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74

# Internet ticketing in a not-for-profit, service organization

## Building customer loyalty

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### Abstract

**Purpose** – The purpose of this paper is to look at the ways in which the internet has changed the way in which many organizations now do business. The internet has made the transference of information easy but fulfilling online orders has proved to be a challenge.

**Design/methodology/approach** – This study presents detailed analysis of 238 customers of a world-renowned not-for-profit organization – the Chicago Symphony Orchestra (CSO). Our sample of customers consists of patrons who ordered tickets online at least once during the 2001/2002 concert seasons. Factors influencing the development of an e-loyal customer database were examined.

**Findings** – The results indicate that customers realize significant benefits from using the internet to purchase concert tickets. Patrons also indicated that they were satisfied with their internet service experience.

**Originality/value** – The role of the internet within organizations will change dramatically over the next decade. For organizations that are attempting to use the internet as a primary sales medium, they must realize that their success hinges on the development of a sustainable customer base. For established organizations, the integration of the internet into their existing business will be one of the keys to future success.

**Keywords** Non-profit organizations, Electronic commerce, Data handling, Telecommunication network management, Internet, Shopping

**Paper type** Research paper



### 1. Introduction

In a short period of time, the use of the internet has changed the way many organizations conduct business. Companies now have the potential to transfer sales data, inventory information, and conduct transactions via the internet at a fraction of the costs of older systems. However, this does not ensure that companies selling products through internet channels will be successful. As many organizations have discovered, building a web site may appear easy, but building a profitable business to fulfill orders online is a major challenge (Harrington, 1998). The challenge for many organizations lies in discovering how the internet can be used to help create a sustainable competitive advantage (Porter, 2001).

On-line services are one of the venues that companies have increasingly begun to use to generate additional sales. In addition to the host of de novo companies, virtually every major organization, from the automotive manufacturers to the Internal Revenue Service, offers services over the internet. The selling of tickets for air travel, sporting events, and other entertainment venues has been one of the glowing success stories of the industry. A diverse group of companies has capitalized on the internet as a retail channel, including Ticketmaster.com, Travelocity, almost all of the major airlines and professional sports franchises. Experts predict a 30-40 percent growth rate in online ticket sales for the airline industry. There are many potential benefits associated with automating the ticketing function of an organization. Some of these include reduced labor costs, increased accuracy of ticket inventory, processing speed, and increased customer service (Porter, 2001; Boyer, 2001). Unfortunately, very few empirical studies have been conducted exploring the factors influencing an effective internet service encounter. Not-for-profit organizations have also begun to adopt similar for-profit systems as a means to expand their market base (Ryan, 1999). This research examines factors that influence patron loyalty for the e-ticketing process for an established not-for-profit organization – the Chicago Symphony Orchestra.

## 2. The Chicago Symphony Orchestra

The Chicago Symphony Orchestra (CSO) is a well-established and successful not-for-profit organization. Founded in 1891, the CSO is recognized as a premier symphony orchestra. The Chicago Symphony derives more than 50 percent of their total revenues from sales of tickets to performances and merchandise. In a typical concert season they sell out over 90 percent of their total seats.

In an effort to expand their market base, improve customer service, and reduce costs, the CSO adopted their first internet-based revenue system in 1998. Since the internet was a relatively new technology in 1998, they proceeded cautiously because they were aware of the significant benefits that were accruing to organizations that had successfully automated their ticketing process by means of the internet (Boyer, 2001). In recent years the use of online ticketing has become very popular for the symphonies. The Boston Symphony Orchestra has recently found a high level of success with their web site (Vence, 2003).

The CSO released a series of improved web sites from 1998 until the present. The original web site was focused more on the informational content and as the CSO grew more comfortable with the functionality of the web they progressively added in the revenue portion of the ticketing system. Today the CSO sells approximately 50 percent of total sales over the internet and expects this number to grow further via successive improvements. The CSO ticket sales over the internet grew eightfold over the period of 1999-2001. The ultimate goal of the CSO is to move their entire inventory of tickets online in future years.

## 3. Background

The CSO, like all not-for-profit organizations, has been subject to various environmental forces that have affected its growth and development. Not-for-profit organizations are faced with a dilemma of maintaining a stable revenue base while developing future markets through educational programs. Since the focus of the organization is towards a greater understanding and not maximization of profits these

organizations have had to integrate the use of various systems, such as internet ticketing in a unique manner. Section 3.0 examines the relationship between selling tickets in an online environment and patron loyalty.

### 3.1 *The not-for-profit dilemma*

In an ever-expanding marketplace, many not-for-profit organizations are being forced to reconsider how they conduct business. In fact, not-for-profits are turning to more entrepreneurial-based business models (Renz, 2001). Many not-for-profit organizations are being forced to turn to more reliable income-generating sources instead of relying solely on funding from grants and donations. Dees (1998) indicates not-for-profits, such as the Chicago Symphony Orchestra, must also focus on commercial activities. In an effort to improve customer service and streamline ticketing operations, the CSO has developed a web site to sell tickets online to supplement regular ticket sales. This strategy has proven effective for other not-for-profit organizations. Oehler (1998) states that those not-for-profit organizations that have become sophisticated internet users are now reaping huge benefits. However, expansion into this arena has put many not-for-profit organizations into direct competition with for-profit business enterprises.

Using the internet, however, places a great deal of emphasis on the service encounter for not-for-profit organizations. The service encounter is the integrating mechanism that ties patron revenue streams directly back through the operating function of the organization. In its simplest terms, the service encounter is the interaction of external constituencies (patrons, customers, clients, etc.) with the operational structure and processes of an organization. "It is the context in which the organization provides the customer with what is presumably of value" (Mechling and Little, 2000, p. 65). In a successful service encounter, the operational structure and processes should reflect the economic aspects of the organization in a manner that is consistent with the patron's expectations.

### 3.2 *The electronic service encounter*

The service encounter has been studied from the perspective of several functional disciplines, which include operations management, marketing and information systems. One of the most researched concepts is the idea of driving a successful service encounter. Specifically, SERVQUAL (Zeithaml *et al.*, 1998) identified several key elements that are related to a successful service encounter. A key aspect within the SERVQUAL literature focuses on the relationship of the performance-expectations gap to the overall improvement of service encounters. Several studies have debated the efficacy of SERVQUAL (Buttle, 1996; Genestre and Herbrig, 1996; Carman, 1990), but most research validates the notion that several key elements must be emphasized to ensure a successful service encounter.

Several key factors that affect the quality of the service encounter include the timely and reliable delivery of products and information, prompt customer service, and quality of products and services (Stanley and Wisner, 2001; Cronin and Taylor, 1992; Zeithaml *et al.*, 1998). Similarly, Young and Varble (1997) indicate that reliability and responsiveness are critical to the success of service firms. While there is an extensive stream of literature related to the service encounter for traditional services, the literature devoted to the internet service experience is in its nascent stages. The e-service encounter is unique because the service is delivered through technology

rather than face-to-face. That is, a primary difference between a traditional service encounter and e-service encounter is the lack of personal contact during the encounter.

Boyer *et al.* (2001) define the e-service encounter as the time from when a customer visits a web site until the time when the product is delivered and fit for use. Consequently, the benefits consumers receive from using a web site to make a transaction must be readily visible. One of the driving factors in the success of e-services is convenience. Customers use online systems as a fast and efficient alternative to traditional sales channels.

*3.2.1 The role of information technology.* The information technology component of the e-service encounter presents added dimensions that rely on the capabilities of technology to make the e-service encounter successful. Zeithaml *et al.* (2000) present several of these dimensions in a conceptual framework that outlines e-service quality, including: web site-related items such as ease of navigation and use, operational components including order accuracy and fulfillment, in addition to traditional service encounter items such as timeliness. A crucial measurement within the e-service encounter is user satisfaction. Several studies demonstrate user satisfaction as a combination of web site factors (information accuracy, navigation ease, etc), and behavioral intentions toward the information technology (ease of use, perceived usefulness, etc.) (Devaraj *et al.*, 2002; Reimenschneider *et al.*, 2003; Torkzadeh and Dhillon, 2002; Davis *et al.*, 1989).

The communication through technology can inhibit the consumer in gathering information, which in turn can reduce the ability of the consumer to make an informed decision. In the case of CSO, patrons traditionally would place orders with a ticket specialist on the phone. This communication increased the CSO's ability to sell tickets because of the personal attention given to the patron. Iqbal *et al.* (2003) identify that online customers value the availability of real-time information (timeliness and quality), and the ability to do research and analysis (R&A) even more so than customers who do not purchase online. The end result is that the provider must be able to show additional information that is clear and easy to understand. Further, retention has been found to be higher for shoppers in more transparent informational environments (Lynch and Ariely, 2000). For the CSO, patrons assess the quality and availability of information online relative to purchasing their tickets.

Another significant aspect of the e-service encounter is that transactional information can be seamlessly integrated back into the organization. Web-integrated sales systems have an impact on transaction costs of the organization (Lynch and Ariely, 2000). For example, Office Depot has reported that savings associated with transaction costs for online purchases to be approximately 1 percent of sales (Boyer and Olson, 2002).

### *3.3 Understanding e-loyalty*

Studies have estimated that attaining new customers is substantially more costly than keeping existing customers (Jones and Sasser, 1995; Reichheld, 1996). This axiom holds true for traditional industries where the sale of goods and services is often face-to-face and the transfer of the product occurs at the time of the sale. However, the internet is a completely different arena where customers initiate transactions worldwide and price comparisons are readily assessable. Because of this relationship, Reichheld and Scheffer (2000) describe e-loyalty as the key to long-term success in the internet arena.

The principal foundation of e-loyalty is the provision of a superior customer experience, which leads to a core group of repeat customers who are the firm's most profitable buyers. In fact, Reichheld and Schefer (2000) estimate that a firm can boost profits of those items sold over the internet by 25 percent to 95 percent by developing an e-loyal customer base. The research on e-loyalty builds on earlier studies of the "service-profit chain" (Heskett *et al.*, 1998). The service-profit chain model holds that profit and growth are the result of customer loyalty, which is an outcome of customer satisfaction. Unfortunately, as customers become more familiar with internet technology, they tend to realize that the switching costs are low, making e-loyalty difficult to obtain. Thus, a critical challenge for internet service businesses is to find ways to develop, maintain and, most importantly, retain their internet customer base.

To achieve a loyal and profitable customer base organizations must understand what factors impact this success. Smith (2001) describes several enablers of e-loyalty:

- inherent value in the product or service being offered;
- fast and efficient web sites;
- dependable distribution systems; and
- an easy to use and navigable web site.

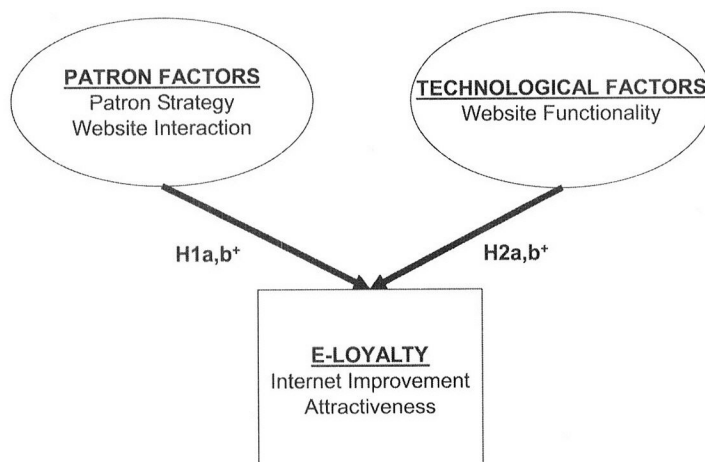
Development of effective internet infrastructure is clearly crucial to the process, however other factors also play a significant role.

A clear and distinguishing factor that separates an e-service encounter from a traditional service encounter is the issue of user satisfaction. The research has clearly pointed out that one of the sources of satisfaction comes from the ability to find information about the intended products or services (Froehle *et al.*, 2000). For an end-user to be satisfied with an experience to the point where they are likely to use the service again they must feel that they can trust the organization to promise what they deliver and not abuse secure information. Several studies found that satisfaction had a key role in the development of customer base (Devaraj *et al.*, 2002; Reimenschneider *et al.*, 2003; Torkzadeh and Dhillon, 2002; Davis *et al.*, 1989). However, in addition to satisfaction with the experience, users must also receive some form of utility or performance increase to utilize the service again. Utility theory proponents have long understood the concept that consumers will engage in activities that improve their overall marginal utility. The remainder of this manuscript will explore the how the various components of e-service, information technology adoption and usage affect the concept of e-loyalty for the Chicago Symphony Orchestra.

#### 4. Research model and hypotheses

Figure 1 depicts the research model employed in this study. We study specific factors related to patron e-loyalty that affect the Chicago Symphony Orchestra. Based on the background information provided earlier, we test two factors affecting e-loyalty, patron factors and technological factors. To measure loyalty we examine the performance impact and attractiveness of the CSO web site. The scales associated with these factors are developed in greater detail below. For a complete list of factors and related end-items used in the instrument see the Appendix.

The set of factors related to patron choices to assess the impact of end user decisions on the development of a loyal customer base. Based on the preceding discussion we propose e-loyalty is impacted by a set of patron factors and



**Figure 1.**  
Model for research  
development

technological factors. Patron factors include elements that influence and impact how the end user (CSO patron) interacts with the CSO web site. Technological factors are elements from the CSO web site that affect the relationship between the patron and the web site.

In the research model, the patron factors are defined by two major aspects: patron strategy and web site interaction. Three sub-scales comprised patron strategy. The variables were: cost, order service (ORDSERVI), and transaction speed (SPEED). In addition, three sub-scales were used to describe web site interaction. The variables included: comfort level (COMFORT), ease of interaction (EASE OF INTERACTION), and attitude towards the technology (PERSPECTIVE). We propose that these factors have a positive impact on e-loyalty.

We therefore examine the following propositions related to the set of consumer choice factors:

*H1.* Patron factors are positively related to e-loyalty.

*H1a.* Patron factors are positively related to perceived level of improvement.

*H1b.* Patron factors are positively related to customer perceptions of their attractiveness of the online experience.

The research model also proposes that Technological Factors have an impact the development of an e-loyal customer base. While it seems obvious that careful design of a web site is critical to success, many of the available guidelines are based primarily on intuition and common sense, with little or no experimental validation (Dalal *et al.*, 2000). We test Smith's (2000) suggestion that the relative speed and efficiency and the relative ease of use of a web site affect e-loyalty. In addition, we examine the accuracy of information on the site and the reliability of transactions (Stanley and Wisner, 2001). Specifically, the technological factors examine the functionality of the CSO web site. The functionality of the web site is measured with four sub-scales: accuracy of the web site (ACCURACY), ease of navigation (SITEEASE), transaction difficulties (TRANSACT), and overall system effectiveness

(SYSTEM EFFECTIVENESS). We therefore propose the following research questions:

- H2.* Technological factors are positively related to e-loyalty.
- H2a.* Technological factors of patrons are positively related to perceived level of improvement.
- H2b.* Technological factors of are positively related to the perceived attractiveness of the online experience.

## 5. Data collection

Based on financial and other considerations, it was determined that the size of the sample should be about 10 percent of the total CSO internet ticket purchasers from the previous concert season. Data were collected from customers of the Chicago Symphony Orchestra who had placed at least one order over the internet during the 2001 concert season.

### 5.1 Survey instrument

The final, pretested survey instrument consisted of several items that comprised the independent and dependent variables. To assess each of those key variables, several scales were used. Existing scales were drawn from several studies along with several new scales that were developed specifically for the CSO. All of the items were measured using a seven-point Likert type of scale. For all items, higher scores indicate higher levels of that item.

Each survey questionnaire had a cover letter attached to it stating the relationship of the researchers with the CSO as well as a letter from the CSO explaining the status of the researchers as being independent from the CSO. As an incentive to participate in the survey, the CSO offered a chance to win one of 25 pairs of tickets to the upcoming concert season.

### 5.2 Survey response

A total of 518 mail surveys were sent to the individuals that were selected to be in the study. Several steps were taken to maximize the response rate, including the inclusion of a business reply envelope, an incentive to complete the survey and the use of several follow-up letters. All of these steps have been found to be effective ways to increase response rates in other operations management research studies (Frohlich, 2002). The first reminder letter was mailed two weeks after the questionnaire was sent, re-emphasizing the confidential nature and importance of filling out the survey. A second follow-up letter and another copy of the survey was mailed to individuals that had not filled out the original survey. A fairly small portion of responses was returned due to incorrect addresses. A total of 242 useable surveys were returned out of a possible 518, representing a response rate of 46.7 percent. It is interesting to note that many of the respondents were from other countries. The ability to attract customers from various geographic regions with minimal additional effort is one of the elements that attract companies like the CSO to the internet. It gives these organizations access to new markets without the large expenditure of capital and labor.

## 6. Scale development

This section is used to describe the scales that are developed in the research model presented in Figure 1. Existing scales were used wherever possible, however, several new scales were developed that are specifically related to the CSO. Table I provides the means, standard deviations and Cronbach's alphas for each of the scales used in the study. Cronbach's alpha values are presented for all scales in this study. The alpha value is a measure of inter-item correlation for items within each scale. A value of 0.70 or greater would indicate that the scales in the study were reliable measures of their latent constructs (Nunally, 1978).

### 6.1 Patron factors

Individual user's preferences and beliefs impact the performance of almost every system. This study examines elements that influence the choices consumers make when deciding to use the CSO online system to purchase tickets. Scales used for the patron factors are related to beliefs formed as a result of the interaction with the CSO (WEBSITE INTERACTION) and preexisting patron beliefs (PATRON STRATEGY). These variables are measured by a specific set of scales adopted from several previous studies as well as scales created specifically for the CSO data. The patron strategy variable assesses the driving forces behind users choice to use the CSO ticketing system. The web site interaction variable assesses those scale items that measure how adept the consumers are with using the internet to make transactions.

*6.1.1 Patron strategy.* Three sub-scales were developed that measure the variable labeled as PATRON STRATEGY. The first, COST (one item), consists of one item assessing the importance of cost when choosing to use the CSO ticketing system. The second, order service (ORDSERVI) consists of four items assessing the importance of accuracy and speed of the transaction, delivery speed, customer service and security.

Variable	Mean	Std. dev.	Cronbach's $\alpha$
<i>Patron factors</i>			
PATRON STRATEGY			
COST	3.38	2.02	N/A
ORDSERVI	5.23	1.24	0.78
SPEED	6.24	0.88	0.72
WEBSITE INTERACTON			
COMFORT	5.51	1.08	0.80
EASE OF INTERACTION	5.94	0.96	0.91
PERSPECTIVE	5.47	1.01	0.77
<i>Technological factors</i>			
WEBSITE INTERACTION			
ACCURACY	5.54	1.04	0.85
SITEEASE	5.66	0.86	0.82
TRANSACTION	5.99	0.95	0.70
SYSTEM EFFECTIVENESS	5.60	0.85	0.86
<i>E_loyalty</i>			
ATTRACT	6.22	0.97	0.57 <sup>a</sup>
INTIMP	5.29	0.95	0.86

**Note:** <sup>a</sup> This score is a correlation since Cronbach's alpha is not applicable for two-item scales

**Table I.**  
Descriptive and  
reliability data for scales



The final scale, transaction speed (SPEED), contains three items measuring the convenience associated with using the internet to place an order for tickets. Specifically, the SPEED scale examines items such as ordering speed, quicker access to ticket information and convenience.

*6.1.2 Web site interaction.* The second variable is labeled as WEBSITE INTERACTION. This variable measures how patron's interact with the web site. The web site interaction dependent variable consists of sub-scales that were primarily derived from the technology acceptance model (Davis *et al.*, 1989). The first scale, COMFORT (five items), assesses the degree to which patrons are comfortable with using the internet technology to purchase tickets. The second scale, EASE OF INTERACTION (four items), focused on measuring the general comfort level when undertaking internet-focused activities. The final scale, PERSPECTIVE (four items), measured several items focusing on general perceptions of the internet and information technology. Research has clearly shown that these scales are extremely important to the overall interaction of individuals and internet-based technology (Devaraj *et al.*, 2002).

### *6.2 Technological factors*

It is logical to assume that the technology itself will impact the development of a loyal customer base in a Internet-based service encounter. Customers that find the web site difficult to navigate, slow to upload, and unreliable are not likely to return to use the system to make future transactions. To assess this technological impact, we examine consumers perceptions of specific CSO web site factors and perceptions of the internet in general.

*6.2.1 Web site functionality.* Four sub-scales were developed to measure the impact of specific CSO web site factors on the development of a loyal customer base. The site ease sub-scale (SITEEASE) consists of five items assessing a consumers perception of how easy the CSO web site is to navigate, place orders or use for any other general purpose. Web site accuracy (ACCURACY) measures specifically how accurate items posted on the CSO web site are with respect to price, ticket availability, and performance information. The transaction sub-scale (TRANSACT) consists of four items that measure the degree to which consumers experience difficulties when placing an order on the CSO web site. The lone general internet scale is the system performance sub-scale (SYSTEM EFFECTIVENESS). It consists of seven items that refer to general items related to internet ticketing systems. General items include range of services and several other items that explore system functionality. Previous studies have indicated that these are items that help measure the overall success of e-commerce systems (Torkzadeh and Dhillon, 2002; Zeithaml *et al.*, 2000; Palvia and Palvia, 1999). Balasubramanian *et al.* (2003) indicate that this is a measure of perceived operational competence.

### *6.3 E-loyalty*

We developed two scales to assess the development of a loyal customer base: web site attractiveness (ATTRACT) and internet improvement (INTIMP). The attractiveness scale consists of two items that measure the appeal of the CSO web site:

- (1) how likely customers are to use the site in the future; and
- (2) an assessment of the appeal of the CSO online ordering process.

The internet improvement scale consists of five items that assesses the degree to which the internet improves the process of purchasing tickets via the internet versus traditional methods (i.e. phone, fax, walk-in). Overall, the two scales provide an accurate picture of the likelihood that the web site will remain as a viable sales medium for the CSO. The inter-item reliability for both scales exceeds standard threshold values.

## 7. Results

Table II shows the correlations between each of the scales described in the previous section. The majority of the scale items are significantly correlated with the e-loyalty variables. One of the more interesting observations about Table II is that of the three scales that comprise the patron strategy variable; cost and order service are more strongly correlated with internet improvement, and speed has a stronger correlation with attractiveness. In particular, cost has a very small, negative correlation ( $r = -0.04$ ) with the attractiveness scale, indicating that this variable is not a primary determinant of how well they like the system relative to other systems. This is somewhat surprising because many of the early studies on e-commerce indicated that cost was the primary reason a user chose a web site to purchase goods and services (Lynch and Airely, 2000).

Our first analytical step employs the set of patron factors and technological factors as the predictor variables in two regression models to predict e-loyalty. We utilize stepwise regression to select the independent variables that have the greatest impact on each dependent variable because there is a high degree of collinearity and most of the independent variables are significantly correlated to the performance variables. As noted above, we want to obtain the strongest predictors of performance while accounting for collinearity effects, thus we employ stepwise regression. The stepwise regression is computed by entering all independent variables into the SPSS software with the rule that a variable entering the regression equation must have a  $p$ -value less than 0.05 and that variables that have a  $p$ -value  $> 0.10$ , after other variables are entered will be removed from the final equation. To assess the impact of each regression model we control for purchase frequency in each model.

### 7.1 Factors influencing e-loyalty

Overall, we found partial support for both  $H1$  and  $H2$ . Both the regression models used to predict internet improvement and attractiveness were found to be significant. However, many of the scales used in the study were found to have little or no impact on the final dependent variables. The following sections will discuss in greater detail the results for each model.

**7.1.1 Internet improvement.** The first regression model examined the impact of the various independent variables on the internet improvement variable. Prior to running the regression analysis, we first examined the correlation matrix to observe the relationship between the variables in the model. A closer look at the correlations presented in Table III reveals that all but one of the predictor variables are significantly correlated with dependent variable (INTIMP). The scales that had the strongest correlations with internet improvement variable were the system (SYSTEM EFFECTIVENESS), ease to navigate the CSO web site (EASE OF INTERACTION), order service (ORDSERVI) scales. Only the comfort level scale was not significantly correlated with internet improvement. Table III presents the unstandardized beta

**Table II.**  
Correlations between  
scale variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>Patron factors</i>												
PATRON STRATEGY:												
(1) COST	1.00											
(2) ORDSERVI	0.27**	1.00										
(3) SPEED	0.61	0.29**	1.00									
WEBSITE INTERACTION												
(4) COMFORT	0.42	0.05	-0.28	1.00								
(5) EASE OF INTERACTION	0.54	0.13*	0.14*	0.43**	1.00							
(6) PERSPECTIVE	0.22	0.23**	0.15*	0.20**	0.40**	1.00						
<i>Technological factors</i>												
WEBSITE FUNCTIONALITY:												
(7) ACCURACY	0.07	0.22**	0.26**	0.07	0.23**	0.17**	1.00					
(8) SITEEASE	0.11	0.18**	0.18**	0.07	0.28**	0.19**	0.46**	1.00				
(9) TRANSACT	0.00	0.07	0.13	0.06	0.27**	0.27**	0.39**	0.51**	1.00			
(10) SYSTEM EFFECTIVENESS	0.05	0.19	0.24**	0.04	0.39**	0.37**	0.56**	0.69**	0.58**	1.00		
<i>E_loyalty:</i>												
(11) ATTRACT	-0.04	0.15*	0.28**	0.09	0.31**	0.42**	0.35**	0.34**	0.44**	0.49**	1.00	
(12) INTIMP	0.19	0.31**	0.13*	0.07	0.31**	0.27**	0.22**	0.36**	0.27**	0.43**	0.33**	1.00

**Notes:** \* $p \leq 0.05$ ; \*\* $p \leq 0.01$

Variables	Step 1 (control frequency)	Step 2 (all variables)
<i>Included variables</i>		
CONSTANT	0.473	1.51
SYSTEM EFFECTIVENESS		0.36**
ORDSERVI		0.17**
COST		0.07**
EASE OF INTERACTION		0.13*
<i>Excluded variables</i>		
SPEED		-0.51
COMFORT		-0.36
PERSPECTIVE		0.46
ACCURACY		-0.77
SITEEASE		0.08
TRANSACT		0.05
	$R^2 = 0.10$	$R^2 = 0.28$
		$\Delta R^2 = 0.18$
		$F = 22.30^{**}$

**Table III.**  
Results of stepwise  
regression for internet  
improvement (INTIMP)

Notes:  $n = 235$ ; \* $p < 0.05$ ; \*\* $p < 0.01$

values,  $F$  value, and  $R^2$  value. The numeric presentation of the final regression model for the internet improvement (INTIMP) scale is as follows:

$$\hat{Y}_{INTIMP} = 1.51 + 0.36(SYSTEM) + 0.15(ORDISERV) + 0.07(COST) + 0.12(EASEOFINTERACTION).....[1]$$

The model provides partial support for both *H1a* and *H1b*. Overall, the regression model developed in Table III is a strong predictor of patron improvement as measured by the scale INTIMP. The model is significant with an  $R^2=0.28$  and an  $F$  value of 22.30 ( $p < 0.01$ ). A closer look at Table III reveals that the control variable purchase frequency accounted for approximately 10 percent of the total variance ( $R^2=0.10$ ). After the stepwise procedure the final regression model contained the following predictor variables: system effectiveness, order service, cost and ease of interaction. Notice that the final regression model contains scales from both the patron and technological factors. Thus, it appears that it is important to pay attention to several areas that affect performance. Two of the factors that remained in the final regression model were scales from the patron strategy variable; cost and order service. The remaining factors included ease of navigation and system effectiveness. The two scales that were related to technology factors (ease of navigation and system effectiveness) had the largest regression coefficients (beta value) in the final model.

**7.1.2 Attractiveness.** The attractiveness scale measures the likelihood of making future transactions over the CSO web site and how favorable customers viewed their online ordering experience. As shown in Table III, most of the correlations with the dependent variable (ATTRACT) are significant and positive. Of the ten predictor variables, only comfort level (COMFORT) and cost (COST) were found to be insignificant. Intuitively, this makes some logical sense because we would not expect individuals who are concerned with the appeal of the site to be cost driven. A stepwise

regression model was developed using the same methodology as used with the internet improvement variable. Table IV presents the unstandardized beta values, *F* value, and *R*<sup>2</sup> value. The numeric presentation of the final regression model for the attractiveness scale (ATTRACT) scale is as follows:

$$Y_{Attract} = 1.06 + 0.28(SYSTEM) + 0.23(PERSPECTIVE) + 0.22(TRANSACT) + 0.15(SPEED).....[2]$$

The model provides partial support for both *H2a* and *H2b*. The model used to predict attractiveness was also significant at the *p* < 0.01 level (*F* = 31.50); however, the amount of variance explained rose to *R*<sup>2</sup>=0.35. Again, it is important to note the control variable purchase frequency accounted for approximately 7 percent of the total variance explained by this regression model (*R*<sup>2</sup>=0.07). After the stepwise regression procedure, the final predictor variables that remained in the model after we ran the stepwise regression were speed, transaction difficulties, system effectiveness, and perspective. Two of the scales (speed and perspective) were part of the larger patron factors variable. The speed variable examines specifically the end items that impact the overall time to make the transaction (convenience, ordering time and fast access to information). The perspective scale assesses the degree to which the patron enjoys using the internet to complete transactions relative to other methods. Interestingly, the other two scales that remained in the final regression model (system effectiveness and transaction difficulties) measure items that have an adverse impact on the overall ability of the patron to complete the transaction. In particular, the TRANSACT scale assesses the degree to which a patron incurs problems with placing an order, web site navigation and the billing process.

Variables	Step 1 (control)	Step 2 (all variables)
<i>Included variables</i>		
CONSTANT	4.335**	1.06*
SYSTEM EFFECTIVENESS		0.29**
PERSPECTIVE		0.23**
TRANSACT		0.22**
SPEED		0.15**
<i>Excluded variables</i>		
COST		-0.62
ORDSERVI		0.01
COMFORT		0.03
EASE OF INTERACTION		0.03
ACCURACY		0.66
SITEEASE		-0.01
	<i>R</i> <sup>2</sup> = 0.07	<i>R</i> <sup>2</sup> = 0.35
		$\Delta R^2 = 0.28$
		<i>F</i> = 31.45**

**Table IV.**  
Results of stepwise regression for attractiveness (attract)

**Notes:** *n* = 235; \**p* ≤ 0.05; \*\**p* ≤ 0.01

## 8. Discussion

The concept of e-loyalty is an important concept for any organization attempting to use the internet as a primary sales channel. Previous studies have indicated that several factors influence user satisfaction. We measured e-loyalty as a combination of several of those factors that influence user satisfaction. More specifically, the current study proposes that e-loyalty is a combination of actual improvement gained while using the internet and how attractive the patron found the sales channel.

When viewing the results, both *H1* and *H2* were found to be partially supported. The first regression model examined the factors that had a significant impact of the overall level of internet improvement patrons gained using the internet purchasing system while controlling for purchase frequency. After the stepwise procedure the final regression model contained the following predictor variables: system effectiveness, order service, cost and ease of interaction. Three of the factors originated from patron factors and the remaining factor originated from technological factors. This at least partially supports our hypotheses that both pieces of the puzzle affect overall level of improvement. With regard to the system effectiveness variable and ease of interaction variables, these factors were found to be important in other service quality literature articles (Stanley and Wisner, 2001; Cronin and Taylor, 1992). The patrons seeking improvement from the internet system find ordering service and cost to be important when placing orders online. This result is an interesting finding because the general perception is that consumers who purchase tickets online for airfare or sporting events *only* use the web site for convenience purposes. Our model indicates that cost can also be a consideration when using online systems. The cost scale in conjunction with the order service variable, which assess delivery speed, order accuracy and security, indicates that to receive improvements from the internet system, patrons must both receive value (cost) and have some trust in the CSO to provide a quick and secure transaction. Balasubramanian *et al.* (2003) also found trust to be an important factor towards the development of perceived operational competence of the service provider. The inclusion of the ease of interaction variable suggests that the CSO must also pay attention to the complexity of their web site. Given that internet-based transactions might seem intimidating and difficult for customers, it seems reasonable that ease of interaction would be related to the improvement level (Zeithaml *et al.*, 2000; Davis *et al.*, 1989). Finally, the system effectiveness scale suggests the CSO should also pay attention to factors associated with their internet infrastructure. If the system is either slow or often "down" due to system failure it is entirely reasonable that patrons would not receive any level of benefit from using the system. This regression model has a fairly high amount of total variance explained ( $R^2=0.28$ ), suggesting that patrons do perceive a benefit to using the system over traditional ordering systems, and that there are many elements that influence the level of improvement the patrons receive.

The second regression model examined the factors that had a significant impact of the overall level of attractiveness patrons found from the online experience. The attractiveness scale assessed the combination of how favorably a customer viewed their online experience and the likelihood that they would purchase tickets again with the CSO. After the stepwise regression procedure, the final predictor variables that remained in the model after we ran the stepwise regression were speed, transaction difficulties, system effectiveness, and perspective. Again, as with the internet improvement variable, we partially support *H2*. The patron factors of both speed and

perspective remained in the final regression model. The speed scale examines convenience, access to information and time to place an order. This indicates that those that find the process most attractive are searching for a quick and easy way to purchase tickets versus the traditional methods of ordering. The perspective scale indicates the degree to which patrons are inclined to use internet ordering over other methods. This seems logical because patrons who are inclined to use the system will find the system attractive and indicate that they have a favorable purchasing experience. The remaining scales in the final regression model indicate both ease of navigation (TRANSACT) and general system attributes (SYSTEM EFFECTIVENESS) are important technological components that affect the overall attractiveness of the system. The transaction scale is essentially the “no headache factor” associated with the ordering ticket online. Consumers who use the web site to make transactions do so as a timesaving mechanism and do not want to experience any unnecessary problems. The consequences could be that the customers place an order through traditional channels or the adverse effect may be that they balk entirely from the system.

Another interesting finding that we take away from this research is a clearer understanding that e-loyalty is a very difficult concept for organizations to understand. We found that patrons seeking overall improvement from the system valued different system attributes than those who were attracted to the system. Boyer and Olson (2002) found a very similar finding with online ordering of office supplies. This finding is important because organizations must create value for both audiences with their web site in order to satisfy all of their customers. The only common element contained in both regression models was the SYSTEM EFFECTIVENESS variable. This suggests that all users of the system like to have a reliable and predictable experience with the overall experience. As the electronic commerce arena continues to grow, organizations are going to have to understand that there is not just one-way to create loyal customers. It is clear for the CSO that will need to develop a dual strategy that focuses both on the value minded patron as well as the convenience-seeking patron.

## 9. Conclusion

The role of the internet within organizations will change dramatically over the next decade. For organizations that are attempting to use the internet as a primary sales medium, they must realize that their success hinges on the development of sustainable customer base. For established organizations, the integration of the internet into their existing business will be one of the keys to future success. Many organizations have discovered that their traditional sales channels provide a method to promote their internet operations. W.W. Grainger reports that each time they publish their existing catalogue they experience a large boost in online sales (Porter, 2001). The Chicago Symphony Orchestra uses their online ticketing in a similar fashion. Since the product is recognized as one of the best in the world, the CSO will likely never have to rely entirely on internet sales for business. Rather, the internet has become a vehicle that supports the existing sales channels provided by the CSO as well as a means to capture a new audience because of the technology.

The CSO is a unique organization to study for two primary reasons: first, they are a not-for-profit organization that must use a variety of sources to finance their

operations, and second, they have goals that are very similar to a traditional for-profit organization when viewing their online operations. The fact that they are a not-for-profit organization stresses the importance of running a “tight ship” when it comes to the sales of tickets and merchandise. If the CSO is able to keep costs down at all as a result of e-ticketing, they will be able to concentrate their resources towards other important activities such as education programs and fund raisers. In conclusion, this study provides some interesting lessons that can be applied by both not-for-profit as well as for-profit organizations in expanding their already loyal base of consumers.

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**Appendix. Final scale items***Patron factors*

- (1) *Patron strategy*. The performance objectives grouping measures how important were the following factors were in the decision to use CSO's online ordering system. These items were rated on a 1 (Not Important) to 7 (Very Important) Likert Scale (see Table AI).
- (2) *Web site interaction*. The behavioral intentions grouping assesses consumers general attitude towards the use of the Internet. These items were rated on a 1 (Strongly Disagree) to 7 (Strongly Agree) Likert Scale (Table AII).

*Technological factors*

- (1) *Web site functionality*. The web site factor grouping measures specific end items related to the CSO's online ordering system. These items were rated on a 1 (Strongly Disagree) to 7 (Strongly Agree) Likert Scale (Table AIII).
- (2) *E-loyalty*. The Attract scale items were coded on a 1 (Strongly Disagree) to 7 (Strongly Agree) Likert Scale. The INTIMP scale items were coded on a 1 (Large Decrease) to 7 (Large Improvement) Likert scale (Table AIV).

Scale item	End item questions
COST ORDSERVI	Cost Delivery speed Order accuracy Customer service of system
SPEED	Security of system Convenience Ordering speed Faster access to ticket information

Table AI.

Scale item	End item questions
COMFORT	I am knowledgeable about personal computer usage I am comfortable and experienced with the internet I am proficient at fixing glitches when working on the computer I am good at resolving problems with computers I have friends/colleagues/resources that I can turn to for help with computer difficulties
EASE OF INTERACTION	It is easy for me to remember how to perform tasks using internet ordering It is easy to get internet ordering to do what I want it to do My interaction with internet ordering is clear and understandable Overall, I believe that internet ordering is easy to use
PERSPECTIVE	I like using internet ordering Internet ordering is fun to use Internet ordering provides an attractive ordering method One of my favorite leisure activities is exploring the internet

Table AII.

Scale item	End item questions
ACCURACY	<p>Contents on the web page are current with respect to price [R]            Contents on the web page are current with respect to new items [R]            Contents on the web page are current with respect to available tickets [R]            Contents on the web page are current with respect to promotions [R]            CSO has tickets available when I place an order [R]</p>
SITEEASE	<p>I can get on the site when I want            The site loads quickly            The site is easy to navigate            The site has a logical sequence of pages for completing an order            CSO web site is easy to search</p>
TRANSACT	<p>I experience difficulties placing an order when using the online ordering system            I experience billing problems when using the online ordering system            I experience web page navigation (i.e. page would not upload or server time was expired) problems when using the online ordering system            I dislike using internet ordering</p>
SYSTEM	<p>The online ordering system is easy to understand and use            The system offers quick response time            The web site offers high reliability            The system provides a broad range of services to users            Delivery times for internet ticket orders are predictable            The CSO system is easy to use the first time            If problems occur during use they are easy to resolve</p>

Table AIII.

Note: [R] items are reverse-coded

Scale item	End-item questions
ATTRACT	<p>Ordering tickets online is more attractive than other ordering methods            I will use the CSO in future</p>
INTIMP	<p>The time to place an order            The delivery time from when an order is placed to receipt of all items            The thoroughness of order documentation            The ease of interpretation for documentation            The reliability of delivery</p>

Table AIV.