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An Exploratory Examination of the Relationship between Digital Traffic Channels and Web Sales for Hedonic Products

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ABSTRACT

The present study explores the relationship between digital traffic channels and Web sales for online retailers of hedonic-type products. The hedonic product categories studied include Flowers/Gifts, Jewelry, Sporting Goods, and Toys/Hobbies. The digital traffic channels incorporated in the analysis include direct traffic to a marketer's website, display ads, email marketing, organic search engine results, paid search engine results, and referrals from other sites. Our preliminary findings indicate that each of these traffic channels is in fact significantly correlated with both monthly website visits and Web sales. However, the traffic channels with the strongest correlations with Web sales were shown to be direct website traffic, organic search and paid search. As such, managers may want to emphasize these digital traffic channels when developing marketing strategies for e-commerce websites.

INTRODUCTION

First proposed by Hirschman and Holbrook (1982), an increasingly popular method for classifying products is on the basis of the utilitarian versus hedonic dichotomy (Klein and Melnyk, 2016; Li et al., 2020; Schulze, Schöler and Skiera, 2014). Utilitarian shopping is related to actual need and function (Lu, Liu, and Fang, 2016). As stated by Kivetz and Zheng (2017), "spending money on utilitarian products and services has a natural justification: one simply cannot do without such items" (p. 60). Consequently, utilitarian shopping can be characterized as efficient and rational, with a focus on task completion (Vieira, Santini, and Araujo, 2018). As might be expected, the evaluation of utilitarian products is cognitively based, and consumers are likely to screen, inspect, and logically process all available information prior to purchase (Klein and Melnyk, 2016). For these shoppers, purchasing is a problem-solving activity rather than a deeply satisfying experience.

On the other hand, many discretionary purchases fall under the category of hedonic consumption, a term derived from the ancient Greek word for pleasure. Contrary to utilitarian shopping, hedonic shopping is driven by our desire for fun, entertainment, and emotional arousal. Often linked to the consumption of luxuries, non-necessities, or even frivolous

purchases, hedonic products can be described as exciting, delightful, thrilling, and enjoyable (Kivetz and Zheng, 2017; Lu, Liu, and Fang, 2016). In contrast to utilitarian products, hedonic products are not subject to extensive information processing (Klein and Melnyk, 2016). Instead, consumers tend to evaluate them more holistically based on the psychological sense of relief or fulfilment that they evoke (Vieira, Santini, and Araujo, 2018).

As an indulgence rather than a necessity, it is often more difficult for consumers to rationalize and justify hedonic purchases (Dhar and Wertenbroch, 2012). For that reason, traditional marketing promotions that provide external incentives, including price discounts, rebates, and loyalty rewards, are more effective in driving purchase decisions for hedonic purchases than for utilitarian purchases (Kivetz and Zheng, 2017). As the retail landscape has evolved, retailers, especially those that operate only in the digital space, have developed new strategies. Specifically, in addition to traditional marketing promotions, online retailers spend a considerable amount of time and monetary resources in designing digital traffic channels to lure customers to a given retail website (Sohrabi, Mahmoudian, and Raessi, 2012). As a supplement to direct traffic to a website, other digital channels can be designed to provide direct click-through links to the marketer's transactional website. Prominent examples of these digital traffic channels include display ads, email marketing, both organic and paid search engine results, and referrals from other sites, especially social media influencers (Strugatz, 2017). Considering the many options available for driving website traffic, the purpose of the current study is to examine the relationship between the various sources of online traffic and Web sales for online retailers of hedonic-type products.

DIGITAL TRAFFIC CHANNELS

Direct traffic to websites is one channel through which consumers may access a particular e-commerce website. This is especially true for popular websites that are well-known to consumers. In a 2017 study of e-commerce, online consulting firm, SEMrush, noted that direct traffic to websites was the most significant website traffic source. Specifically, SEMrush found that 42.2 percent of overall traffic to e-commerce sites was generated by direct traffic (Zaczkiewicz, 2017). However, not every consumer begins their shopping process by logging directly onto a marketer's website. Advertising plays an important role as well. In the realm of digital advertising, display ads, also known as banner ads, are ads that appear on other websites and which offer a click-through option to a marketer's transactional website. These ad placements are most often negotiated on a pay-per-click basis. Another method for driving website traffic is through the use of email marketing. Email marketing involves both advertising and promotional materials delivered to prospective customers through email messages.

In addition, information seeking consumers widely use search engines, making this one of the most popular activities on the Internet (Stephens et al., 2014). Search results can be divided into two categories, organic and paid. Organic rankings of advertisers' websites in response to consumer search activities are based on complex and proprietary algorithms devised by the search engine. In addition to a list of organic results, consumers also receive paid search results in response to their search queries. As with organic search results, these paid search results direct consumers to the marketer's website. Finally, in online retailing, website referrals occur when people are prompted to click on hyperlinks or related content on other sites. Because each of

these sources of website traffic operates in a unique manner, it is important for managers to understand the relative effectiveness of each approach, thereby allowing them to maximize their resource allocations. As mentioned previously, this study will focus on retailers selling hedonic products in the e-commerce environment, which represent a distinctive category of products that provide pleasure and recreational benefits (Viera, Santini, and Araujo, 2018).

DATA

The data for the study were obtained from an e-commerce database provided by Vertical Web Media. This syndicated research firm collects information from global e-commerce retailers on an annual basis. The current study used the 2020 "Top 500 E-commerce Retailers in the U.S." database. The database provides a total of 251 metrics for each e-commerce firm, including financial, operational, customer service, and marketing information. The e-commerce retailers are ranked based on their annual Web sales and are organized using product categories and business models. Several previous academic research studies have relied on similar data sets, with excellent results (e.g., Ayansoo and Yoogalingam 2010; Gudigantala, Bicen, and Eom, 2016). Consistent with previous research, Flowers/Gifts, Jewelry, Sporting Goods, and Toys/Hobbies are identified as product categories representative of hedonic products (Narayanaswamy and Heiens, 2018).

The database also provides information on the contribution to online sales from six different traffic channels: direct traffic, display ads, email, organic search, paid search, and referrals. The main objective of this study is to explore the efficacy of each of these distinct channels. Accordingly, Web sales will serve as the primary performance metric. In addition, we will examine monthly website visits, while the average ticket value will be used as a control variable. The underlying assumption is that controlling for average ticket value will negate any possible external influences imposed by the cost of the products. Table 1 includes descriptions of all the research variables.

Table 1. Description of Research Variables

Variable	Description
Direct Traffic	The percentage of the retailer's total site traffic derived directly from the retailer's website.
Display Ads	The percentage of the retailer's total site traffic derived through advertising that uses the internet to deliver promotional and marketing messages to a consumer.
Email	The percentage of the retailer's total site traffic derived through emails sent to consumers with a special promotion, discount, closeout, or early look incentive. This excludes welcome emails to newly subscribed shoppers.
Organic Search	The percentage of the retailer's total site traffic derived through organic search results from internet search engines.
Paid Search	The percentage of the retailer's total site traffic derived through paid links on search engines.
Referrals	The percentage of the retailer's total site traffic derived through referrals from other sites.
Web Sales	The net revenue transacted annually by the retailer on the internet.

Monthly Visits	The number of consumers visiting the retailer's website.
Average Ticket	The average dollar amount of an order placed on the website.

ANALYSIS AND FINDINGS

We began by examining the combined sales outcomes for all four categories of retailers (Flowers/Gifts, Jewelry, Sporting Goods, and Toys/Hobbies) associated with each of the six distinct traffic channels studied, including direct traffic, display ads, email, organic search results, paid search results, and referrals. Descriptive statistics for each of these independent variables are shown in Table 2. The values in Table 2 indicate a good spread of the data points. More importantly, the findings demonstrate that for hedonic category online retailers, all traffic channels contribute to Web sales, in many cases with relatively equivalent representation. We summarized Web sales, Average Ticket, and Monthly Visits in Table 3.

Table 2. Descriptive Statistics for Traffic Channel Sales Outcomes

	Direct Traffic	*Display Ads*	*Email*	*Organic*	*Paid*	*Referrals*
Mean	9850858.034	961076.435	558750.176	10439220.8	2748925.81	599696.94
Standard Error	1290326.401	170794.875	112399.286	1362125.91	467908.717	109472.172
Median	5332556.129	307170.034	273926.634	5399329.81	1268554.08	270326.411
Standard Deviation	11755432.97	1556015.37	1024006.23	12409557.6	4262851.28	997338.953
Range	66285667.28	8436237.91	8201409.54	62768487.1	23876262.2	6734852.75
Maximum	67814373.97	8436237.91	8201409.54	63921891.8	23876262.2	6745656.33

N=83

Table 3. Descriptive Statistics for Dependent Variables

	Web Sales	*Average Ticket*	*Monthly Visits*
Mean	26002216.9	663.3975904	4429175.47
Standard Error	3309116.42	192.364994	685277.7712
Median	13575000	200	1695956
Standard Deviation	30147485.3	1752.5285	6243177.617
Range	155252385	11965	28566497
Minimum	6982959.75	35	60293
Maximum	162235344	12000	28626790

N=83

Our primary analysis, shown in Table 4, involved calculating the correlations between the two sets of variables found in Tables 2 and 3. The correlation scores indicate that all digital traffic channels are positively associated with both Web sales and monthly website visits. One important result that can be seen from Table 4 is that some channels do in fact have a stronger association with Web sales and monthly visits. As might be expected, the direct channel is strongly correlated with Web sales. If a customer has the motivation and knowledge to directly access a transactional Web site, there is a very good chance that the visit will culminate in a sale. The findings also indicate that both organic and paid search results are highly correlated with Web sales. This is also intuitively evident. If a consumer is motivated enough to type a product or brand name directly into a search engine, they are likely to be positively predisposed towards purchasing that particular product.

On the other hand, although statistically significant, display ads, email, and referrals are not quite as closely correlated with Web sales. One possible explanation is that many consumers may simply click on a visible link out of curiosity. Although many consumers may choose to purchase a product once directed to the marketer's website, many of these consumers may simply not be ready to purchase. Without a strong purchase intention driving their decision to click on a link, the conversion rate is likely to be much lower. Finally, the control variable, Average Ticket, is not significantly correlated with either of the dependent variables, affirming its use as a control variable.

Table 4. Variable Correlations

	Monthly Web Sales	Average Ticket	Monthly Visits	Direct	Display Ads	Email	Organic Search	Paid Search	Referrals
Monthly Web Sales	1								
Average Ticket	-.090	1							
Monthly Visits	.764**	-.180	1						
Direct	.968**	-.135	.720**	1					
Display Ads	.747**	.035	.556**	.710**	1	.			
Email	.721**	-.109	.604**	.756**	.431**	1			
Organic Search	.965**	-.112	.758**	.887**	.658**	.650**	1		
Paid Search	.849**	-.042	.651**	.767**	.674**	.533**	.798**	1	
Referrals	.510**	.321**	.325**	.493**	.407**	.293**	466**	319**	1

** Significant at .01

CONCLUSION

Online retailers use a wide variety of digital channels to drive website traffic. Each of these traffic channels is unique and distinctive. Similarly, because hedonic products represent a unique category of benefits, the decision-making process for these products is likely to be unique and

distinctive as well. Therefore, it is important to examine the various paths that customers of hedonic products may employ to reach marketers' transactional websites and the relative effectiveness of each of these traffic channels in driving Web sales. The first finding is that each of the digital traffic channels examined do in fact demonstrate a significant and positive correlation with Web sales. In addition, we were able to determine that direct traffic, organic search, and paid search were the three traffic channels with the strongest correlation to monthly Web sales. Nevertheless, the findings are merely preliminary, and future research is still needed to validate these results.

Therefore, the next step in a larger and more detailed study would involve the analysis of the causal relationships among the variables. This future analysis could be conducted using logistic regression, with the Log-log regression model equation as follows (Benoit, 2011):

$$\text{Log}_e (Y_i) = \alpha + \beta \text{ Log}_e (X_i) + \epsilon_i$$

where,
Y_i represents the i^{th} predicted variable
X_i represents the i^{th} predictor variable
ϵ_i represents the residual error for the i^{th} variable.

The interpretation of this equation is given as the expected percentage change in Y when X increases by some specific percentage. By examining the causal links among the variables, marketers may be able to determine their ideal strategies for driving website traffic and prioritize their resource allocations accordingly. For example, when constrained by limited resources, an online retailer may choose to eliminate or deemphasize digital traffic channels that could prove to be superfluous. Nevertheless, it is important for online retailers to contemplate factors such as traffic channel compatibility with product attributes or target market considerations when making such adjustments.

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