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# **An Exploratory Examination of the Impact of Customer Service Features on Conversion Rates for Online Retailers**

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## **ABSTRACT**

*The present study explores the link between customer service features and conversion rates for the 500 largest online retailers in the U.S. market. Twelve distinct customer service features were examined, including auto-replenishment, co-branded credit cards, currency conversion tools, free shipping, free return shipping, in-home services such as product installation or in-person consultations, live chats, providing website content in multiple languages, next-day delivery, online return processing, paid memberships with enhanced customer services, and same day delivery. Consistent with previous studies that indicate typical conversion rates in the range of 2-4 percent, the mean conversion rate for the firms in our sample was 3.194 percent. In addition, the findings indicate that customer conversion rates were significantly higher for firms offering auto-replenishment, free return shipping, home services, paid memberships, and same day delivery. As such, managers may want to emphasize these features when developing e-commerce websites.*

## **INTRODUCTION**

In the 1941 season, the American baseball hall of fame outfielder, Ted Williams, converted his 456 at-bats into 185 hits, a conversion rate of .406. This achievement is widely regarded as one of the most noteworthy in the history of the sport, as no other player in the last 80 years has been able to eclipse that percentage success rate or “batting average.” The batting average is arguably one of the most critical metrics in the sport of baseball (Jordan and Macias, 2019). Not only are American baseball fans enamored with the conversion rate metric, but business professionals are as well. Indeed, for sales managers, one of the most popular metrics for evaluating salesperson performance is to calculate the percentage of sales calls made that result in an actual product order, also known as the batting average (Shapiro, 1997). Similarly, many managers use the term

batting average to describe their success rate in developing viable new product concepts or business initiatives (Murphy, 2017).

Likewise, the e-commerce industry has been quick to adopt the batting average as the standard measure of success. In particular, the conversion rate metric, equivalent to the batting average, is widely tracked and calculated by online retailers. For online retailers, the conversion rate represents the percentage of users purchasing a product out of the total number of unique visitors entering a website, or the proportion of orders to website visitors (Gudigantala, Bicen, and Eom, 2016). For example, if 100 people visit a website, and 8 of them place orders, the conversion rate would be 8 percent. Unlike the achievement of Ted Williams, the conversion rate is exceedingly low for online retailers, frequently as low as 2 percent to 4 percent (McDowell, Wilson, and Kile Jr., 2016). Given the dramatically low conversion rates, even a modest increase could greatly enhance an online retailer's profitability. As such, practitioners need to understand the factors under their direct control which might be associated with higher conversion rates. One category of manageable variables includes those activities focused on enhancements to customer service.

There is a broad consensus that customer service plays a vital role in the effective implementation of business and supply chain management. According to Daugherty, Bolumole, and Grawe (2019, p. 2), tailored services are "the recipe for value creation" within e-commerce channels of distribution. On its face, it seems accurate and self-evident that a firm's ability to successfully deliver superior customer service is an important determinant of success. Nevertheless, and somewhat surprisingly, in an analysis of online hotel booking, Cezar and Ögüt (2016) failed to find a link between overall customer service rankings and conversion rates. However, this may be due to their use of an aggregate measure of service-based performance. Unfortunately, this approach to assessing a firm's level of customer service delivery fails to account for the multidimensional nature of the construct. Instead, service optimization is most accurately "captured as a combinative competency of best practice bundles" (Oliveira and Roth, 2012, p. 156). Furthermore, in contrast to single-item measures, Partanen et al. (2017) recognize that multi-construct service delivery measurement scales are more likely to exhibit the "psychometric properties of validity and reliability necessary for theory building and testing" (p. 295).

Thus, to truly understand the effective delivery of customer service from a theoretical perspective, one must analyze its component parts. Similarly, from a practitioner standpoint, online retailers need to know the assortment of customer service features which are most likely to impact the customer conversion rate. Moreover, such a detailed understanding can potentially serve as the basis for e-commerce customer-service measurement scales in future research. As such, the present study explores the link between a wide variety of customer service features and conversion rates. First, we begin by identifying and describing the most common customer service initiatives and policies offered by the 500 largest online retailers in the U.S. market. Next, through a series of *t*-tests, we examine the relationship between each of these distinctive

customer service features and their associated conversion rates. Finally, we conclude with a discussion of the managerial implications of our findings as well as suggestions for future research.

## **CUSTOMER SERVICE FEATURES**

The theoretical framework provided by the service-dominant logic perspective emphasizes the vital role of an online retailer's customer service-based initiatives. The basic premise of the service-dominant logic perspective is that all economies and markets, even those for physical goods, are service-based. In this perspective, even physical goods merely serve as tangible devices for delivering intangible services (Vargo and Lusch, 2004). Accordingly, the activities and outcomes, rather than the goods themselves, constitute the source of value. Ng and Vargo (2018) state that service-dominant logic can be regarded as a "metatheoretical narrative" applicable to a wide range of economic activity and at many levels of aggregation, including the e-commerce environment populated by online retailers and their customers. Recent findings by Ho et al. (2020) in the e-commerce environment support the service-dominant logic that service-driven customer engagement positively contributes to customer consumption in terms of both new customer acquisition and existing customer retention. Thus, it is essential to offer the optimal combination of the various customer service elements "embedded within the many different layers of an online retailer's ecosystem" (Ho et al., 2020, p. 156).

As classified by syndicated research provider, Vertical Web Media, and as summarized in Table 1, customer service in the e-commerce environment can include a wide range of features, beginning with auto-replenishment. The auto-replenishment feature reorders the same types of products that require frequent restocking. By doing so, it creates a switching cost, which can help drive customer loyalty and conversion rates. Moreover, auto-replenishment facilitates e-commerce supply chain efficiencies. On the other hand, without auto-replenishment, consumers often delay purchases, which can negatively affect a retailer's overall profitability (Yi, Chen, and Tan, 2019). The second customer service-related feature found in Table 1 is the co-branded credit card, which refers to credit cards sponsored by both an online retailer and a financial institution, which often bear the logo of both entities. These credit cards represent a vital customer service initiative, as customers can accumulate merchandise discounts, reward points, or other incentives (Segal, 2020). Currency converters can also be a useful website-based service in the global economy. Many sites employ a drop-down menu that allows users to assess the price of products or services in any currency (Lituchy and Barra, 2008). Some sites may even employ an auto-select currency conversion tool that can detect the customer's location and automatically selects the appropriate currency.

Another service option is to offer free shipping for online orders. This feature can be an essential service, as Shehu, Papies, and Neslin (2020) recently demonstrated that free shipping promotions increase expenditures for high-risk products. Similarly, online retailers may choose to offer free

return shipping as well. In a study of the return policies of online retailers, Bower and Maxham (2012) concluded that product returns that were free to the consumer resulted in post-return spending that far exceeded prereturn spending, indicating that customers respond positively to free return shipping policies. In addition, one highly personalized option is to offer the customer home-based services such as product installation or in-person consultations. Because of the significant benefits to consumers, Kolay (2015) refers to these as “demand-enhancing” services.

For those customers accustomed to traditional salesperson assistance, live chats can be a desirable feature. Research by McLean et al. (2020) suggests that live chats with a customer service representative can positively influence customer attitudes and purchase intentions. Another feature that marketers may opt to provide is the transcoding of website content in multiple languages. Research suggests that marketers can reduce perceived risk and increase online customer satisfaction by offering a range of information in the language preferred by the user (Alcántra-Pilar, Del Barrio-Garcia, and Rodriguez-López, 2018). Also, to gain a competitive edge, online retailers are increasingly offering next-day delivery as part of their standard service. Unfortunately, expediting delivery in such a condensed time frame reduces the opportunity to consolidate orders and organize efficient delivery routes, significantly raising their expenses (Buldeo Rai, Verlinde, and Macharis, 2019).

Online retailers have long understood that providing a convenient method for processing merchandise returns can significantly and positively influence repurchase behavior (Griffis et al., 2012). As such, online return processing is a popular service that involves allowing customers to submit an online return request by simply logging into their customer account and following the instructions for submitting a merchandise return. The paid membership, a service-based feature which allows users to conduct transactions or use specialized retailer services, is a well-known strategy used by online retailers to build contractual links with their customers. With over 103 million subscribers in the United States alone, Amazon Prime membership is an excellent example of this (Balakrishnan, Foroudi, and Dwivedi, 2020). The list of customer service features included in the Vertical Web Media database concludes with same-day delivery. According to Ulmer (2020), same-day delivery is a powerful tool for online retailers to increase sales because it narrows the gap of instant gratification compared with traditional brick and mortar shopping.

**Table 1. Customer Service Features**

Features	Description
Auto-Replenishment	A service that sends/resends customers the same types of products that need frequent restocking, such as dog food, laundry detergent, or food items
Co-Branded credit card	Retailer supported credit card programs (e.g., Amazon, BestBuy)
Currency Converter	Option to automatically convert prices of goods from one

	currency to another (i.e., from U.S. dollars to euros)
Free Shipping	To deliver the package(s) without the customer incurring an additional fee for shipping costs
Free Return Shipping	A package can be returned free of charge without return shipping costs if an item doesn't meet a shopper's needs or if it's damaged or incorrectly delivered
Home service	To offer product installation or in-person consultation
Live Chat	Allows customers to speak with a customer service representative in a live chat pop-up window on the retailer's website
Multiple Languages	Customers can choose to view a retailer's website in more than one language
Next-Day Delivery	To deliver a package the day after the order placing date
Online Return Processing	Allows customers to submit a return request by logging into their customer account, locating the order they wish to return, and following the instructions
Paid Membership	Pay to conduct transactions or use retailer services (Amazon Prime)
Same-Day Delivery	To deliver a package the same day as the order placing date

## ANALYSIS AND FINDINGS

The data for this study comes from syndicated research provider Vertical Web Media. This company maintains a proprietary database of the largest e-commerce companies around the globe as ranked by annual web sales, and prior academic research studies have validated the use of the database for analysis and hypothesis testing (e.g., Gudigantala, Bicen, and Eom, 2016). For this study, we used the 2019 Top U.S. 500 e-commerce retailers database. The database provides a total of 250 metrics for each e-commerce firm, which includes financial, operational, customer service, marketing, corporate information, executive profiles, website performance, and vendor information. The data collection process used by Vertical Web Media involves a systematic approach. First, online retailers are contacted directly with a request to report their data. Following this, the collected data are verified using external sources such as *comScore Inc.*, *Experian Marketing Services*, and *Foresee*. Finally, online retailers have several opportunities to review and correct estimates before the database is finalized.

As indicated previously, the objective of this study is to explore the relationship between customer service variables and conversion rates. The direct measures for these variables are available in the database. As described in Table 1, a total of twelve customer service features were selected for the analysis. The customer service responses are dichotomous (Yes/No), which were coded as 1 or 0, respectively. Firms not reporting values for a given variable were excluded from that respective analysis. Thus, the sample size for the analysis of each customer service

feature ranged from 476 to 484 out of 500. The conversion rate for each online retailer is also provided in the database as a percentage score. Descriptive statistics for both conversion rate and total monthly visits are shown in Table 2. Consistent with the 2 percent to 4 percent range suggested by McDowell, Wilson, and Kile Jr. (2016), the mean conversion rate for the firms in our sample was 3.194 percent. This typically low “batting average” reinforces the need to explore the customer service factors affecting the conversion rate. Table 3 shows the results of the twelve individual *t*-tests comparing the mean conversion rates for firms offering a given feature versus those that do not.

**Table 2. Testing Variable Statistics**

	Min.	Max.	Mean	Std. Dev.
Conversion Rate (%)	.20	18.70	3.194	2.57
Monthly visits (count)	10997	2468780128	19168108.93	139922799.3

**Table 3. *t*-Tests for Customer Service with Conversion Rate as Testing Variable**

Predictor Variable	Yes (1)	No (0)	<i>t</i> value	d.f.	p-value	Mean Difference (%)
<b>Auto-replenishment</b>	<b>38</b>	<b>458</b>	<b>5.087</b>	<b>494</b>	<b>.000***</b>	<b>2.153</b>
Co-branded credit card	108	385	.653	491	.541	.18
Currency converter	97	399	1.296	494	.196	.38
Free shipping	373	120	1.140	491	.255	.31
<b>Free return shipping</b>	<b>172</b>	<b>320</b>	<b>1.855</b>	<b>490</b>	<b>.064*</b>	<b>.45</b>
<b>Home services</b>	<b>59</b>	<b>424</b>	<b>2.672</b>	<b>491</b>	<b>.008**</b>	<b>.95</b>
Live chat	268	228	1.58	494	.115	.36
Multiple languages	87	409	1.115	494	.265	.34
Next-day delivery	288	204	.837	490	.403	.20
Online return processing	183	313	1.387	494	.166	.33
<b>Paid membership</b>	<b>41</b>	<b>437</b>	<b>2.636</b>	<b>476</b>	<b>.009**</b>	<b>1.10</b>
<b>Same day delivery</b>	<b>34</b>	<b>458</b>	<b>3.225</b>	<b>490</b>	<b>.001***</b>	<b>1.46</b>

Test Variable: Conversion Rate  
 p-values \*\*\*≤ .001, \*\*≤ .05, \*≤ .10

The results shown in Table 3 indicate that only five out of twelve customer service features have a significant impact on the conversion rate. These significant customer service features include auto-replenishment, free return shipping, home services, paid memberships, and same-day delivery. In other words, conversion rates are significantly higher for online retailers that offer these five categories of customer services.

## DISCUSSION AND CONCLUSION

In the early days of e-commerce, online retailers were solely focused on attracting visitors to their websites. Yet, worldwide e-commerce revenues have been doubling every four years, and in 2018 they reached more than 3,418 billion dollars (Zumstein and Kotowski, 2020). Accordingly, the emphasis today is not so much on attracting new visitors, but on understanding how to influence those visitors to actually make a purchase. This study contributes to that purpose by examining the role played by customer service features on customer conversion rates.

The first point to note about our findings is that the conversion rates for the firms in our sample are consistent with prior studies that also report similarly low rates. Ayanso and Yoogalingam (2009) identified several factors that explain the low conversion rates typically experienced by online retailers. First, because online shopping incurs minimal search costs and effort, many online shoppers visit websites with no real intention of making a purchase. Also, some online shoppers may delay their investments because the cost of revisiting the site at a later date is minimal. Finally, poor website design can lead to consumer frustration and high rates of shopping cart abandonment.

On the other hand, Soonsawad (2013) identified a wide range of factors that can actually have a positive impact on conversion rates. These include consumer purchase involvement, products offered, user-friendliness of the website, incentives, and trust in the website. Soonsawad (2013) also demonstrated that conversion rates vary by traffic source of the visitor. Our study indicates that customer service features may equally play a significant role in influencing conversion rates. Specifically, we identify auto-replenishment, free return shipping, home services, paid memberships, and same-day delivery as variables that appear to play a demonstrable role in influencing conversion rates. As such, managers may want to emphasize these features when developing e-commerce websites.

However, it is essential to apply a degree of caution when interpreting the findings. One should not assume that the customer service features which were not found to be significant should simply be discarded as unimportant or irrelevant. Instead, the analysis conducted here should be viewed as merely a preliminary step towards understanding the wide range of customer service factors which may affect conversion rates. Accordingly, a subsequent study using an alternative statistical approach, such as regression analysis or structural equations modeling, may prove helpful in developing a richer understanding of the relationships among the variables. In fact, there may also be interaction effects among the variables that cannot be identified with the statistical approach used in this study. Therefore, future research should be conducted to help conclusively determine the optimal combination of customer service features, as well as any possible interaction effects, on customer conversion rates.

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