A Review of Social Media Efficiency Over a 3-Year Period to Promote a Hospitality Management Program at a Southwestern University

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Social media is utilized in marketing to maximize outreach, and within higher education, its use has been growing to engage a variety of stakeholders and recruit students. This paper compared the efficiency of three marketing campaigns using Facebook and Google Search Engine Management (SEM) over three years in support of promoting a new hospitality management program at a southwestern university. The findings may provide insights into a better understanding of the attitudes and consumption behaviors of students and parents, and the efficiency of utilizing social media through the lens of a comparative 3-year timeline in the period before and during the Covid-19 pandemic.

Keywords: social media marketing, student recruitment

INTRODUCTION

Social media is a driver and influencer of choice for college students who are members of a generation that consume much information digitally. In the interconnected digital world, trends include the increasing use of mobile devices where 97% of the American public owns a cellphone (Pew Research Center, 2021), and almost all report being on the internet daily. Teen ownership of smartphones is at 95% (Vogels, Gelles-Watnick & Massarat, 2022) and one could surmise that smartphone devices are utilized to consume and engage most social media within this group. Social media use is becoming a common part of many teens’ daily routine and a variety of platforms target U.S. teens who spend almost all their time “almost constantly” on the internet daily at 46% or “several times per day” at 48% (Vogels, Gelles-Watnick & Massarat).

Facebook and Google (SEM) are examples of two social platforms that engage diverse audiences where psychographic, demographic, geographic and other parametric values may be manipulated to glean particular information that may be utilized to optimize marketing strategy and outreach. Dixon (2022) reported that mobile social media usage in North America was universal. In the United States, approximately 90 percent of active users accessed social media via mobile devices and in Canada, the mobile social media penetration rate was 86.5 percent.

Social media is utilized globally by two-thirds of all internet users and Facebook is the largest platform in the world with 2.4 billion users in a world population of 7.7 billion (Ortiz-Ospina, 2019). In the campaigns, the primary audience was students, and parents were also targeted as they are considered influencers of their children’s choice which was supported in different studies. Adults number almost 70%
of Facebook users (Gramlich, 2021). Concerning career choice, for example, parental influence is considered one of the most influential factors in career decision research according to Lee, Lee & Dopson (2019) who reference Ferreira, Santos, Fonseca, & Haase, (2006). They also cite Chuang & Dellmann-Jenkins, 2010; Counsell, 1996; and Wong & Liu, 2010) in regards to parents being the strongest factors in the career decision-making process when it comes to that advice. In another study that surveyed Vietnamese high school students’ use of choice factors and word-of-mouth information sources in university selection, parents are the most influential information source for students (Le, Robinson & Dobele, 2020). Additionally, Hemsley-Brown and Oplatka (2015) also considered the influence of parents and friends of students as two main information sources.

Not long after its inception in the early 2000s, students started to engage with social media. It is surmised that higher education followed shortly thereafter upon recognizing its potential as an important medium in enrollment management and recruitment strategy. With the ubiquity of the internet, the proliferation of personal devices, and the utilization of digital marketing, colleges and universities can benefit from an enhanced understanding of how prospective students use social media (Shields & Peruta, 2019).

Google SEM reaches users when they are typing in keywords that search for information about hospitality education. Facebook is a social utility that connects people with friends and others who work, study, and live around them. Individuals use Facebook to stay connected with friends, upload photos, share links and videos, and learn more about the people they meet (Rueben, 2008). But education marketers who target the high school population, are likely to see a decrease in audience sizes and potential reach with the updates from the past and into the future (Education Insight Blog, 2022) due to changing demographics and declining fertility rates.

The term “Social media” (SM) was first described in 1994 in a Tokyo online media environment, called Matisse (Aichner, Grünfelder, Maurer & Jegeni, 2021). Since that time, the number of SM platforms has grown significantly as has the number of users to where social media is one of the most important applications of the internet. Businesses have moved their advertising and marketing presence to engage and target users. SM platforms have evolved in commerce to include business-to-business (B2B) and business-to-consumer (B2C), where formerly passive customers have now become active participants in the transactional experience. Consequently, this has led to new approaches in how companies meet customers towards building relationships online and deploying new strategies and tactics in customer relationship management. SM occurs in real-time, is supported by analytics, and provides metric baselines for the efficiency of campaign messages and the return on financial resources deployed. SM involves a re-imagining of the customer and the relationship aspect in that customer interaction is customizable and can be appealing on a personal level in comparison to a broader audience approach in traditional marketing. Online, the customer has the potential to be an ally of the company and in some cases an enemy (Aichner, et al., 2021).

Social media is increasingly being used as a marketing platform in higher education for growing enrollment and in one study in Tanzania, (Masele & Rwehikiza, 2021) the efficacy of social media was cited for the increased usage due in part to the cost-effectiveness of the platform to persuade customers amid the intense competition of higher learning institutions of Tanzania.

Limited research has been conducted on this topic and none has been conducted related to the digital marketing of a new academic program. The data in this paper was generated from a professional media company hired by the university and the results are presented as three similar social media campaigns in the fall of 2019, 2020 and 2021. This paper also puts forth some of the reasons for and against using Facebook based in part on the comparative results of the campaigns, the experiences of the authors relative to the campaigns, and findings in recent literature. A reflection on utilizing similar platforms in the future is provided in the Discussions and Implications section.
SOCIAL MEDIA

Social media marketing has become an indispensable part of the advertising and marketing landscape (Chen, 2008) in the competitive world of higher education marketing where only a few colleges or universities typically make it onto a student’s top schools list. With the rise of ad blockers and a target audience that actively avoids marketing messages, social media is often looked at as the starting place to engage prospective students (Capture Higher Ed, 2016). Chen states for reasons of practicality, the vast majority of institutions of higher learning such as universities and colleges maintain a presence across multiple platforms and may even have multiple pages or profiles on a single platform.

Regarding branding on social media, companies struggle to assess whether their investments and maintaining brand pages on social media meet their expectations regarding the cultivation and retention of customers (Maecker, Barrot, & Becker, 2016). The results from their study on the effect of social media interactions on customer relationship management demonstrate that the significant differences in customers’ upselling behavior, churn, service contacts, and, ultimately, profitability are caused by the specific interactions of customers through the brand page, in essences, find customers who interact with the brand on social media to be more profitable.

Constantinides & Zinck Stagno (2012) reinforces the importance of the internet as a commercial platform and how it is universally recognized. Further, increasingly businesses adopt online marketing channels at the cost of traditional ones. Higher education institutions have an interest in social media as part of the marketing toolkit and this is increasing, but little is known about the potential of these channels in higher education marketing strategies. Constantinides et al lamented that even less is known about the role of social media as influencers of future students in their choice of study and university. Although it is 10 years since the 2012 publish date- those authors attempted to identify the role and importance of social media in the choice of future students. That paper identified market segments among future students based on the use of social media and examines the impact of social media on the choice of a higher education program and institution, based on data collected using a national survey among future university students in the Netherlands. They described three market segments among future students based on their use of social media:

Public Institutional Marketing

Specific literature concerning the topic of this paper is limited in regards to social media marketing to recruit at public institutions. However, Bamberger, A., Bronshtein, Y., & Yemini,M. (2020) wrote about how “the competition...has spurred higher education institutions to craft marketing campaigns to appeal to potential students” and they stated that social media provides “an increasingly prominent platform for such interactions.” To attract international students, institutions (Lomer 2017; Stein 2018) have embarked on rigorous marketing campaigns, many employing social media (Kuzma and Wright 2013). European and North American universities and colleges invest in marketing activities in social media, a powerful tool to connect and maintain relationships with consumers. Motta & Barbosa (2018) quoting Whisman, 2011 state that higher education institutions are increasingly investing in marketing activities to sustain a position of competitiveness worldwide.

Similar to traditional marketing, digital marketing begins with understanding the best strategies to reach your audience and the advantage of social media is the precision targeting of individuals in a Designated Market Area (DMA). In this study, the target audience was high school students, their parents, and local community college students. The purpose of this study was to compare the efficiency of digital marketing over 3 years for a new hospitality management program at a Southwestern University.

Facebook and Google Ads

Social media is seen as a cost-effective tool (Madia, 2011) that interacts with the audience in a way that keeps their interest such as is the case in deploying short videos. The marketing campaign reviewed in this study purposely used 15-second and 30-second short videos intending to optimize applicants by clicking links through impressions that appeared on their devices, tablets, and computers. With both the Facebook
videos and Google Ads (formerly Google Adwords), potential students clicking the links would automatically bring them to the hospitality management program web page provided and the university application portal, where they could register for information or start their application. Once an application has been submitted, the objective then became how to maximize conversions to enrolled students, which was not measured in this study.

Younger and better-educated consumers are among the heaviest users of the internet (Beritelli, Bieger, & Laesser, 2007), which is considered an important source of consumer information (Zins, 2007). For the study of this paper, geofenced parameters were established to reach area high schools and their parents because they are considered influencers of their children’s higher education choices. Facebook video ads and Google Search Engine Marketing (SEM) paid search was utilized in each of the three different campaign years. The amount of spend and length of time of the campaigns differed in months and costs for a variety of reasons, such as budget amounts, and effectiveness including results from the previous year. However, as an upstart program and in using a social medium to promote the new program, to a certain extent, some experimentation did exist due to prior history with results lacking. Therefore, one could say that trial and error experimentation was part of the approach in the initial and successive campaigns.

METHOD

Data Collection

A professional media firm was hired to help in distributing and analyzing a media campaign for a new hospitality program offered at a southwestern university. The social media campaigns were deployed during the university’s fall application period. The media campaign was for a three-year period. The marketing campaign used 15-second and 30-second short videos intending to optimize the number of applicants who clicked through an impression. With both the videos and Google Adwords, potential students would click the link in pop-up advertisements that would automatically bring them to the hospitality management program web page and provide the application portal.

SPSS software was used for the data analysis with t-tests and ANOVA statistical methods to test the means between groups of participants and the hypotheses. The t-test and ANOVA analysis of variance yielded that click rates were significantly different.

Sample

Facebook gender data from the campaign were revealing but only analyzed from 2021. The data are presented in Table 1. For Parents, the yield and overall results and cost per result were more efficient relative to high schooler impressions and reach which were significantly lower. Female parents’ impressions and link click-through were higher at 68.6% while the males were at 30.9%. Parental female age groups 35-44 (32.3%) and 45-54 (30.9%) were dominant. High school and community college-age student data revealed an interesting contrast between females and males. For student groups, 13-17 and 18-21 the consumption pattern for female users was 39.4% versus male users at 60.6% which was the reverse of that of the parents.
### TABLE 1
STUDENTS AND PARENTS - AGE AND GENDER RESULTS 2021

<table>
<thead>
<tr>
<th></th>
<th>Results</th>
<th>Reach</th>
<th>Impressions</th>
<th>Cost per result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parents with High Schoolers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Link Clicks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-34 Female</td>
<td>14</td>
<td>256</td>
<td>1,892</td>
<td>$2.76</td>
</tr>
<tr>
<td>24-34 Male</td>
<td>1</td>
<td>21</td>
<td>178</td>
<td>$2.80</td>
</tr>
<tr>
<td>35-44 Female</td>
<td>80</td>
<td>1,828</td>
<td>16,068</td>
<td>$3.29</td>
</tr>
<tr>
<td>35-44 Male</td>
<td>33</td>
<td>673</td>
<td>6,563</td>
<td>$2.90</td>
</tr>
<tr>
<td>45-54 Female</td>
<td>79</td>
<td>1,256</td>
<td>9,643</td>
<td>$2.50</td>
</tr>
<tr>
<td>45-54 Male</td>
<td>42</td>
<td>559</td>
<td>6,125</td>
<td>$2.20</td>
</tr>
<tr>
<td>55-64 Female</td>
<td>1</td>
<td>86</td>
<td>531</td>
<td>$11.14</td>
</tr>
<tr>
<td>55-64 Male</td>
<td>3</td>
<td>29</td>
<td>139</td>
<td>$1.01</td>
</tr>
</tbody>
</table>

| **High School Seniors** |         |        |             |                 |
| Link Clicks            |         |        |             |                 |
| 13-17 Female           | 41      | 2,054  | 39,154      | $4.37           |
| 13-17 Male             | 57      | 1,816  | 31,861      | $2.96           |
| 18-24 Female           | 47      | 1,544  | 14,036      | $3.23           |
| 18-24 Male             | 78      | 1,584  | 15,757      | $2.59           |

**Devices Used**

The types of devices used in the 2021 campaign are shown in Figure 1. As mentioned, the lack of tablet use by students and parents in this study was surprising. The surprise stems from the number of schools that have adopted tablets for each of their students, yet tablets are not their first choice of communication. Phones were first, then computers although the click-through rates were disproportionately better with computers and delivered a higher yield to drive traffic to the program webpage and application portal. Device usage needs further study to determine the effectiveness of tablet programs at schools. Since an iPhone and tablet tend to be similar in convenience, habit and private ownership may be the reasons for their use versus tablets. As an aside, students may also associate tablets with textbooks and learning.

An after-effect of all three campaigns was to see applications received from other areas outside the targeted area and that was attributed to changes and expanded SEM search parameters because not enough searches were keyed from the original targeted area. This study’s time horizon provided insights that will inform future marketing campaigns and it will be interesting to see how the data results evolve post-pandemic.
FIGURE 1
DEVICES USED

The digital marketing budget and monthly costs of the respective campaigns along with length timelines are shown in Table 2. The campaign advertisement run times were based on mostly finite budget amounts. Yet, in Table 3 the Facebook Campaign for 2021 shows that advertisements did not run for the same period of four months as they did in 2020. The 2020 lockdown period during the pandemic forced students to learn remotely. It was also thought that August being a vacation and back-to-school month in the future might not be a good social media time to advertise. Although for Facebook, 2020 represented a record reach and low cost per click for money spent and this may be attributed to more students having more time remote learning, stuck at home on their devices.

### TABLE 2
YEARDAY CAMPAIGN BUDGET

<table>
<thead>
<tr>
<th>Date Range</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of campaign</td>
<td>2 months</td>
<td>4 months</td>
<td>3 months</td>
</tr>
<tr>
<td>Total Budget</td>
<td>$4,600</td>
<td>$10,000</td>
<td>$7000</td>
</tr>
<tr>
<td>Costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook video</td>
<td>$3400/1700mos</td>
<td>$4000/1000mos</td>
<td>$5000/1667mos</td>
</tr>
<tr>
<td>Google Ad Words</td>
<td>$1200mos</td>
<td>$6000/1500mos</td>
<td>$2000/667mos</td>
</tr>
</tbody>
</table>

**Data Analysis**

Descriptive statistics were utilized to measure any significant differences in the yearly results. The researchers were provided the yearly totals for Impressions, Clicks, Click Thru Rate, and Cost Per Click. T-tests were administered to determine any significant differences in the yearly totals.

**RESULTS**

The results are shown for the Facebook campaign, Google paid search campaigns, and campaigns combined. Hispanic Radio which was utilized for September, October, and November 2021 had no results to provide.
**Facebook Campaign**

The Facebook campaign used short videos to capture the attention of the person who has an interest or knows someone with an interest in hospitality education. Table 3 provides the overall yearly result from the Facebook campaign.

**TABLE 3**

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impressions</td>
<td>413,551</td>
<td>641,207</td>
<td>451,080</td>
</tr>
<tr>
<td>Clicks</td>
<td>1,067</td>
<td>2,304</td>
<td>1,425</td>
</tr>
<tr>
<td>Click Thru Rate</td>
<td>0.26%</td>
<td>0.36%</td>
<td>0.32%</td>
</tr>
<tr>
<td>Cost Per Click</td>
<td>$3.19</td>
<td>$1.75</td>
<td>$2.98</td>
</tr>
<tr>
<td>Reach</td>
<td>14,668</td>
<td>63,022</td>
<td>22,931</td>
</tr>
</tbody>
</table>

T-tests were performed on each of the variables with a significance level of (p < or = .05). Impressions [(M = 501,946, SD = 122,054), t(2) = 7.123, p < .05], clicks [(M = 1,607, SD 633) t(2) = 4.397, p = .05], click thru rate [(M = .993133, SD .0005), t(2) = 10.783, p < .05], cost per click [(M = $2.64, SD $0.778), t(2) = 5.878, p < .05] were all significantly different at p <= .05. The total number of clicks and impressions served was down in 2021 in comparison to 2020, but similar to 2019. Competition for ad space across Facebook increased this year due to high demand from retail and travel coming out of COVID and leading to the holidays.

**Google Paid Search Campaign**

Google Ad words were used to connect with potential hospitality students. The student could click the pop-up advertisements link that would automatically bring them to the hospitality management program web page and provide access to the application portal. Table 4 provides the overall yearly results from the Google paid search campaign.

**TABLE 4**

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impressions</td>
<td>4,750</td>
<td>18,000</td>
<td>9,800</td>
</tr>
<tr>
<td>Clicks</td>
<td>177</td>
<td>751</td>
<td>981</td>
</tr>
<tr>
<td>Click Thru Rate</td>
<td>3.72%</td>
<td>4.18%</td>
<td>10.01%</td>
</tr>
<tr>
<td>Cost Per Click</td>
<td>$6.60</td>
<td>$6.29</td>
<td>$1.67</td>
</tr>
</tbody>
</table>

T-tests were performed on each of the variables with a significance level of (p < or = .05). Impressions [(M = 10.850, SD = 6.687), t(2) = 2.810, p = .05], clicks [(M = 636.33, SD 414) t(2) = 2.662, p = .05], click thru rate [(M = .0597, SD .035), t(2) = 2.949, p <.05], cost per click [(M = $4.85, SD $2.76), t(2) = 3.044, p < .05]. The 2021 Ads performed much better than previous years with a 10% CTR and a much less cost per click. This was due to optimizing keywords and focusing on specific geo-targeted areas as well as demographics.

**Combined Facebook Campaign and Google Paid Search Campaign**

The combination of the Facebook and Google campaigns show significant differences at p < 05.
Impressions [(M = 256,398, SD = 279,874), t(5) = 2.244, p < .05], clicks [(M = 1,121.83, SD 715) t(5) = 3.841, p < .05], click thru rate [(M = .0314, SD .038), t(5) = 2.020, p < .05], cost per click [(M = $3.75, SD $2.18), t(5) = 4.206, p < .05].

Radio

A Hispanic Radio station was used with a package of 216 thirty-second spots within a 60 dbu service contour. There were no measurements provided and no noticeable success. A few hospitality management students heard about the hospitality program from the Hispanic radio station. Hispanic radio advertisements in 30-second audio clips recorded by male and female staffers were not considered a successful medium and will no longer be used.

DISCUSSIONS AND IMPLICATIONS

Facebook had the best performance in 2020. The total number of clicks and impressions served was down in 2021 in comparison to 2020 but similar to 2019. Competition for ad space across Facebook increased in 2021 due to high demand from retail and travel coming out of Covid and leading to the holidays. Google paid ads performed much better than the previous year. A 10% click-through rate and a much less cost per click or achieved. This improvement was due to optimizing keywords and focusing on specific Geo-targeted areas as well as demographics.

The search engines did not distinguish between students and parents, nor did segment between the results of the two groups of students in high school or community college. Rather, the geofenced parameters included specific age groups concerning high school and community college students, and parents of high school student age. There was insufficient evidence the campaigns led to increased enrollment other than anecdotal evidence where a few enrolled students recalled the digital marketing banner ads and short video advertisements. In the future, research tracking could be embedded on the landing page that specifically answers that question.

Recent changes in privacy laws and the protection of private information have restricted access to the segmentation for Facebook and Instagram audiences. Concerning the targeting of ads and personalization of data collection of user private information - effective August 23, 2021, Facebook’s parent company Meta Platforms, Inc started restricting how advertisers can target users under 18 globally on Facebook, Instagram, and Messenger networks. Those changes in effect prevented advertisers from deploying many common targeting tactics such as detailed targeting interest and behaviors, lookalike targeting, and custom audiences through website retargeting and email list targeting.

Social Media user takeaways with Facebook, once the go-to social media platform for many, has plummeted in popularity among younger users, according to a recent survey by the Pew Research Center (2022). In contrast to a 2015 survey, Pew found that 71% of teens ages 13 to 17 used Facebook at that time when it easily beat out platforms such as Instagram, Snapchat, and Twitter among that demographic. However, the most recent survey results tell a different story with this age group who reveal they use Facebook 32% today. Moreover, YouTube has become a dominant platform among teens and they are using apps like TikTok, Snapchat, and Instagram with greater frequency. Also, TikTok is more popular than Facebook with 67% of respondents saying they use the short-form video app. Other findings of recent are that Facebook is used more than Twitter among Gen Z teens and Snapchat and Instagram have dwarfed the use of Facebook. Teens responded that 62% use Instagram and 59% use Snapchat, according to Pew Research versus 32% who use Facebook. Facebook and Instagram are owned by the parent company Meta.

CONCLUSION

The program described in the study has invested in recruiting students to promote the major in hospitality management at a public university. In the future, the focus should be on utilizing more relevant platforms for high schoolers such as Instagram Snapchat, TikTok, and YouTube to optimize reach, awareness, and engagement. Gleaning new information from past campaigns by communicating with
admitted university students before enrolling as freshmen and transfer students from community colleges may also provide insights into the efficacy and success of a campaign. Research could also be conducted on finding the best ways to increase dual majors of existing students already on campus plus appealing to newly admitted transfer students. Test messaging could be done on the benefits of hospitality management as a dual major for accounting, communications, management, marketing, psychology, and technology majors. Thoughts on the social media pre-, pan- and post-lockdown during the pandemic have most likely affected Facebook engagement and SEM time, and consumption behavior but to what degree is unknown which may suggest a follow-up study on this theme.

Facebook and Google Ad Word searches were selected as the best platforms to reach the audience for this study. Based on initial discussions with the design team at the media company, these platforms were chosen and continued to be used throughout the 2021 campaign. However, in light of new findings, in particular, data from Pew Research Center that reports Facebook utilization dropping precipitously among teenagers; different platforms will be explored to better penetrate and engage younger audiences including the increased use of short videos. Yet, knowing that parents still engage with Facebook, this medium will be used albeit with a different marketing message and digital images, and perhaps less of an entertainment factor -in observations by the authors- that is necessary for TikTok.

REFERENCES


