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# Effects of Channel, Timing, and Bundling on Destination Advertisement Response

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## ABSTRACT

*This research investigates the relationships between advertisement channels, the timing of travel decision making, and the interaction of individual travel decisions on destination advertising response. Based on a sample of 5,472 travelers, this study finds that neither the timing of travel decision making nor the channel of advertisement significantly correlates with the advertising response for most trip decisions. However, strong interactions are found between advertising response and restaurant and shopping trip decisions, and between the attractions and events trip decisions. These findings are important in that they suggest that destination marketing programs should bundle these aspects of the trip together when developing their promotional efforts.*

**Keywords:** *Destination advertising, facets-based advertising model, advertising response, channels, timing*

## INTRODUCTION

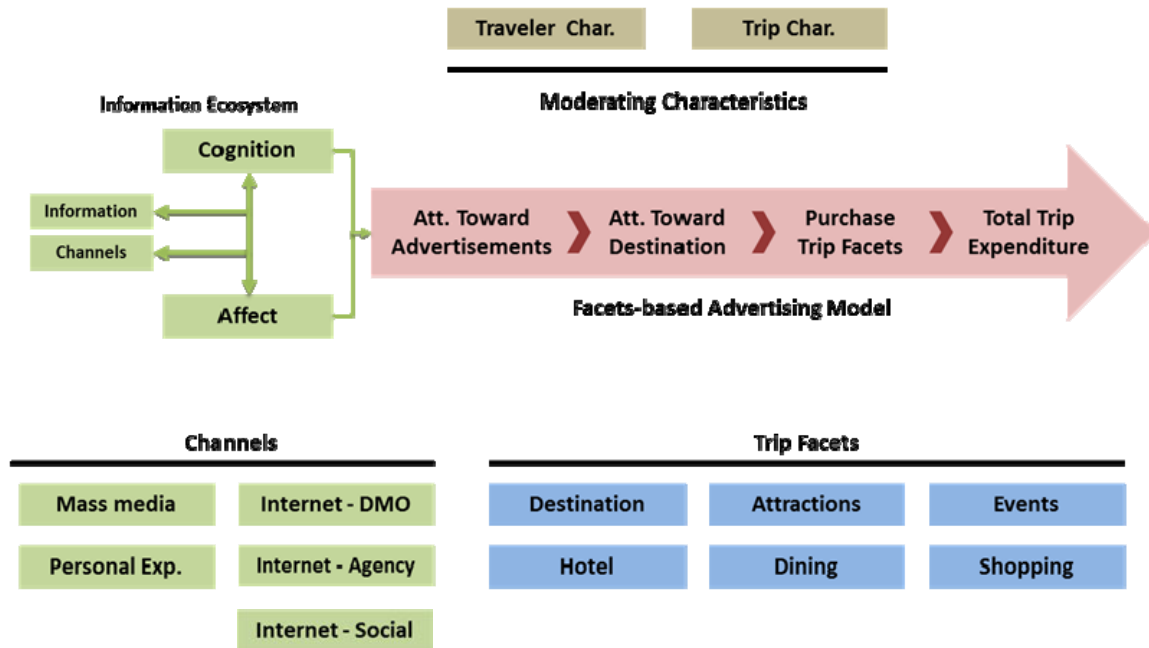
Much research has been devoted to better understanding and modeling travel decision making and advertising response. As the trip decision making process reflects a combination of smaller decisions (i.e. trip facets) such as how to travel, where to stay, where to eat, and what to do, a clearer understanding of how these individual decisions interact and influence advertising response is needed. In particular, destination marketers need to consider how each travel decision can be integrated into destination advertising campaigns in order to optimize awareness (i.e., attention, comprehension, etc.), positive attitude toward the destination, and ultimately, visitor expenditures. It is equally important to understand the types of advertisements and the media channels which are most effective in influencing decisions to visit accommodations, attractions, restaurants, or other destination facets.

Using a facets-based destination advertising response framework, this research specifically investigates how the use of information channels and the timing of travel decision making influence travelers' response to destination advertising (i.e., whether or not they visited featured attractions, accommodations, dining, events, etc.). This study also investigates the interaction effects of individual facet decisions on destination advertisement response and the interactions of timing and channel in order to identify key opportunities for destination marketers.

## LITERATURE REVIEW

Park, Nicolau, and Fesenmaier (2013) proposed the facets-based destination advertising response (DAR) model that considers the influence of advertisements on each aspect of the travel

planning process (such as destination choice, and decisions to visit accommodations, attractions, and restaurants) as well overall visitor spending. The core DAR model can be described as a four stage hierarchical process (see Figure 1). In the first stage, a potential visitor is exposed to destination advertising, which results in the formation of an attitude towards that advertising. In the second stage, this attitude towards the destination advertising influences the individual's attitude towards the destination. These first two stages are drawn from traditional advertising response models for singular consumer goods such as those developed by MacInnis and Jaworski (1989) and Mehta (1994).



**Figure 1: The Destination Advertisement Response (DAR) Model**

The DAR model, however, differs from traditional advertising response models in the third stage, where the individual considers individual trip components. These trip decisions (i.e. facets) typically follow a strong hierarchical structure whereby travel decisions of higher priority such as destination, budget, and accommodations are made in the earlier stages of travel, and past decisions influence future choices (Choi, Lehto, Morrison, & Jang, 2011; Jeng & Fesenmaier, 2002). In the final stage of the DAR model each travel-related facet decision is evaluated in terms of overall contribution to total trip expenditures. The model also considers the role of traveler characteristics such as travel party size and previous experience at the destination, and trip characteristics, including trip purpose and length, in moderating the destination advertising response process (Moutinho, 1987). Finally, the various channels in which individuals seek and consume destination related information is considered, as this too has been shown to moderate the relationship between advertisements and trip decisions (Grønflaten, 2009).

With the viability of the DAR model established (Stienmetz, Park, & Fesenmaier, 2012), this facet-based framework now provides potential application to numerous research questions such as those posed in this study. In particular, previous research has demonstrated that advertising channel and trip decision timing influence travel decisions and that travel decisions are inter-related. However, the purpose of this study is to extend this work by using the DAR

framework to evaluate the extent to which these factors interact to influence travelers' response to the advertisements associated with each trip decision.

## METHODS

Travelers' responses to destination advertising were obtained using an online survey of American travelers who had requested travel-related information as part of 40 U.S. destination marketing programs. It is important to note that the advantages of online surveys (e.g., low cost, fast response, and wide accessibility of the Internet) enable tourism advertising researchers to send questions to the population of people who requested travel information, and, therefore, largely eliminates the need for complex sampling procedures (Hwang & Fesenmaier, 2004). Using this approach allows for a sizeable sample to be obtained, which assures robustness of the parameter estimates (i.e., underlying behavioral response), and in turn enables the evaluation of the relative impact of the hypothesized variables on advertising response. This aspect of the methodology is also important in that it avoids selection bias based on destination, which leads to a more precise analysis of tourist demand as it includes not only those people who travel and purchase, but also those who do not.

In total 264,317 online survey invitations were successfully delivered via email, and in order to increase response rate, a \$100 Amazon.com gift card was provided to one randomly selected respondent for each of the 40 U.S. destination marketing programs. These efforts resulted in 17,785 usable responses (6.7 percent response rate). Of these 17,785 records, a sub-sample of 5,472 observations representing only travelers that were exposed to destination advertisements and then later visited the destination was used for this study.

Six binary logistic regression models were calibrated to evaluate the impact/role of advertising channels, the timing of travel decision making, and the interaction of trip decisions in influencing advertising response. Thus in this study, advertising response ("yes" = 1 or "no" = 0) for each facet (destination choice, attractions, events, restaurants, shopping, and accommodations) was the dependent variable, and travelers' use of various advertising channels, traveler's travel planning including timing, and travelers' response to advertisements, as well as moderating (i.e., exogenous) variables representing traveler and trip characteristics were the independent variables included in the respective models. The complete list of variables used in these analyses is shown in Table 1.

**Table 1: Variables Used in Study**

<u><b>Exogenous Variables</b></u>		<u><b>Research Variables</b></u>
• Gender	• Distance from Destination	• Advertisement Channels
• Age	• Number of Previous Destination Visits	• Timing of Trip Planning
• Income	• Attitude Towards Destination Advertisements	• Facet Advertisement Response
• Travel Party Size		
• Trip Purpose		
• Trip Length		

## RESULTS

Because of the low response rate for this study, a non-response bias analysis was first conducted following techniques described by Rosenbaum and Rubin (1984) and Park and Fesenmaier (2012) whereby bias was assessed by identifying aspects of the population which distinguish respondents from non-respondents and then comparing the weighted results from the non-weighted results. The results of this analysis showed no significant differences in the conversion rates associated with each trip decision, which indicates that non-response did not significantly change the structure of the sample data.

The conversion rate for each destination facet was then calculated as the ratio of those travelers that were exposed to destination advertisements and those that were influenced by the advertisements to visit the destination or specifically featured destination facets (i.e. attractions, restaurants, hotels, events, and shopping). The unweighted advertising response rates for each trip facet are summarized in Table 2, and indicate that the choice of attractions and restaurants are influenced most by destination advertising, while destination choice is influenced least by destination advertisements.

**Table 2: Advertising Response for Individual Trip Decision Facets (n=5,472)**

<u>Trip Facet</u>	<u>Conversion Rate</u>
Visiting a featured attraction	63.7%
Visiting a featured restaurant	48.9%
Staying at featured accommodations	38.7%
Visiting a featured store or shop	38.7%
Attending a featured event	35.7%
Destination choice	14.5%

The results of the logistic regression analyses for each of the six models are reported in Table 3 (see next page). Exogenous variables are listed first followed by the research variables where the regression coefficients show the relative marginal impact each variable has on the log likelihood of advertising response for each facet. The exponentiated form of a regression coefficient is interpreted as the change in the odds ratio of advertisement response for a one unit change in the explanatory variable, holding all other variables constant. The results show that for the destination decision model, the weekend getaway variable is statistically significant and the value of the coefficient is .391. The exponentiated coefficient value ( $e^{.391}$ ) is 1.478 and indicates that if a traveler is taking a weekend getaway, the likelihood of destination advertising influencing their destination choice increases by 47.8 percent, holding all other variables constant. Exponentiated coefficients with values less than one are interpreted as decreases in likelihood. For example, for attraction decisions, the coefficient for a one night stay is statistically significant with an exponentiated value of .694. This means that if a traveler stays one night in the destination, they are 31 percent less likely to be influenced by destination advertisements to visit a featured attraction, holding all other variables constant.

Results shown in Table 3 indicate that the variables which significantly affect the likelihood of advertisement response for each facet decision are different. This suggests that each trip facet should be considered separately when measuring advertisement response (and is consistent with Park et al. (2013) and Stienmetz et al. (2012)). The relatively low Pseudo R<sup>2</sup> for the logistic regression model explaining advertisement response for the destination decision facet also lends further support to previous findings that destination choice is not highly influenced by advertisements (Burke & Gitelson, 1990; Kim, Hwang, & Fesenmaier, 2005; Woodside, 1990).

The regression coefficients in Table 3 also indicate that the timing of travel planning has a statistically significant relationship with advertising response only for the destination choice and events decisions. For the destination choice decision, the likelihood of advertisement response is expected to increase by 358 percent ( $e^{1.52} = 4.48$ ) when the trip is never planned. The

strong effect of no planning may suggest the effectiveness of destination advertisement on influencing destination choice when the trip is planned spontaneously, or at the very last moment. For all other situations, trip timing does not have an effect on advertising response for trip decisions. Interestingly, the only other facet that shows a significant effect for the timing of planning on advertisement response is for events, and those effects are found to be negative. Further, the likelihood of advertisement response for event decisions will actually decrease by 42 percent when travel planning begins one to six days before departure ( $e^{-.550} = .577$ ) or by 43 percent if planning for the trip begins one to four weeks before departure ( $e^{-.566} = .568$ ).

**Table 3: Logistic Regression Results (n=5,472)**

	Destination Choice		Attractions		Restaurants		Events		Shopping		Accommodations	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.
<b>Gender - Female</b>	-.112	.084	-.093	.072	.064	.070	-.082	.070	.112	.071	-.008	.068
<b>18 - 24 years</b>	-.560	.559	-.480	.407	-.119	.415	.480	.385	.395	.407	.367	.395
<b>25 - 34 years</b>	.170	.195	.007	.166	.146	.165	.009	.166	-.106	.170	-.057	.161
<b>35 - 44 years</b>	.094	.156	-.015	.130	<b>-.294*</b>	.127	<b>.291*</b>	.126	.228	.130	.058	.125
<b>45 - 54 years</b>	.115	.126	-.035	.103	-.062	.101	<b>.233*</b>	.101	<b>.210*</b>	.103	.135	.099
<b>55 - 64 years</b>	.049	.120	.085	.095	-.019	.093	.097	.095	<b>.202*</b>	.096	-.059	.092
<b>\$10K - \$19K</b>	-.115	.431	.515	.383	.200	.382	-.468	.357	-.229	.378	-.427	.389
<b>\$20K - 29K</b>	-.107	.380	.349	.344	.085	.344	-.590	.318	-.231	.340	.328	.339
<b>\$30K - \$39K</b>	-.320	.369	<b>.689*</b>	.333	.057	.333	<b>-.687*</b>	.306	-.211	.328	.098	.327
<b>\$40K - \$49K</b>	-.414	.369	.535	.331	.000	.331	<b>-.686*</b>	.305	-.357	.327	.320	.326
<b>\$50K - \$59K</b>	.037	.360	.544	.328	.060	.329	<b>-.688*</b>	.303	-.446	.325	.178	.324
<b>\$60K - \$69K</b>	-.126	.362	.609	.330	.083	.330	<b>-.729*</b>	.304	-.481	.326	.206	.324
<b>\$70K - \$79K</b>	-.048	.362	.327	.328	.341	.329	<b>-.765*</b>	.303	-.547	.325	.133	.324
<b>\$80K and over</b>	-.103	.349	.344	.318	.311	.319	<b>-.751**</b>	.292	-.495	.315	.211	.314
<b>One person on trip</b>	.008	.218	<b>-.533**</b>	.175	<b>.417*</b>	.173	<b>.443**</b>	.172	.058	.177	-.200	.172
<b>2 persons</b>	-.031	.175	<b>-.318*</b>	.142	<b>.435**</b>	.140	.029	.139	.059	.143	.100	.135
<b>3 - 5 persons</b>	.139	.176	-.070	.144	<b>.296*</b>	.142	.093	.140	.101	.144	.033	.137
<b>Trip - Vacation</b>	<b>.226*</b>	.101	<b>.372***</b>	.088	-.076	.084	-.053	.084	.112	.085	<b>.316***</b>	.081
<b>Trip - Weekend Getaway</b>	<b>.391***</b>	.099	<b>.465***</b>	.087	.123	.083	<b>.264***</b>	.082	-.031	.084	<b>.326***</b>	.080
<b>Trip - Special -sports event</b>	-.166	.153	-.045	.130	-.239	.122	<b>1.340***</b>	.119	-.145	.123	.207	.118
<b>Trip - Visit friends &amp; relatives</b>	-.112	.095	<b>-.309***</b>	.079	.069	.077	.022	.077	<b>.209**</b>	.078	<b>-.389***</b>	.075
<b>Trip - Business</b>	-.064	.181	-.029	.146	<b>.424**</b>	.141	-.146	.144	-.081	.143	<b>.451***</b>	.136
<b>One Night</b>	-.152	.163	<b>-.365**</b>	.139	.087	.140	-.148	.141	<b>-.326*</b>	.143	<b>1.373***</b>	.151
<b>Two Nights</b>	-.174	.141	<b>-.263*</b>	.124	<b>.298**</b>	.122	-.090	.122	-.194	.124	<b>1.400***</b>	.135
<b>Three to Five Nights</b>	<b>-.343*</b>	.147	-.076	.126	.215	.124	.024	.125	-.195	.127	<b>1.341***</b>	.138
<b>Six to Ten Nights</b>	<b>-.640***</b>	.192	.128	.156	.275	.154	-.035	.155	-.260	.158	<b>1.189***</b>	.164
<b>11 or more nights</b>	-1.093	.289	-.049	.194	.033	.195	-.044	.199	.000	.198	<b>.840***</b>	.205
<b>Lives next to dest state</b>	<b>.257**</b>	.096	-.044	.081	<b>-.236**</b>	.080	<b>-.467***</b>	.079	.048	.081	<b>.163*</b>	.078
<b>Lives far from dest state</b>	.181	.131	.213	.111	.025	.108	<b>-.344***</b>	.107	-.010	.109	<b>.232*</b>	.104
<b>Prev. Visits - None</b>	<b>1.161***</b>	.307	.200	.311	.166	.299	<b>-.699*</b>	.300	.125	.300	.039	.289
<b>Once</b>	<b>.771***</b>	.158	<b>.277*</b>	.135	-.197	.132	<b>-.447***</b>	.132	-.082	.134	.117	.128
<b>Two to Five Times</b>	<b>.486***</b>	.117	.029	.093	-.103	.091	<b>-.283***</b>	.089	-.012	.092	<b>.261**</b>	.089
<b>Six to Ten Times</b>	<b>.539***</b>	.125	.070	.102	.009	.099	<b>-.194*</b>	.096	.037	.099	.118	.097
<b>Attitude towards Ads</b>	-.001	.026	<b>.189***</b>	.021	.043*	.021	<b>.085***</b>	.023	<b>.134***</b>	.023	<b>.061**</b>	.022

Note: \*p<.05, \*\*p<.01, \*\*\*p<.001

**Table 3 (continued): Logistic Regression Results (n=5,472)**

	Destination Choice		Attractions		Restaurants		Events		Shopping		Accommodations	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Visited featured destination	--	--	.444***	.104	-.027	.095	.149	.090	.312***	.092	.111	.089
Visited featured attraction	.453***	.101	--	--	.659***	.074	1.222***	.082	.801***	.080	.579***	.077
Visited featured restaurant	-.023	.094	.655***	.074	--	--	.576***	.073	1.547***	.070	.972***	.070
Attended featured event	.147	.090	1.234***	.082	.586***	.073	--	--	.575***	.071	.308***	.071
Visited featured store/shop	.297***	.092	.806***	.080	1.545***	.070	.575***	.071	--	--	.561***	.071
Stayed at featured hotel	.108	.090	.603***	.077	.974***	.070	.307***	.071	.569***	.071	--	--
Saw Heard TV/Radio Ads (a)	-.193	.196	-.123	.151	.126	.149	-.179	.146	.238	.151	-.079	.142
Saw Mag/Newspaper Ad (b)	-.154	.205	.431**	.156	.300	.157	-.037	.155	-.064	.163	-.060	.150
Saw Internet Ads (c)	.050	.227	.339*	.162	.281	.167	.094	.168	.076	.177	.309	.164
Saw Other Ads (d)	.011	.225	.043	.177	.112	.173	.088	.165	.128	.172	.177	.161
Never planned trip (1)	1.522***	.467	.319	.446	.392	.468	-.637	.487	.003	.478	-.029	.472
Day of trip (2)	-.026	.651	.184	.505	.093	.542	-.539	.561	-.288	.577	-.538	.646
1-6 days before trip (3)	.581	.333	.298	.274	.365	.276	-.550*	.278	.458	.287	-.334	.282
1-4 weeks before trip (4)	.363	.298	.206	.234	.287	.239	-.566*	.242	-.071	.253	.213	.232
5-8 weeks before trip (5)	.290	.324	.260	.255	.185	.258	-.354	.263	.391	.270	-.159	.255
Interaction (a) with (1)	-1.037*	.448	.656	.403	-.701	.411	-.277	.436	.151	.426	.381	.424
Interaction (a) with (2)	-1.344*	.603	.188	.451	-.232	.467	.950*	.481	-.111	.474	.506	.511
Interaction (a) with (3)	-.374	.275	.238	.226	-.054	.221	.173	.217	-.256	.223	.147	.218
Interaction (a) with (4)	-.244	.235	.191	.188	-.209	.185	.415*	.182	-.092	.188	.150	.177
Interaction (a) with (5)	-.250	.262	.268	.210	-.106	.204	.356	.201	-.334	.206	.070	.195
Interaction (b) with (1)	-.310	.442	-.248	.406	.244	.418	-.295	.437	.058	.434	.088	.431
Interaction (b) with (2)	.158	.626	-.482	.468	-.265	.489	-.387	.503	.656	.516	-.558	.559
Interaction (b) with (3)	-.075	.288	-.191	.238	-.392	.237	.045	.235	.024	.241	.084	.234
Interaction (b) with (4)	.059	.247	-.443*	.197	-.313	.197	.314	.196	.208	.203	-.043	.189
Interaction (b) with (5)	.062	.275	-.094	.218	-.264	.218	-.006	.217	-.103	.223	.170	.210
Interaction (c) with (1)	-.037	.466	-.589	.423	-.227	.435	.615	.468	-.149	.449	-.285	.447
Interaction (c) with (2)	-.098	.651	.579	.472	.008	.511	.019	.530	.215	.536	.719	.655
Interaction (c) with (3)	-.214	.310	-.140	.242	-.165	.246	.231	.248	-.010	.254	.443	.253
Interaction (c) with (4)	-.095	.274	.150	.204	-.029	.209	-.007	.212	-.028	.221	-.212	.206
Interaction (c) with (5)	-.159	.303	-.191	.228	-.088	.231	.018	.235	-.045	.242	.241	.230
Interaction (d) with (1)	-.108	.501	.368	.465	-.164	.457	.549	.462	-.150	.474	-.197	.462
Interaction (d) with (2)	1.761**	.585	-.558	.480	-.034	.487	.022	.485	-.324	.507	-.040	.508
Interaction (d) with (3)	.188	.316	.220	.272	-.092	.260	.036	.248	-.063	.257	-.074	.249
Interaction (d) with (4)	-.074	.276	.333	.229	-.106	.220	-.014	.211	.161	.218	-.228	.206
Interaction (d) with (5)	.031	.306	.153	.256	.141	.244	-.032	.234	-.023	.240	-.245	.229
Constant	-2.878***	.494	-2.627***	.419	-2.948***	.425	-1.685***	.404	-3.201***	.435	-4.204***	.426
Pseudo R <sup>2</sup>	0.081		0.359		0.374		0.293		0.357		0.290	

Note: \*p<.05, \*\*p<.01, \*\*\*p<.001



The results in Table 3 clearly show that advertisement response for all facets are inter-related, as almost all advertisement response variable coefficients are statistically significant. Of all the facets, the trip decision facet is least affected by the advertisement response of other facets, with only the attractions choice ( $B=.453$ ) and shopping choice ( $B=.297$ ) statistically significant. Careful examination of Table 3 reveals patterns in the effect sizes for the interaction of advertisement response. Particularly, a strong relationship is seen between the interaction of advertisement response for attractions decisions ( $B=1.234$ ) and Events ( $B=1.222$ ) respectively. Likewise, there is a strong interaction observed between the advertisement responses for the restaurant ( $B=1.545$ ) and shopping ( $B=1.547$ ) facets. The likelihood of advertisement response for the accommodations facet is expected to increase by 165 percent ( $e^{.972} = 2.645$ ) when travelers also respond to restaurant advertisements. Interestingly, the results indicate that the channel in which advertisements are seen or heard has very little effect on traveler response. In fact, it appears that channel only has a significant impact on traveler response within the context of decisions associated with attractions, whereby both the magazine/newspaper channel ( $B=.431$ ) and the Internet channel ( $B=.339$ ) are positive and statistically correlated with advertising response.

Finally, Table 3 shows that relatively few interactions between the timing of travel planning and advertisement channel are statistically significant. In fact, only three of the possible 25 interactions for the destination choice facet, one of the 25 interactions for the attractions facet, and two of the interactions for the events facet are statistically significant. Furthermore, only three of these interactions have positive effects on advertisement response. Specifically, for destination choice, the interaction between “other” advertisements (billboards, etc.) and planning the day of the trip is found to increase the likelihood of advertisement response by 482 percent ( $e^{1.761} = 5.82$ ). For the events facet, the likelihood of advertisement response will increase by 159 percent when travelers see TV/Radio advertisements when they begin travel planning the day of their trip ( $e^{.950} = 2.59$ ) and advertisement response will increase 51 percent when travelers see TV/Radio advertisements when they begin planning one to four weeks before they travel ( $e^{.415} = 1.51$ ).

## IMPLICATIONS AND CONCLUSIONS

This study found that destination choice is not substantially influenced by destination advertising, that timing and media channel influence each trip decision differently, and that there are few significant interaction effects between timing and media channel. The results also indicate trip decisions are not made in isolation, and as such, should be considered within the context of subsequent decisions. The findings are important in that they demonstrate that destination advertising influences each trip decision in different ways. However, these results do not suggest that one channel is more effective in increasing advertisement response than any other, with the exception of magazine/newspaper advertisements and Internet advertisements being equally effective channels within the context of attractions. Additionally, because of the strong inter-relationship between the restaurant and shopping trip decisions, and the attractions and events trip decisions, destination marketers may wish to consider designing advertising that bundles together solutions in these areas. Finally, destination marketers may consider using more outdoor advertisements, as these seem to have a positive effect on the advertisement response for destination choice among last minute travelers.

This study also provides a foundation for future research. Having found evidence that advertising response for each facet is inter-related; the extent to which these inter-relationships influence destination expenditures should also be investigated. Research could be conducted in order to determine how to maximize destination spending related to each facet through the creation of optimized travel packages. Also, it is important to consider the extent to which frequency and timing of exposure affects trip decision specific advertisement response.

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