

# To Click or Not to Click: A study of tourist social media click behavior on search engine result pages

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## Abstract

This study explores whether tourists are more likely to click on website or social media results from Search Engine Result Pages (SERPs) and whether the rank, title, URL, or meta-description impacts click behavior. An experimental research design consisting of 521 random respondents was used to determine whether tourists click on Destination Marketing Organization (DMO) website or social media sites, and which factors influence tourism consumer click behavior on a SERP. The findings from this study indicate tourists are more likely to click on tourism destination websites than social media sites from SERPs. However, tourism consumers are more likely to click on DMO social media sites when these are top results on a SERP, and when rank is a determinant of click behavior. While social media plays a role in searching for a tourism destination, maintaining a well-optimized website is still vital to being found on search engines by potential visitors.

**Keywords:** Social Media Marketing, Search Engine Optimization, Destination Marketing Organizations, Search Engine Result Pages, Search Engine Marketing

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## 1. Introduction

The Internet is a preferred means of gaining travel information, and consumers are increasingly using Internet searches, especially at the start of travel planning and in their choice of destination (Fernández *et al.*, 2020). Search engines are one of the top online information sources with 74% of leisure travelers using search engines for travel planning (Google/Ipsos Media CT, 2014), making search engines one of the most valuable tools for promoting tourist destinations (Xiang *et al.*, 2008).

The main Internet marketing techniques employed by tourism destinations are search engine marketing (SEM) and search engine optimization (SEO). The objective of SEM and SEO is to improve and maintain the highest possible position, or ranking, on SERPs. Henzinger (2007) found the rank of a web page on a SERP plays a significant role in consumer click behavior. A struggle exists between destinations as they compete among themselves and other information sources for the attention of online consumers browsing through information on SERPs (Pan *et al.*, 2011). Therefore, the importance of rank and the large amount of competition on SERPs makes the process of SEO extremely important for DMOs.

One source of competition on SERPs is social media sites, including those of tourism destinations. Given the popularity, up-to-date nature, and high level of connectivity of social media, these sites often show up on the first few results pages (Xiang & Gretzel, 2010). Many tourism destinations have developed and maintained both travel destination websites and social media sites. Therefore, it is important to evaluate whether tourism consumers click on DMO website or social media results from SERPs to determine which online mediums to invest resources, such as time and money, for SEO purposes.

Various studies have examined search engine click behavior (Henzinger, 2007; Pan, 2015; Pan *et al.*, 2007a; Pan *et al.*, 2007b). However, there has not been a study that examined click behavior on social media results from SERPs (Pan, 2015). To fill this important gap in the literature, this study addressed whether tourists are more likely to click on DMO website or social media results from a SERP when searching for information on travel destinations. Additionally, there have been studies that have examined how rank influences click behavior (Henzinger, 2007; Pan, 2015; Pan *et al.*, 2007a; Pan *et al.*, 2007b); however, there has not been a study that examined the impact of rank on social media result click behavior. This study examines how the rank, title, URL, and meta-description of DMO social media sites on SERPs influence consumer click behavior.

## **2. Literature Review**

The Internet, especially search engines and social media, influence how tourists get information about a destination. Fernández *et al.* (2020) found that Internet search engines are the most commonly used communication tool among tourists. The Internet is used by 83% of travelers for planning a trip, and online searches, such as Google, remain the number one planning source for personal travel. Of leisure travelers, 95% have started their destination planning by searching online, and 63% agree that search engines are their main source of travel information (Google/Ipsos Media CT, 2012). This makes search engines one of the most valuable tools for promoting tourist destinations (Xiang *et al.*, 2008).

Search Engine Optimization (SEO) is the strategic process of developing a plan to improve website visibility on search engines. Search engine algorithms consider keyword density and frequency within web pages, hyperlink structure, and click-through rate data when determining how a site ranks on a SERP (Brin and Page, 1998; Gandal, 2001; Joachims, 2002). Due to the complex nature of search engine algorithms, tourism organizations must adapt to changing algorithms to gain visibility on SERPs and must implement proper SEM and SEO strategies to gain a competitive advantage online (Pan, 2015; Pan *et al.*, 2011).

### **2.1 Search Engine Result Click Behaviour**

DMOs must not only understand the complexities of search engine optimization but must also have a solid grasp of tourism consumers' behavior on search engines. The interface of search engines and the rank of web pages have a significant influence on click behavior. The majority of search engine users do not look beyond the first three pages of search engine results (Henzinger, 2007), and tourists are unlikely to look beyond the second page (Xiang *et al.*, 2008). Pan *et al.* (2007a) found that tourists pay most of their attention to results on the first page and give especially close attention to the top two or three results.

Ranking at the top of SERPs has tremendous advantages, as these results have higher click-through rates. Higher rankings on SERPs are a necessary condition for higher click-through rates but are not the only aspect that determines click behavior. Many high-ranked web pages have low click-through rates, indicating that the meta-description, URL displayed, and the actual content of the webpage plays an important role in conversions. These findings indicate that DMOs must be on the top of SERPs for their targeted search queries and need to have relevant meta-descriptions, URLs, and web content to attract more clicks (Pan, 2015). Overall, DMO

marketers need to understand how tourists process and consume information on a SERP, as this has a significant impact on click behavior.

## ***2.2 The Impact of Social Media on Destination Marketing Organizations and Tourism Consumers***

In today's competitive and technology-driven society, having a web presence no longer guarantees visibility and accessibility online (Wang & Fesenmaier, 2007), due to the impact online social media travel sites are having on how tourists plan trips (Blackshaw, 2006). Social media sites enable users to publicize personal information and connect with others who have similar interests (Dippelreiter *et al.*, 2008; Huang *et al.*, 2010).

Electronic sources, including social media, play a key role in the destination choice of travelers (Shankar, 2020). Social media have been widely adopted by travelers to search, organize, and share their travel experiences (Leung *et al.*, 2013), and are more effective at equipping travelers with comprehensive knowledge of destinations than other information sources (Schmallegger & Carson, 2008; Yoo & Gretzel, 2011). Travelers are increasingly relying on and studying reviews on travel blogs and social media from other travelers who have previously visited a destination (Assaker, 2020; Zhang *et al.*, 2018) and perceive these reviews as more reliable compared to the content on DMO's websites (Gal-Tzur *et al.*, 2020).

Social media is also influencing tourists' search for information about a destination. Search engines incorporate social media content into search engine rankings and returned results (Ghose *et al.*, 2012), thus DMO's websites potentially face competition from social media sites on SERPs (Blackshaw & Nazzaro, 2006). Social media sites make up approximately 10-20% of the search results in online travel searches (Xiang & Gretzel, 2010; Tran *et al.*, 2017a), and often appear on the first few search result pages on Google (Xiang & Gretzel, 2010). This may affect click behavior on SERPs; therefore, clicks on social media results on SERPs must be examined.

## **3. Methodology**

An experimental research design was used to determine whether tourists click on DMO websites or social media sites, and which factors influence tourism consumer click behavior on a SERP. An experimental research design was used because it is associated with strong internal validity (Lee & Lings, 2008), and allowed the researcher to observe actual click behavior, rather than Internet search intentions. This experimental design utilized Qualtrics survey software, specifically heatmap survey questions, to collect and analyze click behavior on SERPs. Follow-up survey questions were utilized to identify whether respondents' clicks were based on the rank, title, URL, or meta-description of the result.

To collect this data, SERPs were created that mimicked SERPs that would be seen when completing a search using the keywords "Visit New York." New York, NY was chosen for this study because it is one of the top tourist destinations in the United States (Poland, 2015). Utilizing a destination that attracts a large number of diverse visitors helps to increase the validity of this research study and makes this study more generalizable to other destinations.

The SERPs created for this research project were designed to look like actual Google SERPs when the terms "visit" and the destination name (i.e. New York, NY) were put into a Google search query. The SERPs for this project mimicked Google because Google maintains 88% of global search engine market share (Statista, n.d.). The SERP title, URL, and meta-description consisted of similar language and style as the original link; however, were not identical so as not to infringe on any copyrighted content. The SERPs consisted of DMO

website and social media results. To be consistent, the following DMO social media sites were utilized: (a) Facebook, (b) Twitter, (c) TripAdvisor, (d) Instagram, and (e) YouTube. Respondents were shown various iterations of SERPs including, (1) SERPs with websites as the top results (set 1), (2) SERPs with social media sites as the top results (set 2), and (3) SERPs that mixed website and social media results within the SERP (set 3). After viewing and clicking on each SERP, respondents were asked to rank how influential the rank, title, URL, and meta-description were in their click behavior.

The sampling frame consisted of 521 random respondents from all states within the United States, between the ages of 18 and 65, who travel for leisure purposes. A sample of 500 or more was desired to increase external validity, improve statistical power, and increase the generalizability of this study. The sample was collected in September 2016. Survey respondents were members of Qualtrics® Panels, a paid service that utilizes panel members to participate in surveys. Qualtrics Panels collaborates with over 20 online panel providers to obtain a diverse pool of respondents. Potential respondents for this survey were randomly selected by Qualtrics Panels and their partners. Respondents of the survey were emailed an invitation to take the survey by Qualtrics. To reduce self-selection bias, the invitation did not include specific details about the contents of the survey.

**4. Results**

A chi-square goodness of fit test was conducted to determine if there was a statistical difference between the number of clicks on DMO website and social media results. This test was conducted on the three sets of SERPs (websites first, social media first, and mixed). Respondents’ first two clicks were recorded, rather than just the top click, to gain a better understanding of overall click behavior. Click behavior on SERPs consisted of one of the following combinations: a) two clicks on website results and zero clicks on social media results, b) one click on a social media result and one click on a website result, or c) zero clicks on website results and two clicks social media results.

The results of the chi-square goodness of fit test indicated there was a statistically significant difference in the number of clicks on DMO websites and social media sites for all three sets of SERPs. The observed frequencies generated by the chi-square goodness of fit test indicated respondents were most likely to: (a) click on DMO websites when websites were top results on a SERP, (b) click on DMO social media sites when social media were top results on a SERP, and (c) click on DMO websites when website and social media results were mixed within the SERP (Table 1).

A chi-square test of independence was conducted to determine if there was a statistically significant association between clicks on DMO social media results on SERPs, and the influence of rank, title, URL, and meta-description on click behavior. Survey respondents were asked to order rank, title, URL, and meta-description from one to four, with one being most influential and four being the least influential.

**Table 1:** Difference in Clicks on DMO Website Versus DMO Social Media Sites

	Results of chi-square goodness of fit to test if there is a difference in clicks on websites and social media sites	More likely to click on websites or social media sites
<b>Set 1 of 3(websites first)</b>	<b>0.000***</b>	Websites

<b>Set 2 of 3 (social media first)</b>	<b>0.000***</b>	Social media
<b>Set 3 of 3 (mixed)</b>	<b>0.000***</b>	Website

\*\*\* Denotes statistically significant relationship,  $p < 0.001$

\* Denotes statistically significant relationship,  $p < 0.05$

The results of the chi-square test of independence indicated that rank and meta description were statistically significant when social media results were first. This test also indicated that rank and title were statistically significant when the results were mixed; however, additional analysis did not support these findings (Table 2). Based on the results of the chi-square test for independence, a multinomial logistic regression was conducted to determine if rank and/or meta description were predictors of click behavior when DMO social media sites were the top results (results 1-5) and DMO websites were the bottom results (results 6-10) on a SERP.

**Table 2:** Association of Rank, Title, URL, and Meta-Description With Social Media Click Behavior

	Rank	Title	URL	Meta-description
<b>Set 1 of 3 (websites first)</b>	0.683	0.618	0.789	0.097
<b>Set 2 of 3 (social media first)</b>	<b>0.000*</b>	0.518	0.847	<b>0.043*</b>
<b>Set 3 of 3 (results mixed)</b>	<b>0.009*+</b>	<b>0.046*+</b>	0.603	0.275

\*\*\* Denotes statistically significant relationship,  $p < 0.001$

\* Denotes statistically significant relationship,  $p < 0.05$

+ Further analysis did not support findings of significance

The full model containing rank and meta-description was statistically significant,  $X^2(4, N = 460) = 28.011, p < 0.001$ , indicating a relationship exists between rank and meta-description and clicks on social media results on the SERP (Table 3). The goodness-of-fit was not statistically significant,  $p > 0.05$ , supporting the overall model fit (Table 3). The model as a whole explained between 2.8% (McFadden R square) and 6.7% (Nagelkerke R square) of the variance in click behavior on the SERP when DMO social media sites were the top results (results 1-5) on the SERP. Examination of the likelihood ratio table indicated only rank was statistically significant in predicting social media click behavior on the SERP,  $X^2(2, N = 460) = 19.282, p < 0.001$ . Meta-description was not statistically significant in predicting clicks on social media on the SERP, thus the null hypothesis was accepted for this variable (Table 3).

**Table 3:** Multinomial regression model fitting, goodness of fit, and likelihood ratio information: rank and meta-description as predictors of click behavior

	-2 log-likelihood	Chi-square	Df	sig
Multinomial regression model fitting information	136.859			
Intercept Only	108.848	28.011	4	<b>0.000***</b>
Final				

Goodness of fit		21.418	18	0.259
Pearson		21.434	18	0.258
Deviance				
Likelihood Ratio	115.703	6.885	2	0.032
Table				
Intercept	128.130	19.282	2	<b>0.000***</b>
Rank	110.487	1.639	2	0.441

\*\*\*Denotes statically significant relationship,  $p < 0.001$

\* Denotes statistically significant relationship,  $p < 0.05$

Further examination of the parameter estimates indicated the independent variable, rank, was significant in distinguishing between zero and two clicks on social media sites ( $\beta = 0.549, p < 0.05$ ), given all other variables in the model are held constant. The exponent of the coefficient ( $\text{Exp}(\beta)$ ), or  $e^{(0.549)} = 1.731$ , was computed to determine the estimated odds. The estimated odds of zero clicks on social media results versus two clicks on social media results increase by 1.731 for every one unit increase in rank (Table 4). Therefore, respondents were less likely to click on social media results on the SERP when rank was less influential in determining social media click behavior, and social media were the top results on the SERP.

**Table 4:** Multinomial Regression Parameter Estimates Table: Rank and Meta-Description as Predictors of Click Behavior on New York SERP (set 3 of 4)

		B	Std. Error	Wald	df	Sig.	Exp(B)	95% confidence Exp(B)	
								Lower	Upper
0	<b>Intercept</b>	-1.460	0.567	6.629	1	0.010			
	<b>Rank</b>	0.549	0.129	18.138	1	<b>0.000***</b>	1.731	1.345	2.229
	<b>Meta</b>	-0.145	0.117	1.524	1	0.217	0.865	0.687	1.089
1	<b>Intercept</b>	-0.565	0.494	1.305	1	0.253			
	<b>Rank</b>	0.239	0.112	4.556	1	<b>0.033*</b>	1.269	1.020	1.580
	<b>Meta</b>	-0.029	0.107	0.073	1	0.787	0.972	0.788	1.198

The reference category is 2.

\*\*\*Denotes statically significant relationship,  $p < 0.001$

\* Denotes statistically significant relationship,  $p < 0.05$

Similarly, examination of the parameter estimates also indicated the independent variable, rank, was significant in distinguishing between one and two clicks on social media sites ( $\beta = 0.239, p < 0.05$ ), given all other variables in the model are held constant. The exponent of the coefficient ( $\text{Exp}(\beta)$ ), or  $e^{(0.239)} = 1.020$ , was computed to determine the estimated odds. The estimated odds of one click on a social media result compared to two clicks on social media results increased by 1.020 for every one unit increase in rank (Table 4). Therefore, respondents were less likely to click on social media results on the SERP when rank was less influential in determining social media click behavior, and social media were the top results on the SERP.

## 5. Discussions

This study explores whether tourists are more likely to click on DMO websites or social media sites from a SERP. Results from the chi-square goodness of fit test indicated a significant difference between the number of clicks on DMO websites and social media sites from SERPs. Specifically, tourists are more likely to click on DMO websites than social media sites from a SERP. Thus, this suggests tourists anticipate DMO websites provide better information about a destination than DMO social media sites, especially when choosing a destination. Fernández et al. (2020) found tourists' main source of information is Internet search engines during the destination choice and trip preparation stages of a trip. Additionally, among all destination information channels, the website stands out as one of the most consulted sources of information (Fernández *et al.*, 2020). This study expands on these findings, showing that tourists not only utilize Internet search engines for their search of destination but are more likely to click on destination websites than social media sites on search engines.

This study also explored whether rank, title, URL, and/or meta-description influences click behaviour. Results of the chi-square test of independence indicated rank and meta-description were associated with clicks on social media results when social media results were the top results on a SERP. Further exploration using a multinomial logistic regression indicated rank was statistically significant in predicting clicks on social media results. When rank was less influential in determining click behaviour, respondents were less likely to click on social media results when DMO social media sites were the top results (results 1-5) on the SERP. In other words, tourists are more likely to click on social media sites when DMO social media sites rank high on SERPs, and rank is a determinant of click behaviour.

### **5.1 Theoretical Contributions**

Pan *et al.* (2007a) found that tourists pay the most attention to results on the first page, and close attention to the top two or three results on a SERP. In addition, the amount of trust placed in the top results surpassed users' judgment on the relevancy of the title, URL, or meta-description on the SERP. Search engines incorporate social media content on SERPs (Ghose *et al.*, 2012), and represent approximately 10 to 20 percent of search results (Xiang & Gretzel, 2010; Tran *et al.*, 2017). Additionally, social media tourism sites rank high on SERPs, suggesting that social media sites are substantial in terms of their up-to-date and relevant content, and connectivity with other sites (Xiang & Gretzel, 2010).

The results of this study expand on the findings of Pan *et al.* (2007), indicating that tourists not only pay the most attention to the top two or three results on a SERP but are also more likely to click on social media results when they rank high on a SERP. This is also supported by various studies which have found that tourists utilize social media during their trip, and to share their experiences upon returning home (Munar *et al.*, 2014; Jacobsen *et al.*, 2012; Fernández *et al.*, 2020).

### **5.2 Practical Implications**

This study has two main implications for practitioners including the importance of maintaining a well-optimized website, and the value of maintaining and updating social media sites. Although tourists will click on DMO social media sites from SERPs, a larger portion of clicks continue to be on DMO websites from SERPs. Tourists are more likely to click on DMO websites than social media sites from a SERP, except when social media sites are the top results. Liu *et al.* (2019) found that social media do not exert a direct impact on consumers' choice of destination. Therefore, it is more important for DMOs to maintain a well-optimized website. To optimize their websites, DMOs should implement SEO best practices and continually monitor their web analytics to make changes to their website and increase SERP rankings.

Tourism social media sites also can play a significant role in the consumer decision-making process. During the information search stage of the decision-making process, social media can be used to drive traffic to the tourism destination website (Bagozzi & Dholakia, 2006; Hudson & Thal, 2013; Pan *et al.*, 2007b). At the evaluation stage, tourism consumers' information searches from social media are more likely to persuade their decision than any other marketing source (Hudson & Thal, 2013). However, social media plays the biggest role in the tourist experience during and after the trip, allowing consumers to share their experiences upon returning home (Munar *et al.*, 2014; Jacobsen & Munar, 2012; Fernández *et al.*, 2020). Since tourists may click on DMO social media sites from SERPs, especially when ranked high, and many tourists utilize social media sites to share their experiences after their trip, DMOs need to maintain regularly updated social media sites that provide a link to their website. This is especially important for tourists during the planning stage of their trip.

### **5.3 Limitations and Future Research Recommendations**

This study is subject to sampling error due to the sample population being a panel. It is possible panel members were not fully representative of the entire leisure tourism consumer population. This study utilized search engine results pages intended to emulate a Google SERP; however, it is nearly impossible to predict which results will appear, and in what order, due to the complex and ever-changing algorithms of search engines. Due to the complexity of these algorithms, the SERPs displayed in this study are not exactly the same as those that a tourism consumer would see on an actual SERP. Lastly, portions of this study used self-reported data, which is known to be biased by respondents' perceptions.

The results of this research study have led to other potential future areas of research. Future areas of research could include a deeper examination of SERP click behavior for large versus small tourism destinations, the click behavior of business travelers, and the click behavior of tourists traveling from countries other than the United States.

## **6. Conclusions**

The results of this research add to the body of knowledge related to search engine marketing of tourism destinations. Specifically, this study concluded that leisure tourism consumers in the United States are more likely to click on DMO website results than DMO social media sites on SERPs; however, rank remains a significant factor associated with whether a leisure tourism consumer clicks on a DMO website or DMO social media results.

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