

## **E-mail Customer Service by Australian Educational Institutions**

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### **Abstract**

This research used an e-mail from mock Chinese consumers to investigate how Australian educational institutions use e-mail for overseas marketing and customer service. Less than two out of three of the 212 institutions sampled replied to a simple e-mail asking about fees and entry requirements. Even less institutions answered the questions promptly, politely, personally, professionally and promotionally. Despite e-mail's widespread use, these results highlight implementation issues with this new marketing and customer service tool.

The study gives institutions benchmarks and insights for improving e-mail marketing and online customer service. Academically, this paper supports past organisational research that size and industry sector relate to adopting innovations, suggests new metrics for measuring Internet adoption and proposes future research agendas.

*Keywords: Electronic marketing, diffusion of innovations, e-mail, eService, education*

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### **1. Introduction**

Australian educational institutions, from high schools to higher education, have adopted the Internet. Yet how effectively they use this new tool remains to be seen. Over-hyped technologies, poor implementation and unintended consequences can offset fabled technology benefits or backfire (Brown and Duguid, 2000; Fidler, 1997; Tenner, 1996) as in Boo.com (Stockport, Kunmath and Sedick, 2001) and similar dot.com disasters (Mahajan, Srinivasan and Wind, 2002). For companies today though, it is no longer a question of going online, rather how to leverage their online presence and measure its profitability (Dubosson-Torbay, Osterwalder and Pigneur, 2002; Garbi, 2002; Porter, 2001). Similarly, academics wrestle with the role of an organisation's online presence (Barnes and Cumby, 2002; Weil and Vitale, 2001) and appropriate metrics to evaluate electronic service strategies (Cox and Dale, 2001; Rust and Lemon, 2001).

Organisations often fear being left behind, jump on the bandwagon and adopt the latest technology -- such as the Internet (McBride, 1997; Murphy, Olaru, Schegg and Frey, 2003). Sensing and responding to technology is

critical for success (Day and Schoemaker, 2000) and information-intensive industries, such as education, are inviting candidates for Internet transformation (Raymond, 2001). As universities, textbook publishers and private ventures explore online initiatives (Murphy and Massey, 2000; Massey and Murphy, 2000), the Internet becomes increasingly important for educational institutions (Tsichritzis, 1999).

To remain competitive, universities view students as customers and are restructuring themselves as service providers (Tsichritzis, 1999). Australia's introduction of full-fees in 1986 replaced student subsidies, established an open market for public and private education providers and gave birth to Australia's education export industry (Strickland, 1995). With 153,372 international students and a further 34,905 enrolled offshore with Australian education providers, overseas students generated \$3.7 billion for Australia's economy in 2000 (DETYA 2001).

Four common international educational sectors in Australia are University, ELICOS (English Language Intensive Course for Overseas Students), VET (Vocational Education and Training) and Schools

(primary and secondary). The VET sector, which includes all public and private vocational colleges, offers Australian Qualifications Framework courses and pathways to university studies. In the university sector, postgraduate education is deregulated and an important revenue source for most Australian universities. As faculties may offer unlimited places to full-fee paying students, competition for full-fee paying postgraduate students is intense and prestigious institutions have a competitive advantage (Scott, 1999).

China, Australia's fastest growing overseas market with a 69% increase and 14,948 students in 2000, was forecast to become Australia's biggest market in 2002 (DETYA 2001). Chinese demand for overseas education will continue to grow due to rapid economic and social developments, the 2008 Olympic Games, World Trade Organisation membership, governmental support for international cooperation in education and affluent parents willing to pay high fees for their single child's education (Xinhua 1999; Mazzarol, Soutar, Smart and Choo 2001). Most institutions consider China a great opportunity and are developing this market through agents, trade shows, joint ventures, and offshore programs (Mazzarol et al. 2001).

For Chinese (Mazzarol et al., 2001) as well as other students choosing overseas education, information is the most critical variable (Bourke, 2000). Potential overseas students going online found insufficient information on Australian universities' websites, yet website information influenced their choices (Gomes and Murphy, 2003). Websites are the glamorous Internet application, but institutions may be overlooking a simpler and more powerful online tool, e-mail.

One out of three prospective overseas students used e-mail to seek information about Australian educational institutions, and responses to their e-mail queries influenced four of five students' choices. Yet some institutions lacked policies or procedures for answering e-mail (Gomes and Murphy 2003). When prospective students or their parents e-mail an institution -- knock on their virtual door -- how does the institution respond?

Treating e-mail as business correspondence, similar to letters and faxes, necessitates developing standards for prompt, polite, personal, professional and promotional e-mail responses (Murphy et al, 2003; Ober, 2001; Strauss and Hill, 2001; Yang, 2001; Zemke and Connellan, 2001). Diffusion of innovations (Rogers, 1995), which helps explain how organisations implement new technologies,

serves as the theoretical base for benchmarking and investigating e-mail customer service by Australian educational institutions that target overseas students.

## **2. Literature Review**

### **2.1 Diffusion of innovations**

For over half a century scholars have researched how consumers and organisations adopt new products and technologies, from different perspectives including sociology, geography and consumer behaviour (e.g., Brown, 1981; Mahajan, Muller and Bass, 1990; Rogers, 1981; Rogers, 1995). Society often misuses and overestimates the short run influence of emerging technologies and underestimates their long run effects (Brown and Duguid, 2000; Fidler, 1997; Rogers, 1995; Tenner, 1996). The media, for example, hyped paperless offices as inevitable thanks to computers. Today's paperless office is an office with more paper (Forester, 1992; Liu and Stork, 2000; Tenner, 1996).

Prior media innovations such as the telephone and radio have had widespread impact on both business and everyday life but fail to match the combined speed and scale of the Internet's impact (Barwise and Hammond, 1998). With 10.63 million citizens online, over half the Australian population has adopted the Internet. By contrast, Australia's fastest growing overseas student market, China -- with 45.8 million or just one in 30 citizens online (Nua Internet Survey, 2002) -- is early in the adoption process. Once online, at home and at work (Ramsey, 2001), users of all ages flock to e-mail (BBC News 2002, Pastore 2002). As China's number of Internet users grew 72.8% from June 2001 to June 2002 (Nua Internet Survey, 2002), Australian educational institutions can expect increased e-mail from prospective Chinese students and their parents.

### **2.2 Diffusion of innovations by organisations**

Individual diffusion occurs in several ways, based on social structures, social norms, opinion leaders, change agents and types of innovations. Rogers (1995) and others (e.g., Abrahamson, 1991; Damanpour, 1991; Fichman, 2000) have extended this model to organisations, noting that individuals often make optional innovation decisions, but organisations decide authoritatively or collectively. Factors such as individual (leader) characteristics and internal/external structure influence organisational innovativeness (Rogers, 1995).

Structural considerations related to adoption include organisational characteristics such as affiliation, age,

size, type, and scope for innovation (Abrahamson, 1991; Damanpour, 1991; Moch and Morse, 1977; Raymond, 2001; Rogers, 1995; Soutar, Allen and Long, 2000; Wolfe, 1994), bandwagon effects (Abrahamson, 1991; Abrahamson and Rosenkopf, 1993; Murphy et al., 2003) and assimilating the innovation (Fichman, 2000). Competition and social emulation often pressure firms to jump on the bandwagon and adopt new technologies rather than be perceived as below-average performers (Abrahamson and Rosenkopf, 1993; McBride, 1997). For example, Australian organisations rapidly adopted the Internet perceiving it as unavoidable, yet their adoption often had little relationship to their business strategy (Soutar et al., 2000).

### **2.3 Phases of adoption**

Related to bandwagon effects is assimilating the adopted technology. Organisational diffusion ranges from being aware of the innovation, or initiation, to successfully infusing the technology within the organisation's operational and managerial work systems, or implementation (e.g., Fichman, 2000; Fichman and Kemerer, 1999; Rogers, 1995; Van de Ven, 1986; Wolfe, 1994; Zmud and Apple 1992). For Australian educational institutions, initiation to the Internet can begin with simply having an e-mail address or a website.

As trusted brands are more important online (Barwise, Elberse and Hammond 2002, p. 41), institutions could move further along the diffusion continuum and augment their online trust via eBranding. Using domain names for branded e-mail and website addresses, such as <info@www.australia-school.edu.au> and <www.australia-school.edu.au> for a hypothetical institution named the Australia School, are easier to remember than unbranded ones, thus initiating more e-mail enquiries and website visits (Hanson 2000; Reis and Reis, 2000). E-branding integrates the organisation's offline identity online, thereby enhancing trust.

Having Internet tools such as branded websites and e-mail addresses though, fails to equate to the implementation phase of using these tools well, such as properly answering emails. A study of 200 Swiss hotels found that those hotels with an extra feature on their website, animation, responded to customer e-mails significantly less often than those sites without animation did (Murphy et al., 2003). This suggests a bandwagon effect in the initiation stage, adding animation to mimic other flash sites, followed by poor implementation. Differences between an organisation's technology-sensing capability and technology-response capability lead to an "assimilation gap" between

initiation to and implementation of an innovation (Fichman and Kemerer, 1999; Srinivasan et al., 2002).

E-mail and websites meet Roger's (1995) criteria for rapid adoption (e.g. relative advantage, compatibility, complexity, trialability and observability), which makes adopting these Internet tools almost too easy for organisations. Successful adoption however, includes moving past the initiation phase of having these tools and implementing strategies that ensure proper e-mail responses. The implementation phase of organisational diffusion should help explain educational institution's use of e-mail for customer service.

### **2.4 Electronic customer service via e-mail**

Just as telephones and toll free numbers pioneered new customer service delivery, email adds another channel that is ubiquitous, cheap, digital, asynchronous and virtual. Rust and Lemon (2001, p. 85) argue that electronic customer service, or eService, represents "the key to marketing most effectively to the consumer, for it is the logical continuation of a 100-year trend toward information service in the economy". As customers shift from phone to e-mail communication, companies increasingly use e-mail for customer service (Strauss and Hill, 2001; Zemke and Connellan, 2001).

Compared to customer service and direct marketing via surface mail, e-mail costs significantly less and is faster to send. While responses to traditional direct marketing messages take weeks, Van Hoof (1998) found that four out of five hotels respond to an e-mail in a couple of days. Furthermore, e-mail's speed and simplicity lets marketers test multiple messages, changing the offer or segmentation to improve results (Marinova, Murphy and Massey, 2002; Ramsey, 2001).

Strauss and Hill's (2001) study of e-mail consumer complaints showed that responding quickly, addressing the specific problem and closing with an employee's name increased customer satisfaction. Other suggestions for e-mail responses include friendly answers, personalised salutations and polite closings with the sender's full name, contact details and position (Barnes and Cumby 2002; Murphy et al., 2003; Murphy and Tan, 2003; Ober 2001; Strauss and Hill, 2001; Yang, 2001; Zemke and Connellan, 2001). Drawing upon these previous sources, five "Ps" - Prompt, Polite, Personal, Professional and Promotional - profile a suggested e-mail response.

Prompt replies arrive in less than a day. Polite includes opening with a greeting such as dear, thanking the person

for their e-mail and a polite closing such as “sincerely” or “best regards”. Addressing the recipient by name and giving a personalised rather than standardised answer is personal. Professional replies address the questions in the e-mail, use proper grammar, include the sender and institution’s name and avoid attachments. Recipients may fear a virus and lack the software or bandwidth for viewing and downloading attachments. Promotional replies use a branded e-mail address and include a signature file. The latter - text automatically inserted at the bottom of an e-mail that includes the sender’s name, title, company name, physical contact information, website address and e-mail address -- gives customers an easy way to contact the sender or visit the website for further information (Sterne, 2001).

Describing a proper e-mail response is easy, but implementation is hard. Organisations often face difficulties implementing new technology (Rogers 1995; Fichman, 2000), such as ensuring proper e-mail responses. Early results show poor implementation of e-mail as a customer service tool in Austria and Italy (Pechlaner et al. 2002), Singapore (Murphy and Tan, 2003), Switzerland (Murphy et al., 2003), Tunisia (Gherissi et al., 2002) and the United Kingdom (Voss, 2000). In Australia, two studies found that just over half the firms responded to a simple e-mail query (Gabbott, Dubelaar and Tsarenko, 2000; Heuchan et al. , 2001). Diffusion of innovations helps explain this poor eService.

### **3. Hypotheses**

Three hypotheses explore relationships between organisational characteristics and e-mail customer service. A fourth hypothesis tests a proposed measure of electronic marketing and customer service, e-branding, which reflects further initiation to e-mail customer service.

Past research has shown that larger organisations, with greater access to resources and subsequently stronger need for strategic planning, adopt innovations more rapidly (Baptista, 1999; Kimberly and Evanisko, 1981; Rogers, 1995; Sieber, 2000). Thus, larger institutions should have moved beyond the initiation phase and implemented e-mail policies that help ensure better e-mail answers.

H1: Compared to smaller institutions, larger institutions will respond more (a) frequently, (b) promptly, (c) politely, (d) personally, (e) professionally and (f) promotionally.

Damanpour’s (1991) meta-analysis argued that some inconsistencies in organisational diffusion research were due to organisational type. He and others (e.g. Rogers, 1995, Wolfe, 1994) note differences in diffusion based upon organisational type and call for further research in this area. Private institutions, with less government support than public institutions, depend more upon student fees and should therefore have stronger needs for effective electronic customer service and marketing. Private institutions should provide better e-mail answers than public institutions.

H2: Compared to public institutions, private institutions will respond more (a) frequently, (b) promptly, (c) politely, (d) personally, (e) professionally and (f) promotionally.

Given that they target different markets and that diffusion varies across organisation types (Damanpour, 1991; Rogers, 1995; Wolfe, 1994), e-mail responses should vary across the four common educational sectors, higher education, VET, ELICOS and schools.

H3: Based upon the educational sector, responses will vary with regard to being more (a) frequent, (b) prompt, (c) polite, (d) personal, (e) professional and (f) promotional.

Branded e-mail addresses suggest moving from an initiation phase and towards implementation of the Internet as a customer service and marketing tool. Murphy and Tan (2003) found that compared to those agencies without branded e-mail addresses, Singapore travel agents with branded e-mail addresses had significantly more e-mail responses and significantly less bounced e-mails.

H4: Compared to those institutions without, institutions with branded e-mail addresses will respond more (a) frequently, (b) promptly, (c) politely, (d) personally, (e) professionally and (f) promotionally.

## **4. Methodology**

### **4.1 Sample**

The methodology avoids a common limitation of marketing (Blair and Burton, 1987; Lee, Hu and Toh, 2000) and innovation (Rogers, 1995) research, relying upon stated behaviour, by e-mailing educational institutions and measuring their actual behaviour.

The sample included all 120 educational institutions subscribed to the Australian Education International (AEI) China market. AEI is a governmental organisation that promotes and develops Australian international

Table 1  
Dependent Variables

	Did the institution
	Respond?
Prompt	Respond in less than 24 hours?
Polite	Open the response with "Dear"? Close the response politely, such as with "Sincerely" or "Best Regards"? Thank the customer for e-mailing the institution?
Personal	Address the customer by name? Give the customer a personalised answer instead of a standardised answer?
Professional	Identify the person that sent the e-mail? Identify the institution that sent the e-mail? Answer the questions such that no follow-up e-mail was necessary? Attach any documents to the e-mail?
Promotional	Use a branded e-mail address? Include electronic contact details in a signature file?

education. An additional 92 e-mail addresses of institutions accepting Chinese students and listed in the Good Universities Guide and Good Schools Guides for New South Wales and Victoria - comprehensive guidebooks of Australian universities, TAFEs, colleges and independent secondary schools - supplemented the sample. The 212 e-mail addresses represented 133 private and 79 public institutions across 37 higher education institutions, 25 VET, 65 schools and 85 ELICOS. The institution's principle educational sector classified institutions listed in multiple sectors.

#### 4.2 Mock e-mail enquiry

Rocky, a fictitious 18-year-old student from Beijing sent half the e-mails and Wang Da Wei seeking information for his son Rocky, sent the other half. The two e-mails were randomly stratified across educational sectors and public or private ownership. Adjusting for who sent the e-mail, the content and questions were the same. Two pretests clarified e-mailing procedures, dependent variables and trimmed the questions to two -- course fees and entry requirements.

Pseudo-Rocky and his dad sent their e-mails on 10 October 2001, using separate Yahoo! e-mail addresses that ended in a Chinese domain, @yahoo.com.cn. The sender's e-mail address was in the "to" field and the samples' e-mail addresses were in the "bcc" field. All e-mails used plain text format and contained no attachments. After the study, all institutions that responded received an e-mail explaining that they were part of a study, a brief summary of the results and offer of a full report.

#### 4.3 Independent and dependent variables

The independent variables were: institution size, operationalised as the number of students; who sent the e-mail, Rocky or his dad; the source of the e-mail address, AEI or Good Universities/Schools Guide; the four educational sectors; and ownership, public or private. Table 1 lists thirteen binomial variables related to e-mail responses, based on suggested online and traditional business communication (Barnes and Cumby, 2002, Murphy et al., 2003, Murphy and Tan, 2003, Ober, 2001, Strauss and Hill, 2001, Yang, 2001, Zemke and Connellan,

2001). These variables were coded yes or no, and classified into five factors: Prompt, Polite, Personal, Professional and Promotional. How well an institution responded should indicate how well that institution had implemented using e-mail as a business communication tool.

## 5 Results

As there were no significant (Chi square,  $p < 0.05$ ) response differences between e-mails sent using the AEI and Good Universities/Schools Guide databases, and different senders, Rocky and his dad, the data were combined. As Table 2 shows, there is ample room for improving e-mail replies.

Similar to an out of order telephone, about one in twenty establishments had an e-mail address that bounced. Using the same analogy, two institutions used an answering machine - automated e-mail replies - but failed to follow up with a human reply. Almost two out of three organisations answered the phone - replied to the

e-mail. Comparable to answering a phone within five rings, 64% of the establishments said hello promptly - within a day - but other replies dribbled in over the next 16 days. Timely responses are important as the greater the perceived control businesses have over the delay, the more anger, or associated feelings of annoyance and frustration the customer feels (Taylor, 1994).

Of those that replied, polite replies hovered around 80% percent and personal replies under 80%. Professional replies varied. Nine out of ten senders identified themselves, six out of ten institutions identified themselves, and just one out of eight senders used attachments. Only one out of three establishments however, answered both questions. The institutions showed mix promotional results. Eight out of ten had branded e-mail addresses but less than half included a signature file.

Most surprising to the authors was the complete lack of attention that some institutions gave to their responses.

Table 2:  
E-mail Responses

	Dependent Variables	n	% Respondents n = 136	% Total n = 212
Response Types	Responded	136	100%	64.2
	Bounced e-mail	11		5.2
	Automated response	2		0.9
Prompt	Responded in less than 24 hours	87	64.0	41.0
Polite	Opened with "Dear"	108	79.4	
	Closed politely	116	85.3	
	Thanked the customer	107	78.7	
Personal	Addressed the customer by name	107	78.7	
	Gave a personalised answer	99	72.8	
Professional	Sender identified	125	91.9	
	Institution identified	82	60.3	
	Answered the question	49	36.0	
	Used attachments	19	14.0	
Promotional	Branded e-mail address	126/188	92.6	88.7
	Signature file	63	46.3	

Table 3  
Hypothesis testing using one-way ANOVA and the log-transformed number of students

Dependent Variables		Size of institution performing better	F Value	df	Sign.
Responded		Larger	0.19	163	.67
Prompt	Responded in less than 24 hours	Smaller	4.45	109	.04
Polite	Opened with "Dear"	Smaller	1.31	109	.26
	Closed politely	Smaller	0.34	109	.56
	Thanked the customer	Smaller	0.05	109	.82
Personal	Addressed the customer by name	Smaller	1.90	109	.17
	Gave a personalised answer	Smaller	3.07	109	.08
Professional	Sender identified	Smaller	0.49	109	.49
	Institution identified	Smaller	0.61	109	.44
	Answered the question	Smaller	5.62	109	.02
	Used attachments	Smaller	4.68	109	.03
Promotional	Branded e-mail address	Larger	6.74	163	.01
	E-signature file	Smaller	0.85	109	.36

Although his e-mail never mentioned graduate studies, one institution thanked young Rocky for his interest in their MBA programme and implied easy acceptance. Another institution sent Rocky a 17-page e-mail, replete with >>>> symbols suggesting that it had been forwarded at least four times. The institution told Rocky that answers to his questions (all two of them) followed. In essence, sort through these 17 pages for what you need.

*Hypothesis 1*

A log function transformed the number of full-time students to obtain normality. A one-way ANOVA then used this transformed value to test for significant differences on the average size of the establishments that met or did not meet the dependent variable. As Table 3 shows, and in contrast to the hypothesised direction, smaller institutions responded better on all but two variables, response rate and using attachments. Few differences were significant however. The average size of the institution was significantly larger for establishments with branded e-mail addresses, and significantly smaller for institutions that used

attachments, were prompt and answered the questions.

*Hypothesis 2*

The second hypothesis predicted that private institutions would provide better e-mail responses than public institutions. The results in Table 4 show little difference in responding. Replies by private institutions tended to be more prompt, polite and personal while public institutions' replies were more professional and promotional. A chi square test showed that private schools' responses were significantly more personal than public institutions' responses were. Public institutions however, identified themselves significantly more often than private institutions did.

*Hypothesis 3*

The third hypothesis predicted that responses would vary by educational sector. As Table 5 shows, there were no significant differences in responding and politeness but significant differences in four variables. Schools led and Higher Education lagged in two variables, responding in less than 24 hours and personalised answers. VET led

Table 4  
Response percentages and Pearson Chi Square testing of Private versus Public Institutions

	Dependent Variables	% Private Institutions	% Public Institutions	Pearson $\chi^2$	df	Asym. Sig.
	Responded	63.2	65.8	0.15	1	.77
Prompt	Responded in less than 24 hours	69.0	55.8	2.46	1	.12
Polite	Opened with "Dear"	83.3	73.1	2.07	1	.15
	Closed politely	85.7	84.6	0.03	1	.86
	Thanked the customer	77.4	80.8	0.22	1	.64
Personal	Greeted the customer by name	86.9	65.4	8.87	1	< .01
	Gave a personalised answer	81.0	59.6	7.38	1	.01
Professional	Sender identified	91.7	92.3	0.18	1	.89
	Institution identified	51.2	75.0	7.61	1	.01
	Answered the question	35.7	36.5	.01	1	.92
	Used attachments	16.7	9.6	1.33	1	.25
Promotional	Branded e-mail address	86.5	92.4	1.74	1	.19
	Signature file	41.7	53.8	1.92	1	.17

Table 5  
Response percentages and Pearson Chi Square across four educational sectors

	Dependent Variables	% Higher Ed	% VET	% ELICO	% Schools	Pearson $\chi^2$	df	Asym. Sig.
	Responded	73.0	68.0	61.2	61.5	1.93	3	.59
Prompt	Responded in less than 24 hours	40.7	64.7	67.3	75.0	8.69	3	.03
Polite	Opened with "Dear"	66.7	88.2	82.7	80.0	3.84	3	.28
	Closed politely	77.8	88.2	86.5	87.5	1.55	3	.67
	Thanked the customer	85.2	76.5	86.5	65.0	7.11	3	.07
Personal	Greeted the customer by name	63.0	94.1	78.8	82.5	6.74	3	.08
	Gave a personalised answer	51.9	88.2	59.6	97.5	24.92	3	< .01
Professional	Sender identified	88.9	100	92.3	90.0	2.04	3	.57
	Institution identified	74.1	76.5	61.5	42.5	9.32	3	.03
	Answered the question	22.2	58.8	30.8	42.5	7.42	3	.06
	Used attachments	3.7	5.9	30.8	2.5			
Promotional	Branded e-mail address	97.3	84.0	81.2	95.4			
	Signature file	40.7	70.6	53.8	30.0	9.83	3	.02



and Schools lagged in identifying the institution and using a signature file. There were too few cases in some cells to analyse Attachments and Branded e-mail addresses.

#### *Hypothesis 4*

The last hypothesis proposed that branded e-mail addresses reflect moving past initiation and toward implementation of e-mail customer service and marketing. As expected, institutions with a branded e-mail address Responded about twice as often, 67% vs. 33%, as institutions without branded e-mail addresses ( $c2 = 5.95$ ,  $df=1$ ,  $p=0.015$ ) did. With over nine out of ten responding institutions having branded e-mail addresses though, there were too few cases for further analysis of this variable.

### **6. Conclusion**

As the e-mail concerned students in China, where Australian visas are difficult to obtain, some institutions may have given this e-mail a low priority and responded accordingly. Responses may have been better for queries from countries with less onerous visa requirements. Hence the results may not be generalisable outside this context. Nonetheless, the lessons gleaned would seem to be important and relevant to all educational establishments seeking to get their institutions into student's (parents and other influencers) consideration and choice sets.

#### **6.1 Managerial conclusions**

E-mail is a simple method for customers to initiate contact with a company and thus may influence the future marketing relationship. Customer-initiated contacts, such as e-mail, represent a potential opportunity (Schultz, 2002). Harvesting this opportunity will probably be via e-mail, a very cost effective means of converting opportunity into reality. A powerful customer service tool that can build and strengthen relationships (Newell, 2000; Bertagnoli, 2001), e-mail is important for Australian institutions that recruit overseas students (Gomes and Murphy, 2003). This research though, suggests that institutions face implementation issues with this eService and marketing communication tool.

These results illustrate that treating e-mail as business correspondence gives establishments immediate competitive advantages, especially as responses play a critical role in the customer-initiated communication model (Schultz, 2002). Management and staff must appreciate that e-mail is as important as a phone call, fax

or letter. For legal, marketing and organisational reasons, institutions should establish e-mail communication protocols and policies and train staff on these procedures (Straus and Hill, 2001; United Nations, 2001; Mills, Clay and Mortenson, 2000; Stevens and McElhill, 2000).

Analysing current e-mails is a key to this initiative. Based on customers' frequently asked e-mail questions, institutions should develop a Frequently Asked Questions section on their websites (United Nations, 2001) and template e-mail answers. These templates should use basic business communication procedures such as politely greeting, thanking and addressing the potential student by name, answering all questions, providing additional information and identifying the institution - name, postal address, phone and fax numbers and website address - as well as the sender. Online customers expect a response, the sooner the better, but a fast response should not override proper replies. Appendix 1 shows a suggested response.

#### **6.2 Theoretical conclusions**

Although the results support extending organisational diffusion of innovations to e-mail customer service, it is too early to draw clear-cut conclusions on organisational use of e-mail. As Paul Saffo notes, "the amount of time required for new ideas to fully seep into a culture has consistently averaged about three decades for at least the past five centuries" (Fidler, 1997, p. 8). Furthermore, e-mail takes on a life of its own in an organisational context and should be viewed as a reagent rather than a medium (Lee, 1994). Based on his hermeneutic interpretation of organisational e-mail use, Lee (1994, p. 143) suggests that researchers study "the actual processes by which the users of a communication medium come to understand themselves, their own use of the medium, and their organisational context."

There were no significant differences in responding or not responding based upon industry size, institutional ownership, and educational sector. This may suggest that simply hitting the reply key and sending a response represents an early step of eService implementation. That less than two out of three institutions responded to a potential customer, though, suggests poor implementation. E-branding may represent an intermediate step towards implementation. Institutions with branded e-mail addresses responded significantly more often than those institutions without e-branding did.

There were no significant differences all three measures of politeness and one professional measure, identifying

the sender, regardless of the independent variables. Given the high percentage of organisations addressing these eService measures, all above 78%, this lack of significant differences may reflect that these four measures have reached the implementation stages with regard to e-mail customer service. The eight variables that showed significant differences however, may answer calls for appropriate metrics to evaluate electronic service strategies (Cox and Dale, 2001; Rust and Lemon, 2001), such as the implementation of e-mail customer service.

Promptness - responding within 24 hours - varied significantly across size and educational sector. Both personal measures, greeting the customer by name and providing personalised rather than template answers, were significantly better for private establishments. Providing a personalised answer also differed significantly across educational sectors. Three professional measures varied significantly. Differences in identifying the institution were significant across ownership and educational sector. Compared to larger institutions, smaller institutions answered the question and used attachment more often. Finally, there were significant differences across both promotional measures. Larger institutions had more branded e-mail addresses and the use of a signature file varied across educational sectors.

The results support calls for further research into institutional type (Damanpour, 1991; Rogers, 1995; Wolfe, 1994). Both educational sector and ownership revealed significant differences in how organisations provide personal, professional and promotional replies. Private establishments provided responses that were significantly more personal, yet less professional and promotional. Across the educational sectors, higher education was the worst sector in promptness and personalisation, yet had the highest percentage of branded e-mail addresses. Perhaps higher education jumped on the bandwagon with branded e-mail addresses, but faced an assimilation gap that the slower responses and less personalised answers suggest.

Contrary to the first hypothesis, the results showed that smaller institutions outperformed larger institutions on all but two measures of eService. Significant differences showed that size related positively to branded e-mail addresses but related negatively to answering the question and promptness. Large institutions may have the resources for buying and registering a domain name but are less nimble than smaller institutions when it comes to actually reading the e-mail and answering the questions.

Size may relate positively to the initiation stage of adoption but negatively to the implementation stage.

Noteboom (1994) suggests that although small firms lag in the adoption of innovations, small firms also complement larger firms in adoption. Small firms, for example, participate less in research and development but have a greater productivity when they do participate. Larger businesses are better at generating fundamentally new technologies but smaller firms are likely to be better at applying these technologies. These results, which hint that size may relate positively to the initiation stage of adoption but negatively to the implementation stage, merit further research.

### **6.3 Future Research**

In addition to further exploration of organisational characteristics related to initiation and implementation phases, diffusion of innovations implies that these results should change over time. A follow-up or longitudinal study could track changes in the institutions' e-mail replies and further explore initiation and implementation of e-mail customer service. Studies in other countries and using other databases would reinforce the Australian results and possibly generalise the results beyond Australia. The use of other countries also permits the study of cultural factors (Hofstede, 1980) related to the diffusion of eService.

Expanding the research methods could prove fruitful. Using a larger sample and more independent and dependent variables could lead to a factor analysis of the responses and a cluster analysis of the respondents (Hair et al., 1998). A content analysis of the responses by multiple coders would increase reliability (Krippendorff, 1980) and a content analysis of the institutions' websites - manual (MacMillan, 2001) or automated (Schegg et al., 2002; Scharl, 2000) -- could explore relationships between an institution's e-mail response and that same institution's website features (Murphy et al. 2003).

Future research could incorporate educational institution age as an independent variable. Established businesses are often more conservative, less flexible, stronger culturally and less likely to adopt new technology (O'Neil, Poudel and Buchholtz, 1998; Sieber, 2000). It would also be interesting to explore usage asymmetry and changes in adoption rates by educational institutions and prospective students.

Meador (2002) found that US companies gave better customer service over the phone than via e-mail. Future research could test e-mail customer service versus

customer service in traditional and possibly other new media such as mobile phones (Barwise and Strong 2002). This research explored institutions' eService but failed to explore consumer reactions. Future research could investigate the influence of eService on prospective students' attitudes and behaviours. For example, Taylor (1994) argues that delays are an important aspect of service. Is there a relationship between speed of e-mail response and consumer reactions?

Future eService research should move beyond descriptive and towards causal research. A limitation of this research was using the Bcc function for emailing. Would the results differ if the email was addressed individually to each institution? Would institutions respond differently to prospective students from Singapore, where Australia has simpler visa requirements? Would institutions respond differently to a business e-mail address, such as rocky@ibm.com rather than a free e-mail address such as rocky@yahoo.com.cn? Would the institutions respond more professionally if the prospective student included a signature file?

As the institution's reply should influence customer relationships and profitability, future research should investigate the customer's reactions to eService as well as the importance that customers place on eService. Finally, how does eService influence an educational institution's costs and revenues? For example, would an institution reduce costs and increase revenues by outsourcing e-mail customer service?

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