

# A Study on the Influence of Celebrity Endorsement of Fast Food on Consumers' Purchasing Behavior Based on Planned Behavior Theory

Xintong Fan<sup>1,†</sup> Siqi Wu<sup>2,\*†</sup> Qingyuan Yang<sup>3,†</sup>

<sup>1</sup> Changchun Humanities and sciences College, Changchun, China

<sup>2</sup> Carleton University, Ottawa, Canada

<sup>3</sup> The University of Texas at Austin, Austin, US

\*Corresponding author. Email: qyy1120@utexas.edu

†Those authors contributed equally.

## ABSTRACT

Celebrity endorsement is a common phenomenon in fast food consumption, but how celebrity endorsement will affect consumers' purchase behavior is a problem that needs to be discussed. Based on the theory of planned behavior, through the quantitative research method in the form of questionnaire, this paper actively discusses the influencing factors and formation mechanism of celebrity endorsement food on consumers' purchase intention. This paper mainly studies three aspects: Firstly, how consumers' attitude towards celebrities affects their purchase behavior; Secondly, how the social subjective norms of fast food affect the purchase of food endorsed by celebrities; Thirdly, how consumers' perception of control behavior affects consumers' purchase behavior. This paper takes consumers' attitude towards celebrities, social subjective norms and consumers' perception of control behavior as independent variables, and purchase behavior and brand attitude as dependent variables. This paper finds that there is a positive relationship between the likability of celebrity in the endorsement and the positive attitude of fast food category and the positive attitude of certain fast food brand, and the purchase intention of fast food. Consumers' behavioral attitudes and subjective norms about celebrity endorsement of food purchase have a significant positive correlation. Consumers' love for stars will affect their confidence and ability in food and brands. This paper will be beneficial to further enrich the research on consumer behavior, and provide reference for celebrity endorsement in the fast food industry.

**Keywords:** *Celebrity endorsement, Planned behavior theory, Fast food*

## 1. INTRODUCTION

In recent years, with the development of technology and diversification of consumer needs, it is evident for researchers and consumers to observe the development and innovation of food products. In order to attract more consumers, many food companies around the world tried to use different and creative advertising formats. Food advertising is an essential part of the process of promoting products to consumers. Lots of food industries invite celebrities or idols to endorse their products. And how to present a food advertising is a comprehensive study consisting of social psychology, media studies and marketing. Celebrity endorsement has become very common in the fast food industry, and fast food companies will choose the right celebrity to endorse according to the geographical location of their

stores. The celebrities, through endorsements and extensive media publicity, in fact become an important part of the brand connotation. The accelerating pace of people's lives has given fast food the opportunity to develop rapidly, from the most familiar fried chicken fast food around the world to local-style fast food, the diversity and speed of development of fast food has left a very deep impression on scholars from food science and social science field. And the increasing number of celebrity endorsements of food products has led people to wonder if celebrity endorsements can somewhat influence consumers' choices in food.

According to the latest U.S. regional McDonald's ad, Mariah Carey has launched "the Mariah's Menu" at McDonald's across the U.S [1]. During the month of Christmas, which received greatly appreciate.

Consumers in the U.S. can listen to Mariah Carey's "All I want for Christmas is you" and eat the McDonald's super dishes selected by Mariah Carey [1]. Such news sparked worldwide attention, and many consumers request the introduction of "the Maria's Menu" in their areas as well. This study will take the phenomenon of celebrities endorsing fast food products as an example, based on the theory of planned behavior, and adopt quantitative research methods to discuss the impact of this phenomenon on consumers' purchase intention and brand belief from the aspects of attitude, subjective norms and perceived behavior control.

Based on the theory of planned behavior, the research question of this paper is: how does celebrity endorsement in fast food advertising affect consumers' food purchase behavior and food brands endorsed by celebrities. This study will analyze this problem from three main aspects. Firstly, this paper will focus on how consumers' attitude towards celebrities in advertising affects their purchase behavior and brand attitude. Second, this paper will explore how the social subjective norms of fast food affect the purchase of food endorsed by celebrities. Thirdly, this paper will further point out how consumers' perception of control behavior affects consumers' purchase behavior. This paper mainly takes consumers' attitude towards celebrities, social subjective norms and consumers' perception of control behavior as independent variables, and purchase behavior and brand attitude as dependent variables. The following are the hypothesis proposed in this paper.

H1a consumers' fondness of celebrities has a positive effect on their willingness to buy products in celebrity-endorsed food advertisements.

H1b consumers' fondness of celebrities has a positive effect on their attitudes towards product brands in celebrity-endorsed food commercials.

H2 Social subjective norms about fast food are positively related to consumers' willingness to buy celebrity-endorsed food.

H3 Consumers' perceived ability to control their own behavior in purchasing celebrity-endorsed foods is positively related to consumers' purchasing behavior.

## **2. LITERATURE REVIEW**

Food choice has occupied a large part of people's daily choice nowadays. Mature technology and development of various food applications provide consumers lots of chances to choose what they want and desire. Due to the surplus condition of food choices, companies employ social media and advertising to attract consumers' attention and increase their purchase intention, which "social media and advertising is ubiquitous in most food environments and can influence food-related behaviors" [2].

### **2.1. Attitude**

Among these diverse food advertisements, presenting consumers with vivid food pictures directly in front of their eyes is cliché. Most of the audience has experience the scenario of seeing a food poster of juicy hamburgers and golden French fries, with a huge cup of bubbling coca cola; or they can recall the vivid color of red pepperoni and tomato sauce with sizzling mozzarella cheese in pizza advertisement. When consumers see the vivid pictures of food, they tend to crave for it and even salivate. It means that the vivid pictures stimulate the food-related sensory pleasures of consumers, such as taste and olfactory sense. The rich colors and strong impact of color collision, which are originally the visual sense, activate the olfactory sensory pleasure of consumers, like they can truly smell the food product; the visual impact of golden French fries is converted into the crunchy sense related to taste.

And how can such sensory pleasure continue to influence consumers behavior of purchase. "Food advertisements most often focus on immediate gratification, making it difficult for consumers to resist temptation" [2]. These advertisements with vivid food pictures exactly utilize the gratification of visual effects and lead to more gratification of taste and smell. Enough gratification makes consumers hard to resist it and prompts purchase intention.

### **2.2. Subjective Norm**

In the current era of rapid consumption at home and abroad, the subjective social norms for the consumer purchase behaviour to the fast-food will also be confirmed by a large number of empirical research. When consumers are considering whether a new product for consumption, the sensitive degree of people will increase with the increase of perceived risk. At this time, consumers are more inclined to obey the guidance of subjective social norms for certain products. Subjective norms belong to the category of social psychology. From the perspective of psychology, the behaviours and attitudes of opinion leaders or the majority of people in a group will exert psychological pressure on individuals and then affect their behaviours. Such psychological stress is called subjective norms. According to TRA theory, subjective norms refer to people's cognition of social pressure on whether or not to carry out a specific behaviour, and refer to the behavioural standards, norms and expectations of the external environment that people feel, and take obedience to these pressures or expectations as their behavioural norms. Subjective norms refer to how an individual perceives the reference group to expect him to make behavioural decisions. Ajzen defines subjective norms as the degree of pressure that an individual feels when performing a specific line whether the important reference person

agrees with their behaviour [3]. In many theoretical and empirical studies[4][5], subjective norms have been regarded as an essential factor influencing consumers' purchase intention. They have been proved to impact behavioural intention as early as in the theory of rational behaviour. The view of planned behaviour, TAM model and TAM2 model all include subjective norm variables, and they all confirm the positive influence of subjective norm on behavioural intention through experiments.

Fast-food culture come into the mind of the consumer is just short of 30 years, KFC as the world's second largest fast food and the largest Fried chicken chain, at home is visible to the naked eye, based on the development of the reasons is the domestic consumers have very strong conformity and psychology, especially in the face of new things, its behavior decision easily affected by others' words or behavior. The subjective norms of social pressure is especially significant in the context of Chinese culture. Therefore, in the consumers to buy star endorsement of food will influence factors of related study, should be social subjective norms to the fast food as a very important factor.

### **2.3. Perceived Behavioral Control**

Ajzen elaborated that the most basic definition of perceived behavioral control is how easy or difficult an individual perceives it is to perform a behavior [3]. Also, through research and argumentation, perceived behavioral control reflects the influence of past experiences as well as expected consequences on executive behavior. For the consumer, the ease of performing a consumption behavior controls the consumption behavior, and the individual consumer's experience of performing the consumption behavior in the past and the expected difficulty estimate of the consumption behavior also have an impact on the consumer's eventual performance of the consumption behavior [6]. Related positive information will contribute to consumer behavior, such as lower cost, less time and effort can encourage users to learn more about the product or service and generate consumer behavior [7].

In the context of celebrity-endorsed food advertising, perceived behavioral control is related to consumers' own perceptions of their ability to control the purchase of celebrity-endorsed food, their confidence in their ability to engage in consumption behavior, and their expectations of the difficulty of consumption. According to Fleck, Korchia, and Roy [8], celebrity endorsement might make fans increase their desire to purchase the category, as well as increase the fans' efforts to promote such products to those around them. As a result, more people will learn about these products, which may lead to an oversupply or a need to wait in line to buy them, while many consumers may think about the difficulty of such purchases and switch to

other products. In addition, some Chinese graduate students also study this phenomenon as the topic of their master's thesis [9][10][11].

## **3. METHOD**

This paper adopts quantitative research method. We have 167 respondents in our online survey. These data are used for our analysis. Of the 167 respondents, 77.84% were young people aged 19 to 25. The male was 43.11%, accounting for 72%, and the female was 56.89%, accounting for 95%. In terms of educational background, about 66.47% of the respondents have a bachelor's degree and 26.95% have a master's degree. 21.56% of the participants were unable to make money by themselves (students).

Consumers' attitude to the celebrity-endorsed food advertising, society's subjective norms and consumers' perceived ability to control their behavior are measured in this research. Besides, the research also includes questions assessing demographic variables and other control variables.

**Independent Variables.** This research includes three independent variables, consumers' attitude to the celebrity endorsement, society's subjective norms and consumers' perceived ability to control their behavior. More than eight 5-point Likert Scale questions are given respectively to measure these three variables. The questions consist of "what's your attitude of celebrity-endorsed fast food?", "Do you think that your favorite celebrity endorsing the fast food can change you attitude to it?", "Does the media message around you influence your decision to purchase fast food?", etc.

**Dependent variables.** The dependent variable of the research is the purchase behavior of fast food and the brand attitude of certain fast food brand. The variables are measured on a 5-point Likert scale question ranging from "Strongly disagree" to "Strongly agree". About nine statements are provided for the question, including "celebrity-endorsed fast food advertising stimulates my purchase behavior", "after watching celebrity-endorsed fast food advertising of certain brands, they enhance my brand attitude to certain brands", etc.

**Control Variables.** Four control variables are included in the research: demographic variables (age, gender, income, education level), attitude to fast food, insecurity to buy fast food in half a year, awareness of celebrity-endorsed fast food. Besides the demographic variables, all other control variables are measured through 5-point Likert Scale questions from "Strongly disagree" to "Strongly agree".

To reach our respondents as many as possible, we post our survey through various Chinese social platforms such as Wechat, Weibo and little red book since our survey is Chinese and it targets mostly

Chinese audience. Our survey consists of mainly three parts, which the first part is the demographic questions to figure out the basic background of participants. The second part is to ask the primary attitude towards fast food and celebrity endorsement. After answering these questions, main content about the relationship between consumers' attitude and the celebrity endorsement, society's subjective norms and consumers' perceived ability to control their behavior was asked. Totally the survey has 29 questions, 4 are multiple-choice and 25 are Likert scales, it would cost about 10 minutes to answer. We spent a few weeks to complete our data collection and finally got 167 participants. They can all be applied for data analysis.

## 4. RESULTS

### ***4.1. Correlation and regression between likeability of celebrity and attitude***

Among variables tested on the survey, we selected some to research the relations between them and separated the results section into two parts which are correlation and regression. We find out there is a significant correlation between likeability of celebrity who endorses the fast food and the attitude of fast food ( $r=0.49$ ,  $p<.01$ ), and there is also a significant correlation between likeability of celebrity who endorses certain fast food brand and the liking of the certain fast food brand ( $r=0.84$ ,  $p<.01$ ). Also, the likeability of celebrity in endorsement significantly correlates to the desire of purchase behavior ( $r=0.81$ ,  $p<.01$ ). Due to these regressions are all smaller than 0.01, which it means that the likeability of celebrity who endorses the fast food predicts the liking of fast food at a significant level, and likeability of celebrity who endorses certain fast food brands predicts the liking of certain fast food brands at a significant level, and predicts the desire of purchasing fast food.

### ***4.2. Correlation and regression between society subjective norms and purchase decisions***

Beyond validating the first two of our hypotheses, we also tested correlations between society subjective norms and purchase behavior of fast food. We found a significant relationship between media messages and purchase intention of fast food ( $r=0.68$ ,  $p<.01$ ), which also means that negativity of media messages predict the lower of purchase of fast food, according to the regression. Besides, it illustrates the correlation between the country law and the purchase decision of fast food ( $r=0.49$ ,  $p<.01$ ). If the country law prohibits or discourages the fast food, consumers will decrease or give up buying fast food. At last, it manifests the little correlation between the opinions of significant others of consumers and the purchase decisions of fast food ( $r=0.26$ ,  $p<.01$ ), but the opinions of significant others do

predict whether consumers purchase fast food or not since its regression is lower than 0.01, which means these two factors are bonded at significant level.

### ***4.3. Correlation and regression between perceived ability to control behaviors and purchase intention***

Some significant correlations can be found between consumers' perceived ability to control their behavior and purchase intention. We employ lots of questions to test consumers about their perceived ability to control purchase behaviors from various aspects. For example, we found that there is a significant correlation between time saving of purchasing fast food endorsed by celebrity and the purchase intention (reliability of purchasing) ( $r=0.62$ ,  $p<.01$ ). According to the regression, if buying fast food endorsed by celebrity won't take much time, consumers' purchase intention will increase. The fast food endorsed by celebrity has correlation with the attitude of fast food endorsed by celebrity ( $r=0.52$ ,  $p<.01$ ), which can be explained as that the easier the delivery of fast food endorsed by celebrity the higher consumers' purchase intention and better attitude to the fast food.

## 5. DISCUSSION

According to our correlation and regression analysis, we proved that there is a positive relationship between the likability of celebrity in the endorsement and the positive attitude of fast food category and the positive attitude of certain fast food brand, and the purchase intention of fast food. Thus, hypothesis 1a and 1b are demonstrated correctly.

For hypothesis 2, it can be proved that social subjective norms about fast food are positively related to consumers' willingness to buy celebrity-endorsed food since the correlation and regression analysis show that if the society norms such as media messages and country laws are resisting the fast food, consumers' purchase decision will be negatively influenced, which means that they are positively related.

Lastly, hypothesis 3, which consumers' perceived ability to control their own behavior in purchasing celebrity-endorsed foods is positively related to consumers' purchasing behavior, is also manifested to be correct. According to the survey questions and data analysis, we figured out that when consumers feel that it's difficult to make the purchase behavior such as time consumption and poor delivery, meaning that consumers' perceived ability to control their behavior is low, they will lower their purchase behaviors. Therefore, the lower the perceived ability to control behavior, the lower the actual purchase behaviors.

Analyzed from the survey, we found out that our respondents are influenced by the celebrity in a significant level, no matter from mental aspect such as attitude or from physical aspect such as purchase behavior. And we notice that most of the participants are aging from 19-25. The explanation for this is that people at the age might be more easily affected by surroundings instead of making decisions totally on their own. Besides, they may care more about society subjective norms. According to the literature review before, subjective norms refer to how an individual perceives the reference group to expect him to make behavioural decisions. Therefore, he/she will determine whether or not carry out the behavior depending on whether he/she obeys the subjective norms. In our survey, we asked participants if they will be influenced to buy or quit fast food if the media messages give their definition to fast food. Most of respondents choose "agree" range, which means that they will be influenced by society subjective norms. They want to be part of organization which most people follow.

Finally, it's not surprised for us to get the last finding that perceived ability to control behaviors is positively connected to the purchase behaviors. As outside obstruction to complete certain behavior increases, the perceived ability to control their own behavior decreases. When people feel it's difficult to finish something, they tend to give up instead of having more enthusiasm to complete it, especially for younger people who don't have enough tenacity. Besides, most participants have a relatively higher education background such as undergraduate or master's degree. It might be not worthwhile for them to spend much time and energy to buy only fast food endorsed by celebrity.

## 6. CONCLUSION

Based on the planned behavior theory, this study constructed a framework of the influence of celebrity endorsement of food on consumers' purchasing behavior. Based on the survey data fast food consumers' purchasing intention, this paper studies the influencing factors and forming mechanism of consumers' purchasing intention to celebrity endorsement food.

The main conclusions of the study are as follows: (1) The test results of the survey data by using the relevant data analysis module provided by the software show that the items in the questionnaire scale have a significant degree of differentiation; The consistency of the measurement results of each scale is high, that is, the scale has high reliability. The factors precipitated by principal component factor analysis were basically consistent with the dimensions constructed by theory, and the scale had good validity. (2) The results of correlation analysis between standardized variables show that consumers' behavioral attitudes and subjective

norms about celebrity endorsement of food purchase have a significant positive correlation. (3) The multiple linear regression model with risk perception factors has better explanatory power for the formation mechanism of consumers' intention to buy celebrity endorsement food. Subjective norms from stars and media information are the most important factors influencing consumers' intention to buy food endorsed by stars. Consumers' liking for stars has a strong determinant effect on their confidence and ability in food and brands. (4) Consumers' behavioral intention to buy food endorsed by stars has a significant positive influence on their behavioral attitude towards celebrities. These hypotheses are proposed in the design of the analysis framework, all of which are supported by empirical results. This paper will be beneficial to the academic circles to further explore the relationship between celebrity endorsement and consumer behavior.

## REFERENCES

- [1] C. P. Cristina, S. Rivaroli, J. O. González, The Influence of Celebrity Endorsement on Food Consumption Behavior, *Foods*, 2021, 10(9), pp.2224. <https://doi.org/10.3390/foods10092224>
- [2] M. Vukmirovic, The effects of food advertising on food-related behaviours and perceptions in adults: A review, *Food Research International*, 2015, 75(9), pp.13-19. <https://doi.org/10.1016/j.foodres.2015.05.011>.
- [3] I. Ajzen, The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *Journal of Leisure Research*, 1991, 50(2), pp.179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- [4] K. Chan, L. N. Yu, E. K. Luk, Impact of celebrity endorsement in advertising on brand image among Chinese adolescents, *Young Consumers*, 2013, 14(2), pp.167-179. DOI: 10.1108/17473611311325564.
- [5] F. Z. Sun, S. M. Ma, Research on the Influence of characteristics of Online daigou on Consumers' purchasing Intention: With Attitude and Subjective Norms as Mediating Variables, *Chinese and Foreign Entrepreneurs*, 2015, 10Z(29), pp.1-3.
- [6] W. T. Duan, G. R. Jiang, A Review of the Theory of Planned Behavior, *Advances in Psychological Science* 2008, 16(02), pp.315-320.
- [7] W. K. Chen, H. C. Huang, S. C. Chou, Understanding what determines consumers' expanded use of mobile videophones, *Behaviour & Information Technology*, 2012, 31(10), pp.953-967. <https://doi.org/10.1080/0144929X.2011.553739>

- [8] N. Fleck, M. Korchia, I. L. Roy, Celebrities in Advertising: Looking for Congruence or Likability, *Psychology & Marketing*, 2012, 29(9), pp.651-662. <https://doi.org/10.1002/mar.20551>
- [9] X. H. Ma, Research on Consumers' purchasing intention for safe food based on planned Behavior Theory, Huazhong Agricultural University, 2012.
- [10] S. Guo, Empirical Research on the Impact of Consumer Personality on subjective Norms and Online purchase intention, Chongqing Technology and Business University, 2014.
- [11] J. Gu, Research on the Influencing Factors of Consumers' Online shopping intention, Jinan University, 2009.