

台灣前五百大企業企業網站應用於電子商務顧客關係管理之研究

The ECCRM practices of the public Web sites of the top 500 service companies in Taiwan

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摘要

本研究的主要目的是探討台灣地區企業應用公司外部網站的現況以瞭解企業如何經由網際來進行與客戶溝通以及提供客戶服務的功能。我們以台灣地區服務業前 500 大企業的企業網站為研究對象，從產業面以及營運模式面去探討其如何應用網站元素去達到顧客關係管理的需求。研究結果顯示，78.02%的台灣前 500 大服務業架有對外的公司網站，卻只有 54 家公司在網路上提供線上下單的服務。以產業面來看，廣告行銷業只有 33.33%，金融服務業只有 35.29%有持續營運的公司網站；以營運模式來看，只有 77.78%的企業對社群的模式（Business-to-Group）有網站進行線上顧客關係聯繫，企業對政府的模式（Business-to-Government）也只有 55.56%有在應用公司網站進行與客戶的溝通與服務。進一步的資料分析可為大型公司對未來應用公司網站來進行線上行銷與客戶服務的需求提供有用的參考。

關鍵字：電子商務、顧客關係管理、網路行銷、客戶服務、企業網站

Abstract

The Internet is becoming increasingly important for marketer to reach potential customers. We investigate how the corporates utilize different elements of their public Web sites to achieve either their marketing-communication or customer-service objectives. An analysis of the content in the corporate public Web sites provides useful insights. In Taiwan, roughly three-fourths (78.02 percent) of the top 500 service companies currently maintain their own Web sites. However, only 54 companies have online ordering service on their public Web sites. Notably, from the industry type viewpoint, in Advertising & Marketing industry just 33.33 percent and Finance & Investment industry just 35.29 percent maintain their company public Web site. From a business model viewpoint, there is only a 77.78 percent of the Business-to-Group and 55.56 percent of the Business-to-Government with online CRM (Customer Relationship Management) services. An analysis of the data also provides valuable insights into the trends of Web site usage for large business organizations.

Keywords: EC, CRM, Internet Marketing, Customer Service, Web Site.

1. Introduction

The growing popularity of the information superhighway has opened up exciting opportunities for companies pursuing not only to maintain their current customer base but also to reach new customers. Electronic Commerce Customer Relationship Management (ECCRM) chiefly relies on Internet or Web-based interaction of companies with their customers.

From a strategic standpoint, the Internet provides for transaction value

enhancement (Gates et al. 1995; Rayport & Sviokla, 1995) and new competitive paradigms (Berthon et al. 1996; Clark, 1997; Hoffman & Novak, 1996). Very little, however, is actually known about how companies are using this new technology to interact more effectively with their customers. For example, are they using their public Web sites as virtual storefronts where products are offered directly to customers? Are they using their electronic presence as a medium for communication to advertise their

products to boost their corporate image? How do the ECCRM characteristics of their public Web sites support their market offerings? We focus on the impact of this new technology on an organization's Web-based ECCRM activities.

The top 500 service companies comprise the target group because they usually provide leadership in the use of information technology in Taiwan. The following questions make up this work:

1. How many of the top 500 service companies have Web sites?
2. What are the industry types of those who have and do not have Web sites?
3. What are the business models of those who have and do not have Web sites?
4. What is the main content of Web sites for ECCRM?
5. Do these findings support the conceptual models of ECCRM?

2. Literature review

Liu et al. (1997) examined the home pages of the Fortune 500 and classified the sites by industry. They found that 60 percent of the Fortune 500

had a public Web site; only 26 percent of those companies, however, conducted transactions through their sites. Griffith and Krampf (1998) found that only 20 percent of the top 100 U.S. retailers did online selling through a public Web site. Gardner (1998) found that nearly 34 percent of the sites generated revenue through some form of trading partner transaction. Palmer and Griffith (1998) found that 250 Fortune 500 Web sites are often used for technical support, as well as for marketing and promotions. Young and Benamati (2000) found product sales or financial transactions to be the major content category on Fortune 500 Web sites, along with customer service, communications, and other information, such as job opportunities and financial reports. Young (2001) found that content related specifically to trading partners of Fortune 500 public Web sites includes expectations about what the firm purchases, how business is to be conducted, how to become a supplier, and diversity programs for small, minority, and women-owned businesses. Young and Benamati (2004) examined how the Fortune 500 uses transactional public Web sites (TPWS). They found

high rates of TPWS adoption in the airline, computer and office equipment, commercial banking, and retailing industries.

These prior, Web-based studies show that the Fortune 500 is a frequent source of data for research related to how public Web sites support transactions. This study examines ECCRM in Taiwan by analyzing how public Web sites support ECCRM activities, including marketing, sales, customer service, and support.

Marketing features are classified under McCarthy's well-known 4Ps: product, price, place, and promotion (Jenamani et al., 2002). The traditional marketing promotion (communication) mix includes advertising, sales promotions, public relations, and personal selling (Bennett, 1995).

From an ECCRM viewpoint, there are many classification schemes for Web site features, as shown in Table 1. We have identified 30 ECCRM features of corporate public Web sites, as shown in Table 2.

3. Research methodology

The methodology involved a

content analysis of information from the public Web sites of the top 500 service companies in Taiwan, as identified by Commonwealth magazine's 2002 industries yearbook. We try to direct visits to every top 500 service Web site provided a rich and complete data set because data could be collected from every company.

We do not account for B2B transactions carried out over private extranet or EDI networks. We focus on public Web sites, masking any back-facing supplier transactions or forward-facing customer transactions not visible from a public Web site.

Table 1: Classification of corporate public Web site features

functions	activities	features	literature review
marketing	product	product information	Liu et al., 1997; Honeycutt, Flasherty & Bennassi, 1998; Palmer & Griffith, 1998; Evans & King, 1999; Griffith & Palmer, 1999;
		logo	Huizingh, 2000; Connor & Keefe, 2000; Subramanium, Shaw, & Gardner, 2000
		product search	
	price	price information	Connor & Keefe, 2000; Subramanium, Shaw, & Gardner, 2000
	place	place information	Honeycutt, Flasherty, & Bennassi, 1998; Kiang, Raghu, & Shang, 2000; Connor & Keefe, 2000; Subramanium, Shaw, & Gardner, 2000
	promotion	public relations	Callison 2003
		online ads	Honeycutt, Flasherty, & Bennassi, 1998; Kiang, Raghu, & Shang, 2000; Connor & Keefe, 2000; Subramanium, Shaw, & Gardner, 2000
		sales promotion	Honeycutt, Flasherty, & Bennassi, 1998; Palmer & Griffith, 1998; Griffith & Palmer, 1999; Subramanium, Shaw, & Gardner, 2000
		newsletter	Richard et al., 2002
		online personal selling	*
sales	sales	online ordering	Honeycutt, Flasherty, & Bennassi, 1998; Palmer & Griffith, 1998; Griffith & Palmer, 1999; Subramanium, Shaw, & Gardner, 2000
		online payment	Richard et al., 2002
		online counter	*
service and support	for customers	contact information	Connor & Keefe, 2000; Evans & King, 1999; Griffith & Palmer, 1999
		customer-service information	Richard et al., 2002
		FAQ	Palmer & Griffith, 1998; Evans & king, 1999
		site map	Shneiderman, 2000
		customer support	Evans & King, 1999
		membership	Richard et al., 2002
		site search	Evans & King, 1999; Hoque & Lohse, 1999;
		transaction query	Richard et al., 2002
	for employees	job opportunities	Jenamani, Mohapatra, & Ghose, 2002
		employee area	*
	for groups	links to group	*
	for investors	investor relations	Jenamani, Mohapatra, & Ghose, 2002
	for partners	links to partners	Palmer & Griffith, 1998; Evans & King, 1999
		partner area	*
		co-operate proposal	*
procurement information		*	
Others	privacy	privacy policy	Palmer & Griffith, 1998; Evans & King, 1999; Huizingh, 2000; Liu & Kirk, 2002

* Additional features considered by the author

Table 2: Definition of features

functions	activities	Features
marketing	product	product information: main products and services
		logo: Visitors can read company's Logo on the Web site
		product search: search engine for customers to locate available products of interest within the company's public Web site
	price	price information: visitors can read price information on the Web site
	place	place information: visitors can read place information on the Web site
	promotion	public relations: promote company's events and activities on the Web site
		online ads: visitors can read advertising messages on the Web site
		sales promotion: offer short-term incentives on the Web site
mailing list: to receive more information, the visitor can add his/her e-mail address to a list to receive automated e-mail messages; often called a newsletter		
sales	sales	online ordering: customers visit a company's Web site to order
		online payment: customers visit a company's Web site to make payments
		online counter: customers can process some sales information unrelated to payment, especially in online product service.
service and support	for customers	contact information: the contact addresses of various key persons in the company
		customer-service information: visitors can read customer-service information on the Web site
		FAQ: answers to frequently asked questions about the company, its products, its services, or something else
		site map: a list of the sections and sometimes individual pages of a company's public Web site's; also called a site overview, site index, or site map
		online support: any facility provided by the company to help a customer to select or use a product/service.
		membership: visitors can request a password, with which they can continue surfing on password-protected pages within the Web site
		site search: search engine for customers to locate available interested items within the company's public Web site
		transaction query: customers can query on the Web site about their transactions' states
	for employees	job opportunities: available opportunities for certain positions and their descriptions
		employee area: employees can request a password, with which they can continue surfing on password-protected pages within the Web site.
	for groups	links to group: visitors can use links to the company's group
	for investors	investor relations: Investors can read detailed financial performance information on the Web site
	for partners	links to partner: visitors can visit the company's business partners' Web sites through links
		partner area: partners can request a password, with which they can continue surfing on password-protected pages within the Web site
co-operate proposal: any proposal or idea to let potential partner and company have benefit		
	procurement information: the partner can read procurement information on the Web site	
Others	privacy	privacy policy: visitors can read the privacy policy information on the Web site

4. Coders and coding instrument

There are two coders in our study, who are the experts in the EC domain. The public Web sites of all of the top 500 service companies were randomly assigned to these two coders, who visited the sites from January 1 to January 10, 2005. Each coder classifies all the web sites by the features listing in the Table 1 and Table 2. The coding was done per function, not by page. The reliability of coding between two coders is measured by Kappa coefficients (Cohen, 1960) for all items listed in the taxonomy, ranged from 0.71 to 1.00, suggesting that the taxonomy is reliable and suitable for formal validation (Fleiss, 1981). Reliability of final results was satisfactory (Kappa coefficients ranged from 0.86 to 0.95 for each item).

5. Data analysis and results

We find four firms with different company names but which share the same public Web site. In addition, 72 companies have not set up their own Web sites. A total of 37 companies had set up Web sites that could not be

accessed between January 1 and January 10, 2005.

Table 3 lists the percentage of corporate public Web sites within each industry in Taiwan. A total of 387 Web sites were found through directly visitation. Because four companies shared one site, this figure means that, of the top 500 service companies, 78.02 percent have Web sites that can be accessed and 21.98 percent have not set up their own Web sites or their Web sites cannot be accessed.

The advertising and marketing industry had the highest rate of absent or inaccessible Web sites, at 66.67 percent, followed by the finance and insurance sector at 64.71 percent. On the other hand, the companies in many sectors all had working Web sites; these sectors include telecommunications, health care, airlines, hotels and resorts, entertainment, industrial equipment, computers and office equipment, games, security, and real estate.

Table 4 lists the percentage of corporate public Web sites within each business model in Taiwan. From a business-model viewpoint, the study finds low rates of public Web site adoption in the B2Group (22.22 percent)

and B2G (44.44 percent). On the other hand, the Taiwan government has shown greater concern for public Web sites than have general business companies.

Nonetheless, government-to-customer (G2C), government-to-business (G2B), government-to-government (G2G), and

government-to-all (G2ALL) have all set up public Web sites. The customer-to-business (C2B), customer-to-customer (C2C), and customer-to-government (C2G) business models were not represented among the top 500 service companies in Taiwan.

Table 3: Industry types of companies with public Web sites

Industry type	No. of Firms	Company has public Web site?	
		Yes and can access	No or cannot access
Advertising & Marketing	15	5 (33.33%)	10 (66.67%)
Finance and Investment	17	6 (35.29%)	11 (64.71%)
Gas and Electric Utility	18	10 (55.55%)	8 (44.44%)
Import/Export Trade	39	23 (58.97%)	16 (41.03%)
Engineering & Construction	80	54 (67.50%)	26 (32.50%)
Transportation	26	19 (73.08%)	7 (26.92%)
Oil Retail	4	3 (75%)	1 (25%)
Other	4	3 (75%)	1 (25%)
Wholesales & Dealer	79	62 (78.48%)	17 (21.52%)
Motor Vehicles and Parts	19	15 (78.95%)	4 (21.05%)
Publishing & Printing	7	6 (85.71%)	1 (14.29%)
General Merchandisers	64	55 (85.94%)	9 (14.06%)
Electronic, Electrical Equipment	10	9 (90%)	1 (10%)
Computer & Data Services	29	27 (93.1%)	2 (6.9%)
Shipping	18	17 (94.44%)	1 (5.56%)
Telecommunications	14	14 (100%)	0 (0%)
Health Care	13	13 (100%)	0 (0%)
Airlines	12	12 (100%)	0 (0%)
Hotels & Resorts	10	10 (100%)	0 (0%)
Entertainment	7	7 (100%)	0 (0%)
Industrial Equipment	6	6 (100%)	0 (0%)
Computers & Office Equipment	5	5 (100%)	0 (0%)
Games	2	2 (100%)	0 (0%)
Security	2	2 (100%)	0 (0%)
Real Estate	2	2 (100%)	0 (0%)
Total	496	387 (78.02%)	109 (21.98%)

Note: There are four firms with different company name, but with same public Web site.

Table 4: Business model types of companies with public Web sites

Business Model Type	No. of Firms	Company has public Web site?	
		Yes and can access	No or cannot access
B2Group	18	4 (22.22%)	14 (77.78%)
B2G	9	4 (44.44%)	5 (55.56%)
B2ALL	105	75 (71.42%)	30 (28.57%)
B2B	219	167 (76.25%)	52 (23.74%)
B2C	122	114 (93.44%)	8 (6.56%)
G2C	14	14 (100%)	0 (0%)
G2B	3	3 (100%)	0 (0%)
G2ALL	3	3 (100%)	0 (0%)
G2G	3	3 (100%)	0 (0%)
C2B	0	0	0
C2C	0	0	0
C2G	0	0	0
Total	496	387 (78.02%)	109 (21.98%)

Note: There are four companies with different company names but which share the same public Web site.

From an ECCRM viewpoint, table 5 lists the main features of the Web sites. The main features of the Web sites include marketing (product, price, place, and promotion) and customer service (customer contact information, customer-service information, and employee job opportunities). On the other hand, few companies' Web sites have sales functions, such as online payment (12.40 percent), online ordering (13.95 percent), and online counter (18.86 percent). Furthermore, only 15.5 percent of the top 500 service companies provide privacy policies on their home pages.

From an industry type and ECCRM viewpoint, Table 6 reveals that in marketing function the entertainment and game industries have more features than the others. Table 7 reveals that few companies (1.03 percent) have online person selling. In end-customer service aspect, the telecommunications industry has the most features. In online sales aspect, only the game industry has most features. Table 8 reveals that 63.37 percent of companies provide job opportunities on their public Web site. In the computers and office equipment industry 60 percent of companies provide a privacy policy. In the

entertainment industry 57.14 percent of companies provide a privacy policy.

Table 5: From an ECCRM viewpoint, the main features of the Web sites

Electronic Commerce Customer Relationship Management (ECCRM)		Functions	Activities	Features	Total 387 (100%)
	Marketing	Product		Product Information	386 (99.74%)
				Brand Logo	216 (55.81%)
				Product Search	91 (23.51%)
			Price	Price Information	114 (29.46%)
			Place	Place Information	319 (82.43%)
		Promotion		Public Relations	381 (98.45%)
				Online Ads	203 (52.45%)
				Sales Promotion	153 (39.53%)
				News E-mail	76 (19.64%)
			Online Personal Selling	4 (1.03%)	
	Sales	Sales		Online Ordering	54 (13.95%)
				Online Payment	48 (12.40%)
				Online Counter	73 (18.86%)
	Service and support	For Customers		Contact information	358 (92.51%)
				Customer-service information	255 (65.89%)
				FAQ	180 (46.51%)
				Site maps	129 (33.33%)
				Customer support	126 (32.56%)
				Membership	113 (29.20%)
				Site search	79 (20.41%)
				Transaction query	61 (15.76%)
		For Employees		Job opportunities	255 (65.89%)
				Employee area	57 (14.73%)
		For Groups		Links to Groups	134 (34.62%)
		For Investors		Investor relations	138 (35.66%)
		For Partners		Links to partners	131 (33.85%)
				Partner area	44 (11.37%)
			Cooperate proposal	35 (9.04%)	
	Procurement information		25 (6.46%)		
Other	Privacy	Privacy Policy	60 (15%)		

Note: There is a case of four companies, with different company names, that share the same public Web site.

Table 6: Top 500 service companies' public Web sites, by industry (I)

Industry Type	No. of Firms	Marketing									
		Product			Price	Place	Promotion				Online Personal Selling
		Product Information	Brand Logo	Product Search	Price Information	Place Information	Public Relations	Online Ads	Sales Promotion	News E-mail	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Wholesales & Dealer	62	61(98.39%)	28	18	7	33(53.23%)	61(98.39%)	10	7	3	0
General Merchandisers	55	55(100%)	42(76.36%)	21	39(70.91%)	49(89.09%)	55(100%)	54(98.18%)	53(96.36)	24	0
Engineering & Construction	52	52(100%)	18	3	1	50(96.15%)	50(96.15%)	27(51.92%)	15	6	0
Computer & Data Services	27	27(100%)	16(59.26%)	2	5	22(81.48%)	27(100%)	15(55.56%)	10	9	0
Import/Export Trade	23	23(100%)	8	4	1	19(82.61%)	22(95.65%)	4	0	1	0
Transportation	19	19(100%)	14(73.68%)	6	9	17(89.47%)	18(94.74%)	9	7	3	0
Shipping	17	17(100%)	9(52.94%)	5	5	17(100%)	17(100%)	4	1	2	0
Motor Vehicles & Parts	15	15(100%)	6	0	4	14(93.33%)	15(100%)	14(93.33%)	11(73.33%)	1	1
Telecommunications	14	14(100%)	12(85.71%)	3	10(71.43%)	11(78.57%)	14(100%)	10(71.43%)	10(71.43%)	7(50%)	2
Health Care	13	13(100%)	6	7(53.85%)	1	12(92.31%)	13(100%)	5	1	0	0
Airlines	12	12(100%)	8(66.67%)	6(50%)	6(50%)	10(83.33%)	12(100%)	10(83.33%)	7(58.33%)	3	1
Hotels & Resorts	10	10(100%)	7(70%)	1	8(80%)	10(100%)	10(100%)	10(100%)	10(100%)	2	0
Gas and Electric Utility	10	10(100%)	4	0	3	8(80%)	10(100%)	1	1	2	0
Electronic, Electrical Equipment	9	9(100%)	4	3	0	5(55.56%)	8(88.89%)	2	0	1	0
Entertainment	7	7(100%)	5(71.43%)	5(71.43%)	4(57.14%)	6(85.71%)	7(100%)	7(100%)	6(85.71%)	4(57.14%)	0
Finance & Insurance	6	6(100%)	3(50%)	0	1	5(83.33%)	6(100%)	1	1	0	0
Publishing & Printing	6	6(100%)	6(100%)	1	2	5(83.33%)	6(100%)	4(66.67%)	3(50%)	1	0
Industrial Equipment	6	6(100%)	4(66.67%)	0	0	5(83.33%)	6(100%)	0	0	0	0
Advertising & Marketing	5	5(100%)	3(60%)	0	0	2	5(100%)	3(60%)	0	0	0
Oil Retail	3	3(100%)	2(66.67%)	0	1	3(100%)	3(100%)	3(100%)	3(100%)	0	0
Computers & Office Equipment	5	5(100%)	4(80%)	3(60%)	2	5(100%)	5(100%)	4(80%)	3(60%)	3(60%)	0
Games	2	2(100%)	1(50%)	1(50%)	2(100%)	2(100%)	2(100%)	2(100%)	2(100%)	1(50%)	0
Security	2	2(100%)	2(100%)	0	0	2(100%)	2(100%)	1(50%)	0	0	0
Real Estate	2	2(100%)	1(50%)	1(50%)	1(50%)	2(100%)	2(100%)	1(50%)	0	0	0
Safety Health & Environmental Engineering	2	2(100%)	1(50%)	0	0	2(100%)	2(100%)	0	0	1(50%)	0
Other	3	3(100%)	2(66.67%)	1	2(66.67%)	3(100%)	3(100%)	2(66.67%)	2(66.67%)	2(66.67%)	0
Total	387	386 (99.74%)	216 (55.81%)	91 (23.51%)	114 (29.46%)	319 (82.43%)	381 (98.45%)	203 (52.45%)	153 (39.53%)	76 (19.64%)	4 (1.03%)

Table 7: Top 500 service companies' public Web sites, by industry (II)

Industry Type	No. of Firms	Sales			Customer service and support							
		Online Sales			Service for end customer							
		Online Ordering	Online payment	Online Counter	Customer-service information	Contact information	FAQ	Customer support	Site map	Membership	Site search	Transaction query
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Wholesales & Dealer	62	2	2	2	47(75.81%)	53(85.48%)	31(50%)	31(15%)	26	12	15	2
General Merchandisers	55	22	20	12	46(83.64%)	52(94.55%)	33(60%)	16	23	35(63.64%)	7	17
Engineering & Construction	54	0	0	1	17	46(85.19%)	7	6	9	7	5	1
Computer & Data Services	27	3	3	3	21(77.78%)	27(100%)	18(66.67%)	21(77.78%)	11	6	7	2
Import/Export Trade	23	1	1	0	11	23(100%)	4	2	3	3	5	1
Transportation	19	3	3	3	10(52.63%)	18(94.74%)	8	2	6	5	5	2
Shipping	17	0	0	5	12(70.59%)	16(94.12%)	5	0	7	3	4	6
Motor Vehicles & Parts	15	2	0	4	14(93.33%)	15(100%)	12(80%)	9(60%)	4	3	0	1
Telecommunications	14	4	4	10(71.43%)	10(71.43%)	12(85.71%)	10(71.43%)	9(64.29%)	10(71.43%)	8(57.14%)	9(64.29%)	10(71.43%)
Health Care	13	0	0	13(100%)	12(92.31%)	13(100%)	11(84.62%)	9(69.23%)	6	3	6	3
Airlines	12	6	6	6(50%)	10(83.33%)	12(100%)	6(50%)	5	5	5	2	6(50%)
Hotels & Resorts	10	2	2	8(80%)	5(50%)	10(100%)	3	0	2	4	0	0
Gas and Electric Utility	10	0	0	3	7(70%)	9(90%)	7(70%)	3	4	1	6(60%)	3
Electronic, Electrical Equipment	9	1	0	0	6(66.67%)	9(100%)	3	4	1	1	1	0
Entertainment	7	2	1	2	5(71.43%)	6(85.71%)	3	1	1	5(71.43%)	2	0
Finance & Insurance	6	0	0	0	3(50%)	6(100%)	2	0	1	1	1	1
Publishing & Printing	6	1	1	2	3(50%)	5(83.33%)	2	1	1	1	1	1
Industrial Equipment	6	0	0	0	3(50%)	6(100%)	4(66.67%)	1	2	1	1	0
Advertising & Marketing	5	0	0	0	0	5(100%)	0	0	1	0	0	0
Oil Retail	3	0	0	0	0	1	0	0	0	0	0	0
Computers & Office Equipment	5	2	2	2	5(100%)	5(100%)	5(100%)	4(80%)	3(60%)	3(60%)	1	2
Games	2	2(100%)	2(100%)	1(50%)	2(100%)	2(100%)	1(50%)	1(50%)	0	2(100%)	0	1(50%)
Security	2	0	0	0	2(100%)	2(100%)	2(100%)	1(50%)	1(50%)	1(50%)	0	0
Real estate	2	0	0	0	1(50%)	2(100%)	1(50%)	0	1(50%)	1(50%)	0	1(50%)
Other	3	1	1	0	3(100%)	3(100%)	2(66.67%)	0	1	2(66.67%)	1	1
Total	387	54 (13.95%)	48 (12.40%)	73 (18.86%)	255 (65.89%)	358 (92.51%)	180 (46.51%)	126 (32.56%)	129 (33.33%)	113 (29.2%)	79 (20.41%)	61 (15.76%)

Table 8: Top 500 service companies' public Web sites, by industry (III)

Industry Type	No. of Firms	Customer service and support								Other
		For Investors	For Groups	For Employees	For Future Employees	Service for partners				Privacy
		Investor relations Yes	Links to Group Yes	Employee area Yes	Job opportunities Yes	Links to partners Yes	Partner area Yes	Cooperate proposal Yes	Procurement information Yes	Privacy Policy Yes
Wholesales & Dealer	62	29	12	5	44(70.97%)	14	4	1	3	4
General Merchandisers	55	8	19	3	39(70.91%)	20	14	19	4	13
Engineering & Construction	54	18	23	16	27(50%)	23	11	1	0	6
Computer & Data Services	27	19(70.37%)	5	3	25(92.59%)	11	5	2	0	5
Import/Export Trade	23	3	7	1	12(52.17%)	5	1	0	0	3
Transportation	19	6	7	2	9	7	0	2	2	2
Shipping	17	10(58.82%)	9(52.94%)	3	11(64.71%)	6	1	0	3	0
Motor Vehicles & Parts	15	2	5	3	9(60%)	5	0	0	0	1
Telecommunications	14	7(50%)	6	1	14(100%)	5	1	1	1	6
Health Care	13	0	9(69.23%)	9(69.23%)	12(92.31%)	9(69.23%)	0	0	4	3
Airlines	12	4	6(50%)	0	7(58.33%)	3	1	1	5	2
Hotels & Resorts	10	0	3	0	5(50%)	2	0	1	0	2
Gas & Electric Utility	10	5(50%)	2	2	1	5(50%)	1	1	1	1
Electronic, Electrical Equipment	9	6(66.67%)	2	2	8(88.89%)	0	0	0	0	3
Entertainment	7	1	1	0	4(57.14%)	5(71.43%)	1	3	1	4(57.14%)
Finance & Insurance	6	3(50%)	5(83.33%)	1	3(50%)	2	0	0	1	0
Publishing & Printing	6	2	3(50%)	1	4(66.67%)	2	0	2	0	1
Industrial Equipment	6	4(66.67%)	0	3(50%)	4(66.67%)	2	1	0	0	0
Advertising & Marketing	5	1	3(60%)	0	2	1	0	0	0	1
Oil Retail	3	2(66.67%)	1	0	2(66.67%)	1	0	1	0	0
Computers & Office Equipment	5	2	1	0	5(100%)	0	1	0	0	3(60%)
Games	2	2(100%)	0	0	1(50%)	1(50%)	0	1(50%)	0	0
Security	2	2(100%)	1(50%)	1(50%)	2(100%)	0	1(50%)	0	0	0
Real Estate	2	2(100%)	2(100%)	1(50%)	1(50%)	0	0	0	0	0
Other	3	0	2(66.67%)	0	2(66.67%)	2(66.67%)	1	1	0	0
Total	387	138 (35.66%)	134 (34.62%)	57 (14.73%)	253 (65.37%)	131 (33.85%)	44 (11.37%)	37 (9.56%)	25 (6.46%)	60 (15.5%)

Table 9: Top 500 service companies' public Web sites, by business model (I)

Business Model Type	No. of Firms	Marketing										Sales		
		Product			Price	Place	Promotion				Sales			
		Product Information	Brand Logo	Product Search	Price Information	Place Information	Public Relations	Online Ads	Sales Promotion	News E-mail	Online Personal Selling	Online Ordering	Online Payment	Online Counter
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B2B	167	166	83	33	17	131(78.44%)	163(97.60%)	55	24	20	0	6	5	5
B2C	114	114(100%)	82(71.93%)	41	74(64.91%)	105(92.11%)	114(100%)	108(94.74%)	101(88.60%)	39	2	39	34	37
B2ALL	75	75(100%)	36	7	19	58(77.33%)	73(97.33%)	29	22	14	2	7	7	13
B2Group	4	4(100%)	3(75%)	0	0	3(75%)	4(100%)	0	0	0	0	0	0	0
B2G	4	4(100%)	2(50%)	0	1	2(50%)	4(100%)	1	1	0	0	1	1	0
G2B	3	3(100%)	0	1	0	3(100%)	3(100%)	2(66.67%)	1	0	0	0	0	3(100%)
G2C	14	14(100%)	6	6	2	14(100%)	14(100%)	5	3	0	0	0	0	13(92.86%)
G2ALL	3	3(100%)	1	2	1	2(66.67%)	3(100%)	2(66.67%)	1	2(66.67%)	0	1	1	2(66.67%)
G2G	3	3(100%)	2(66.67%)	1	0	1	3(100%)	1	0	1	0	0	0	0
Total	387	386 (99.74%)	216 (55.81%)	91 (23.51%)	114 (29.46%)	319 (82.43%)	381 (98.45%)	203 (52.45%)	153 (39.53%)	76 (19.64%)	4 (1.03%)	54 (13.95%)	48 (12.4%)	73 (18.86%)

Table 10: Top 500 service companies' public Web sites, by business model (II)

Customer Service and Support									
Service for end customer									
Business Model Type	No. of Firms	Customer-service information	Contact information	FAQ	Customer support	Site map	Membership	Site search	Transaction query
		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B2B	167	106(63.73%)	155(92.81%)	67	58	53	27	31	16
B2C	114	92(80.70%)	108(94.74%)	68(59.65%)	36	40	60(52.63%)	13	25
B2ALL	75	37	67(89.33%)	28	23	24	19	19	14
B2Group	4	1	4(100%)	0	0	0	1	0	0
B2G	4	1	4(100%)	0	0	0	1	2	0
G2B	3	3(100%)	3(100%)	3(100%)	1	3(100%)	1	3(100%)	1
G2C	14	11(78.57%)	13(92.86%)	10(71.83%)	8(57.14%)	6	2	7(50%)	2
G2ALL	3	3(100%)	3(100%)	3(100%)	0	3(100%)	2(66.67%)	3(100%)	3(100%)
G2G	3	1	1	1	0	0	0	1	0
Total	387	255 (65.89%)	358 (92.51%)	180 (46.51%)	126 (32.56%)	129 (33.33%)	113 (29.2%)	79 (20.41%)	61 (15.76%)

Table 11: Top 500 service companies' public Web sites, by business model (III)

Customer Service and Support										Other
Business Model Type	No. of Firms	For Investors	For Groups	For Employees	For Future Employees	Service for partners				Privacy
		Investor relations	Links to Group	Employee area	Job opportunities	Links to partners	Partner area	Cooperate proposal	Procurement information	Privacy policy?
		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B2B	167	80	50	21	119(71.26%)	48	17	4	5	18
B2C	114	24	41	10	77(67.54%)	43	17	28	10	24
B2ALL	75	29	31	14	42(56%)	25	10	4	3	13
B2Group	4	1	3	1	1	1	0	0	0	0
B2G	4	3(75%)	1	2(50%)	0	2(50%)	0	0	0	1
G2B	3	0	1	0	0	3(100%)	0	0	1	0
G2C	14	1	7(50%)	7(50%)	11(78.57%)	8(57.14%)	0	1	3	3
G2ALL	3	0	0	0	2(66.67%)	0	0	0	2(66.67%)	0
G2G	3	0	0	2(66.67%)	1	1	0	0	1	0
Total	387	138 (35.66%)	134 (34.62%)	57 (14.72%)	253 (65.37%)	131 (33.85%)	44 (11.37%)	37 (9.56%)	25 (6.46%)	60 (15.5%)

From a business model and ECCRM viewpoint, Table 9 reveals that the Taiwan government cared more about having online service than general business companies. B2C companies provide online ads (94.74 percent), sales promotions (88.60 percent), and price information (64.91 percent) features. Table 10 reveals that B2B companies provide contact information (92.81 percent) and customer-service information (63.73 percent). B2C companies provide contact information (94.74 percent), customer-service information (80.70 percent), FAQs (59.63 percent), and membership (52.63 percent) features. Most B2Group and B2G companies provide only contact information features.

Table 11 reveals that in the non-end-customer aspect general business (B2B, B2C and B2ALL) companies only provide job opportunities feature. All kinds of business models did not provide privacy policies on their public Web sites.

6. Conclusions

In Taiwan, roughly three-fourths (78.02 percent) of the top 500 service

companies currently maintain Web sites. But, Advertising & Marketing industry just only 33.33 percent have web site and Finance and Investment industry just 35.29 percent. Why these kinds of industry still have a lot of companies did not provide public Web site? For the further study, they can investigate the relation between Web site and company development.

From an ECCRM viewpoint, the top 500 service companies did not provide sales functions. In the marketing aspect, they did not provide price information. This reveals that transactional public Web sites were not in an important position. In the aspects of customer service and support, they only provided contact information, customer-service information, and job opportunities information. This reveals that most companies more cared about end-customers and new employees than stockholders.

Only 12 percent (60 out of 496) companies provide the privacy policies on their Web site. This reveals that the top 500 service companies in Taiwan did not care greatly about personal privacy. But in USA, slightly more than 50 percent of Fortune 500 Web sites

provide privacy policies on their home pages. Why there are different situations in different countries? Perhaps is worth our probing into further.

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