interface redesign of Web sites of the eBay family, we can gain a better understand on how culture and languages affect the design of the portal a multinational enterprise, which is the first Web page that helps to establish the image of the company, as well as to establish its relationship with the customers.

This paper is developed as follows. We first review the literature related to enterprise systems, customer relationship management, and the impacts of culture on information systems, and then we review the background of eBay. Afterwards, we discuss how eBay modifies its Web

site designs across culture. Lastly, we conclude the paper with the discussion on how we can draw the lesson learned from eBay for applying in multinational enterprises.

LITERATURE REVIEW

Enterprise Systems

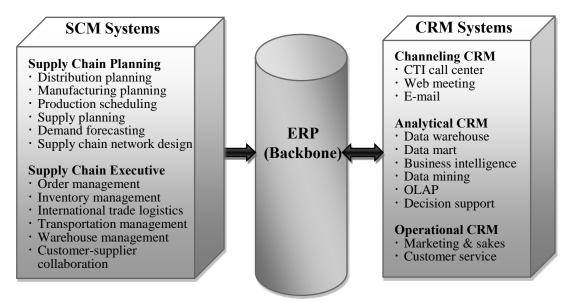
Enterprise systems (ES) are large-scale organizational systems that built around with enterprise system software (ESS) packages. These packages comprise sets of application software modules with integrated architectures that facilitate data, processes and information technologies integration, and are often used by organizations as their primary engine in supporting business functions (Shang & Seddon, 2002). Common modules of ESS include enterprise resources planning (ERP) systems, supply chain management (SCM) systems, customer relationship management (CRM) systems, product life cycle Management (PLM) systems, and e-Procurement Systems.

According to the existing practitioner and academic literature, ES is one of an important technology investment options for organizations over the last two decades for their potential to improve business performances (Akkermans et al., 1999; Davenport, 1998). Benefits brought by the use of ES in business are multidimensional, ranging from support for strategic goals to operational improvements through decision-making enhancement (Ross & Vitale, 2000).

Information integration is also one of the key benefits brought by ES. As it can be used for replacing the former functionally oriented and the often poorly connected legacy software packages, intensive cost savings in infrastructure supports can be achieved. The integration of the operational processes through ES applications has also brought positive impacts to firm performances. The vigorous business values that ES has brought upon have then become the reason why enterprises are eager to invest on further ES developments (Davenport, 2000).

ERP, CRM and SCM systems are commonly integrated in an ES. ERP application suites exploit the integrative capacity of the corporate communication network to link traditional business functions, such as finance, accounting, operations, production, warehousing, and sales into a single system, employing a shared database, eliminating multiple data entry and ensuring, for example, that current stock availability and customer account details are available when processing an incoming order. With the ERP serves as the system's backbone, SCM and CRM then extend data exchange to supplier and partner organizations, and customer, often via the internet with a Web interface (Chang, 2006). Figure 1 represents the extension of ERP to SCM and CRM within an ES.

Figure 1. Application of Enterprise Systems: Enterprise Resources Planning (ERP), Supply Chain Management (SCM) and Customer Relationship Management (CRM) (Developed from Chang, 2006).



Customer Relationship Management

Along with increased global competition in the past decade, many organizations have identified the needs to be more customer-oriented in order to stay competitive in the market. Shawyun (2011) suggests the importance of developing a customer driven information systems planning.

In the near future, differentiation from competitors would be based on how quick a company is capable to respond to the market demands and requirements with innovative products and services (Bull, 2003). Furthermore, understanding the customers' needs and offering value-added services are recognized as major factors that determine the success or failure of a firm. As a consequence, the introduction of CRM has become crucial for enterprises in the modern competitive world (Lin et al., 2010).

As it has become well known that retaining customers is more profitable than building new relationships, companies are now emerging from mass marketing of the past to more customer-oriented one-to-one marketing (Ahn et al., 2003). Under the one-to-one marketing circumstance, companies form an individual relationship with their existing and potential customers, and personalize their services provided to achieve greater customer loyalty. CRM was thus invented in identifying and managing the differences of preferences and purchasing habits between each customer.

In general, CRM can be viewed as a customer-oriented business strategy that dynamically integrates sales, marketing and customer care services to add value for the firm with the aim of building lasting relationships with customers. This concept is not new and is in fact a natural extension of another well-accepted concept in the marketing sphere, relational marketing, which involves the identification, understanding and meeting of customers' needs (Chalmeta, 2006).

CRM is also an integration of technologies and business processes used to satisfy a customer's needs during any given interaction between the firm and the customer. It involves acquisition, analysis and the use of knowledge on customer behaviors to provide suitable goods or services to the right customers efficiently (Bose, 2002). It offers the possibility of improving

the firm's relationships with its customers by offering a complete communication channel between the firm and its customers. It is a process designed to collect and accumulate information about customers, to grasp features of customers, and to apply those information collected, which some people call it "business intelligence" in specific marketing activities (Swift, 2001).

CRM itself is not only a concept, but is now practical due to the advancement of ESS technology. The key functions of customer-oriented marketing are to collect and accumulate customers' information, and to provide personalized services to customers. It is difficult to gather information without taking the advantages of information technology (IT). The rapid advances of technologies such as database, data warehousing and data mining are playing a central part in the change of marketing paradigms, and have led to the development of CRM systems along with the existing enterprises systems in assisting the functions of CRM in an organization. It uses information and communication technology (ICT) to gather and analyze data to produce information required for a more personal interaction with customers (Pan & Lee, 2003).

In IT terms, CRM means an enterprise-wide integration of information technologies cooperating together as data warehouse, phone support system, Web site, Intranet, sales and marketing, accounting and production etc. CRM has many similarities with ERP, where ERP can be considered as a back-office integration and CRM as front-office integration (Bose, 2002). In some organizations, CRM is simply a technological solution that extends separate databases and sales force automation tools to bridge sales and marketing functions to improve targeting efforts. For other organizations, they employ CRM as a tool specifically designed for one-to-one customer communications (Chen & Popovich, 2003).

CRM systems can be viewed as information systems aimed at enabling organizations to realize a customer focus. A CRM system uses IT to gather data, which can then be distilled into information and knowledge for creating a more personal interaction with customers. In a long run, it produces a method of continuous analysis and refinement to enhance customers' lifetime value with the firm. The CRM systems accumulate, store, analyze customer information throughout the organization, which includes all sales, promotions and customer service activities data. It is no doubt that advances in database technologies is crucial to the functionality and effectiveness of CRM systems (Sandoe et al., 2001). The techniques of data warehousing and data mining have made CRM possible as they consolidate, correlate and transform customer data into information and knowledge that are capable to form better understandings of customers' buying behavior (Ngai et al., 2009).

A major advantage of CRM lies in its ability to help organizations understand customers' behaviors and needs in more detail (King & Burgess, 2008). By accumulating and processing information across the customer-firm relationship lifecycle systematically, CRM facilitates firms to contour appropriate responses to customers' behaviors and needs by effectively differentiate their goods and services offered (Mithas et al., 2005). It can provide a guide for future marketing decisions, including distribution, price, brand differentiation and product designs (Richards & Jones, 2008).

Another benefit of CRM is that it enables firms to obtain in-depth information on their customers and to derive customer knowledge to adjust its offerings to meet customers' needs (Reimann et al., 2010). The application of CRM could help organizations assess customer loyalty and profitability on measures such as repeat purchase, dollars spent and longevity. It allows a firm to understand its customers better by tracking and analyzing customer behaviors. By

identifying the best customers, focus marketing efforts and rewards can be made to those who are likely to buy often. It also allows firms to interact, respond and communicate more effectively with their customers to improve retention rates.

Furthermore, adopting CRM could assist businesses in achieving cost leadership. Firms are able to improve their operations and strive for cost leadership by analyzing information acquired through CRM systems. To be specific, by integrating CRM in business operations, firms could reduce sales and service costs, increase buyer retention, and lower customer replacement expenditures (Lambert, 2010). This position is based on the notion that CRM could increase the cohesiveness of customer-firm relationships. As long-term customer relationships have been proven to result in lower customer management costs (Reimann et al., 2010), the implementation of CRM could thus help firms to achieve cost efficiency. In this study, we are focusing our investigation into the front end of CRM, i.e., the Web site design of the user interfaces.

Cultural Impacts and Information Systems Research

There are many studies conducted, which probe into the impact of culture on the adoption of information systems (IS), in the past two decades. While there are several approaches suitable for conducting research in culture and national characters (Clark, 1990), two common frameworks are used in IS studies on cultural impacts, viz., Hofstede Cultural Dimensions (Hofstede, 1993, 2001) and Country Cluster Approach (Ronen & Shenkar, 1985). Geert Hofstede (1993, 2001) develops the indexes of the Hofstede Cultural Dimensions based on a continuous research, which proposes that five different dimensions, namely, Power Distance (PD), Individualism (ID), Masculinity (MA), Uncertainty Avoidance (UA), and Long Term Orientation (LT) for measuring cultural impacts. On the other hand, Ronen and Shenkar (1985) develop another methodology

based on prior research, which proposes that countries can be grouped into eight different cultural groups, viz., Arab, Near East, Nordic, Germanic, Anglo, Latin European, Latin American, and Far Eastern.

Culture has been proved to have a significant impact on the adoption of information systems. For example, Papazafeiropoulou (2004) studies the adoption of E-commerce in eight countries, including South Eastern Europe and Israel. Based on a series of SWOT analyses, she proposes a series of recommendations for policy makers in the region, which would help them to develop a better IT infrastructure to facilitate the development of E-commerce. Robbins and Stylianou (2003) use the country-cluster approach to study content and design of multinational companies. They show that country-cluster approach is a suitable for analyzing the cultural impacts on the Web site design. Plus, Robichaux and Cooper (1998) develop a research model for studying the influence of culture on adoption of group support systems using the Hofstede Cultural Dimensions.

Some studies are focused on a specific type of information systems. For example, Choe (2004) investigates into the design issues of accounting information systems (AIS). He compares the AIS designs in Australia and South Korea, which are countries having opposite values in the Hofstede Culture Dimensions. He notes that the designs and the reports provided by these AIS from two countries are significantly different from each other in accordance with the predictions based on the Hofstede Cultural Dimensions. The above results support the argument that culture has a significant impact on the information systems design.

IS researchers are also interested in the impact of culture on the adoption of various types of technology. Bagchi et al. (2004) use the Hofstede Cultural Dimensions as the independent variables and study the relationship between national culture and the adoption of different types

of information technologies by regression analyses. They show that at least one of the five Hofstede Culture Dimensions have impacts on the adoption of information technologies, including PC, cell phones, and the Internet. Cao and Everard (2008) investigate into how personal privacy, information privacy, and awareness mediate the impact of culture on the attitude towards the adoption of instant messagers. They find out that privacy and awareness mediates the impacts of PD and UA on the attitude. Straub et al. (1997) also study the adoption of E-mail from airlines employees from Japan, Switzerland, and the U.S. and observe that Technology Acceptance Model (TAM) may not be applicable in different culture.

Cultural Impacts on Customer Relationship Management and E-Commerce

There are also many studies conducted to investigate the impact of culture on E-commerce and Customer Relationship Management. Bin et al. (2003) investigate into the impact of culture between the U.S. and China on the operation of E-commerce. While they notice that apart from the E-business infrastructure of the U.S. and China, in particular, the payment systems and logistic networks, have significant impacts on their modes of operation for E-commerce, language is another important factor. They suggest that tailor-made Web sites, which suite the local culture, are needed for making a successful entry into markets of another culture.

Cyr et al. (2005) stud the trust of users on local and foreign E-commerce Web sites using subjects from the U.S., Canada, Germany, and Japan. They observe a significant difference between the Web site design preferences from different culture. In their study, they also address the similarities and dissimilarities among the four-countries studied based on the Hofstede Cultural Dimensions. Ho et al. (2007) use Hofstede Cultural Dimensions to study the impacts of culture on sellers' behavior in eBay. They show that both the cultural backgrounds, measured by

PD, ID, and UA, as well as the product categories, affect sellers' decision on whether they use Buy-It-Now auctions to sell their products in eBay.

Pavlou and Chai (2002) also study the impact of culture on E-commerce. In particular, they study the moderating effect of culture on the intention to transact in E-commerce Web sites by customers from China and the U.S. They observe that culture moderates the effects of attitude, societal norm, and behavioral control toward the intention to transact. Singh et al. (2003) also study the impact of culture on the design of the U.S. and Chinese Web sites using samples collected from Fortune 500 companies. They discover Web site design factors affected by different Hofstede Culture Dimensions.

To conclude, prior literature provides a strong foundation to show that culture has a significant impact on the development of information systems. As the development of an enterprise Web site is the first step to get contact with the online customers, it is important to develop a Web site, which suits the needs for a particular culture and helps to strengthen the customer relationship, which is the front end of the CRM systems. eBay, as the major electronic marketplace operator which operates in different parts of the world, is the best candidate for us to further investigate into how culture affects the design of the corporate portal.

eBay: THE MOST SUCCESSFUL ELECTRONIC MARKETPLACES

Since it was established in 1995, eBay has been evolved into an electronic marketplace, which provides a platform for Business-to-Consumer (B2C) and Consumer-to-Consumer (C2C) electronic auctions for the Internet community (eBay, 2013). As at December 2012, eBay had 112 million active users and had net revenue of \$14.072 billion (eBay, 2013). To connect with more than 14 million active users, customer relationship management is, no doubt, one of the key areas which eBay is focused on to make it become a customer-focused company.

As at April 2013, eBay has 37 Web sites in 36 countries, which 29 of them are owned by eBay whereas seven are joint-venture. Table 1 reports the information of these 37 Web sites, and grouped based on the Country Cluster Approach (Ronen & Shenkar, 1985). As shown in Table 1, eBay has already established designated Web sites for serving most of the countries in Europe and North America, and have a strong presence in Latin America and East Asia, except Japan. Each of these countries, except Belgium, has one single Web site for serving the whole country, despite the fact that some of them (for example, Malaysia and Switzerland) are multi-lingual countries.

Table 1. eBay Web sites and the corresponding Country Clusters and Hofstede Cultural Dimensions

Country /		Hofs	tede C	Cultural	Dimen	sions
Country Cluster	Web Site		ID	MA	UA	LTO
Anglo						
Australia	http://www.ebay.com.au/	36	90	61	51	31
Canada	http://www.ebay.ca/	39	80	52	48	23
Ireland	http://www.ebay.ie/	28	70	68	35	43
United Kingdom	http://www.ebay.co.uk/	35	89	66	35	25
United States	http://www.ebay.com	40	91	62	46	29
<u>Far Eastern</u>						
China	http://www.ebay.cn/	80	20	66	40	118
Hong Kong	http://www.ebay.com.hk/	68	25	57	29	96
Malaysia	http://www.ebay.com.my/	104	26	50	36	-
The Philippines	http://www.ebay.ph/	94	32	64	44	19
Singapore	http://www.ebay.com.sg/	74	20	48	8	48
Taiwan +	http://www.ruten.com.tw/	58	17	45	69	87
Thailand	http://export.ebay.co.th/	64	20	34	64	56
Vietnam	http://www.ebay.vn/	70	20	40	30	80
<u>Germanic</u>						
Austria	http://www.ebay.at/	11	55	79	70	31
Germany	http://www.ebay.de/	35	67	66	65	31
Switzerland	http://www.ebay.ch/	34	68	70	58	40
<u>Latin America</u>						
Argentina +	http://www.mercadolibre.com.ar/	49	46	56	86	-
Brazil +	http://www.mercadolivre.com.br/	69	38	49	76	65
Mexico +	http://www.mercadolibre.com.mx/	81	30	69	82	_
Latin European						

		65				
Belgium ++	http://www.befr.ebay.be/ (French)		75	54	94	38
	http://www.benl.ebay.be/ (Dutch)					
France	http://www.ebay.fr/	68	71	43	86	39
Italy	http://www.ebay.it/	50	76	70	75	34
Portugal	http://www.ebay.pt/	63	27	31	104	30
Spain	http://www.ebay.es/	57	51	42	86	19
Near Eastern						
Greece	http://www.ebay.gr/	60	35	57	112	-
Turkey +	http://www.gittigidiyor.com/	67	37	45	85	-
Nordic					_	
Denmark	http://www.ebay.dk/	18	74	16	23	46
Finland	http://www.ebay.fi/	33	63	26	59	41
Norway	http://www.ebay.no/	31	69	8	50	44
Sweden +	http://www.tradera.com/	31	71	5	29	20
Independent / Unk	nown					
India	http://www.ebay.in/	77	48	56	40	61
Czech	http://www.ebay.cz/	35	58	45	74	13
Hungary	http://www.ebay.hu/	46	80	88	82	50
The Netherlands	http://www.ebay.nl/	38	80	14	53	44
Poland	http://www.ebay.pl/	68	60	64	93	32
Korea +	http://www.auction.co.kr/default.html	60	18	39	85	75
Notes:		•	•	•	•	•

IMPACT OF CULTURE ON THE WEB SITE DESIGN OF eBay

Based on Table 1, we analyze the Web site design of eBay based on their country clusters. Basically, the eBay family has a similar Web site design, except the language used in the Web site and the categorization of products (Ho et al., 2007). In this study, we focus on analyzing whether the product categorization of eBay Web sites are similar among the Web sites from the same Country Clusters. The U.S. eBay, i.e. the International Version of eBay Web site, is used as the reference point for the comparison. In our analysis, we take out those alliance Web sites, as their designs are different from eBay. Plus, we also exclude those cases, which Ronen and Shenkar (1985) did not include them in one of the eight country clusters. Thus, we will only analyze six country clusters, as all samples from the Latin America eBay Web sites are alliance, and eBay does not have any Web site for Arab Cluster.

⁺ Alliance Web sites of eBay.

^{**} Belgium eBay has two Web sites, one in Dutch and one in French.

First, we analyze the Web site design of eBay for Anglo Cluster. There are five countries belonged to the Anglo Cluster, i.e., Australia, Canada, Ireland, the UK, and the US. Table 2 shows the product categories of Anglo Cluster. As shown in Table 2, the categorizations of products for these countries are having a high similarity. For example, about 74% and 86% of the product categories of US eBay can be found in the Australia eBay, and UK and Ireland eBay, respectively. Plus, the Canada eBay and the US eBay, and the UK eBay and Ireland eBay, are having identical categorization.

Table 2. Product categories and eBay Web sites – Anglo Cluster

Category	Australia	Canada	Ireland	United Kingdom
Antiques	✓	✓	✓	✓
Art	✓	✓	✓	✓
Baby	✓	✓	✓	✓
Books	✓	✓	✓	✓
Business & Industrial	Note 1	✓	✓	✓
Camera & Photos	✓	✓	✓	✓
Cell Phones & PDA	✓	✓	✓	✓
Clothing, Shoes & Accessories	✓	✓	✓	✓
Coins & Paper Money	✓	✓	✓	✓
Collectibles	✓	✓	✓	✓
Computers/Tablets & Networking	✓	✓	✓	✓
Consumer Electronics	Note 1	✓	✓	✓
Crafts	✓	✓	✓	✓
Doll & Bears	✓	✓	✓	✓
DVSs & Movies	✓	✓	✓	✓
eBay Motors	Note 2	✓		Note 5
Entertainment Memorabilia	-	✓	-	-
Gifts Card & Coupons	✓	✓	-	-
Health & Beauty	✓	✓	✓	✓
Home & Garden	✓	✓		Note 5
Jewelry & Watches	✓	✓	✓	✓
Music	✓	✓	✓	✓
Musical Instruments & Gear	✓	✓	✓	✓
Pet Supplies	-	✓	✓	✓
Pottery & Glass	✓	✓	✓	✓
Real Estate	-	✓	✓	✓
Specialty Services	✓	✓	-	-
Sporting Goods	√	✓	✓	√

Sports Mem, Cards & Fan Shop	-	✓	✓	✓
Stamps	✓	✓	✓	✓
Tickets	Note 3	✓	✓	✓
Toys & Hobbies	✓	✓	✓	✓
Travel	Note 3	✓	✓	✓
Video Games & Consoles	✓	✓	✓	✓
Everything Else	✓	✓	✓	✓
Extra Groups	Note 4	-	-	-
Matching Percentage:	74.29%	100%	85.71%	85.71%

- (1) "Business" is separated into 2 categories, "Business", and "Industrial" in eBay Australia; and "Consumer Electronics" is separated into 3 categories, "Electronics", "Home Appliances", and "Home Entertainment" in eBay Australia.
- (2) "eBay Motors" also includes "Boats", and there is a separate category "Vehicle Parts & Accessories" in eBay Australia.
- (3) "Tickets" and "Travel" are combined as one category in eBay Australia.
- (4) An extra group, "Alcohol & Food", is available in eBay Australia.
- (5) "eBay Motors" is separated into 2 categories, "Cars, Motorcycles & Vehicles", and "Vehicle Parts & Accessories" in eBay Ireland and eBay United Kingdom; and "Home & Garden" is separated into 2 categories, "Garden & Patio" and "Home, Furniture & DIY" in eBay Ireland and eBay United Kingdom.

The results of the three European groups, i.e. Germanic, Latin European, and Nordic, are reported in Tables 3 to 5. We observe that the product categorization for all three countries in the Germanic Cluster, i.e. Austria, Germany, and Switzerland, are having a highly similar categorization among themselves. However, they are different from the International Web site and they only have 57-60% of the categories shown in the International Web site.

Table 3. Product categories and eBay Web sites – Germanic Cluster

Category	Austria	Germany	Switzerland		
Antiques	Notes 1				
Art					
Baby	√	✓	✓		
Books	√	✓	✓		
Business & Industrial	✓	✓	✓		
Camera & Photos	✓	✓	✓		
Cell Phones & PDA	✓	✓	✓		
Clothing, Shoes & Accessories	✓	✓	✓		
Coins & Paper Money	✓	✓	✓		
Collectibles	Note 1				
Computers/Tablets & Networking	√	√	✓		

Consumer Electronics		Note 2			
Crafts	-	-	-		
Doll & Bears	-	-	-		
DVSs & Movies	✓	✓	✓		
eBay Motors		Note 2			
Entertainment Memorabilia	-	-	-		
Gifts Card & Coupons	-	-	-		
Health & Beauty	✓	✓	✓		
Home & Garden		Note 2			
Jewelry & Watches	✓	✓	✓		
Music	✓	✓	✓		
Musical Instruments & Gear	✓	✓	✓		
Pet Supplies	✓	✓	✓		
Pottery & Glass	-	-	-		
Real Estate	-	✓	-		
Specialty Services	-	-	-		
Sporting Goods	✓	✓	✓		
Sports Mem, Cards & Fan Shop	-	-	-		
Stamps	✓	✓	✓		
Tickets	✓	✓	✓		
Toys & Hobbies	Note 2				
Travel	✓	✓	✓		
Video Games & Consoles	✓	✓	✓		
Everything Else	✓	✓	✓		
Extra Groups		Note 3			
Matching Percentage:	57.14%	60.00%	57.14%		

- (1) "Antique", "Art" and "Collectibles" are combined as one category, "Antique & Art" in Germanic Cluster.
- (2) "Consumer Electronics" is separated into 2 categories, "Appliances" and "TV, Video & Audio"; "eBay Motors" is separated into 2 categories, "Auto Parts & Vehicles" & "Car Parts & Accessories"; "Home & Garden" is separated into 3 categories; "Garden & Patio", "DIY", and "Living" in Germanic Cluster; and "Toys & Hobbies" is separated into 3 categories, "Toys", "Hobbies", and "Models", in Germanic Cluster.
- (3) Two extra groups, "Office Furniture" and "Gourmet" are available in Germanic Cluster.

There are five countries and six eBay Web sites from the Latin European Cluster, viz.,

Belgium (two Web sites, in Dutch and French, respectively), France, Italy, Portugal, and Spain.

While most of these Web sites are having similar levels of similarity with the International Web

site, i.e., around 57-63% of categories of International Web site can be found in these Web sites, the eBay France and eBay Spain have a very higher similarity at around 70%.

Table 4. Product categories and eBay Web sites – Latin European Cluster

Category	Belgium (Dutch)	Belgium (French)	France	Italy	Portugal	Spain
Antiques		Note	1		✓	Note 1
Art					✓	
Baby	✓	✓	✓	-	√	✓
Books	✓	✓	✓	Note 9	✓	✓
Business & Industrial	✓	√	✓	✓	-	-
Camera & Photos	✓	✓	✓	✓	✓	✓
Cell Phones & PDA	✓	Note 5	✓	✓	✓	✓
Clothing, Shoes &	✓	✓	✓	✓	✓	✓
Accessories						
Coins & Paper Money	✓	✓	✓	✓	✓	✓
Collectibles	✓	✓	✓	✓	✓	✓
Computers/Tablets &	✓	✓	✓	✓	✓	✓
Networking						
Consumer Electronics	✓	✓	✓	✓	✓	✓
Crafts	_	-	✓	-	-	-
Doll & Bears	_	-	-	-	-	-
DVSs & Movies	✓	✓	✓	✓	✓	✓
eBay Motors	✓	✓	Note 6	Note 9	✓	✓
Entertainment Memorabilia	-	-	-	-	✓	-
Gifts Card & Coupons	_	-	-	✓	-	-
Health & Beauty	✓	✓	✓	✓	✓	✓
Home & Garden	Note 2	✓	✓	✓	✓	✓
Jewelry & Watches	✓	✓	✓	✓	✓	✓
Music	No	te 3	✓	✓	✓	✓
Musical Instruments & Gear			✓	✓	✓	✓
Pet Supplies	_	-	✓	-	-	-
Pottery & Glass	_	-	✓	-	✓	-
Real Estate	✓	✓	✓	-	-	-
Specialty Services	✓	-	✓	-	-	-
Sporting Goods	✓	✓	Note 7	✓	✓	✓
Sports Mem, Cards & Fan	-	-	-	-	✓	-
Shop						
Stamps	✓	✓	✓	✓	✓	✓
Tickets	No	te 3	Note 7	-	-	-
Toys & Hobbies	✓	✓	✓	✓	✓	✓
Travel	No	te 3	-	✓	-	✓
Video Games & Consoles	✓	✓	✓	✓	✓	✓

Everything Else	✓	✓	-	✓	-	✓
Extra Groups	Note 4		Note 8	Note 10	-	Note 11
Matching Percentage:	60.00%	57.14%	68.57%	60.00%	71.43%	62.86%

- (1) "Antique" and "Art" are combined as one category, "Antique & Art" in all Latin European eBay Web sites, except eBay Portugal.
- (2) "Home & Garden" is separated into 2 categories, "Home and Garden" and "DIY" in eBay Belgium (Dutch).
- (3) "Music" and "Musical Instruments & Gear" are combined as one category, "Music and Music Instrument"; and "Tickets" and "Travel" are combined as one category, "Tickets and Travel", in eBay Belgium (Dutch) and eBay Belgium (French).
- (4) Two extra groups, "Post Card" and "Wine & Gastronomes" are available in eBay Belgium (Dutch) and eBay Belgium (French).
- (5) "Cell Phone & PDA" is separated into 2 categories, "Cell Phone" and "Telephone" in eBay Belgium (French).
- (6) "eBay Motors" is separated into 3 categories, "Auto and Motorcycle", "Auto: Parts & Accessories", and "Motorcycles: Parts & Accessories" in eBay France.
- (7) "Sporting Goods" and "Tickets" are combined as one category, "Sporting Goods and Tickets" in eBay France.
- (8) Two extra groups, "Wine & Gastronomy" and "Boats, Sailing, Boating" are available in eBay France.
- (9) "Book" is separated in 2 categories, "Books & Magazine" and "Comics"; and "eBay Motors" is separated into 4 categories,. "Cars", "Auto Parts & Accessories", "Motorcycles: Parts & Accessories" and "Motorcycles", in eBay Italy.
- (10) One extra group, "Wine & Gastronomy" is available in eBay Italy.
- (11) One extra group, "Equipment and Machinery" is available in eBay Spain.

eBay has four Web sites operated in the Nordic Cluster, i.e., Denmark, Finland, Norway, and Sweden. As, the Swedish eBay is operated as an alliance Web site which has a different design from the mainstream eBay Web sites, we do not include its information for our analysis. For the other three Web sites, they have identical designs and around 71% of the categories shown in the International Web sites can be found in these Nordic Web sites.

Table 5: Product categories and eBay Web sites – Nordic Cluster

Category	Denmark	Finland	Norway
Antiques	✓	✓	✓
Art	✓	✓	✓
Baby	✓	✓	✓
Books	✓	✓	✓
Business & Industrial	_	-	-
Camera & Photos	✓	✓	✓
Cell Phones & PDA	✓	✓	✓
Clothing, Shoes & Accessories	✓	✓	✓
Coins & Paper Money	✓	✓	✓
Collectibles	✓	✓	✓
Computers/Tablets & Networking	✓	✓	✓
Consumer Electronics	✓	✓	✓
Crafts	_	-	-
Doll & Bears	_	-	-
DVSs & Movies	✓	✓	✓
eBay Motors	✓	✓	✓
Entertainment Memorabilia	✓	✓	✓
Gifts Card & Coupons	-	-	-
Health & Beauty	✓	✓	✓
Home & Garden	✓	✓	✓
Jewelry & Watches	✓	✓	✓
Music	✓	✓	✓
Musical Instruments & Gear	✓	✓	✓
Pet Supplies	_	-	-
Pottery & Glass	✓	✓	✓
Real Estate	-	-	-
Specialty Services	-	-	-
Sporting Goods	✓	✓	✓
Sports Mem, Cards & Fan Shop	✓	✓	✓
Stamps	✓	✓	✓
Tickets	-	-	-
Toys & Hobbies	✓	✓	✓
Travel	-	-	-
Video Games & Consoles	✓	✓	✓
Everything Else	-	-	-
Matching Percentage:	71.43%	71.43%	71.43%

The last two Country Clusters we investigate are Near Eastern and Far Eastern. eBay has two operations in Near Eastern Cluster, i.e., Greece and Turkey. However, eBay Turkey is operated by its alliance which has a different Web site design, we do not include it in our

analysis. The comparison for the eBay Greece and the International eBay is tabulated at Table 6, which shows that it has 71% of the categories shown in the International Web site.

Table 6. Product categories and eBay Web sites – Near Eastern Cluster

Category	Greece
Antiques	✓ ✓
Art	√
Baby	✓
Books	✓
Business & Industrial	_
Camera & Photos	- ✓
Cell Phones & PDA	√
Clothing, Shoes & Accessories	✓ ✓
Coins & Paper Money	✓
Collectibles	✓
Computers/Tablets & Networking	✓
Consumer Electronics	✓
Crafts	-
Doll & Bears	-
DVSs & Movies	✓
eBay Motors	✓ ✓
Entertainment Memorabilia	✓
Gifts Card & Coupons	-
Health & Beauty	✓
Home & Garden	✓
Jewelry & Watches	✓ ✓ ✓
Music	✓
Musical Instruments & Gear	✓
Pet Supplies	-
Pottery & Glass	✓
Real Estate	-
Specialty Services	-
Sporting Goods	✓
Sports Mem, Cards & Fan Shop	✓
Stamps	✓
Tickets	-
Toys & Hobbies	✓
Travel	-
Video Games & Consoles	√
Everything Else	
Matching Percentage:	71.43%

There are eight eBay Web sites belonged to the Far Eastern Cluster, including China, Hong Kong, Malaysia, the Philippines, Singapore, Taiwan, Thailand, and Vietnam. One of them, i.e., Taiwan, is operated by eBay alliances. Plus, eBay Thailand is designed for corporate clients and thus, they are not included in our analysis at Table 7. We notice that all these Web sites in Far Eastern Cluster, can be further separated into two groups, i.e., Hong Kong and China (which have a lower ratio of 51-54%) and South East Asian group which have similar product categories and the ratios are over 80%.

DISCUSSION

The aim of this case study is to show the relationship between culture and Web site designs. eBay is one of the most successful E-business in the World and operates more 38 Web sites around the World. While the basic design of all these eBay Web sites are similar to match its brand image, the product categorizations which is the real feature which the customers will first engage when they use eBay, are different from Web site to Web site. From our analysis, we have the following observations on the impacts of culture on the Web site design of a multinational enterprise, like eBay. First, for most situations, all the Web sites of the enterprise will have a similar design to consolidate the brand image. Second, the local Web sites are not merely a translation of the International or the Flagship Web site. For the case of eBay, culture plays a role on the product categories. We observe from our results that Web sites from close cultural backgrounds would usually have a higher similarity among themselves. Usually, they are different from the Flagship Web sites. A typical example that we observe here is the Germanic Cluster, which the three Web sites in the cluster are highly similar and are quite different from the Flagship Web sites.

Table 7. Product categories and eBay Web sites – Far Eastern Cluster

Category	China	Hong Kong	Malaysia	Philippines	Singapore	Vietnam
Antiques	✓	✓	✓	✓	✓	✓
Art	✓	-	✓	✓	✓	✓
Baby	Note 1	-	✓	✓	✓	✓
Books	✓	✓	✓	✓	✓	✓
Business & Industrial	✓	✓	✓	✓	✓	✓
Camera & Photos	Note 1	✓	✓	✓	✓	✓
Cell Phones & PDA		✓	✓	✓	✓	✓
Clothing, Shoes & Accessories	Note 1	✓	✓	✓	✓	✓
Coins & Paper Money	✓	✓	✓	✓	✓	✓
Collectibles	✓	✓	✓	✓	✓	✓
Computers/Tablets & Networking	Note 1	✓	✓	✓	✓	✓
Consumer Electronics	Note 1	✓	✓	✓	✓	✓
Crafts	Note 1	-	✓	✓	✓	✓
Doll & Bears	✓	-	-	-	-	✓
DVSs & Movies	✓	Note 3	✓	✓	✓	✓
eBay Motors	Note 2	✓		Note 4		✓
Entertainment Memorabilia	✓	-	✓	✓	✓	✓
Gifts Card & Coupons	-	-	✓	✓	✓	-
Health & Beauty	Note 1	✓	✓	✓	✓	✓
Home & Garden	Note 1	✓	✓	✓	✓	✓
Jewelry & Watches	Note 1	✓	✓	✓	✓	✓
Music	✓	Note 3	✓	✓	✓	✓
Musical Instruments & Gear	✓	-	✓	✓	✓	✓
Pet Supplies	-	-	-	-	-	✓
Pottery & Glass	✓	-	✓	✓	✓	✓
Real Estate	-	-	✓	✓	✓	-
Specialty Services	-	-	-	-	-	-
Sporting Goods	✓	Note 3	✓	✓	✓	✓
Sports Mem, Cards & Fan Shop	✓	-	✓	✓	✓	✓

Stamps	✓	✓	✓	✓	✓	✓
Tickets	-	-	-	-	-	-
Toys & Hobbies	✓	✓	✓	✓	✓	✓
Travel	✓	Note 3	-	-	-	✓
Video Games & Consoles	✓	✓	✓	✓	✓	✓
Everything Else	✓	✓	✓	✓	✓	-
Extra Groups		-	-	-	-	-
Matching Percentage:	54.28%	51.43%	82.85%	82.85%	82.85%	85.71%

- (1) "Baby", "Consumer Electronics", "Craft" and "Home & Garden" are combined as one category, "Home & Garden"; "Cameras & Photos", "Cell Phone & PDA", and "Computers/Tablets & Networking" are combined as one category, "Technology"; and "Clothing, Shoes, and accessories", "Health & Beauty", and "Jewelry & Watches" are combined as one category, "Fashion" in eBay China.
- (2) "eBay Motors" is separated into 3 categories, "Auto", "Auto: Parts & Accessories", and "Motorcycles" in eBay China.
- (3) "DVD & Movie" and "Music" are combined as one category, "DVD & Music"; and "Sporting Goods" and "Travel" are combined as one category, "Sporting Goods and Travel" in eBay Hong Kong.
- (4) "eBay Motor" is separated into 2 categories, "Vehicles" and "Vehicle Parts & Accessories" in eBay Malaysia, eBay Philippines, and eBay Singapore.

The paper contributes the theory on customer relationship management, as it helps operators of multinational businesses to gain a better understanding on the Web site design issue. This echoes to the Boulding et al. (2005)'s call for conducting research, which "should have the appropriate measures available for the desired insights" and include measures like the design of the CRM, and leads to results that can be generalized, instead of "idiosyncratic to the chosen research domain". The result of this study shows the importance of the impacts of culture on the Web site design of the CRM gateway. We use the Country Cluster approach (Ronen & Shenkar, 1985) to investigate the Web site design of eBay and show that the product categorization of eBay varies across country clusters. Plus, countries from the same cluster usually have a very similar product categorization, whereas countries from different clusters have a different categorization.

The result of this case study also shows that eBay, as a successful multinational enterprise and online business, takes into account of the impacts of culture when it designs its Web sites operate in different nations. This provides an insight for other B2C E-commerce operators, who would like to expand their markets to overseas. Our result shows the importance to tailor-made the Web sites for customers of other countries.

This study has some limitations. First, this study is a case study focused on eBay, which is an electronic marketplace. Thus, the result may not be directly applicable to other B2C E-commerce vendors. However, as the focus of this study is on the portal page of eBay, we conjecture the result should be applicable to the design issue of other B2C E-commerce portal. Second, this study is limited to the study of those eBay Web sites, which can be classified based on the Country Cluster approach (Ronen & Shenkar, 1985). Hence, those eBay Web sites, which cannot be classified by this approach are not being analyzed. This means that most of the

countries in Eastern Europe, as well as other countries which are not being grouped, including the Netherlands, India, Brazil, and South Korea, etc. Thus, it limits the coverage of this study.

To further address into various issues related to the CRM Web site design, we plan to further our investigation using other companies Web site. Plus, we plan to extend our analysis by using not only the Country Cluster approach (Ronen & Shenkar, 1985), but also using the Hofstede Cultural Dimension approach (Hofstede, 1993, 2001). We hope the future research direction will lead to our further understanding on the Web site design issue related to CRM.

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