# An Empirical Study on the Different Influences of Two Types of Endorsement-Based on Endorsement Model

Yang Chen\*

\*Corresponding author: 1098667@wku.edu.cn

College of Business and Public Management Wenzhou-Kean University Wenzhou, Zhejiang Province, China

Abstract— With the rapid growth of social media, people, especially young people, are influenced a lot by the ideas of online influencers. Even though the traditional celebrity endorsement still plays a vital role in promotion, it is thoughtful for any organization to consider a more innovative way to increase their sales. Therefore, based on the traditional celebrity endorsement theory and online influencer theory, the author developed three objectives to study how those two types of endorsement affect consumers' shopping behavior (frequency and attraction factors) differently. The author did a questionnaire to survey college students' attitudes toward traditional celebrity endorsement and the online influencers, and then used the Mann-Whitney-Wilcoxon test, Dunn's test, and chi-square test to determine which endorsement is more popular among college students, which factors could influence the consumer behaviors, and how endorsement perceptions affect the purchasing choices. By examining the different impacts of two endorsements, the author found no significant difference between the two types of endorsement in influencing consumers' shopping choices, but the perception of online influencers influences the celebrity endorsement.

Comparing and analyzing the two types of endorsement, the author wants to provide new marketing ideas and directions for the potential marketing promotion planning.

**Keywords**-Consumer Behavior, Online Influencers, Celebrity Endorsement, Marketing Strategy

## 1 Introduction

By 2018, the average Internet user would have seven social media accounts. Each one would spend more than two hours a day on social media, and teenagers would spend an average of nine hours a day on social media [1]. With the development of new social media, online influencers appeared and gradually developed, who have a significant following on social media and paid by brand to promote the product to their followers [2]. Influencer marketing is gradually known as a new marketing strategy for the company in the Internet era [3]. The author wonders how this new marketing tactic differs from the traditional celebrity endorsement, and the author wants to explore the influence of the online influencer by contrasting perceptions in contemporary college students towards traditional celebrity endorsement and online influencer advertisement. The paper described that whether the influence of the Internet on online influencer's consumption on

college students is more profound than that of traditional celebrities. This paper will help the company better understand that which one of the marketing strategies is more suitable for the young generation. Therefore, based on the traditional celebrity endorsement theory and theory of influencer marketing, the author established three objectives: 1. To study which endorsement on specific goods is more popular among college students, celebrity endorsement or online influencer endorsement. 2. To study the influence of factors like credibility, attractiveness on colleague consumers' perception of celebrity and online influencer endorsement. 3. To study the impacts of the perceptions towards online influencers on products endorsed by celebrities. To achieve the goal and statistically process the survey results, Mann-Whitney-Wilcoxon test, Dunn's test, and chi-square test are to be used.

### 2 HYPOTHESIS DEVELOPMENT

In order to explore the influence of celebrity endorsement and online influencer endorsement on college students' consumption behavior, the following three hypotheses will be tested: 1. there are certain preferences for specific goods, and these preferences vary by type of endorsement 2. there are differences in the influence of factors for the consumer between different endorsement 3. there is a difference between the purchasing behavior for two kinds endorsement products and perception towards the online influencers' promotion. Conducted in June of 2020 through the online questionnaire survey, the research collected 120 valid questionnaires.

#### 3 SAMPLING DESIGN

The way the author collect the data was the questionnaire. Respondents only need to select one of the options, and the author can collect a large amount of data without face to face communication. The respondents of the research are college students. Because Kadekova and Holien č inova (2018) drew a conclusion after research broke 459 Y by the form the Slovak Republic [3]. The company has gradually turned to use online influencers from the traditional well-known person in order to attract the Millennial. 70% of teenage YouTube subscribers trust influencers' opinions more than traditional celebrities. College students' cognition and understanding of online influencers are far more than that of middle-aged people. Therefore, the main respondents were college students. In order to ensure the reliability of the data and reduce bias, the author first conduct a pilot questionnaire among friends, and then modified questions to form the final version. The author set up an online questionnaire on the Questionnaire Star and sent it to college students know through We Chat. The author collected 120 questionnaires from college students.

#### 4 RESULTS ANALYSIS

To get started, the author asks the respondents a question, whether they know the definition of the online influencer and how much do they know about the online influencer. About of 94.17% respondents have a general understanding of the online influencer, 4.17% indicate that they do not know the exact meaning of the term. Few (only 1.67%) respondents said they never heard of this concept (Figure 1).

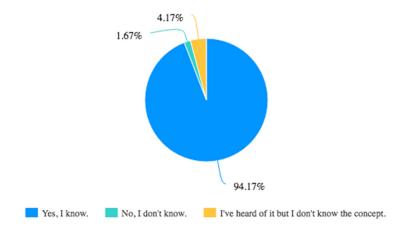


Figure 1. Knowledge of the "influencer" concept

Then, the survey explains the definition about "influencers" and gives some specific examples of Chinese influencers to the respondents who are unfamiliar with this concept. The online influencer who has lots of followers on a specific social media channel can bring a tremendous reach to the advertising product or the brand through the recommendation on social media [4,5]. The author releases photos of the most well-known influencer in China, Jiaqi Li. Li and Jack Ma had a selling competition about lipstick on Nov. 11, 2018, and Li won the game for selling 1,000 in a minute while Ma only sold 10.

According to the founding from GlobalWebIndex 2017, Consumers spent amount of the time on social media, and online influencers are easier to reach out to their audient in these natural channels, affecting many different groups of people [6]. This figure shows the ways the respondents follow influencers on social networks and the willingness to buy the product advertised by online influencers. Data showed that up to 35% of the respondents follow online influencers and they are willing to buy the product advertised by online influencers. The respondents (31.67% of them) would like to read the posts of influencers on social networks, but respondents do not buy any products from online influencer (Figure 2). However, almost one-third of the total respondents do not subscribe to any online influencers, or view any posts from online influencers.

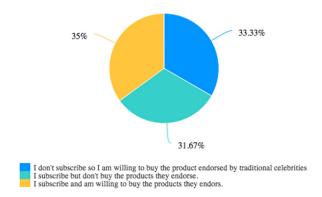


Figure 2. Subscribing influencers and the willingness to buy the product endorsed by them

In the following question, the respondents had to determine the preference of celebrity endorsement or online influencer endorsement for the following products (Figure 3). Based on Kamaruddin and Mokhlis's (2003) research, which mentioned that the major proportion of spending by young consumers is on clothes, make-up, food, sports equipment and entertainment [6]. Four main types of consumption (Daily Use Goods, Food, Electronic products Clothing, Entertainment) are selected and the respondents will choose one of endorsement for each kind of goods. Without considering income, consumption habits, brand and other factors affecting consumer behavior, if evaluating different products from the perspective of spokespersons, the author could identify the preference and find the difference between two endorsers for five types of products.

According to the results of the survey, for the online influencer, the most attractive endorsed good is food, which was chosen by 57 respondents (47.5%). The second most popular good is entertainment product which is preferred by 49 respondents (40.83% of the research sample). The third-place belongs to Daily Use Goods with a 35.83% share. Electronic product was reported only by 26 respondents (21.67%).

For the celebrity endorsement, however, the electronic product is the most popular (78.33% of the research participants showed in the table 1). Almost four-fifth of college students prefer the electronic products endorsed by the celebrity rather than the online influencer. Clothing is the second most popular endorsed product (65.83%) and Daily use goods (64.17%) is ranked third. The preference for celebrity endorsement and online influencer endorsement on electronic products has the largest difference, the difference of the other four categories is smaller. In five categories, respondents prefer celebrity endorsement.

TABLE 1. RESULT FOR FREQUENCY OF TWO TYPES OF ENDORSEMENT

	Frequency	Percent
Celebrity Endorsement	88	73.33%
Influencer Endorsement	32	26.67%
Total	120	100%

Source: Data collected through questionnaires

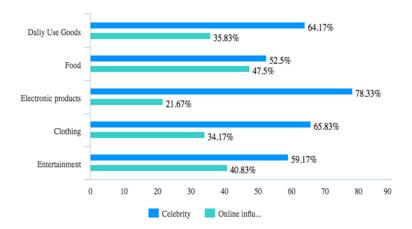


Figure 3. Preference for endorsement on specific goods

H0: Preferences for celebrity endorsement and online influencer endorsement on a specific good do not exist.

H1: There are preferences for celebrity endorsement and online influencer endorsement on a specific good.

First of all, the author uses the Kolmogorov-Smirnov test to determine whether the sample is under a normal distribution. Because the P values in this Kolmogorov-Smirnov test (Table 2) are less than 0.05, and Nonparametric test (Table 3) will be used to determine whether the different preferences for two kinds of endorsement exist. The results in Nonparametric test are larger than 0.05, and therefore H0 can not be rejected.

In the second part, the author wants to figure out some reasons for college students to buy different endorsement products. Figure 4 & 5 show that personal charm is the most important considerate factor in celebrity endorsement (40%), while for influencer endorsement (10%), it is the latest consideration for college students buying products. 59.17% of the respondents think highly of the influences' profession.

 TABLE 2. TEST OF NORMALITY

Name	Sample Size	Mean	Standard Deviation	Skewness	Kurtosis	K-S Test D	K-S Test p
Daily Use Goods	120	1.358	0.482	0.598	-1.670	0.413	0.000**
Food	120	1.475	0.501	0.101	-2.024	0.353	0.000**
Electronic products	120	1.475	0.501	0.101	-2.024	0.353	0.000**
Clothing	120	1.217	0.414	1.393	-0.061	0.483	0.000**
Entertainment	120	1.342	0.476	0.676	-1.569	0.422	0.000**
* p<0.05 ** p<0.0	01						

Source: Own data and processing

 TABLE 3. NONPARAMETRIC TEST

Name	Celebrity Endorsement (n=88)	Influencer Endorsement (n=32)	Mann Whitney <i>U</i>	Mann Whitney z	
Daily Use Goods	1.000(1.0,2.0)	1.000(1.0,2.0)	1320.000	-0.629	0.530
Food	1.000(1.0,2.0)	1.000(1.0,2.0)	1336.000	-0.494	0.621
Electronic products	1.000(1.0,1.8)	1.000(1.0,1.0)	1232.000	-1.464	0.143
Clothing	1.000(1.0,2.0)	1.000(1.0,2.0)	1164.000	-1.763	0.078
Entertainment	1.000(1.0,2.0)	1.000(1.0,2.0)	1352.000	-0.390	0.696

<sup>\*</sup> p<0.05 \*\* p<0.01

Source: Own data and processing

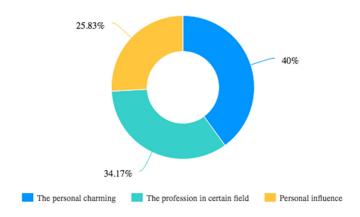


Figure 4. Reasons for buying the product endorsed by celebrities

Source: Data collected through questionnaires

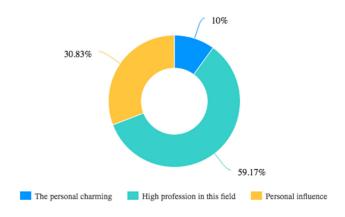


Figure 5. Reasons for buying the product endorsed by influencers

Source: Data collected through questionnaires

Aimed at determining whether Assumption 2 is correct or not, the following procedure of testing was applied.

H0: There are no differences in the influence of factors for the consumer between different endorsement.

H1: There are differences in the influence of factors for consumer between different endorsement.

Conducting Dunn's Test, the author compares some reasons for buying the various endorsed items. According to the results of Dunn's Test, people will consider same reasons when they are choosing the endorsed product.

**TABLE 4. PROCESS OF DUNN'S TEST OF CONTRASTS** 

		Nonparametric	Test				
	Reason	-Celebrities M(P <sub>25</sub> ,	P <sub>75</sub> )	Kruskal-	p		
	The personal charm (n=48)	The profession in this field (n=41)	Personal influence (n=31)	ence			
Reason- Influencers	2.000(2.0,3.0)	2.000(2.0,2.5)	2.000(2.0,3.0)	2.654	0.265		
		* p<0.05 ** p<0	0.01				

TABLE 5. RESULTS OF DUNN'S TEST

	Reason- Celebrities	Reason- Influencers
Reason- Celebrities	1	0.265
Reason- Influencers	0.265	1

Source: Data collected through questionnaires

The next question is to testify whether the perception about different brand cooperation, celebrities' endorsement and online influencers' endorsement, could affect the purchasing behavior (Assumption 3). Assuming that online influencers have a more significant impact on college students. Chi-square Test (Table 4) is used to test the last hypotheses:

H0: There is no difference between the purchasing behavior for two kinds endorsement products and perception towards the online influencers' promotion.

H1: There is a difference between the purchasing behavior for two kinds endorsement products and perception towards the online influencers' promotion.

TABLE 6. PROCESS OF CHI-SQUARE TEST

		I per- ceive it positivel y	I per- ceive it	I accept it	I ignore any post	Total	χ²	p
Produ ct endors	Yes, I regularly buy	4(30.77)	4(12.50)	3(4.29)	1(20.00)	12(10.00)	21.898	0.009*
ed by	I some- times try	6(46.15)	22(68.75)	52(74.29)	0(0.00)	80(66.67)		

celebri ties	No, I don't believe them	1(7.69)	1(3.13)	6(8.57)	1(20.00)	9(7.50)	
	I am not sure if they are trustworth y	2(15.38)	5(15.63)	9(12.86)	3(60.00)	19(15.83)	
Total		13	32	70	5	120	

		I perceive it positivel	I per- ceive it	I accept it	I ignore any post	Total	$\chi^2$	p
Produ ct endors	Yes, I regularly buy	4(30.77)	0(0.00)	1(1.43)	0(0.00)	5(4.17)		
ed by influe	I some- times try	7(53.85)	22(68.75)	44(62.86)	1(20.00)	74(61.67)		
ncers	No, I don't believe them	1(7.69)	3(9.38)	10(14.29)	0(0.00)	14(11.67)	36.665	0.000**
	I am not sure if they are trustworth	1(7.69)	7(21.88)	15(21.43)	4(80.00)	27(22.50)		
Total		13	32	70	5	120		

 TABLE 7.
 RESULTS OF CHI-SQUARE TEST

	Attitudes towards the online influencers				
Frequency of buying products endorsed by influencers	<b>adorsed by</b> $\chi^2 = 101.549$ p=0.0				
Frequency of buying products endorsed by celebrities	χ²=65.438	p=0.000**			

Based on Chi-square Test results (Table 6&7), zero hypotheses will be rejected because p is less than 0.05. In other words, there is a significant difference in customer buying habits and attitudes towards internet influencers.

Figure 6 visualizes the frequency of consumer purchases of endorsement products. 10% of respondents frequently buy celebrity-endorsed products, but only 4.17 % frequently buy influencer-endorsed products. The frequency of consumers who occasionally try products recommended by celebrities and influencers is similar. Some respondents doubt both celebrity and influencer endorsement.

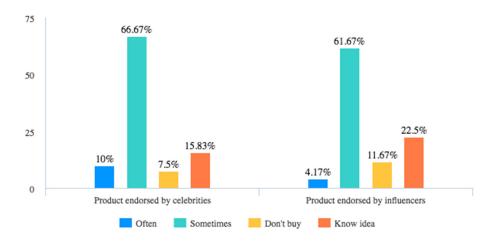


Figure 6. Influencing the purchasing behavior by influencers and celebrities

Figure 7 shows college students' perception of influencers. Most respondents accept influencers' promotions (58.33 percent). Influencers' promotional posts could make some annoys to a quarter of respondents (26.67%). Only 10.83 percent of respondents enjoy online influencer product promotion, yet few could ignore it. Influencers, as part of the network environment, have a huge impact on consumers.

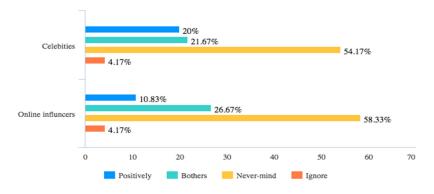


Figure 7. Influencing the purchasing behavior by influencers and celebrities

Source: Data collected through questionnaires

#### **5 CONCLUSION**

As a new trend, influencer marketing is gradually favored by brand to promote sales of goods and services. In spite of this, traditional celebrity endorsement is still favored by college students,

even though they are also open to the new form of endorsement, the online influencer endorsement. From the results of the survey, it can be seen that college students' attitude towards online influencers does indeed influence their frequency of buying celebrity endorsement products. However, the essence of online influencers endorsement is still the same as the value behind the traditional celebrity endorsement, the value transferring between the endorser's own image and the brand in order to change consumers' attitude towards the product and promote consumers' desire to buy[7]. But influencer marketing still has its advantages, for example, advertorials allow to pass AD blocking, and the product can be prompted with special features of different influencers[8].

The paper shows that, even though college students have interested in products endorsed by online influencer, traditional celebrity endorsements still have an even greater appeal for them. However, it is worth noting that college students' different perceptions towards online influencer endorsement will affect the frequency of buying endorsement product, whether it is celebrity endorsement or online influencer endorsement. Therefore, how to make college students accept this new way of endorsement subtly becomes a point that the brand needs to pay attention to.

One of this study's limitations is the conceptual distinction between online influencers and traditional celebrities. Along with the popularity of social networks, the distinction between online influencer and celebrity becomes blurred. Traditional celebrities can promote products on social networks, while online influencer, like Jeffree Star, can also build his own beauty makeup brand as a celebrity.

Based on my research, most marketing agencies can still choose traditional celebrity endorsements because they still have a deep influence on consumers who are still college students. At the same time, the proper use of online influencer is also a natural way to reach target groups and promote goods and ideas.

**Acknowledgments.** First, I really appreciate thirty online experienced English teachers for actively inviting their online adult learners to finish the test papers and questionnaires. The teachers also discuss the adult learners' performance and efficiency with me, which inspires me a lot. Second, I want to express my sincere gratitude to my friend Hui. During the process of various interviews and group discussions, she helps me to record detailed information and collect the data for this study. Without her help, I cannot finish this research.

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