

Association for Information Systems AIS Electronic Library (AISeL)

AMCIS 2009 Proceedings

Americas Conference on Information Systems
(AMCIS)

2009

ICT, the Changing Line of Visibility, and Customer Impressions of Organisational Competencies

Mary Tate

Victoria University, Mary.tate@vuw.ac.nz

David Johnstone

Victoria University, David.johnstone@vuw.ac.nz

Follow this and additional works at: <http://aisel.aisnet.org/amcis2009>

Recommended Citation

Tate, Mary and Johnstone, David, "ICT, the Changing Line of Visibility, and Customer Impressions of Organisational Competencies" (2009). *AMCIS 2009 Proceedings*. 682.

<http://aisel.aisnet.org/amcis2009/682>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2009 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

ICT, the Changing Line of Visibility, and Customer Impressions of Organisational Competencies

Mary Tate

School of Information Management
Victoria University of Wellington
Wellington, New Zealand
mary.tate@vuw.ac.nz

David Johnstone

School of Information Management
Victoria University of Wellington
Wellington, New Zealand
david.johnstone@vuw.ac.nz

ABSTRACT

This paper describes a study using mystery shoppers across multiple channels which investigated the traditional ‘line of visibility’ from service quality literature, and customer perceptions of organisational competencies “below the line”. We posited that in a multi-channel e-commerce environment, inconsistency or service breakdown above the line of visibility gives a negative impression of organisational competence below the line. We found that our multi-channel customers, using a mixture of face-to-face and ICT (information communication technology) channels, formed positive and negative impressions of a range of organisational competencies, and made comparisons between the service levels provided across different channels. We also found that ICT-mediated channels can create an emotional connection with customers; customers prefer to have a choice as to whether to use self-service channels or not; and that customers expect staff members to be empowered not restricted by ICTs.

Keywords

Line of visibility, multi-channel, customer satisfaction, ICT.

INTRODUCTION

In a multi-channel environment, delivering quality customer experiences requires a commitment from all levels of the organisation, not simply from customer-facing staff. Integrated internal resource systems and processes, supported by appropriate organisational culture, values and training, are required to provide consistent quality in customer experiences across multiple channels (Barua, Konana, Whinston and Yin, 2001; Goersch, 2002; Tate and Hope, 2004).

Each channel in a multi-channel environment provides a point of contact with the organisation, the ‘visible’ face of the organisation. Collectively, they form a ‘line of visibility’ between the customer and the organisation. As a result of self-service channels, the line of visibility has become increasingly ‘see-through’. At the same time, it is developing cracks resulting from inconsistent customer experiences across multiple channels. Customers can see, directly or indirectly, much more deeply into an organisation’s core infrastructure, systems, processes, and values than ever before. This creates new challenges and opportunities for organisations trying to deliver consistent quality in their customer experience.

This study builds on a previous study which examined customer perceptions of organisational competencies in a multi-channel environment (Tate, Hope and Johnstone, 2006). We found that customers formed positive and negative impressions of organisational resource systems based on the quality and consistency of their experiences across multiple channels. In this, the second phase of the study, we aimed to focus on customer perceptions of the contribution of ICT to consistent multi-channel delivery of service quality.

This paper is organised as follows. First we review the concept of the line of visibility from service delivery literature, and apply it to a research framework from multi-channel e-commerce research to develop our theoretical propositions about the changing line of visibility. Then we describe our methodology for testing our propositions, using data collected by mystery shoppers operating across multiple channels. Next we analyse our data and compare them to our theoretical propositions to determine the extent to which our propositions were supported. We finish with the limitations of the study, and some concluding remarks.

LITERATURE REVIEW

The Line of Visibility

The 'line of visibility' is a theoretical line between an organisation and its customers. The line is comprised of a series of points at which an organisation touches its customers (Zeithaml, Parasaman and Berry, 1990). In the past, service was delivered by front-line staff, but increasingly, customer contact points utilise a wide range of technologies and channels. New channels, especially ICT-mediated self-service channels such as the Internet, are changing the nature of the line of visibility. More contact points are being added, many organisations have 24x7 availability, and customers are increasingly interacting with an information system via a human computer interface, rather than with an employee of the organisation (Cox and Dale, 2001).

Value Creation in an ICT-mediated Multi-channel Environment

E-commerce research has established the importance of internal organisational processes in leading to customer outcomes, and ultimately business outcomes, based on value creation (Barua et al., 2001). Developing operational strategies based on integrating these internal processes across many channels should create value in terms of improved service quality. This, in turn, generates business value creation. Barua et al.'s models establish a link between a range of internal resource systems (part of what the authors refer to as 'organisational competencies'), and customer satisfaction and retention.

In this study we examine these competencies from the perspective of the multi-channel customer, particularly within an ICT-mediated environment.

Organisational Competencies - Overview

Multi-channel organisations need to maintain consistent quality in the service delivered to their customers. There is an important difference between *presented brand* (represented by external communications such as advertising, slogans, and images) and *delivered brand* (represented by the customer's experience with the company) (Berry, 2000). The importance of delivered brand strengthens with each contact with the company, to become the dominant factor over time. As Berry notes, "A presented brand cannot ...rescue a weak service" (2000, p.130). Further, quality and commitment must be more than skin-deep. To possess a strong service brand, an organisation must have clear and deeply embedded values that are *lived* by the staff (Berry, 2000; Chernatony, Drury and Segal-Horn, 2003). Such total commitment has been referred to as the *internal brand* (Chernatony et al., 2003).

Based on a review of electronic commerce and service branding literature, we identified the essential organisational competencies for managing internal resource systems and achieving consistent service delivery. These are divided into three main areas: organisational culture and internalised brand values, quality management of internal resource systems, and consistency and quality in the customer experience. Each area is further divided into specific competencies.

Organisational Culture and Internalised Brand Values

This is the internal brand and culture of the organisation, which is built by training and reinforcement, and projects an emotional connection to the customer. This requires the following competencies:

Internal training and reinforcement: Creating a strong internal brand requires extensive staff training and development, in conjunction with internal marketing (Chernatony et al., 2003; Gronroos, 1994).

Emotional connection: From the customer perspective, a strong service brand is often associated with a sense of emotional connection to the organisation because the brand captures and communicates customer values. Staff and services at all levels of the organisation must appear to hold these values for this to be effective (Berry, 2000).

Quality Management of Internal Resource Systems

These are the back-office, or internal resource systems which must be managed consistently in order to maintain quality and consistency across multiple channels:

Functional Integration: This represents the degree to which channels share common organisational resources within a multi-channel environment. For example, channels could share functional departments such as finance, marketing, and logistics (Barua et al., 2001; Goersch, 2002; Lee and Whang, 2001; Schoenbachler and Gordon, 2002; Steinfield, Bouwman and Adelaar, 2002; Willcocks and Plant, 2001). It is important for business units to also share 'emotional integration', that is, to subscribe to a shared identity and meaning (Ghoshal and Gratton, 2002).

Information Management: This can be defined as the process by which information is collected, stored, analysed, and applied (Willcocks and Plant, 2001). Good information management requires integration of information systems in three areas: application infrastructure (payment transaction processing), internal and external communications infrastructure, and IT management (Weill and Vitale, 2002).

Quality Process Engineering: This competency refers to the development and maintenance of appropriate, standardised procedures for marketing, selling, and distributing goods or services. Quality processes are especially important in organisations that either do most of their selling remotely, or sell experience goods. For experience goods, consistency between presentation and customer experience of sensory elements such as colour and texture are important (Barua et al., 2001).

Consistency and Quality in the Customer Experience

These are the competencies that lead to consistent customer service and service delivery across multiple channels:

Channel Synergy: This competency is defined as the degree to which multiple channels consistently provide a seamless communication and purchasing experience for customers (Reardon and McCorkle, 2002; Schoenbachler and Gordon, 2002; Simons, Steinfield and Bouwman, 2002; Steinfield et al., 2002). Channel synergy provides the customer with ease of movement across channels, so pricing and inventory information must be consistent (Goersch, 2002).

Logistics Management: In a multi-channel strategy, logistics management involves the ability to effectively and efficiently fulfil orders arising from multiple sources. Of particular importance is order fulfilment on remote selling channels, as these are the most expensive (Lee and Whang, 2001; Pyke, Johnson and Desmond, 2001).

Customer Management: This competency describes a company's ability to process customer information and offer customer service in a manner likely to foster and retain customer loyalty (Barua et al., 2001; Lee and Whang, 2001; Schoenbachler and Gordon, 2002; Steinfield et al., 2002; Simons et al., 2002; Kaufman-Scarborough and Lindquist, 2002). It is important because company profits can be dramatically increased from small increases in customer retention rates (Winer, 2001). Inconsistent customer management policies and processes can create poor experiences and cause customers to switch to another organisation.

Brand Management: In a multi-channel context, brand management is defined to be a firm's ability to reinforce and leverage a consistent brand image across channels (Goersch, 2002; Willcocks and Plant, 2001; Kocas, 2003; Bitner, Ostrom and Meuter, 2002). Multi-channel firms can obtain advantage over single channel firms by having more customer interfaces, allowing increased brand visibility and marketing economies of scale, applying to any combination of internal, presented and delivered brands (Schoenbachler and Gordon, 2002). Building a strong service brand requires a track record of delivering on promises, for example, meeting promised delivery times, and reliability across all customer contacts (Bitner, Brown and Meuter, 2000).

RESEARCH FRAMEWORK

In this section, we develop our research framework by applying the organisational competencies required in an ICT-mediated multi-channel environment to the 'line of visibility' between the organisation and the customer.

If we apply the 'line of visibility' from service quality literature to our ICT-mediated multi-channel framework, it occurs between the internal resource systems, including the consistent delivery of customer service, and the point where the customer has a contact with the organisation (Figure 1).

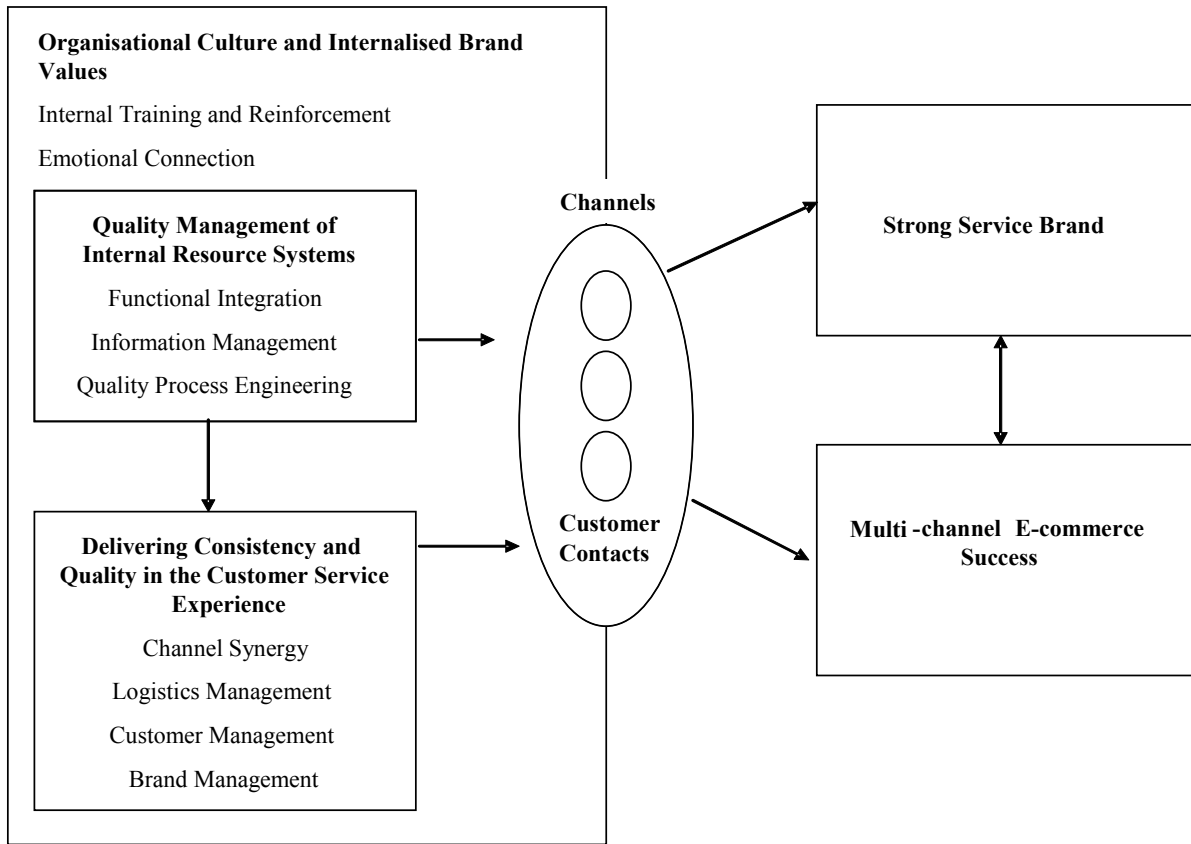


Figure 1. Organisational Competencies and Customer Contact with the Organisation

Further, multi-channel e-commerce increases the number of customer contact points on the line of visibility (Figure 2). Increasingly, face-to-face organisations are supplementing their channel mix with kiosks, contact centres, and websites to form multi-channel marketing and sales organisations. The average number of channels used by organisations implementing multi-channel B2C business models is 4.2 channels (Day and Hubbard, 2002).

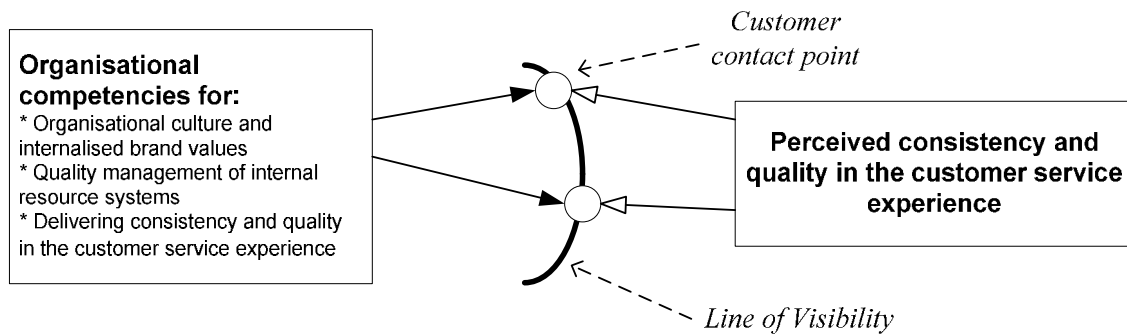


Figure 2. Customer Contact Points on the Line of Visibility

An increase in the number of channels to include call centres and websites can create a stronger ‘anywhere, anytime’ line of visibility, but it also creates new opportunities for service breakdowns. Customers can, and will, interact across multi-channels and expect to have a consistent experience. Inconsistent service at different points along the line of visibility has the potential to create a negative impression of the organisation’s internal resource systems (Figure 3).

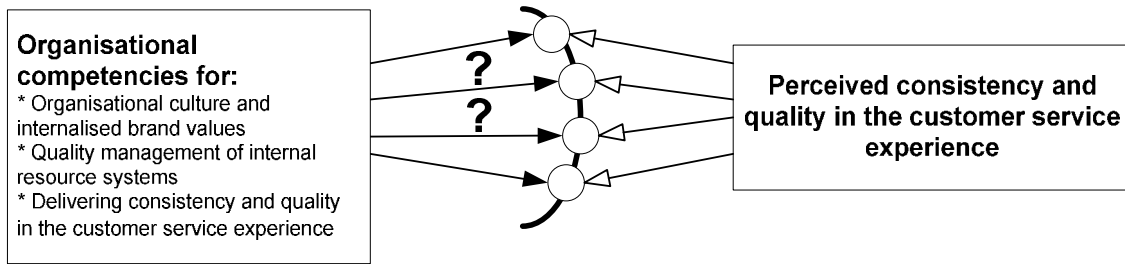


Figure 3. Multi channels Create Opportunities for Inconsistencies and Service Breakdowns

Self-service channels provide direct customer access to the organisation’s information systems. Effectively, this means that the line of visibility becomes permeable. The customer can ‘see through’ into selected subsets of the organisation’s information systems (Figure 4).

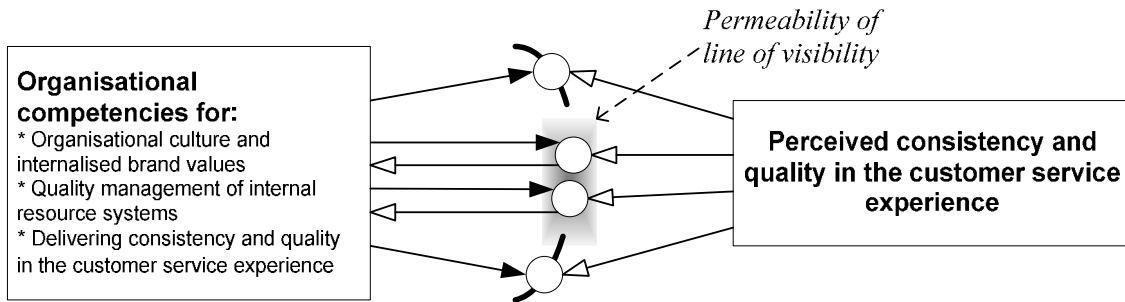


Figure 4. Self-service ICT mediated Channels Make the Line of Visibility Permeable

RESEARCH PROPOSITIONS

We developed research propositions to act as focussing questions for our exploratory research and consequent data analysis.

Proposition 1: Customers are more likely to compare their experiences across multiple channels if they are not satisfied.

We explore the nature of inconsistent multi-channel experiences by identifying and analysing explicit cross-channel comparisons made by customers. We suggest that customers are more likely to make explicit comparisons with their experiences in other channels if they are not satisfied with the encounter.

Proposition 2: Customers will form positive and negative impressions about a range of organisational competencies previously considered below the line of visibility as a result of interacting in a multi-channel environment.

More specifically, we aim for an understanding of the extent to which customers attribute their positive and negative service impressions to a range of ‘below the line’ organisational competencies.

Proposition 3: Positive or negative encounters via self-service channels are more likely to be attributed to organisational competence with processes and information systems, while positive or negative encounters via human-mediated channels are more likely to be attributed to training and an emotional connection.

This explores the different impressions gained from interacting with human-mediated and ICT-mediated channels.

Proposition 4: Back-end information systems will be visible, and will influence customer perceptions, in above the line interactions across a range of channels.

We posit that the permeability of the line of visibility will make back-end information systems visible to the customers and influence their impressions of the organisation.

METHODOLOGY

This research employs a positivist assumption to guide the research design, data collection, and data analysis. The research framework is built upon a set of theories and assumptions identified in the literature, but the emphasis remains with the holistic view. Within a positivist paradigm, a qualitative approach is adopted for data analysis. The words and detailed views of the participants are analysed, and the study is conducted in a natural setting (Cresswell, 1994). The holistic nature of the phenomenon, incorporating a host of factors and complex interactivity, and the exploratory nature of the research, suggests a qualitative approach is more appropriate.

Research Design

Eleven research participants mystery-shopped one organisation each for one month (a total of eleven organisations and sixty-six individual encounters). Each participant was requested to interact a minimum of six times across a minimum of two channels, with an organisation that they had an existing relationship with.

Organisations included two public-sector organisations, two banks, a telecommunications company, a music shop, an electronics hobby shop, a ferry company, a pizza company, a cable entertainment company, and an online auction company. Participants were asked to record their interactions in a journal. For each encounter, they were asked to record: the name of the organisation, and any other relevant contact information (e.g. address, URL); when, where and how they contacted the organisation (or the organisation contacted them); the purpose of the interaction; whether that purpose was achieved; how satisfied they were with the interaction (not satisfied, partly satisfied, or completely satisfied) and why (or why not); what aspects of the organisation they felt had contributed to the outcome, and what impressions they had formed as a result. After the data was collected, the encounters were analysed. Statements were coded using pattern-matching with a list of categories established in our literature review and framework development. Additional categories were created if required. One new category was added: 'staff'. This was used where the behaviour of individual staff members was commented on, for example "the lady I talked to was really nice", or "the salesman seemed really knowledgeable".

Each encounter was coded according to whether it was human-mediated, self-service, or ICT-mediated but not self-service, and for any specific organisational competencies that were commented on. The operational definitions of the codes were collegially tested and, after some discussion, adjusted slightly for clarity. Human-mediated encounters included face-to-face dealing, e-mail responses that were not automated, and call-centre interactions with human operators. Self-service included internet, automatic teller machines (ATMs), and drop-box transactions. ICT-mediated encounters included contact initiated by information systems without any (visible) human mediation, such as computer-generated e-mails and letters. We identified coded encounters that showed clear evidence of the use of back-end information systems for further analysis; for example product databases, records of previous transactions, or account information. We identified encounters where participants had made explicit comparisons between channels, for example "this is so much better than going into the store" when describing a website enquiry.

Following initial coding, we carried out meta-analysis across all encounters with all organisations, to identify trends and exceptions.

RESULTS

Overview

Overall, there were more satisfactory encounters (42, or 66% of the total) than unsatisfactory encounters (15, or 22%), with the remainder being reported as partly satisfied. Satisfactory encounters were fairly evenly split between human-mediated and self-service encounters, while the majority of unsatisfactory encounters were human-mediated. A summary is provided in Table 1.

Satisfaction	Self-Service	Human	ICT only
Yes	21	17	4
Partly	2	7	0
No	3	12	0

Table 1. Customer Multi-channel Encounters, Comparing Satisfaction with Organisational Mode of Interaction

Cross-channel Comparisons

Approximately 40% of all encounters did not involve explicit comparisons. Of these, the majority were good experiences; the remainder were from two poorly regarded organisations, where each of the customers had consistently poor experiences. On the whole, a failure to make explicit comparisons appears to be associated with consistently good (or poor) experiences.

In 60% of cases, the participants made explicit comparisons between the reported encounter and their experience of dealing with the organisation via a different channel. Overall, a somewhat higher proportion of negative experiences (66%) attracted explicit cross-channel comparisons than positive experiences (40%). Satisfied participants making cross-channel comparisons were slightly more likely to have been using a self-service channel than a human-mediated channel, while unsatisfied participants were much more likely to have been using a human-mediated channel than a self-service channel. These results are summarised in Table 2.

Satisfaction	Explicit Comparisons Made			No Comparisons Made		
	Self-Service	Human	ICT only	Self-Service	Human	ICT only
Yes	12	7	0	8	11	1
Partly	1	5	0	1	2	0
No	2	8	0	1	3	0
TOTALS	15	20	0	10	16	1

Table 2. Customer cross-channel comparisons

Positive and Negative Impressions of Organisational Competencies

Positive impressions of organisational competencies were usually associated with satisfactory encounters. However, there were some exceptions to this, where customers had a positive impression of the organisation’s processes and information systems, despite being dissatisfied with the encounter overall. The most “visible” below the line competencies appear to be information management, process engineering, and the degree of emotional connection between the customer and the values of the organisation. Functional integration, logistics, and brand management were the least commented on. In the case of logistics, this is likely to be a characteristic of the sample included in this study, because relatively few of the encounters selected by participants required separate fulfilment.

Customer management, brand management and training were more likely to be commented on negatively if they were noticed at all, while information management and process engineering were more likely to be commented on positively. Other factors attracted approximately equal numbers if positive and negative comments. The most variability, in terms of positive and negative comments and the perceived contribution of that factor to the service encounter, was demonstrated by staff and the emotional connection demonstrated by the organisation. A summary is provided in Table 3.

Satisf	Staff?		Functional Integration		Information Management		Process Engineering		Channel Synergy	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Yes	11	1	2	0	19	2	16	3	5	1
Partly	3	1	0	0	2	2	2	2	0	1
No	0	6	0	1	1	4	1	4	0	2

Satisf	Logistics		Customer Management		Brand Management		Training		Emotional Connection	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Yes	3	1	4	6	0	0	3	2	9	6
Partly	0	0	3	2	0	2	0	1	4	1
No	0	1	0	8	0	1	0	6	0	7

Table 3. Customer Satisfaction by Organisational Competencies

A Comparison of Positive and Negative Impressions of Organisational Competencies for Human-mediated, ICT and Self-service Channels

People-related organisational competencies, such as training and the ability to give a sense of emotional connection were mostly associated with human-mediated channels, or with the behaviour of individual staff members, while competency in information management and process engineering was mostly associated with self-service and automated channels. However, many participants reported feeling an emotional connection after using a self-service channel (Table 4).

Satisfaction	Staff		Training		Emotion Connect		Info Mngment		Process Eng		
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	
Human	Yes	11	1	3	2	1	2	2	2	3	3
	Partly	3	1	0	1	4	1	2	2	1	2
	No	0	6	0	6	0	6	1	2	1	3
Self-Service	Yes					7	1	16	0	14	1
	Partly					0	0	0	0	0	0
	No					0	0	0	2	0	1

Table 4. Positive and Negative Impressions of Organisational Competency for Both Human-mediated and Self-service Channels.

A self-service channel generally stands or falls depending on the design, reliability, responsiveness, usability, and other quality features of the underlying ICT. What is interesting is that information systems are perceived as contributing both positively and negatively to the outcome of encounters via human-mediated channels as well.

ANALYSIS

Proposition 1: Customers are more likely to compare their experiences across multiple channels if they are not satisfied.

This proposition was weakly supported. Overall, a somewhat higher proportion of negative experiences (66%) attracted explicit cross-channel comparisons than positive experiences (40%). Participants commented on the convenience of self-

service compared to human-mediated channels, including not having to deal with staff members, and time and cost savings: “I didn’t have to deal with staff, my questions were answered in the FAQ’s.” [Online auction].

Unsatisfied participants were slightly more likely to have been using a human-mediated channel, and to compare it unfavourably to a self-service channel. “They [sales staff] couldn’t interrupt their conversation, I’m impatient, I should look it up online.” [Hobby electronics]. Possible explanations include: an increasing propensity to use technology-based channels with greater comfort; or difficult customer interactions, that cannot be adequately handled on-line, may be allocated to staff for resolution, but with a greater likelihood of dissatisfaction with the outcome.

We also found both positive and negative impressions were reinforced by cross-channel comparisons. A customer, who loved the shop, also loved the catalogue: “I really like the catalogues more than anything. I prefer looking at the products on paper [to instore]. I can take it home and drool.” [Hobby electronics]. The participant loved the website even more, “I REALLY like the website. I like it more than the product catalogue.” Conversely, a customer dissatisfied with a human-mediated encounter found it simply reinforced their negative impressions of the organisation, and did not regard a self-service channel as a credible alternative, “I can’t be bothered wading all the way through their stupid and laggy website just to try and find some information they could give to me.”

Proposition 2: Customers will form positive and negative impressions about a range of organisational competencies previously considered below the line of visibility as a result of interacting in a multi-channel environment.

The competencies in our research framework were all explicitly commented on. All attracted both positive and negative comments; apart from brand management, which attracted relatively few comments, but all of them were negative. As expected, positive impressions of organisational competencies were largely associated with positive experiences, and negative perceptions with negative experiences, but there were exceptions.

Proposition 3: Positive or negative encounters via self-service channels are more likely to be attributed to organisational competence with processes and information systems, while positive or negative encounters via human-mediated channels are more likely to be attributed to training and an emotional connection.

This was largely supported. As one might expect, competency in information management was associated with 72% of successful self-service encounters and competency in process engineering with 63% of successful self-service encounters. Perceptions of self-service encounters were also largely positive where the participants were not satisfied with only 11% of the reported encounters.

There were some interesting exceptions. In particular, our participants made a clear distinction between the actions and attitudes of individual staff members, and the organisational information systems, customer management systems, and processes that supported them. In human-mediated encounters, staff members could be enhanced by the quality of organisational systems and processes, or diminished by the quality of organisational systems and processes, or be the weak link in otherwise good systems and processes. All these combinations occurred. In this encounter, the individual staff member is sympathetic, but is not backed by follow-up processes.

“I was very satisfied with this email, she seemed to confirm what we were worried about, and was very prompt; I felt by the tone of her email that she personally cared about our query. Unfortunately though, we received no reply back, [from the part of the organisation the query had been referred to], which made me lose confidence in email.” [Government agency].

The other unexpected finding is that completely self-service systems can generate a strong sense of emotional connection. Time-saving and convenient self-service processes were taken as evidence that the organisation cared about their customers. “[The bank] has a focus on finding the easiest and most time efficient method of banking for its customer. I used the ‘Fast Deposit’ box which meant I didn’t have to queue for service from a teller.”

Similarly, well designed, fast and responsive websites were appreciated as evidence of customer-centredness, not just taken for granted. “Search and browse was really easy and well laid out. Fast for 56K modem as well!” [Hobby electronics].

Proposition 4: Back-end information systems will be visible, and will influence customer perceptions, in above the line interactions across a range of channels.

This proposition is strongly supported. Our study included a large proportion of self-service encounters, where the participants were satisfied (one third of all encounters), and felt that information management contributed to the outcome (one quarter of all encounters). This means that previously ‘below the line’ technical competencies such as use of search engines; and system generated events, such as status notifications and order tracking; are now visible and create positive and negative perceptions.

The relatively high visibility of information systems supporting human-mediated service encounters is interesting. Nearly one third of service encounters mediated by a person (personal telephone response, personal e-mail response, and face-to-face), attracted comment on the quality of the supporting information systems; with approximately equal numbers of positive and negative comments.

DISCUSSION

Our research propositions gained mixed support, but the analysis yielded many interesting insights into the line of visibility in a multi-channel environment, and the role of ICT in particular. We found similar themes emerging through several of our analyses, which provides some triangulation of our results and gives additional confidence in our findings.

Multi-channel shoppers will, as expected, compare inconsistent experiences across channels. However, they also compare consistently good or consistently poor experiences to reinforce existing impressions. Some of the most passionate statements in our study came at the end of a series of good experiences across multiple channels, “I really like them, I’d like to work there”, and a series of poor experiences, “I’d like to shoot them all”.

Self-service channels supported by information systems can generate satisfaction, loyalty and a strong emotional connection. Our study suggests that individual staff, dealing face-to-face, are often unable to do this; especially when they are unsupported by inadequate systems and processes. Their customers are painfully aware when staff are let down or disempowered by information systems. Customers expect that staff will be able to add value to the information that is readily available to them (the customer). Staff that could not were dismissed as “robots” and “order-takers”.

Insights from the small number of unsatisfactory self-service outcomes suggest that it is frequently resented when customers perceive it is forced upon them. Self-service should be a choice, and it should be initiated by the customer. Automated (ICT-generated) contacts such as standard letters were deeply resented unless they were follow-ups to some action the customer had already taken.

Increasingly, customers are reaching through the line of visibility to serve themselves via the organisation’s information systems, and are just as influenced by the care and attention put into their design as they are by the attentiveness of staff members. Customers expect that if they have access to the organisation’s information systems, then surely the organisation’s staff will have access to information that is at least as good or better. Sadly, this expectation is not always fulfilled.

CONCLUSION

Customers are increasingly aware that self-service encounters are not one-off face-to-face experiences, but are supported by ICT systems and organisational processes that are expected to be consistent across multiple encounters. Customers receiving inconsistent experiences across channels were more likely to make unfavourable comparisons. The additional transparency and insight available to customers means that customers make overall judgements about an organisations service orientation based on a range of competencies. A poor overall service orientation cannot be rescued by the individual efforts of dedicated customer service staff.

The line of visibility is increasingly digital, with customers interacting with information management and ICT systems, as well as with staff members. This makes the line of visibility permeable, with customers able to utilise digital self-service channels to directly access and manipulate data stored in the organisations information systems. This blurs the distinction between front office and back office, and makes aspects of the organisation’s internal resource systems and processes visible to customers.

This means that organisations are relying on digital channels to convey values such as empathy and emotional connection with customers, which were formerly the preserve of staff members. Perhaps surprisingly, we found that some websites are able to attract a strongly positive emotional response. ICTs also need to empower customer service staff to add value to their customers. In the best organisations, human and ICT-mediated channels are working in concert to enhance customer service and customer loyalty, and to provide more options for customers to interact in a manner that best suits them.

REFERENCES

1. Barua, A., Konana, P., Whinston, A. B. and Yin, F. (2001) Driving e-business excellence, *MIT Sloan Management Review*, 23, 1, 36-44.
2. Berry, L. (2000) Cultivating service brand equity, *Academy of Marketing Science Journal*, 28, 1, 128-137.
3. Bitner, M. J., Brown S. and Meuter, M. L. (2000) Technology infusion in service encounters, *Academy of Marketing Science Journal*, 28, 1, 138-149.

4. Bitner, M. J., Ostrom, A. L. and Meuter, M. L. (2002) Implementing successful self-service technologies, *Academy of Management Executive*, 16, 4, 96-109.
5. Chernatony, L., Drury, S. and Segal-Horn, S. (2003) Building a services brand: Stages, people and orientations, *The Services Industry Journal*, 23, 3, 1-21.
6. Cox, J. and Dale, B. G. (2001) Service quality and e-commerce: An exploratory analysis, *Managing Service Quality*, 11, 2, 121-131.
7. Cresswell, J. (1994) *Research design: Qualitative & quantitative approaches*, Thousand Oaks, California.
8. Day, G. S. and Hubbard, K. J. (2002) Customer relationships go digital, *Business Strategy Review*, 14, 1, 17-26.
9. Ghoshal, S. and Gratton, L. (2002) Integrating the enterprise, *MIT Sloan Management Review*, 44, 1, 31-38.
10. Goersch, D. (2002) Multi-channel integration and its implications for retail web-sites, in *European Conference on Information Systems*, Gdansk, Poland.
11. Gronroos, C. (1994) From scientific management to service management: A management perspective for the age of service competition, *International Journal of Service*, 5, 1, 5-20.
12. Kaufman-Scarborough, C. and Lindquist, J. D. (2002) E-shopping in a multiple-channel environment, *Journal of Consumer Marketing*, 19, 4, 333-350.
13. Kocas, C. (2003) Evolution of prices in electronic markets under diffusion of price-comparison shopping, *Journal of Management Information Systems*, 19, 3, 99-119.
14. Lee, H. L. and Whang, S. (2001) Winning the last mile of e-commerce, *MIT Sloan Management Review*, 42, 4, 54-62.
15. Reardon, J. and McCorkle, D. E. (2002) A consumer model for channel switching behaviour, *International Journal of Retailing and Distribution Management*, 30, 4, 179-185.
16. Pyke D. F., Johnson, M. E. and Desmond, P. (2001) E-fulfilment: It's harder than it looks, *Supply Chain Management Review*, January/February, 26-32.
17. Schoenbachler, D. D. and Gordon, G. L. (2002) Multi-channel shopping: understanding what drives channel choice, *Journal of Consumer Marketing*, 19, 1, 42-53.
18. Simons, L. P. A., Steinfield, C. and Bouwman, H. (2002) Strategic position of the web in a multi-channel market approach, *Internet Research*, 12, 4, 339-347.
19. Steinfield, C., Bouwman, H. and Adelaar, T. (2002) The dynamic of click-and mortar electronic commerce: Opportunities and management strategies, *International Journal of Electronic Commerce*, 7, 1, 93-119.
20. Tate, M. and Hope, B. (2004) The importance of service branding in multi-channel e-commerce success: Towards a research framework, in *Australian Conference on Information Systems*, Hobart, Australia, 6 pages.
21. Tate, M., Hope, B. and Johnstone, D. (2006) ICT, multi-channels and the changing line of visibility: An empirical study, in *Proceedings of the Thirty-ninth Hawaii International Conference on System Sciences*, January 4-7, Kauai, HI, USA, 10 pages.
22. Weill, P. and Vitale, M. (2002) What IT infrastructure capabilities are needed to implement e-business models, *MIS Quarterly Executive*, 1, 1, 17-34.
23. Willcocks, L. P. and Plant, R. (2001) Pathways to e-business leadership: Getting from bricks to clicks, *MIT Sloan Management Review*, 42, 3, 50-59.
24. Winer, R. S. (2001) A framework for customer relationship management, *California Management Review*, 43, 4, 89-104.
25. Zeithaml, V., Parasaman, A. and Berry, L. (1990) *Delivering quality service: balancing customer perceptions and expectations*, The Free Press, New York.