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THE EFFECTS OF RETAIL FORMAT CHARACTERISTICS ON E-LOYALTY

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Abstract

With the high costs of attracting new customers on the Internet, the profitability of an e-retailer is realized only during later purchases. Fostering loyalty among patrons is thus necessary for the success of e-retailers. This is more so because repeat purchases are not the only behavioral trait of the loyal customer—he also recommends his favorite e-retailers to potential buyers. This calls for the investigation of e-loyalty predictors that lend themselves easily to managerial strategy. Survey data of an international sample of e-shoppers gathered online was used for analysis. Results show that traditionally studied retail format characteristics for consumer choice of retailers as presented in Shopping Preference Theory are significant predictors of e-loyalty. We have examined aesthetic attractiveness of the web site, shopping convenience, promptness of service and product selection and affirm their positive effect on e-loyalty. Results show that among them, product selection is most important in raising e-loyalty. The hypothesized positive effects of promptness of service and product selection on shopping convenience were also supported in the study.

Introduction

While it is true that growth in Internet retail sales is tremendous—even projected to reach US$74 billion by 2002 (Forrester Research 2001), there are indications of this slowing down (Gillespie et al. 1999). According to Hanson (2000), although there are new consumers discovering the Internet daily, the growth in number of new users is being outpaced by the growth in number of new websites. Studies also show that retention of one online customer is, for most companies, cheaper than attracting a new one (Ranganathan et al. 2002). The high cost of acquiring new customers through advertisements and promotions renders many customer relationships unprofitable during early transactions (Reichheld and Sasser 1990). It is easy to see that if profits are to be made by online retailers, loyal customers should be captured.

The existence of loyalty in the online field—or e-loyalty—has been documented and is known to be abundant (Reichheld and Schefter, 2000). In fact, the most successful e-retailers have relied heavily on their loyal customers for revenue. Loyal customers do not only repurchase products from their favorite sellers, they also recommend them to other consumers, and as eBay (www.ebay.com) has learned, they even assist their referred customers with minor problems and questions. More than half of eBay's customers are referrals (Reichheld and Schefter 2000). In the Internet setting where switching to other retailers and price comparisons may be done with minimal expenditure of time and effort, the value of loyal customers cannot be overstated.

In this study, we examine the antecedents of customer loyalty for Internet retailers or e-loyalty. We limit our study to B2C retailers. We also take the cognitive approach in measuring loyalty, and measure it with items on repurchase intentions, affect for the store and intention to say good things about the store to other people. The cognitive approach proposes that only measures of a consumer's mental processes and beliefs can make the distinction between actual brand loyalty and spurious behavior (Day 1969).

Literature suggests that store attributes are important to consumers when they make decisions about where to shop (Cox and Cooke 1970). The importance of store attributes is also emphasized in Shopping Preference Theory (Sheth 1983). Therefore, we focus our attention on store attributes or what Sheth calls characteristics of the retail format. We also limit our investigation

to a few variables that were traditionally investigated when studying store loyalty and choice, and exclude variables that can be considered product characteristics such as quality and price of goods. With this, our results may be readily compared to those of past literature. These variables also lend themselves easily to managerial action and strategy. Given the importance of e-loyalty, simple and implementable solutions to retaining and gaining the confidence of Internet customers should be developed.

We hypothesize customer perceptions of our chosen retail format characteristics to be predictors of loyalty. This is appropriate as ultimately, the customers are the ones who judge on these characteristics' acceptability.

Shopping Preference Theory

Shopping Preference Theory developed by Sheth (1983) deals with motivations and options for shopping, and determinants of shopping preference. Sheth classified shopping motives into *functional needs* and *nonfunctional wants*. The former are anchored to store attributes, whereas the latter are related more to store associations and atmospherics. Examples of *functional needs* are one-stop shopping, availability of needed products, convenience in shopping, and accessibility of the outlets. Included among *nonfunctional wants* are store atmospherics and general business practices of the retailer. The theory has also identified company determinants for shopping preference. This group of determinants consists of types and variety of merchandise carried by outlets, in-store shopping and procurement factors—labeled as service factors, and advertising and promotions.
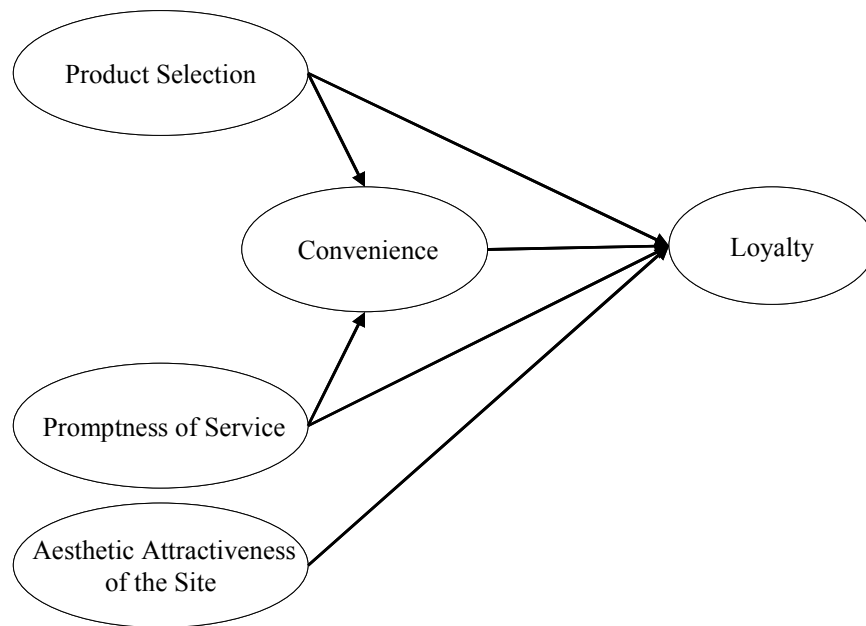
Conceptual Background

Figure 1. Conceptual Model

Shopping Preference Theory points out two key factors affecting consumer shop choice: retail formats and product characteristics (Sheth 1983). However, some surveys revealed that the most common products sold on the Internet are homogenous goods—those with characteristics that do not differ from store to store—such as books, CD's and computer hardware (Kehoe et al. 1999; Marzbani et al. 1998). Moreover, consumers often view e-commerce systems as a type of service (Parthasarathy and Bhattacherjee 1998) and focus on store characteristics when judging the quality of an e-retailer. Thus, retail format is the primary focus of the web-retailing world, and of this study. While numerous studies of e-shopping have investigated the effect of the selling format of stores on shopping choice, an extensive search in the literature showed none focused on their effects on customer loyalty. Here, we extend Shopping Preference Theory to cover e-loyalty.

We have selected the following retail format variables for investigation: *convenience, product selection* (or *selection*)*, promptness of service* (or *promptness*) and *aesthetic attractiveness of the retailer web site* (or *aesthetics*), as retail formats are often compared based on convenience, presentation of merchandise, product availability and customer service (Palmer 2000). We choose a very specific dimension of customer service—*promptness of service*—to operationalize this broad concept in the context of online shopping. Most of the usual dimensions of customer service in bricks-and-mortar stores do not apply to the online setting, and, as we will show, promptness of service (particularly in delivery) is a major concern of online patrons. *Figure 1* above outlines our conceptual model.

Aesthetic Attractiveness

Various studies in different shopping contexts have proven that pleasing sensory shopping experience contributes to building customer relationships and increasing sales (Bitner 1992; Ohanian 1992; Tauber 1995). Other authors have also recommended the value of aesthetic design on the success of an e-retail business (Palmer 2002; Ranganathan and Ganapathy 2002). Studies of e-shoppers also suggest that a large weight is put by respondents on elements of aesthetic design in judging site quality and attractiveness to shopping (Liang and Lai 2002; Evans and King, 1999).

Indeed, the aesthetic attractiveness of a retailer site plays a pivotal role on purchase intentions. This is because most of the contact the e-shopper makes with the retailer is through the web site. For the e-shopper, it is representative of the physical store and the customer service employee if the e-retailer were a brick-and-mortar store.

While repeated visits do not necessarily mean repurchase, in the case of a regular shopper, a visit is possibly aimed at a purchase, and he or she is exactly the target for loyalty campaigns. Pleasing store atmosphere provides additional incentive for the shopper to visit a store while in search for merchandise to buy.

Similar to a mall or restaurant, a pleasing store environment may also raise affect for the store. It also serves to satisfy consumers' tendencies for seeking sensory stimulation. In his theory of shopping preference, Sheth (1983) classifies the shopper's need for sensory stimulation as a nonfunctional desire of shoppers and argues its positive effect on shopping choice. We hypothesize:

> *Haes:* *A higher perception of the aesthetic appeal of an e-retailer's web site raises loyalty for that retailer.*

Convenience, Product Selection, and Promptness of Service

Numerous studies have investigated the convenience of retail stores/service providers as drivers of business success (Athanassopoulos 1999; Kim, Allenby et al. 2002; Mitchell and Kiral 1998). According to Palmer (2000), convenience of shopping format is a key element in Sheth's Shopping Preference Theory. It is even cited as one of the strongest motives of non-brick-and-mortar store patrons (Eastlick and Feinberg 1999).

Morganosky and Cude (2000) reported convenience and saving time as the primary reasons for grocery shopping on the Internet. Kaufman-Scarborough and Lindquist (2002) suggest that their e-shopper respondents agree "that non-store shopping provides place convenience since they can shop without leaving their location;" scheduling convenience is also a plus as e-retailers enable them to shop whenever they want. The respondents perceive that Internet shopping involves less time and work, and allows them to do comparison-shopping. Torkzadeh and Dhillon (2002) also found convenience as useful in raising Internet shopping intentions.

E-shoppers indeed focus strongly on convenience when shopping online. Past literatures are united on this, and supporting empirical evidences exist (Eastin 2002). An e-retailer that presents consumers with added convenience may be seen as a superior alternative for shopping and may win the loyalty of the consumer. We hypothesize:

> *Hcon:* *A higher perception of convenience for a site raises loyalty for that site.*

Product selection, and product or service delivery are both elements of convenience (Palmer 2000). Kinsey and Senauer (1996) illustrated the effect of shopping availability on convenience when they identified two dimensions of convenience wherein retailers have the potential to "create value". They suggest that a retailer can improve convenience by enabling consumers to increase the number of tasks that can be accomplished during a single shopping visit, or reduce the amount of time required to

complete the shopping task. When a retailer improves the selection of its offerings, it can reduce the need for switching of retailers for consumers as it enables them to buy different needed goods from the same retailer in one shopping session. The time cost of switching—including the cost of keeping an account or entering customer specifics with another online retailer—is also waived. In their study of shopping centers, Kaufman and Lane (1996) recommend, "in terms of convenience, we surmise that the shopping center must provide a mix of outlets satisfying all but the most esoteric of shopping demands."

Promptness of service also increases convenience. Availability of the product or service at the consumer's expected time provides for "time convenience." In the case of product delivery, if service is most of the time prompt, the customer will know whether he has enough time from when he orders to when he needs the purchased good, also providing for "schedule convenience."

We hypothesize:

> Hsc: A higher perception of product selection for a site raises perception of convenience for that site.

> Hpc: A higher perception of promptness of service for a site raises perception of convenience for that site.

Promptness of Service

Many studies have shown that it is not so much the duration of wait that causes dissatisfaction and defection of customers. As Hui and Zhou (1996) discovered, longer waits may not necessarily be evaluated as significantly worse than shorter waits. Therefore, even as rapid service is desirable, a better measure of quality with respect to service time is promptness of service: whether a service is provided within the time expected by the customer. Shopping preference theory classifies promptness of service as a service factor determinant for shopping choice (Sheth 1983).

Promptness of service is even more important in Internet retailing than in bricks-and-mortar retailing. As contact of the customer with the e-retailer is minimal, the retailer's service delivery becomes very representative of the store's capabilities. Also, with respect to delivery of products, since the usual delivery channels take more than a day, the importance of promptness of delivery is magnified.

The affective response of a customer to a service has been shown to be negatively influenced by uncertainty about the customer's waiting time for service (Taylor 1994). Customer satisfaction during and at the end of the wait for service, on the other hand, is enhanced by the explicit provision of a duration of wait, and assurance of service within that time (Kumar et al.1997). Consistent service promptness will assure the customer of the duration of wait through first-hand or second-hand experience, thereby increasing customer satisfaction and preserving customer affinity. As promptness of service provides for time convenience, part of the economic costs of lost time and lost utility for the late merchandise is removed. The anxiety of being uncertain of when an ordered good or service will be delivered is also reduced with consistent prompt service. All these contribute to providing a picture of a superior shopping alternative to the customer and therefore foster loyalty to the store.

Literature is replete of empirical support for the positive effect of promptness of service, particularly with product delivery, on various measures of e-retailer success, including customer loyalty (Liao and Cheung 2002; Dabholkar 1996; Chettamrongchai and Davies 2000; Heim and Sinha 2001). We hypothesize:

> Hpro: A higher perception of promptness of service for a site raises loyalty for that site.

Product Selection

The construct *product selection* represents the customer's perception of how well an e-retailer's catalog of product offerings meets his needs and interests, and includes his perception of its product selection width. Various literatures agree on the importance of good product selection in winning and keeping customers (Yeh and Chu 1991). Shopping Preference Theory identifies good selection and variety of products as one of the determinants of shopping choice for retailers (Sheth 1983). In fact, different e-retailers, such as Amazon.com (www.amazon.com), have diversified their product offerings to capture markets.

An appropriate product selection also satisfies the variety-seeking tendencies of consumers. Menon and Kahn (1995) suggest that one reason consumers seek variety in products is to satisfy a need for stimulation. Routine in product consumption may

sometimes lead to feelings of monotony and boredom—feelings that the consumer may reduce by introducing stimulation through switching to something different or new relative to his or her previous choice. By providing ample product choices, defection to other retailers due to variety seeking may be prevented. Even for stores that specialize on very specific product categories, a greater selection of products within the category may prove to increase loyalty. Simultaneous demand for varieties can be seen in many product categories such as movies, music CDs, books and apparel (Kim, Allenby et al. 2002) —products that are some of the most popular merchandise online.

Literatures on the effects of product selection on Internet shopping are available. For example, product choice has been identified by Torkzadeh and Dhillon (2002) as a primary objective for Internet shopping. As greater product selection and availability in a store satisfies the variety-seeking tendencies of customers, there is greater reason for them to repatronize the store. Being able to find in a store the products that one is looking for and interested in will definitely increase one's affinity to it. To a patron's friends who might have the same merchandise needs and interests, the presence and location of such a shop may be valuable information. The patron may then want to share this information with his or her friends. These being close indicators of customer loyalty, we hypothesize that appropriate product selection in an Internet store will promote loyalty for that store. Heim and Sinha (2001) provide empirical support for the positive effects of good product selection to e-loyalty.

We hypothesize:

> *Hsel:*   *A higher perception of a site's product selection raises loyalty for that site.*

Data Collection and Data Statistics

Our sample is part of secondary data from the Georgia Institute of Technology's Graphic, Visualization and Usability Center (GVU). This data has been made available online by GVU for academic use. Of the numerous survey items available, 19 were selected as their wordings best express the variables we wish to represent. The sample consists of 827 respondents solicited for survey using a nonprobabilistic sampling procedure. These respondents all purchased goods or services online in the previous three-month period for their personal purposes. Other than heightened Internet experience, and intensity of usage and skill set in the GVU sample, no significant difference exists between the core demographics of the sample and of those gathered using random techniques (www.gvu.gatech.edu).

The survey was conducted in 1998 by GVU as part of its 10th WWW User Surveys. Participants were invited through randomly displayed banners on popular websites, through announcements to members of GVU's mailing list of potential respondents, and other media.

The GVU questions used for this study were framed to reflect the perceptions and intentions of respondents with respect to an Internet retailer they have identified from which they purchased for personal purposes. All questions were framed on a 7-point Likert scale.

Methodology and Results

Factor analysis was conducted on the 19 items to examine their effects on our proposed constructs. Principal Components extraction with Varimax rotation was employed for the analysis. An exploratory factor analysis yielded four eigen values greater than 1, the fifth eigen value being 0.64. However, using the scree plot method, extraction of five factors was deemed appropriate. Exploratory factor analysis was deemed appropriate for investigating construct validity as we were working with secondary data and survey items.

The factor analysis with five factors specified had all the items load on their intended constructs. The factors were named according to the items that loaded on to them. An item is judged to load into a factor if its loading value for that factor is greater than 0.6 and had no loading value greater than 0.4 in another factor. Since no item had a communality value less than 0.5, all items were retained for analysis. The five factors together explained 76.1 % of the variance in the data. Cronbach's alpha (CA) was computed to estimate scale reliabilities. The CA values of our constructs exceed the standard acceptance norm of 0.8, except for *aesthetics*, which has 0.79. This value may be deemed acceptable given that *aesthetics* was measured with only a few items, thus yielding a lower CA value (Bagozzi, 1980). Note that reliability cannot be computed for the single-item *promptness* scale.

Table 1. Factor Analysis Standardized Loadings and Other Indicator and Construct Statistics

Variable	Factor % Variance	Cronbach's Alpha	Number of Items
Aesthetics	13.9%	0.7898	3
Convenience	15.6%	0.8154	4
Loyalty	26%	0.9396	7
Promptness	5.3%	--	1
Selection	15.3%	0.8653	4
Total Variance Explained by the Factors	76.1%		

For subsequent analysis, the values of the indicators of each construct were averaged, creating additive unweighted indexes for the constructs (Hair et al. 1998). Loyalty was then regressed using these scales on the hypothesized predictor variables. Multiple regression was used in this and all subsequent methodology steps. Table 2 shows the results. All coefficients were positive and significant at the 1% confidence level, giving strong support to hypotheses *Haes, Hcon, Hsel* and *Hpro*. Table 3 shows the results for the regression of *convenience* on *promptness* and *selection* using the produced scales. As in the regression for *loyalty*, all coefficients were positive and significant at the 1% confidence level. Hypotheses *Hsc* and *Hpc* are supported.

Table 2. Loyalty Regressed on Predictor Variables

Variable	Coefficient	Std. Error
Intercept	0.7888	0.1396
Aesthetics	0.1674	0.0205
Convenience	0.2270	0.0285
Promptness	0.1367	0.0219
Selection	0.3812	0.0313

$R^2 = 0.5988$
$SSR = 426.94$

**Table 3. Convenience Regressed on Predictor Variables**

Variable	Coefficient	Std. Error
Intercept	1.4649	0.1584
Promptness	0.2015	0.0259
Selection	0.5296	0.0326

$R^2 = 0.4423$

Additional analyses were conducted to assess the relative contributions of each of the predictor variables in Table 2 toward improving customer loyalty. For this, we estimated regression models that included these variables except for the variable whose contribution was being examined. We estimated four regression models corresponding to the four hypothesized predictors of loyalty. The measure used for the constructs' contribution to loyalty is the difference in the regression sum of squares (SSR) of the estimated regression model without the construct being examined for contribution and the SSR for the full model (whose regression results are presented in Table 2). The results are presented in Table 4. The construct that posed the highest change in SSR value was *selection*, and the construct that posed the least change was *promptness*.

Table 4. Relative Contributions of All Hypothesized Predictors of Loyalty

Variable	Difference in regression Sum of squares (SSR)
Selection	76.8177
Aesthetics	34.5933
Convenience	32.9214
Promptness	20.1856
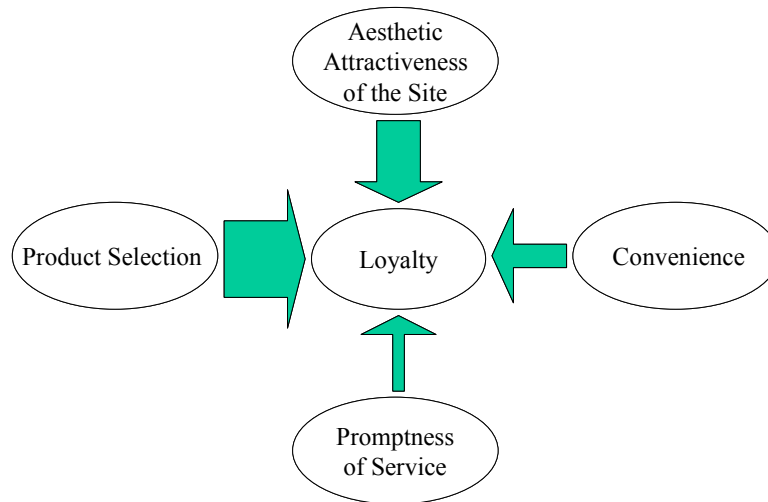
Figure 2. Relative Contributions of the Predictor Variables to *Loyalty*

Our propositions reflected in hypotheses *Hcon, Hpc* and *Hsc* indicate mediating effects of *convenience* on two predictor relationships: the relationship of *promptness of service* with *loyalty* as predictor, and the *product selection —loyalty* predictor relationship. We conducted tests suggested by Judd and Kenny (1981) to affirm the presence of these mediation relationships. The tests provided positive results.

Discussions and Managerial Implications

Our goal in this study is to verify the importance of commonly studied retail format characteristics on customer loyalty to Internet B2C vendors. We have extended Shopping Preference Theory in the Internet retailing context to cover customer loyalty. In doing so, we have identified a number of managerially operable store characteristics as good predictors of e-loyalty.

While *promptness* and *selection* are significant predictors of customer *loyalty*, they also affect *convenience* of shopping with the site. C*onvenience* here acts as a mediator to the effects of *promptness* and *selection* on *loyalty*.

In cases where prioritization is crucial, such as during allocation of business resources and funds, our results on the relative contributions of the hypothesized loyalty predictors are helpful. The greatest contributor by far is *selection*. It also had the biggest coefficient when *loyalty* was regressed on the four hypothesized predictors. The potency of this variable as predictor of loyalty is underlined in our study, and online vendors should not ignore the importance of having their virtual store shelves stacked with varied interesting goods. Our emphasis for this construct was the excellence and width of the selection of products available for customers, and the GVU survey items reflected this. The concept of one-stop shopping is undoubtedly included in this construct. In fact, numerous online success stories ride on the shops' abilities to deliver just about anything anyone can want on a regular day. Italian online grocer Volendo, aside from its virtual supermarket carries a specialized wine shop, a store dedicated to pet-world, a movie ticket kiosk, and a flower corner among other product outlets (Verona and Prandelli 2002).

However, more important than volume of offerings of an e-retailer is carrying enough variety of products that its target customers look for and expect the web retailer to carry. Here, we extend the use of the term "one-stop shop" to any shop; even to specialty stores. In the case of non-grocer giants, the term would mean that the store offers enough of the type of product a potential

customer would expect it to carry. The use of just-in-time inventory systems makes this concept more cost-effective. Forming a web retailer's offerings with this in mind, as suggested by our results, will build customer loyalty and encourage repeated purchase and affect for the store.

Aesthetics also contributes highly to customer loyalty. Considerable resources and effort will have to be allotted to this marketing aspect if an Internet vendor wishes to build loyalty from patrons. Effective design of retailer sites has been the thrust of many articles that focus on e-retailing success (Liang and Lai 2002; Geissler 2001). In this study, we affirm its effect on fostering customer loyalty for online shops. Past literature suggest that shopping environment aesthetics encourages the customer to linger in the store and raises his interest and affinity for the store, as aesthetics provides sensory stimuli. A good blend of graphics and other design elements such as colors, background textures, text fonts and sounds can provide for this. Kaplan and Kaplan's (1992) concepts of *coherence* and *complexity* of store aesthetics can be used to provide a framework for designing the look and feel of an online shop. The theme and overall coherence of the design elements of the shop web site and the richness of its multimedia and design elements will have to suit the tastes of its patrons and interest them enough to attract them for their next online shopping trips. One way to maintain the interest of customers on a web site is to occasionally spruce it up with new design material.

Convenience in purchasing with an e-retailer has also proven to increase customer loyalty with that vendor; therefore, ways of improving and maintaining shopping convenience should be implemented. The technological capabilities of the Internet may be used to this end. Scripts can be used to render convenience in searching, for example. Personalization of customer accounts is also recommended to speed up the ordering process for regular customers.

Finally, *promptness* was found to be a significant predictor of customer loyalty to an e-retailer. This construct represents whether the e-retailer delivers its product/service at the time it has expressed or made known to the customer it will be delivered. Note that we do not deal with the length of time it takes for the e-retailer to dispense service or deliver the purchased good. To cultivate loyalty among patrons, an e-retailer should give a guarantee that the ordered good or service is available at the time expected by the patron. This guarantee may be explicitly stated on its website, but more importantly, it should be expressed to the patron through purchase experience or positive word-of-mouth—the so-called second-hand experience. Consistent promptness of service delivery will be more effective than any verbal guarantee of timeliness in raising loyalty, affinity and repurchase intentions from patrons.

Limitations and Extensions to the Study

This study faced constraints in data collection. One is the method of respondent selection. The ideal sample group is a randomly selected group over all Internet shoppers. However, as GVU's surveys were done by invitation, and with raffle prizes announced for randomly chosen participants, the data are prone to self-selection bias. This bias potentially reduces our ability to generalize over the entire population of web shoppers. With regard to the survey material, GVU has measured Internet vendor characteristics through respondent perceptions of these characteristics. We believe that consumer ratings are highly desirable for describing vendors, as ultimately, they are the ones who judge these vendor characteristics when it comes to whether they will buy from the vendor or not. However, this exposes our variables to individual orientations and psychographics. One disadvantage of using secondary data is that we had no control over the number of items that can be considered for each construct. For example, only one item represented *promptness*. For future studies, other analytical methods such as structural equation modeling will be used to validate our findings.

While we have presented different retail format characteristics relevant to raising customer loyalty and repeat purchase intentions, we have not investigated the different facets of these characteristics. Even though different businesses might require different approaches to retail format characteristics, knowledge of these components can provide for the identification of specific strategy along the four retail format characteristics.

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Annex: Wordings of the Construct Items

Aesthetic Attractiveness of the Site
1. The "look" of this Internet site is appealing.
2. This Internet retailer's site is aesthetically appealing.
3. The graphics and pictures at this site capture my attention.

Convenience
4. Making a purchase from this Internet site is an efficient way to manage my time.
5. Making a purchase from this Internet site makes life easier.
6. When I make a purchase from this Internet site, I save time.
7. Making a purchase from this Internet retailer is very convenient.

Loyalty
8. I intend to continue doing business with this Internet retailer over the next few years.
9. I have a favorable attitude toward continuing to do business with this Internet retailer over the next few years.
10. I really like doing business with this Internet retailer.
11. I intend to continue to visit this Internet retailer's site in the future.
12. I will recommend this Internet retailer to my friends.
13. I intend to purchase from this Internet retailer in the future.
14. In the future, this Internet retailer is one of the first places I intent to look, when I need the type of merchandise or services it provides.

Promptness of Service
15. When this Internet retailer promises to do something by a certain time, it does so.

Product Selection
16. This Internet retailer has a good selection of merchandise and/or services.
17. While purchasing from this site, I typically find just what I am looking for.
18. Purchasing from this site, I can buy the things I need.
19. The wide selection of merchandise and services this Internet retailer offers, meets my needs.