Abstract

In recent years a growing body of service management literature investigating on-stage customer-to-customer interaction (CCI) has emerged. This literature, however, has concentrated overwhelmingly on the interaction that occurs between customers in physical service settings. This paper explores the forms of customer-to-customer interactions that may occur in an Internet context. The term 'e-CCI' is used to refer to this type of interaction.

The paper starts by briefly reviewing the existing literature on CCI. Attention is drawn to the rapid expansion of e-service since the 1990s, and its projected growth. Given the dearth of literature on e-CCI, it is argued that this is a significant gap in our understanding of service experiences. A classification of CCI is modified to better suit the e-CCI context. It is proposed that e-services can usefully be divided into sociofugal and sociopetal groups. The paper outlines a number of forms which e-CCI can take. A range of illustrations of e-CCI are provided. An agenda for future research into e-CCI is put forward.

Introduction

Over the last two decades, service management researchers have paid increasing attention to the diverse relationships that may occur in the production, delivery and consumption of services. Whilst the firm - customer relationship, sometimes called the focal relationship, has been the main relationship studied, it is not the only relationship. In recent years one relationship which has started to receive more serious treatment is the customer-to-customer relationship. A significant factor behind this development is the rise of the relationship marketing paradigm to challenge the conventional marketing paradigm and, in particular, the increasing acceptance that consideration of a wide range of interactions and relationships (and their inter-connections) contributes to achieving greater realism in marketing. The relationship marketing paradigm has brought to marketing management a theoretical foundation for going beyond the customer-supplier dyad and incorporating other relationships such as those between customers.
The customer-to-customer relationship can occur in a number of different contexts including outside, as well as inside, the service setting. This paper examines the customer-to-customer relationship within the service setting, and how these interactions can impact, sometimes critically, the level of customer (dis)satisfaction. This specific focus in no way denies the significance of customer-to-customer relationships outside the actual service setting. There is an extensive literature on word-of-mouth communications¹, most of which occur outside the service setting itself. Customer-to-customer encounters and interaction within the service setting have been usefully described as ‘on-stage’ and those outside as ‘off-stage’². In this paper the term customer-to-customer interaction (often abbreviated to CCI) will be used to refer to these on-stage interactions. The term ‘e-CCI’ will be used to refer to the virtual or electronic world’s equivalent of CCI.

The term “customer-to-customer interaction” (CCI) is used here to denote interactions between customers during the service encounter or in the immediate vicinity of the service. A useful conceptual framework for describing and analyzing such interactions is the notion of Customer(s) A and Customer(s) B, where the impact of the interaction is perceived from the perspective of Customer A and is based upon the behavior of Customer B. This behavior may be verbal and/or non-verbal, intentional or accidental, indeed, B may not even be aware of his behavior and/or its impact. The impact of the interaction can be seen in terms of B adding to or detracting from A’s service experience, i.e. interactions can be classified as positive or negative from A’s perspective.

The emergence of CCI as a service management topic

Comparatively few service management researchers have drawn attention to the phenomenon of CCI. Some, however, have brought it into models of service production and delivery. For example, the servuction system model, put forward in the late 1970s, incorporates the notion of customers interacting with one another. Then, following Martin and Pranter’s seminal article in 1989³, a number of empirical studies were conducted - mainly in North American or UK contexts. These studies⁴ found evidence both of the existence of CCI and of it having an impact on perceived service quality. This section examines some of the more significant studies of CCI.

Arnould and Price⁵ studied the extended service encounter of group adventure holidays and found much evidence of the evolution of a C2C community. Harris, Baron and Ratcliffe⁶

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⁴ Most of these contributions, both empirical and theoretical, are reviewed in R. Nicholls: Interactions between Service Customers: Managing On-site Customer-to-Customer Interactions for Service Advantage. The Poznan University of Economics Publishing House, Poznań 2005.
investigated spoken interaction⁷ in a UK retail setting (IKEA), and found in-store conversations between customers to be a significant phenomenon. Grove and Fisk⁸ used the critical incidents technique to research CCI in US theme parks. Nearly 60 percent of respondents cited an occasion when a visit to a tourist attraction had been significantly affected by other customers. Gruen⁹ drew attention to the importance of CCI in membership organizations, and emphasized that interdependence among members is frequently part of the core value. Harris and Baron¹⁰ investigated C2C conversations on trains. They enumerated ten clusters of observable passenger behavior and identified a number of positive, stabilizing effects of conversations between passengers. Nicholls¹¹, in the first book to be written on CCI, studied interactions between customers across an extensive range of service industries. One important outcome was an extensive classification of CCI capable of transcending specific service operations and activities. Rosembaum¹² investigated how CCI contributed to some types of service setting being perceived as third places. Baron et al.¹³ examined CCI in the context of speed dating, and provide a number of insights for the management of CCI.

Most of these CCI studies examined CCI in just one service industry, and sometimes in just one service organization. Moreover, the above mentioned studies investigated ‘physical world’ CCI. To the author’s knowledge there has been little sustained scientific study of e-CCI. This paper is an attempt to open up CCI in the ‘virtual world’ as a field of inquiry.

Customer-to-customer interaction and e-service

There is a need to explore CCI in an e-service context. This type of CCI has been labeled ‘e-CCI’ by the author¹⁴. Whilst some physical world services, for example retail banking, have their CCI level reduced or eliminated when put into an e-service format, others may have their level of CCI enriched. The Internet permits cheap communication between hundreds of millions of computers around the globe. It has brought about a revolution in the possibilities, both technical and financial, for putting consumers, whether of goods or services, in touch with each other. The last decade has seen the phenomenal growth of the internet and with it the rise of what has been labeled e-service. E-services have been described as “all interactive services that are

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⁶ K. Harris, S. Baron, J. Ratcliffe: Customers as oral participants in a service setting. “Journal of Services Marketing” 1995, No. 9, pp. 64-76.
⁷ They refer to this as “observable oral participation”.
¹¹ R. Nicholls: Interactions …, op.cit.
delivered on the Internet using advanced telecommunications, information, and multimedia technologies\textsuperscript{15}. 

An extensive literature search revealed very little e-CCI literature. Gummesson\textsuperscript{16} pays some attention to what he refers to as “virtual C2C interaction”. Jones et al.\textsuperscript{17} use a case study approach to describe CCI in the context of online betting, and make comparisons with customer experience in traditional betting shops. There is also a body of literature about online community, but this is usually closer to the off-site word-of-mouth type of C2C. Given both the growing importance of e-services and the lack of literature on customer-to-customer interaction in e-services, an exploration of e-CCI seemed a worthwhile activity. It was also a natural extension of the author’s previous work on physical world CCI.

**Conceptual contrast of e-CCI and CCI**

Physical world CCI differs from e-CCI in a number of respects. The former overwhelmingly involves face-to-face contact, is frequently involuntary, and is typically simultaneous. The latter is often characterized by anonymity, time-delay and a spirit of co-operation. As such e-CCI was considered as beyond the scope of the extensive study of CCI undertaken by Nicholls\textsuperscript{18}. It is, nevertheless, a worthy field for study.

A new service classification, entitled the customer-to-customer contact (ccc) classification has been provided by Nicholls\textsuperscript{19}. The classification, which consists of three groups, is useful for classifying services according to the presence of and/or interaction with other customers:

- **Group A**: presence of customer B is highly unusual and, generally, not desired.
- **Group B**: presence of customer B is usual but not necessary (other than economically).
- **Group C**: presence of customer B is, by definition of the service, essential. Such customer-to-customer interactions are usually a desired, planned and essential element of the service.

**Table 1.** Three categories of other customer(s) presence

<table>
<thead>
<tr>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer B's presence unusual/undesired</td>
<td>Customer B's presence usual but not necessary</td>
<td>Customer B's presence essential</td>
</tr>
<tr>
<td>pizza delivery</td>
<td>cinema</td>
<td>casino</td>
</tr>
<tr>
<td>radio taxi</td>
<td>passenger transport</td>
<td>group adventure holidays</td>
</tr>
<tr>
<td>audit</td>
<td>supermarket</td>
<td>mba class</td>
</tr>
<tr>
<td>medical consultancy</td>
<td>library</td>
<td>conference</td>
</tr>
</tbody>
</table>

\textbf{Source:} R. Nicholls: Interactions…, op. cit.


\textsuperscript{17} P. Jones, D. Hillier, D. Turner, and D. Comfort: Customer-to-customer developments in (r)etailing: A case study of betting exchanges in the UK. “Marketing Intelligence & Planning” 2004, No. 22 (7), pp. 742-750.

\textsuperscript{18} R. Nicholls: Interactions…, op. cit.

\textsuperscript{19} Ibidem, pp. 81-83.
In the case of e-CCI group B situations seem to be much rarer, if not non-existent. Accordingly a modified two group classification of other customer presence seems more appropriate for e-services. These groups can be labeled: sociofugal e-services, which separate people (group A), and thus can reduce or eliminate CCI, and sociopetal e-services, which bring customers together (group C), and thus stimulate CCI.

- **sociofugal e-services**: presence of customer B is highly unusual and, generally, not desired.
- **sociopetal e-services**: presence of customer B is, by definition of the service, essential. Such customer-to-customer interactions are usually a desired, planned and essential element of the service.

<table>
<thead>
<tr>
<th>Table 2. Two categories of other customer(s) e-presence</th>
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</thead>
<tbody>
<tr>
<td><strong>sociofugal e-services</strong></td>
</tr>
<tr>
<td>e-banking</td>
</tr>
<tr>
<td>e-insurance</td>
</tr>
<tr>
<td>e-accountancy</td>
</tr>
<tr>
<td><strong>sociopetal e-services</strong></td>
</tr>
<tr>
<td>e-mba study</td>
</tr>
<tr>
<td>e-auction</td>
</tr>
<tr>
<td>web-based house-swapping</td>
</tr>
</tbody>
</table>

**Source**: own elaboration.

**Types of e-CCI**

The following three main types of e-CCI have been identified.

1. interactions between a customer and potential customers
2. interactions between two or more customers of an e-service
3. interactions between customers and non-customers.

The first type is the electronic equivalent of word-of-mouth (WOM), and could be dubbed ‘e-WOM’ or perhaps ‘word-of-finger’. E-WOM is a common enough feature of life on the web. For example, many web sites have a facility to “click here to email details of this site to a friend”. The internet is a highly efficient means for spreading word-of-mouth. However, as most physical world WOM occurs outside the service setting itself, e-WOM is not a core issue in the present study.

The second type of e-CCI, interactions between two or more customers of an e-service, is the e-world equivalent of on-stage CCI. Some e-services create their core value through enabling appropriate C2C interaction. Typical examples are e-learning group tasks, e-auctions and on-line games. Here without C2C interaction there would be no service. Not only can physical world services be replicated and delivered remotely with major savings of time and expenditure, they may also add more value when in e-service format.

On account of the lack of situations when the presence of other customers is usual but not necessary in the e-service world, where CCI does occur it can be expected to have a greater tendency to be positive than in physical world service. But e-CCI is not without its problems, as is reflected in the growth of ‘netiquette’ to promote courtesy amongst e-service customers.

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20 There are some important differences between traditional and electronic WOM. These include scalability, measurability and trustworthiness.
The third type of e-CCI, interactions between customers and non-customers\textsuperscript{21} corresponds to CCI activities where apparent customers are engaged in activities such as hacking, sending spam, and blue-jacking. Hackers engage in such activities as breaking into the computer of other users and damaging it, or hacking into the web site of an e-service provider and causing it to malfunction. Financial crime is growing rapidly and criminals have even gone so far as to set up realistic looking but fake bank websites in order to obtain security information from customers.

Having identified and outlined three main types of e-CCI, the remainder of this paper will focus on the second type of e-CCI: interactions between two or more customers of an e-service.

**Interactions between two or more customers of an e-service: a closer look**

Following analysis of a selection of web sites involving an element of e-CCI, an attempt has been made to identify the various types of interactions between two or more customers of an e-service. These are types are labeled, described and illustrated in the following table:

<table>
<thead>
<tr>
<th>Type of interaction</th>
<th>Description</th>
<th>Web page illustrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-learning group tasks</td>
<td>Based mainly on remote group work, where customers can share files and exchange views on many different ways.</td>
<td><a href="http://www.wsb-nlu.pl">www.wsb-nlu.pl</a></td>
</tr>
<tr>
<td>Forum</td>
<td>This type of interaction is usually among a group of people that have similar interests and they can share their experiences and opinions.</td>
<td><a href="http://www.forum.nestle.pl">www.forum.nestle.pl</a>, <a href="http://www.gazeta.pl">www.gazeta.pl</a></td>
</tr>
<tr>
<td>Chat rooms</td>
<td>Similar to forums, only in this case the customers can interact only with logged in users and the interaction lasts as long as there are at least 2 users.</td>
<td><a href="http://www.mtv.com">www.mtv.com</a>, <a href="http://www.chat.gazeta.pl">www.chat.gazeta.pl</a></td>
</tr>
<tr>
<td>E-auctions</td>
<td>Goods and services are sold via internet-based bidding</td>
<td><a href="http://www.allegro.pl">www.allegro.pl</a>, <a href="http://www.e-bay.com">www.e-bay.com</a></td>
</tr>
<tr>
<td>Online games</td>
<td>Enables people to compete or gamble online</td>
<td><a href="http://www.cassinos.com">www.cassinos.com</a>, <a href="http://www.zagraj.onet.pl">www.zagraj.onet.pl</a></td>
</tr>
<tr>
<td>E-shops</td>
<td>Can create interactions between friends via wish-lists (customers register and create a personal list of wishes).</td>
<td><a href="http://www.amazon.com">www.amazon.com</a></td>
</tr>
<tr>
<td>E-brokers</td>
<td>Indirect interaction between e-service customer and other customers who can either trade online or otherwise</td>
<td><a href="http://www.bzwbk.pl">www.bzwbk.pl</a></td>
</tr>
</tbody>
</table>

**Source:** own elaboration.

The remainder of this section will illustrate e-CCI in the context of e-brokers, e-auctions and e-learning.

**E-brokers:** An interesting example of an e-broker service with a significant e-CCI element is home exchange. This service is based on creating a market where home-owners can exchange offers of house-swaps\textsuperscript{22}. One leading operator in this market is HomeLink International, which facilitates home exchanges in 69 countries. This e-service works in the following way: customers pay an annual fee for the right to place details of their home on the site. This includes the ability to choose who they will exchange with (various options can be specified experience, retired, no

\textsuperscript{21} See also R. Nicholls: *Interactions..., op.cit.*, pp. 174-176, for a discussion of the concept of the ‘non-customer’.

\textsuperscript{22} A form of tourism where tourists exchange homes with each other, either domestically or internationally, for a holiday.
children, countries/regions. These options seem, in part, connected to reducing the perceived risk associated with the exchange partner. Most of the time involved in this service is provided by the customers, the company adds value mainly by designing and maintaining a web-site which enables customers to efficiently find exchange partners and by, to some extent, validating these partners.

**E-auctions** make it possible to buy or sell just about anything over the internet. Well known sites include: www.ebay.com and www.allegro.pl. Customers can bargain with each other electronically. There are pressures to ensure positive e-CCI. Buyers and sellers grade each other after the transaction on whether the previously agreed terms were fulfilled. For example, eBay feedback works through positive, negative, and neutral ratings and comments to produce a seller score. Likewise, customers can discuss different products and share their own information and experiences through forums and chat rooms.

**E-learning:** Online universities and other study programmes often incorporate e-CCI as an important component of their value-added. This can take a variety of forms. Students may discuss key course topics with classmates via email, in the Chat Room or via computer-mediated conferencing. They can even draw on the same board at the same time (on-screen whiteboards). Such interaction is particularly useful for international courses where students may be spread around the world, or for courses for working students who are unable to take time off for traditional studies. Such systems also fulfill a social function by helping to develop a sense of student community, usually lacking from traditional distance learning. One of the world’s leading providers of e-learning with a significant e-CCI content is The Open University which has its own voice conferencing named Lyceum.

As the IT revolution continues and a new generation, brought up in the internet-age, emerges, more and more e-CCI driven services are forthcoming. Here are two illustrations of avant-garde services built on e-CCI. AirTroductions is a new e-service which provides air passengers with the opportunity to choose who sits next to them. Participants register on the AirTroductions website and when they find another participant they would like to meet is booked on the same flight as they are, they arrange to check-in to adjacent seats. A new trend in tourism is leaving electronic messages for subsequent tourists. Yellow Arrow (www.yellowarrow.net) sells stickers (with yellow arrows on them), tourists then leave them at locations where they have something to tell other tourists about, register a text message, other tourists who find the sticker can, for a fee, retrieve this message to their mobile.

**Future research agenda**

A full research agenda needs to be established for e-CCI. A systematic approach needs to be developed for studying e-CCI across an extensive range of e-services. An important aim of such research should be to construct a typology capable of containing a wide range of e-CCI based on a multitude of e-services. Hopefully this would extend the increasing understanding of on-site CCI to an e-service context. A number of CCI researchers have found the Critical Incident Technique (CIT) to be useful in examining CCI. Likewise the CIT would appear to be a useful tool for furthering our understanding of e-CCI. As well as studies of an extensive range of e-services, in-depth studies of e-CCI in individual e-services would also be fruitful. The author

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23 This is a particularly interesting example because, although AirTroductions operates in an e-CCI context, the value is added in an on-site CCI context.
Richard Nicholls

hopes that this article will encourage both researchers and reflective practitioners to further advance the stream of e-CCI literature.

INTERAKCJE POMIĘDZY KLIENTAMI USŁUG W ŚWIECIE USŁUG INTERNETOWYCH

Streszczenie

Wychodząc ze swych badań interakcji pomiędzy klientami usług (CCI) w świecie fizycznym w tym referacie autor próbuje przenieść koncepcję CCI do świata wirtualnego. Wobliczu rosnącej szybko e-gospodarki, warto podjąć się tego zadania. Autor nakreśla pojęcie e-CCI i wstępnie analizuje znaczenie tego zjawiska, jego formy i cechy. Dokonuje porównania e-CCI z CCI oraz wprowadza rozróżnienie pomiędzy e-usługami sociopetal i sociofugal. Wskazuje przykładowe rodzaje e-CCI. Nakreśla także kierunki dalszych badań nad e-CCI.