

Comparing the Diffusion of Online Service Recovery in Small and Large Organizations

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ABSTRACT *A key concern organizations face is how to incorporate Internet tools into their marketing communications mix. Where and how should companies invest their human, technological, and financial resources? This paper explores a subset of this problem, online complaining and electronic customer service. It applies diffusion of innovation as a theoretical framework to investigate organizational implementation of email technology and explain the outcome of annual customer service surveys in 2001, 2002, and 2003. The results add to the small body of research on electronic service recovery by extending diffusion of innovations to email service recovery and underscoring the importance of adoption phases, particularly for small and medium sized enterprises (SMEs). Larger companies provide more channels for submitting complaints, which represents an early phase of adoption. There was little difference in how large and small companies respond to online complaints, a later phase of adoption.*

KEY WORDS: Electronic customer service, SMEs, service recovery, electronic mail, diffusion of innovations

Introduction

Thanks to the Internet, organizations and consumers have a powerful new medium for marketing communications in general and customer service in particular (Voss, 2000; Rust and Lemon, 2001; Zeithaml *et al.*, 2003; Zemke and Connellan, 2001). Service recovery – a form of customer service – gleans valuable information from complaining customers, can win back customers and helps businesses prosper (Fisk *et al.*, 2000). There is ample literature on service recovery via traditional channels (Maxham and Netemeyer, 2002; Grönroos, 1988; Smith *et al.*, 1999; Hart *et al.*, 1990; Michel, 2002), and research of customer service via websites is beginning to

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emerge (Barnes and Vidgen, 2001; Zeithaml *et al.*, 2003; Rust and Lemon, 2001). Academic interest in adopting and using email customer service for service recovery, however, seems malnourished.

An appropriate theoretical approach for the organizational use of new technologies, such as electronic service recovery, is the diffusion of innovations (Rogers, 1995). Among other areas, academics call for the study of phases in the organizational adoption of technologies (Wolfe, 1994; Zmud and Apple, 1992), the role of SMEs in this adoption (Dholakia and Kshetri, 2004), and assimilation gaps in using a technology (Dekimpe *et al.*, 2000; Fichman and Kemerer, 1999; Srinivasan *et al.*, 2002). Poor responses to customer complaints via the simplest Internet technology, email, illustrate an early phase of Internet adoption and a gap in the organizational assimilation of email (Murphy *et al.*, 2003a; Murphy and Tan, 2003).

This study adds to research of SMEs, email customer service, service recovery, and organizational diffusion of innovations by examining corporate responses to genuine email complaints that requested a response. The responsiveness, timeliness and quality of email replies from businesses reflect organizational email use in service recovery and a seemingly easy-to-achieve competitive advantage for SMEs. Testing hypotheses based on organizational size and diffusion of innovations extends this theory to email service recovery and provides a base for further research.

Literature Review

Paul Saffo posits that for at least the past five centuries, new ideas average about three decades 'to fully seep into a culture' (Fidler, 1997, p. 8). Given that the '@' symbol surfaced in 1971 (Hanson, 2000), email seems to have emerged at Saffo's predicted pace. From teens (Pastore, 2002) to silver surfers (BBC News, 2002), at home and at work, sending and receiving email remains the most popular Internet activity (Ramsay, 2001). Australia is no exception in the adoption of email, with 92% of companies using electronic mail for internal and external communications, purchasing, sales, and customer service (Australian Bureau of Statistics, 2002).

Just as telephones, toll free numbers, and call centers (Mattila and Mount, 2003b) pioneered new customer service choices, email adds another option. Email's speed and simplicity gives businesses and consumers a powerful customer service tool. Yet despite the importance of customer service and a growing body of web-based customer service research (Barnes and Vidgen, 2001; Zeithaml *et al.*, 2003; Rust and Lemon, 2001), research of email customer service is sparse (Strauss and Hill, 2001; Mattila and Mount, 2003a).

Traditional versus Electronic Customer Service

Research shows strong links among customer satisfaction, customer loyalty, and intention to purchase or re-purchase (Bitner *et al.*, 1990; Szymanski and Henard, 2001). The best way to satisfy customers is consistent, first time error-free service (Maxham and Netemeyer, 2002; Andreassen, 2001), yet the inherent variability of service leads to failures.

A firm's response to a service failure, service recovery (Grönroos, 1988; Smith *et al.*, 1999), helps recuperate organizational and brand loyalty, customer

satisfaction and intention to give positive word of mouth (Hart *et al.*, 1990; Maxham and Netemeyer, 2002; Swanson and Kelly, 2001). For example, customers with unresolved complaints re-purchase in only 19% of cases, but re-purchase intention soars to 54% with resolved complaints, and 82% when resolved quickly (Zeithaml and Bitner, 2000).

A first step for effective service recovery is providing customers with convenient channels for complaining (Hart *et al.*, 1990). One such channel, the Internet (Lovelock *et al.*, 2001, p.219), represents the 'logical continuation of a 100-year trend toward information service in the economy' (Rust and Lemon, 2001, p.85). Corporate websites and email addresses represent additional and important communication channels for providing customer service. Yet research of other innovations suggests that organizations may face challenges in their use of the Internet for service recovery

Innovations take decades to succeed and society often overestimates an innovation's short-term potential, while underestimating that same innovation's long-run effects (Fidler, 1997; Rogers, 1995). For example, pundits predicted reduced paper use thanks to computers, but the forecasted *paperless office* actually consumed more paper (Liu and Stork, 2000; Forester, 1992). There are similar sanguine predictions of e-service changing business practices (Zemke and Connellan, 2001). Yet a study of complaints to online retailers showed that consumers were unhappy with the service recovery from 58% to 80% of the time (Holloway and Beatty, 2003).

Unlike websites with automated human-computer interaction, email customer service usually involves human-human interaction. Email's simplicity, however, is no guarantee of success (Phoha, 1999). 'If firms provide email addresses, they must answer incoming mail' (Strauss and Frost, 2001, p.309). Yet non-response rates by organizations range from one in four to three in four (Murphy and Tan, 2003; Nguyen *et al.*, 2003; Strauss and Hill, 2001; Voss, 2000). Furthermore, businesses often answer email poorly and slowly (Murphy and Gomes, 2003; Schegg *et al.*, 2003). Electronic service recovery through proper email responses to complaints, however, can improve customers' assessments of service quality (Strauss and Hill, 2001; Mattila and Mount, 2003a).

In closing, organizations can improve their service recovery by adding email as a channel for customers to complain, and by answering customer emails properly. Given the nascence of this field, there is little research of email service recovery, particularly with a theoretical foundation. One possible theoretical approach for examining email service recovery, the diffusion of innovations, has been used successfully to investigate email customer service (Murphy and Gomes, 2003; Nguyen *et al.*, 2003).

Diffusion of Innovations

For over half a century, scholars have researched how individuals and organizations adopt innovations, from perspectives including sociology, geography, and consumer behavior (e.g. Mahajan *et al.*, 1990; Rogers, 1995). Diffusion of innovations theory is usually more successful explaining the adoption of new technologies by individuals (Bass, 1969; Mahajan *et al.*, 1990) than by organizations (Damanpour, 1991; Wolfe,

1994; Rogers, 1995). Unlike individuals, organizations decide authoritatively or collectively. Leader characteristics, internal structures, organizational characteristics, and the external environment influence organizational innovativeness (Fichman, 2000; Srinivasan *et al.*, 2002; Sultan *et al.*, 1990).

Another difference between organizational and individual adoption is the extent of adoption. At the individual level, adoption is a binary process of adopting or not adopting a technology (Mahajan *et al.*, 1990). Organizational adoption, by contrast, ranges from being aware of an innovation, *initiation*, to successfully infusing the innovation within the organization's work systems, *implementation* (Rogers, 1995). Other researchers have proposed more stages in the continuum of organizational adoption (Wolfe, 1994; Zmud and Apple, 1992) such as Kwon and Zmud's (1987) six stages: initiation, adopting, adaptation, acceptance, routinization, and infusion.

Organizational adoption of an innovation typically follows a bell-shaped distribution of time and adopter segments (Rogers, 1995). The first two adopter segments – *innovators* and *early adopters* – often neglect success factors such as convenience, low cost, and reliability (Porter, 1998). For example, early adopters may concentrate on the most advanced website features, instead of optimizing their workflow to ensure that the organization answers incoming emails promptly and professionally. Reliable solutions interest the last three segments – *early majority*, *late majority*, and *laggards* – who learn from the first two adopter segments' experiences and align innovations closer to their needs (Porter, 1998).

Most innovations transition from early applications that do not satisfy user requirements to excess technology, such as complex interfaces or incompatible multimedia formats that offer little value for most organizations. Similarly, dominance by high technology companies has attenuated customer preferences in the evolution of electronic business (Reagle and Cranor, 1999). This failure to view evolving media from the user's perspective represents a limitation of studies of interactive technology (Morrison, 1998).

Successful innovation strategies usually transition from technology- to customer-driven products. Figure 1 illustrates the adoption of innovations as a bell-shaped curve and emphasizes the lack of customer-centricity (Treloar, 1999; Norman, 1998; Scharl, 2000). This figure demonstrates Moore's (1999) observation that many organizations concentrate on excess technology and miss the transition point where available performance matches customer needs. Figure 1 also relates to successful integration of a technology into an organization's work systems, such as answering customer emails.

Assimilation Gaps and Phases of Adoption

In addition to the internal organizational characteristics mentioned earlier, external competition and social emulation also pressure firms to adopt new technologies (Abrahamson and Rosenkopf, 1993) such as the Internet (McBride, 1997; Murphy *et al.*, 2003a). For example, external pressure was a main determinant of SMEs adopting email and the World Wide Web (Mehrtens *et al.*, 2001). This external pressure helps explain the results of a study of Australian SMEs adopting the Internet; their adoption had little or no relationship with their strategic plan (Soutar *et al.*, 2000).

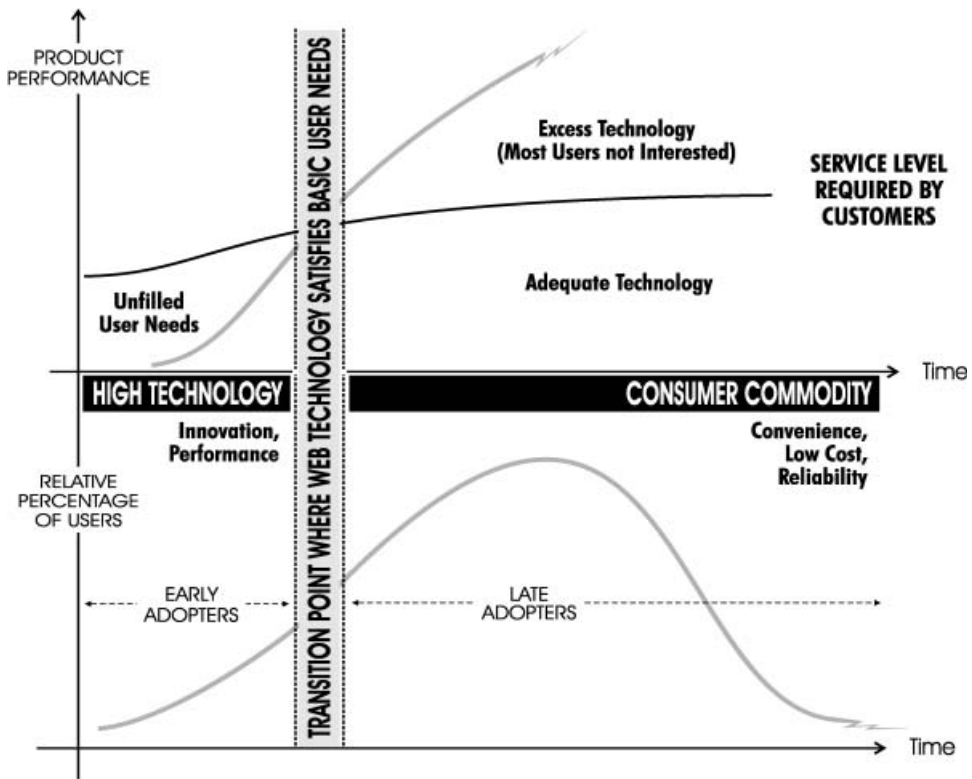


Figure 1. Customer-centricity and the adoption of innovations (adapted from Norman, 1998; Scharl, 2000; Treloar, 1999)

Organizations that fail to plan for using an innovation, such as email, face an *assimilation gap* between acquiring and deploying a technology (Srinivasan *et al.*, 2002; Fichman and Kemerer, 1999). Establishing online customer service channels – websites and email addresses – but mismanaging communication through these channels illustrates an assimilation gap in the diffusion of Internet technology (Murphy *et al.*, 2003a; Murphy and Tan, 2003).

Proper email responses – prompt, professional, promotional, personal, and polite – suggest successful implementation of email customer service (Murphy and Gomes, 2003) as well as an advanced phase of Internet adoption (Hanson, 2000; Dholakia and Kshetri, 2004; Teo and Pian, 2003). For example, business Internet use could evolve from a free ‘Yahoo!’ or ‘Hotmail’ email address, to a free website hosted by Geocities, to a static website complemented by branded email addresses and domain names, and then adding interactive and personalized features to websites and email as well as responding properly to customer emails.

Compared to organizations with a free email address, organizations with websites or branded email addresses suggest further Internet adoption (Murphy *et al.*, 2003a; Murphy *et al.*, 2003b). Company ABC could have a free Hotmail email address *abc@hotmail.com* or the branded *info@abc.com* address. For example, a study of email responses by Singaporean travel agencies found that agencies with branded

email addresses responded significantly more often to email queries and had been in business significantly fewer years than agencies without branded addresses (Murphy and Tan, 2003).

Organizational Size and Phases of Adoption

Studies of organizational adoption of technology often use internal characteristics such as organizational size, type, strategic orientation, and capacity for innovation as independent variables (Abrahamson, 1991; Dholakia and Kshetri, 2004; Rogers, 1995). Compared to smaller organizations, larger organizations tend to adopt innovations faster as they have greater access to resources and subsequently stronger need for strategic planning (Kimberly and Evanisko, 1981; Rogers, 1995; Schumpeter, 1947). Yet research on organizational size and Internet adoption provides contradictory results, perhaps for failing to consider the phase of adoption (Dholakia and Kshetri, 2004).

Larger organizations tend to outperform smaller organizations in the use of branded email addresses, hyperlinks, and websites (Dholakia and Kshetri, 2004; Murphy *et al.*, 2003b; Murphy and Tan, 2003; Murphy and Gomes, 2003; Nguyen *et al.*, 2003). Yet smaller organizations tend to outperform larger organizations in quality and timely email responses (Matzler *et al.*, 2005; Murphy and Gomes, 2003; Schegg *et al.*, 2003). These results suggest that larger organizations lead in the early stages of adoption, *initiation*, while smaller firms lead in the *implementation* of Internet technologies.

Having branded email addresses and maintaining a Web presence require financial investments and strategic planning, which favors larger organizations (Kimberly and Evanisko, 1981; Rogers, 1995; Schumpeter, 1947). Quality email replies however, suggest better implementation of this Internet tool. '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 email and answering the questions' (Murphy and Gomes, 2003, p. 65).

Hypotheses

The first hypothesis focuses on relationships between organizational size and the provision of electronic customer service – initiation to Internet adoption. The second hypothesis examines relationships between organizational size and the quality of email responses – implementation of Internet technologies. The underlying assumption is that larger organizations lead in the *initiation* to Internet technologies, while smaller organizations handle the *implementation* of Internet technologies better.

Hypothesis 1: Compared to smaller organizations, larger organizations will have a greater

- (a) likelihood of having a corporate website,
- (b) likelihood of inviting feedback on the corporate website,
- (c) presence of branded email addresses.

Hypothesis 2: Compared to larger organizations, smaller organizations responding to customer emails will have

- (a) a higher response rate,
- (b) more responses within a day,
- (c) a higher response quality.

Methods

This study addresses *complaints* directed at the seller of the product rather than *private complaints* among friends and family members, or *third-party complaints* via independent organizations or websites such as epinions.com and complaints.com to seek redress (Cho *et al.*, 2002; Singh, 1988). The method used in this study combined survey and field research. Respondents were surveyed on the communication they received from companies as a result of genuine complaints.

As part of a Services Marketing class at a large Australian university, undergraduate students kept a journal of good and bad service encounters. To minimize exaggerated complaints, there was no assessment on the number or strength of their complaints. At the end of the eighth week, students drafted a complaint to the company with the worst service. Students were not to overstate negative service encounters, and, for mild service failures, were to request only a return email acknowledging their complaint.

There was no effort to send a standardized complaint by all students, as this could involve fabricating parts of the complaint and lead to companies following up on a fictitious complaint. To mirror real-life conditions and put students at ease, there were no restrictions on content and length. All complaints used plain text, as email with embedded graphics can be more persuasive than plain text (Wilson, 2002), but takes longer to download and may cause problems with some email programs (Murphy *et al.*, 2003a).

To combat a potentially knowledgeable sample, the lecturer covered the topic of service recovery after collecting the data. To counter possible demand artefact effects, the students were unaware of the study hypotheses. To improve reliability and validity, the instructor verified that each email addressed a specific complaint, included an objective call to action, and contained no offensive language.

Unless it was integral to the complaint, the students did not identify themselves as students and used non-university email addresses to avert possible bias. The students gave companies an email address as the sole means to respond. Since the hypotheses of this study focused on the response by the organization, relying on a student sample should impact the results less than if the study focused on the service recovery as perceived by the students.

Except for a handful of cases, each year the students sent their email during business hours on the same weekday. Using email for both the complaint and response enables accurate tracking of response time.

Sample and Survey Design

This exercise ran thrice, with 55 complaints emailed in 2001, 52 complaints in 2002, and 77 in 2003. Similar to Naylor's complaint study (2003), much of the analysis used the combined sample across all three years. Measuring the organization's actual

behavior avoids a common limitation of research on diffusion (Rogers, 1995) and consumer behavior (Alba and Hutchinson, 2000; Blair and Burton, 1987; Nisbett and Wilson, 1977) – i.e. relying upon stated behavior.

Analysis of Complaint Responses

Two weeks after sending the emails, the students completed a questionnaire that analyzed the responses. A pre-test with three complaints led to minor alterations of the survey instrument. Students recorded the response time, length of complaint and response (in words), and response quality, as well as organizational characteristics – size (over or under 50 employees), ownership (public or private), and organizational type (service-oriented or not).

Combining traditional (Ober, 2001) and online (Strauss and Hill, 2001; Murphy *et al.*, 2003a; Murphy and Tan, 2003; Nguyen *et al.*, 2003; Zemke and Connellan, 2001) business communication guidelines led to eight binomial measures of response quality: responding, responding within a day, opening with ‘dear’, using the addressee’s name, thanking for the complaint email, addressing the complaint’s call to action, closing politely (e.g. sincerely, yours truly or best regards), and providing the sender’s name.

Results

Although the convenience samples stemmed from three separate student groups, chi-square test results revealed no significant differences ($P < 0.05$) in company characteristics across the three samples. Table 1 shows that the typical company was a privately owned service organization, had over 50 employees, a branded email address, and a website with a feedback form.

Table 1. Comparison of sample and response characteristics in 2001, 2002 and 2003

	% 2001 <i>n</i> =55	% 2002 <i>n</i> =52	% 2003 <i>n</i> =77	% Combined <i>n</i> =184
Company characteristics				
Greater than 51 employees	71	69	74	73
Governmental organization	18	17	10	15
Service organization	84	84	84	84
Website	91	92	94	92
Website feedback available	78	85	71	77
Branded email address	88	76	87	84
Email response characteristics				
Responded	62	73	51	60
Responded within a day	30	50	53	45
Opened with ‘dear’	79	82	80	80
Addressed customer by name	82	95	92	90
Thanked customer for their email	80	82	87	83
Polite closing	88	87	82	86
Closed with sender’s name	91	92	97	94
Addressed call to action	71	78	79	76

Email Responses

Compared to 2001 and 2002, companies answered the email requests significantly less often in 2003 ($\chi^2=6.6$, $df=2$, $P=0.037$). There were no significant differences on the other response variables. The decline in response rates may stem from the increasing volume of email flowing through organizations, which makes distinguishing spam from customer correspondence increasingly time consuming (Wales, 2003; Hinde, 2003).

Based on the combined sample (see Table 1), three out of five companies (60%) responded. Of those that responded, over two out of five (45%) responded within a day. The fastest response was five minutes, while the slowest took over three weeks. As for response quality, about nine out of ten companies addressed the customer by name and politely closed with the employee's name. Fewer companies, about eight out of ten, opened the email with 'dear', thanked the customer, and addressed the call to action. The study did not treat computer-generated automatic replies as personal responses.

Student complaints averaged 312 words, ranging from 20 to 2,500 words. Organizational responses averaged 153 words and ranged from a high of 523 words to a terse six-word reply. There was a positive and significant correlation between the word count of the complaint and of the reply (Pearson=0.316, $P=0.001$, $n=110$). There was no relationship, however, between the word count of the complaint and the likelihood of receiving a response.

Hypotheses Testing

The combined results supported the first group of hypotheses regarding organization size and Internet initiation (see Table 2). Across all three years, larger organizations had significantly more websites and solicited feedback more often on these sites. Larger corporations had a significantly greater percentage of branded email addresses, but the results were inconsistent across the three years.

Table 2. Small and large organizations' Internet presence

		2001	2002	2003	Combined
Used a branded email address	% Large	92	89	84	88
	% Small	75	40	100	69
	Pearson χ^2	1.77	9.48	1.48	5.16
	<i>P</i>	0.184	0.002	0.224	0.023
Website presence	% Large	98	100	97	98
	% Small	72	73	85	78
	Pearson χ^2	8.62	10.42	3.22	20.74
	<i>P</i>	0.003	0.001	0.073	<0.001
Website solicits feedback	% Large	83	94	77	83
	% Small	60	55	53	55
	Pearson χ^2	2.36	10.58	3.45	12.96
	<i>P</i>	0.124	0.001	0.063	<0.001

Table 3. Small and large organizations' response quality

		2001	2002	2003	Combined
Responded	% Large	63	78	54	63
	% Small	57	63	40	52
	Pearson χ^2	0.174	1.31	0.123	1.99
	<i>P</i>	0.677	0.252	0.27	0.158
Responded within a day	% Large	36	50	48	
	% Small	13	50	71	
	Pearson χ^2	1.59	0	1.22	
	<i>P</i>	0.208	1.00	0.27	
Opened with 'dear'	% Large	77	79	87	
	% Small	88	90	50	
	Pearson χ^2	0.419	0.64	5.37	
	<i>P</i>	0.518	0.424	0.021	
Addressed customer by name	% Large	62	71	97	
	% Small	100	100	75	
	Pearson χ^2	4.36	3.28	4.25	
	<i>P</i>	0.037	0.07	0.039	
Thanked customer	% Large	89	82	94	88
	% Small	50	80	63	65
	Pearson χ^2	5.54	0.02	5.49	7.32
	<i>P</i>	0.019	0.881	0.019	0.007
Closed politely	% Large	85	93	90	
	% Small	100	70	50	
	Pearson χ^2	1.4	3.37	7.02	
	<i>P</i>	0.24	0.66	0.008	
Addressed the call to action	% Large	64	71	87	
	% Small	89	100	50	
	Pearson χ^2	1.98	3.28	5.37	
	<i>P</i>	0.160	0.07	0.021	
Closed with sender's name	% Large	89	89	100	
	% Small	100	100	88	
	Pearson χ^2	1.01	1.16	3.98	
	<i>P</i>	0.314	0.281	0.04	

As Table 3 shows, there was little support for the second hypothesis related to organizational size and email customer service quality. Larger organizations consistently outperformed smaller organizations in responding and thanking the customer, significantly so with thanking. The results were mixed, however, on the other criteria. Smaller organizations tended to outperform larger organizations in 2001 and 2002, but by 2003 larger organizations had the upper hand. In general, large organizations improved their customer service over the three years while small organizations showed no trend.

Conclusions

Managerial Implications

The results over three years offer fruitful practical suggestions. Most importantly, SMEs can replicate or exceed the service level offered by their larger counterparts by paying attention to online service recovery. With relatively minor tweaks to their websites, they can offer the same online complaint options to their customers.

The response rate in the third year highlights that SMEs can gain an immediate competitive advantage by simply responding to the email. Yet the larger organizations' improvements in service quality over the three years suggest that SMEs may lose a competitive advantage unless they improve their email service quality.

Organizations that use email for customer service or resolving complaints should promptly forward the email to the appropriate person or department. Given the differences that these studies found in email quality, SMEs that follow online business communication principles stand to gain a competitive advantage over their larger rivals. For example, beginning the message with two simple words – thank you – suggests the company understands the customer's problem, has a positive attitude to remedy the situation, and will attempt to learn from the complaint in order to adjust organizational behavior.

SMEs should analyze current emails and, based on their analysis, establish a Frequently Asked Questions (FAQ) section on their websites (UN, 2001). The SMEs should also craft template email answers that include polite greetings, thanking the recipient, addressing the recipient by name, answering the questions, and identifying the organization as well as the sender (Murphy and Tan, 2003; Strauss and Hill, 2001; Zemke and Connellan, 2001). A study of online service failure concluded that retailers should use personalized and customised messages 'to reach beyond their inherently impersonal and mechanical environments to begin establishing the customer trust and commitment that relationship marketing calls for' (Holloway and Beatty, 2003, p. 102).

Customer complaints give organizations diagnostic and prescriptive information for improving their customer service (Berry and Parasuraman, 1991). Periodic tests of online customer service are another diagnostic tool. Similar to hotels and restaurants using mystery shoppers, SMEs could send 'mock' complaints to themselves via web forms and emails. Monitoring the replies over time would measure changes in an organization's electronic customer service.

Academic Implications

This study adds to the sparse body of research on email service recovery and organizational diffusion of Internet technologies. Although many authors investigate e-commerce metrics (Straub *et al.*, 2002a, b), their research tends to focus on websites rather than email. This research introduces eight possible measures related to organizational use of email in the service recovery process, which help answer calls for metrics of electronic service (Cox and Dale, 2001; Rust and Lemon, 2001).

The analysis reveals intriguing results with regard to diffusion of innovations. Larger companies had significantly more websites and feedback mechanisms on

those sites. These two measures reflect *initiation* to Internet technologies and are in line with diffusion research showing that large organizations tend to adopt innovations before small firms. Larger organizations have more resources for strategic planning (Rogers, 1995; Schumpeter, 1947), and benefit from economies of scale (Kimberly and Evanisko, 1981).

With the exception of thanking the customer, though, smaller companies seemed to outperform larger companies in 2001 and 2002 on measures that reflect *implementing* Internet technologies. These results resonate with Dholakia and Kshetri's (2004) emphasis on considering the phase of adoption. Perhaps by 2003, larger organizations had moved beyond SMEs in the implementation of email customer service.

This study also identified poor email customer service as an assimilation gap in the adoption of email, which underscores the need for future organizational research emphasizing phases of adoption. 'The concept of assimilation gaps for IT innovations raises serious questions about the worthiness of researchers' traditional focus on merely nominal organizational adoption' (Ramiller and Swanson, 2003, p. 27).

Future Research

The mixed results regarding organizational size suggest several future research avenues. Future research should investigate if large businesses are faster at introducing new technologies, while SMEs apply these same technologies better. As this study used small samples, replicating this study with greater complaint numbers, respondents in different countries, and additional response quality variables should provide richer results. Greater complaint numbers would also ameliorate the effects of the two-year separation gap between the first and last data collections, a potential concern when drawing conclusions.

Future research should incorporate experimental methods to move beyond descriptions and towards causal explanations. For example, would organizations provide a better response to a complaint stemming from a corporate email address than from a free 'Yahoo!' or 'Hotmail' email address? Similarly, would the sender's name, subject heading, copy, or format of the email influence responses? Does the industry or product category play a role, for example, sensory (clothing, shows, or cosmetics) versus non-sensory products (Cho *et al.*, 2002)?

Research suggests that customers prefer synchronous channels such as face-to-face communication or the telephone to seek redress, while they choose asynchronous channels – letters and emails – to vent their frustrations (Mattila and Wirtz, 2004). The lack of rapid response mechanisms can increase the intensity of a complaint (Cho *et al.*, 2002). Future research should therefore incorporate other electronic communication channels such as electronic feedback forms, online chat sessions with an organization's representatives, and electronic surveys (Shaw and Craighead, 2003). Would an organization's response differ depending on the type of complaint and medium chosen? Similarly, would consumer reactions to an organization's service recovery efforts differ depending on the complaint type?

Although not causal, there may be relationships between an organization's website features and its email responses. Combining the results of the email survey with

structural website metrics (Scharl, 2000) and content analyzes (Krippendorff, 1980; McMillan, 2000) would paint a better picture of an organization's approach towards online communication (Murphy *et al.*, 2003a). Such an integrated approach also documents organizational efforts to embed the World Wide Web in the marketing mix, such as online registration for email newsletters and mobile information services (Scharl *et al.*, 2005).

Does customer service vary across communication channels? Previous research found 'that companies deal better with customers over the phone than via email' (Meador, 2002, p.11), and that email was less effective than face-to-face communication for resolving conflicting views (Wilson, 2002). Future projects should compare customer service across traditional channels, email, and emerging technologies such as mobile communication (Barwise and Strong, 2002) and interactive television (Lekakos and Giaglis, 2004). In this study, complainers used email as the sole communication channel. Measuring the degree to which respondents choose to use email for complaints when other channels are available would extend this research.

Finally, this research occurred in Australia, a predominantly Western culture. Drawing upon cultural values (Hofstede, 1991), would the results differ in an Eastern society? Eastern consumers tend to obey authority and are more likely to accept discord and friction from organizations than Western consumers (Liu and McClure, 2001). Research has also shown cultural differences with regard to website content (Zhao *et al.*, 2003), and its perception by consumers (Chua *et al.*, 2002).

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