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Impact of Social Media on Consumer Buying Patterns

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Abstract

Due to the tremendous growth in Internet usage around the globe during the last ten years, marketing teams now must better understand the impact of social media on consumer buying patterns. With Internet penetration estimated to continue to grow during the next decade, especially in second and third world markets, marketing executives will need to prioritize understanding the changes related to consumer buying patterns. Many papers have discussed this phenomenon and it was explored and analyzed as a result of new media advertising through social media ad repetition on consumer buying behavior. This study tested hypotheses on repetition and relevance, separately and jointly, with respect to obtaining a positive decision-making experience. Test subjects were given single and mixed ads via a video presentation then surveyed through SurveyMonkey. Test subjects came from similar academic universities in New Jersey USA and Changzhou China. The results reflect that ad repetition has a positive effect on consumer buying patterns.

Keywords: consumer, buying patterns, social media, mere exposure effect, repetition

1. Introduction

Worldwide, there are 3.80 billion social media users in January 2020, with this number increasing by more than 9% (321 million new users) since January 2019 (App Annie, 2020). As of April 2020, the top 15 social media platforms that each have 300 million or more monthly active users are (DataReportal, 2020):

1) Facebook has 2.498 billion monthly active users.

2) YouTube has 2 billion monthly active users.

3) WhatsApp has 2 billion monthly active users.

4) Facebook Messenger has 1.3 billion monthly active users.

5) WeChat (Weixin) has 1.165 billion monthly active users.

6) Instagram has 1 billion monthly active users.

7) TikTok (Douyin) has 800 million monthly active users.

8) QQ has 731 million monthly active users.

9) QZone has 517 million monthly active users.

10) Sina Weibo has 516 million monthly active users.

11) Reddit has 430 million monthly active users.

12) Kuaishou has 400 million monthly active users

13) Snapchat's potential advertising reach is roughly 398 million active users.

14) Twitter's potential advertising reach is roughly 386 million active users.

15) Pinterest has 366 million monthly active users.

With billions now on social media platforms daily time consumption continues to change. For example, social media users are now spending an average of 2 hours and 24 minutes per day multi-networking across an average of eight social networks and messaging apps (Chaffey, 2020). Facebook is most popular, costing people an average of 2 hours and 24 minutes each day, YouTube takes an average of 40 minutes per day and Pinterest users take it slow and scroll through ideas for only 14.2 minutes every day (Deyan, 2020). Any organization looking to achieve and sustain growth for any period of time needs managers who understand how the world is

changing and the implications of those developments. Failure to recognize the dynamics of a world in constant motion could result in an organization that learns first-hand just how quickly it can become irrelevant. One dynamic requiring additional research is the escalating relevance of the 5.19 billion people using mobile phones around the globe (Simon, 2020). As detailed in The State of Mobile 2020 report "Consumers averaged 3 hours and 40 minutes on mobile in 2019, up 35% since 2017; and companies from every vertical are benefitting by making mobile the center of their digital transformation investments" (App Annie, 2020).

The demographics are now showing higher usage over 50 years of age since 2019 (See Figure 1). What this means for businesses is that many people, young and old, are sharing and looking for information on social media sites—see Figure 2 (Donnellan, 2016). To understand social media usage researchers have begun to assess global social media consumption (Lehnert, 2012). For example, Voorveld and others found engagement varies across the specific social media platforms (Facebook, Instagram, Snapchat, and others) and remains highly context specific consisting of various types of unique experiences for the end user (Voorveld, Noort, Muntinga, & Bronner, 2018). Specifically, online advertisement is moving to the forefront of global marketing initiatives with an estimated 30% of all online time spent on social media sites (Mander, 2016). In March of 2016 this was first introduced in theory and today it is now being tested to see if mere exposure effect (MEE) is still relevant (Donnellan, 2016). Thus, "since social media usage continues to increase, advertisers will need to adjust from older forms of advertising such as print and ink. The volume of information leads to 'information overload' and seeing ads over and over may actually frustrate the viewer instead of making the viewer purchase the product being hawked" (Ariely, 2010).

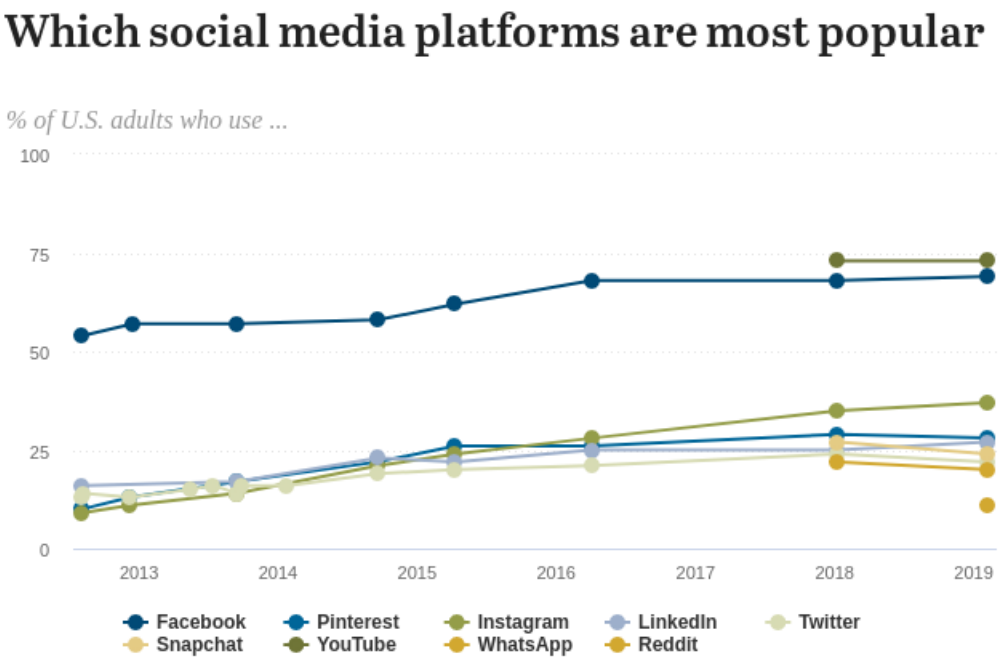

Figure 1. 2019 Social media usage (http://www.pewinternet.org/fact-sheet/social-media/)

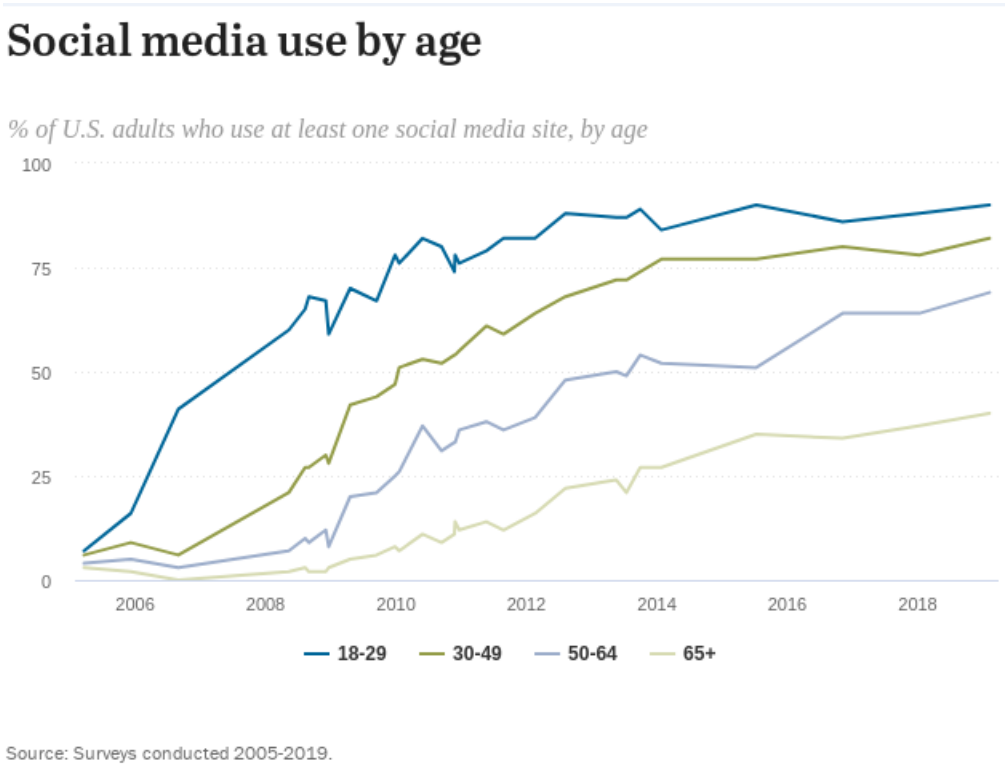

Figure 2. 2019 Social media demographics (http://www.pewinternet.org/fact-sheet/social-media/)

Therefore, this paper aims at analyzing consumer buying patterns using repetition and theory from the mere exposure effect. Hypothesis are tested to see what impact social media ads have on consumer buying patterns as well as what impact banner ads in social media have on consumer buying patterns.

Many social media sites such as LinkedIn and Facebook are utilized more and more each day and have an approximate hit rate with over 500 million tweets going out daily, 500 million LinkedIn members and 2.12 billion Facebook users thus, social media is a vast advertising and communication channel (Greenwood, Perrin, & Duggan, 2016). The demographics are now showing higher usage over 50 years of age since 2019 (See Figure 2). What this means for businesses is that many people, young and old, are sharing and looking for information on social media sites—see Figure 1 (Donnellan, 2016). To understand social media usage researchers have begun to assess global social media consumption (Lehnert, 2012). Specifically, online advertisement is moving to the forefront of global marketing initiatives with an estimated 30% of all online time spent on social media sites (Mander, 2016). In March of 2016 this was first introduced in theory and today it is now being tested to see if mere exposure effect is still relevant (Donnellan, 2016).

Thus, "since social media usage continues to increase, advertisers will need to adjust from older forms of advertising such as print and ink. The volume of information leads to 'information overload' and seeing ads over and over may actually frustrate the viewer instead of making the viewer purchase the product being hawked." (Ariely, 2010) More consumer-friendly forms of advertising should be utilized instead of "information overload".

Therefore, this paper aims at analyzing consumer buying patterns using repetition and theory from the mere exposure effect. Hypothesis are tested to see what impact social media ads have on consumer buying patterns as well as what impact banner ads in social media have on consumer buying patterns.

2. Literature Review

2.1 Mere Exposure Effect

What characterizes the mere exposure effect? In psychology, this effect refers to the fact that a repeated stimulus is rated more positively as the result of an earlier presentation (Kaltwasser, 2019). "The brain can process the stimulus more easily when confronted again; this builds trust, and the memory involved will generally be a positive one. The prerequisite, however, that the first contact is always a neutral one. Even frequent

confrontation is not enough to turn a negative feeling into a positive one. The mere exposure effect is the psychological reason why content marketing works so well, but constant stimuli (content) are required before a positive assessment of a brand or company results" (Kaltwasser, 2019). The demonstrated impact of social media today, when coupled with its projected significance, makes social media advertising a fertile ground for practitioners and researchers.

2.2 Social Media

Wang and others have stated that the results of the mere exposure effect are still controversial (Wang, Chao, Qin, & Wang, 2019). Studies have found:

1) That advert exposure time has little to no effect in the short-term in increasing positive actual purchase behavior (Carreón, Nonaka, Asahi, & Yamashiro, 2019);

2) Mere exposure effect does not always occur for every part of the repeated advertising images and that attention would modulate the mere exposure effect for advertising images (Tagi & Inoue, 2018); and

3) That the quality of engagement affects familiarity. Only when participants were aware of the stimuli did exposure increase liking and recognition (de Zilva, Vu, Newell, & Pearson, 2013).

As Crisp and others noted "While the mere exposure effect robustly leads to more liking for stimuli that are novel and neutral in connotation, this research suggests that with initially negative attitudes repeated exposure may strengthen these negative affective reactions" (Crisp, Hutter, & Young, 2009). Perhaps nowhere is this more evident than on social media platforms.

The advent of social media, when coupled with the fact that 90% of Americans have Internet access illustrates that the impact of mere exposure effect today requires substantial examination (Anderson, Perrin, Jiang, & Kumar, 2019). Grimes and Kitchen (2007) have noted "given the accelerating complexity of media and consumer environments, mere exposure effects to advertising stimuli now play an increasingly significant role in forming and influencing consumer decision making. As such, the development of methodologies to study these effects represents a major contemporary challenge for market research." Therefore, an assessment of the impact of mere exposure effect on the college-aged population that so heavily relies upon social media is necessary to identify the impact of repetitive advertising in today's global marketplace defined by continuous technological disruption.

Smith and Anderson (2018) state that more than 95% of college-aged students use social media while 27.2% of students spent more than six hours on social media a week. The video-sharing site YouTube—which contains many social elements, even if it is not a traditional social media platform—is now used by nearly three-quarters of U.S. adults and 94% of 18- to 24-year-olds. Some 78% of 18- to 24-year-olds use Snapchat, and a sizeable majority of these users (71%) visit the platform multiple times per day. Recently, some organizations have begun replacing part of their internal processes with social media platforms with video, such as Snapchat (Van Esch & Mente, 2018). Similarly, 71% of Americans in this age group now use Instagram and close to half (45%) are Twitter users (Smith & Anderson, 2018). Digita Global reported that for every minute in 2017 an estimated 650,000 searches were made on Google, over 700 videos were hosted on YouTube, over 700,000 status updates and 500,000 comments were posted on Facebook, over 65,000 tweets were made, and approximately 180 million emails were sent (Digita Team, 2018). With so many current or potential customers online and using social media, Ha found that digital advertising spending surpassed traditional ads in 2019 (Ha, 2019). U.S. digital ad spending will increase 19.1% in 2019 to $129.3 billion, while traditional advertising will fall 19% to $109.5 billion. That means digital will account for 54.2% of the total, while traditional will only represent 45.8% (Ha, 2019). Additionally, reports show that 6.77 million people published blogs on blogging websites and more than 12 million people write blogs using their social network (Van Esch, Arli, Castner, Talukdar, & Northey, 2018). Guttmann has determined that by 2020, advertisers are expected to spend over $10 billion more on promoting their products on social networks (Guttmann, 2019).

2.3 Interactive Advertising

The past several decades reveals a steady decline in newspaper readership and magazine circulation, and TV viewership has raised 48% over the past 8 years (Perez, 2019). The emergence of the Internet, by its very nature, has enhanced content and file sharing applications, which in turn have shaped the creation and distribution mechanisms as the forefront to social media and more interactive or intuitive advertising.

Total digital ad spending grew 19% to $129.34 billion in 2019 which is 54.2% of the estimated total U.S. ad spending. Where are the digital dollars coming from? Directories, such as the Yellow Pages, will take the biggest hit down 19% in 2019. Traditional print (newspapers and magazines) spending are a close second, which will

drop nearly 18% in 2018. Traditional ad spending's share in the U.S. will drop to 45.8% in 2019, from 51.4% in 2018 (eMarketer Editors, 2019). The paper also took into account that certain responses to ads may be based upon an individuals' emotional response and that the resulting emotional response and attitude to the advertisement act as causal mechanisms responsible for product-related attitudes (Northey, Dolan, Etheridge, Septianto, & Van Esch, 2020).

3. Hypothesis

Two hypotheses were tested with mixed results.

Hypothesis 1:

Null hypothesis: Social Media ads requires less exposure to return a positive effect.

Alternative hypothesis: Social Media ads are relevant to consumer buying patterns.

Hypothesis 2:

Null hypothesis: Banner ads will return a negative customer experience if design is not acceptable upon user preferences regardless of repetition.

Alternative hypothesis: Social Media ads have a positive impact in social media banner advertising.

4. Method

4.1 Participants

Participants in this test n = 80. Demographics were spread across a wide population randomly selected from NJCU School of Business [USA] Management majors and Changzhou University [China] International Students.

4.2 Design

The survey design consisted of three versions of ads placed in randome order with various banner ads. This was presented to the students through an MP4 video at varying speeds (See Table 1).

Table 1. Survey Design

Version	Type	Placement Number	Slide Speed
1	Single ad - Recognizable Brand [Apple, Samsung, and Google]	30 Times	4 seconds
2	Single ad - Unrecognizable Brand [Huawei, LG, and HTC]	30 Times	4 seconds
3	Mixed ad - Recognizable and Unrecognizable Brand [Apple, Samsung, Google, Huawei, LG, and HTC]	60 Times	2 seconds

4.3 Procedures

Eighty students were surveyed at the NJCU School of Business and Changzhou University during 2019. Test subjects used their personal phones or tablets to complete the survey. Random pictures of product phone ads popped up on the screen and the test participants completed an online survey via SurveyMonkey. In addition to the phones, banner ads were also placed within the video for: Dunkin Donuts, Forever 21, Starbucks, Chic-Fil-A, Zara, and Pandora.

4.4 Stimulus Materials

Participants were instructed to look for different versions of smartphones or cell phones; recognizable names include Apple, Samsung, and Google. Less recognizable names include Huawei, LG, and HTC. Furthermore, the test did not utilize programmatic creative ads for rational appeals and utilitarian products, since emotional appeals and hedonic products were tested (Bakpayev, Baek, Van Esch, & Yoon, 2020).

4.5 Measures

Measurements utilized a survey through SurveyMonkey (See Appendix A).

4.6 Data Analysis

Google Data Analysis was used to interpret in determining statistical significance.

5. Results

H1 - The null hypothesis is rejected and alternative hypothesis is accepted. The mere exposure effect is relevant to intelligent advertising. Survey results show a positive purchase view of smartphones that were not previously owned by participants (See Table 2). Thus, it is presented that having a repetitive ad viewed by participants will

return a positive buying result.

H2 - The null hypothesis is rejected and alternative hypothesis is accepted. The mere exposure effect has a major impact in social media banner advertising. Analysis of the results reflects there is a high probability of purchases for smartphones there were not previously owned by participants in (See Table 2).

Table 2. Survey Results (Survey data is available upon request)

Q1	*What social media do you currently use? – select all that apply*			
	Media	**Percentage**		
	Facebook	57.63%		
	Instagram	81.36%		
	Twitter	42.37%		
	Snapchat	59.32%		
	LinkedIn	40.68%		
	YouTube	74.58%		
Q2	*Which phone do you currently own?*			
	Phone	**Percentage**		
	Apple	73.33%		
	Samsung	20.00%		
	Google	0.00%		
	LG	3.33%		
	HTC	0.00%		
	Huawei	0.00%		
	Other	3.33%		
Q3	*Have you seen an advertisement for a mobile phone during the last month?*			
		Percentage		
	Yes	88.33%		
	No	3.33%		
	Don't Remember	8.33%		
Q4	*If yes to question 3 - select the phone (s) you have seen*			
	Phone	**Percentage**		
	Apple	94.44%		
	Samsung	87.04%		
	Google	61.11%		
	LG	31.48%		
	HTC	12.96%		
	Huawei	14.81%		
	Other	5.56%		
Q5	*Would you buy the following phones based upon what you saw today?*			
	Apple	**Percentage**	**LG**	**Percentage**
	Definitely	40.00%	Definitely	0.00%
	Very Possible	15.00%	Very Possible	5.36%
	Possibly	21.67%	Possibly	19.64%
	Probably Not	15.00%	Probably Not	50.00%
	Definitely Not	8.33%	Definitely Not	25.00%
	Samsung	**Percentage**	**HTC**	**Percentage**
	Definitely	15.79%	Definitely	0.00%
	Very Possible	10.53%	Very Possible	3.57%
	Possibly	31.58%	Possibly	17.86%
	Probably Not	29.82%	Probably Not	50.00%
	Definitely Not	12.28%	Definitely Not	28.57%
	Google	**Percentage**	**Huawei**	**Percentage**
	Definitely	0.00%	Definitely	0.00%
	Very Possible	12.28%	Very Possible	9.09%
	Possibly	28.07%	Possibly	16.36%
	Probably Not	38.60%	Probably Not	38.18%
	Definitely Not	21.05%	Definitely Not	36.36%

6. Directions for Future Research

This study reflects that future research is needed on the direction of cross-cultural brand loyalty relating to the mere exposure effect. Although it revealed that Apple products rated higher then Huawei products no evidence was found that suggests Apple consumers have higher brand loyalty than Huawei products from tests conducted in US and in China.

7. Conclusion

In conclusion, academia and business will benefit from these findings that past theories of MEE will hold up in today's fast paced society. Papers on this topic were reviewed and assumptions were disproved (Donnellan, 2016). Global brand teams developing new strategies to achieve both short-term and long-term sustainability will have a more cost-efficient method of advertising using interactive or intelligent banner ads that are tailored specifically for the customer giving them a positive customer experience. The findings from this paper reflected that survey participants would purchase smartphone brands that they do not currently own. Additionally, those smartphones that were used less such as Google, LG, HTC, and Huawei surveyed well in the study results from both US and China.

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Appendix A. Survey Questions

1) "What social media do you currently use – select all that apply"

a. Facebook

b. Instagram

c. Twitter

d. LinkedIn

e. YouTube

2) "Which phone do you currently own?"

a. Apple

b. Samsung

c. Google

d. Huawei

e. LG

f. HTC

3) "Have you seen an advertisement for a mobile phone during the last month?"

a. Yes

b. No

c. Don't remember

4) "If yes to question 3 - select the phone (s) you have seen"

a. Apple

b. Samsung

c. Google

d. Huawei

e. LG

f. HTC

5) "Would you buy the phone based upon what you saw today in Banner Ads?"

a. Apple

b. Samsung

c. Google

d. Huawei

e. LG

f. HTC

1 = Definitely

2 = Very Possible

3 = Possible

4 = Probably not

5 = Definitely not