

A study on the influence of reliability of female celebrity endorsement in sports brands on female consumers' purchase intention

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Abstract:

The purpose of this study is to explore whether the reliability of female celebrity Chun-Ning Chang's endorsement of sports brands has an impact on the purchase intention of female consumers. Questionnaires are applied in this study. The subjects of this study are female undergraduates from three universities in Taoyuan area. A total of 300 copies are collected, with 19 deducted invalid questionnaires, 281 valid questionnaires. In this study, SPSS 20.0 statistical software package is used to analyze the sample data. It also analyzes with descriptive status analysis, reliability analysis, Pearson's Correlation Analysis, and regression analysis. The obtained research results are as follows: 1) A 59.8% majority (168 people) is without exercise habit; a 53.2% majority (150 people) is doing part-time job; a 35.7% majority (100 people) purchases at sporting goods stores. 2) The reliability of female celebrity endorsement sports brands has a significant impact on customers' purchase intention, among which the influence of reliable image on purchase intention is greater than the influence of attractiveness on purchase intention. 3) The influence of female celebrity endorsement brand reliability on female consumers' purchase intention is significantly correlated. On the whole, consumers have a positive impression on the attractiveness and reliability of female celebrity endorsement and the product image, thus increasing consumers' purchase intention. Therefore, the best way for female consumers to pay attention to sports products is the "attractiveness" factor of female celebrity endorsement. It also indicates that the "attractiveness" of female celebrities could widely support the endorsement products through extensive publicity of their own image and fame, enhance brand awareness, and further improve the purchase intention of female consumers.

Key words: Sports brand, Endorser, Purchase intention

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I. Introduction

1. Research background and motivation

In recent years, with the improvement of women's economic and social status, women have become consumers and communicators of commodities with purchasing power⁴. In order to increase consumers' desire to purchase, sports brands are becoming more and more creative and diversified, so that consumers get rid of the concept that the sportswear could not only be worn when doing exercise. They have shifted from product-oriented to consumer-oriented, and aim at life and ideology for women's aspirations. As a result, brands have begun to use endorsers in their marketing strategies¹². In the past, sports products mainly marketed to men have also been successively launched with women as the main target. The emergence of many female endorsers has stimulated the female consumer population and the female sports population has increased accordingly. In Taiwan, for example, the endorsers of sports products are mainly female celebrities¹⁴.

The research of Lin⁷ discovers that the correlation between brand endorsers and products could improve the reliability of endorsers and increase the positive impression of consumers on products. When consumers use the products endorsed by endorsers, they will give out the same temperament and beautiful appearance as sports endorsers, and indirectly feel their unique breath, which could increase their trust in them.

The research by Kao, Lin, and Yen³ points out that the exposure rate of endorsers would increase the popularity of the endorser, and the popularity would affect consumers' cognition of the professionalism, attractiveness and reliability of endorsers. The popularity and exposure rate of endorsers are the important factors that affect the reliability of consumers' cognition of endorsers and their purchase intention. Therefore, when sports brand owners invite female celebrities to act as brand endorsers, it is a question worthy of discussion as to whether consumers would buy. Based on the above, this study would explore issues related to the purchase intention of female consumers when female celebrities become the endorsers of sports brands, and provide

specific suggestions based on the results of this study.

2. Research purposes

Based on the above research background and motivation, the following are the research objectives to be achieved:

- To understand the influence of female endorsers' image on the motivation of female consumers' purchase intention.
- To understand the correlation between the image of female endorsers and the purchase intention of female consumers.

3. Research hypothesis

According to the purpose of the study, this study assumes:

- Discuss the impact of female celebrity endorsements on female consumers' purchase motivation.
- Discuss whether female celebrity endorsement has significant correlation with female consumers' purchase intention.

4. Research scope and limits

- Limitations of the study

The research object of this study is to take female students in Taoyuan area as the testers of the pre-research. Therefore, there are limitations on the promotion of research, and the results and interpretation of the research are limited to that school. As for the situation in other schools, further discussion and research are needed.

- Limitations of research methods

In this study, a self-administered questionnaire survey is used to obtain the data of the respondents. Questionnaires are distributed and collected by the researcher. Because the standardized situation and response mentality of respondents could not be fully controlled, there is a possibility that respondents' answers are not true; there might be errors in the research results.

5. Glossary

- Brand endorsers

In the study of Liu⁸, he points out in the study that celebrity endorsement refers to the behavior that celebrities use their own images and fame in commercial activities such as advertising to support the endorsement products for the purpose of profit. Bianchi and Pike¹ believe that because of consumers' desire for celebrities, celebrity endorsers are of considerable importance. Therefore, the brand owners use the image of celebrities not only to be fresh, healthy and energetic, and have a trustworthy image, but also increase the brand's popularity, thus increasing consumers purchase intention.

- Purchase intention

Schiffman and Kanuk¹¹ define purchase intention as the occurrence possibility of consumers' actual purchase behavior, i.e. the higher the purchase intention, the greater the purchase rate; the lower the purchase intention, the smaller the purchase rate. Parker and Fink¹⁰ believe that the attractiveness and professionalism of endorsers would positively affect consumers' purchase intention.

II Research method

1. Research object

The subjects of this study are female undergraduates from three universities in Taoyuan area. The survey was conducted from May 1st to May 30th, 2019 and distributed by the researcher in class. A total of 300 copies are collected, with 19 deducted invalid questionnaires, 281 valid questionnaires. The effective questionnaire rate is 93%.

2. Research tools

This research collects relevant literature and theory, and compiles a pre-test questionnaire, which is divided into three parts: personal background variables, endorser reliability scale, and purchase intention scale.

- Personal background variables

There are 4 questions in total and the subjects' basic information is included to obtain the subjects' demographic information and endorsement information.

- Endorser reliability scale

This study refers to the study of Chou², which uses attractiveness, reliability and professionalism as facets of endorsers' image in this study. They are revised according to the needs of this study. There are 12 questions in total. Linker's five-point measurement scale is used to measure the degree of consumers consent for

the reliability of endorsers.

- Purchase intention scale

This study refers to the scale of Lin⁵. There are 4 questions used as the measurement tool of purchase intention. Linker's five-point scale is used to score the degree of consumers consent for purchase intention.

3. Data analysis

In this study, SPSS 20.0 statistical software package is used to analyze the sample data. It also analyzes with descriptive status analysis, reliability analysis, Pearson's Correlation Analysis, and regression analysis.

III Analysis and results

1. Descriptive statistics

After issuing 300 questionnaires, 300 questionnaires are collected in this study. After reviewing the data content and deleting 19 invalid questionnaires, a total of 281 valid questionnaires are actually collected, with a valid questionnaire recovery rate of 93%.

- Gender

There are 281 female students, accounting for 100%.

- Exercise habits

There are 168 people without exercise habit, accounting for 59.8%. With regular exercise habit, there are 97 people who workout one to two days a week, accounting for 34.5%; and there are 16 people who work out more than three days a week, accounting for 5.7%.

- Part-time job

There are 150 people doing part-time job, accounting for 53.2%. 131 people do not have a job, accounting for 46.5%.

- Channels to buy sporting goods

A35.7% majority (100 people) purchases at sporting goods stores, followed by the Internet (67 people), accounting for 23.9%.

Table 1 Sample demographic variable description analysis table

Variables	Option	Number of people	Percentage %
Gender	Female	281	100.0
	Without exercise habits	168	59.8
Exercise habits	Work out one to two days a week	97	34.5
	Work out more than three days a week	16	5.7
	Yes	150	53.2
Have a part-time job	No	131	46.5
	Sporting goods store	100	35.7
Channels to buy sporting goods	Shopping center	65	23.2
	Supermarket	30	10.7
	Outlet	18	6.4
	Internet	67	23.9

2. Reliability analysis

This study mainly uses the Cronbach's α coefficient to measure the internal consistency between the reliability of the endorsers and the details of consumer purchase intention. Scholar Nunnally⁹ believes that > 0.7 is a high reliability. If $0.5 < \alpha < 0.7$ is a low, but acceptable marginal value of the scale; while the α coefficient value is less than 0.5, it cannot be used. As shown in Table 2, the results show that the Cronbach's α value of each measurement facet and overall reliability is higher than 0.8, which is greater than the above-mentioned judgment criteria, showing that the degree of internal consistency of the questions in each study is very high and has excellent reliability.

Table 2 Reliability analysis scale

Facet	Cronbach'a value	Cronbach'αvalue for the whole questionnaire
Endorser reliability	0.921	0.865
Purchase Intention	0.810	

- Analysis of the endorsers' reliability

In terms of endorsers' reliability, this study includes three facets: attractiveness, reliability, and professionalism. It can be seen from table 3 that the source factor most valued by consumers is the reliability of

reliability, with positive and healthy characteristics as the highest score of 4.28.

Table 3 Summary table of endorsers' reliability in the description analysis

Facet	Variables	Mean	Standard deviation	Cronbach's α
Attractiveness	1. Endorsing Adidas is appealing	4.08	0.949	0.921
	2. I like youth vitality	4.20	0.889	
	3. Outstanding beauty and temperament	3.93	0.977	
	4. Companies come to her for endorsements because she is attractive	4.16	0.897	
Reliability	5. She has a fresh and good image	4.27	0.868	
	6. She has positive and healthy qualities	4.28	0.877	
	7. She has a trustworthy image	4.16	0.910	
	8. With affinity so she came to endorse	4.20	0.881	
Professionalism	9. I like all the sports products she endorses	4.10	0.947	
	10. Her endorsement brands are more professional	4.03	0.922	
	11. She has a wealth of professional knowledge of sports	4.10	0.957	
	12. Her passion for sports draws me deeply	4.05	0.987	

● Purchase intention

In terms of purchase intention, in table 4, "I am willing to buy the brand endorsed by Chun-Ning Chang" has the highest score of 4.75. Consumers show a positive attitude towards whether they would consider purchasing. Therefore, a good endorser has a positive correlation with the influence of consumers' final purchase intention.

Table 4 Narrative Statistics Scale for Purchase Intention Facet

Variables	Mean	Standard deviation	Cronbach's α
1. I only recommend the brands endorsed by Chun-Ning Chang to friends.	4.63	0.751	0.810
2. I am willing to buy the brand endorsed by Chun-Ning Chang.	4.75	0.658	
3. For the same product, I only buy products endorsed by Chun-Ning Chang.	4.64	0.771	
4. I will buy the product endorsed by Chun-Ning Chang next time.	4.21	1.061	

3. Relevant analysis of endorsers' reliability and purchase satisfaction

After Pearson correlation analysis, it is found that the attractiveness, reliability, attractiveness and professionalism of endorsers are significantly correlated with purchase intention. It can be seen from Table 5 that the p-values of attractiveness, reliability, and professionalism are all less than .05, which are significant for consumers' purchase intention, and the attractiveness and reliability of endorsers are highly correlated.

Table 5 Relevance table for attractiveness, reliability and professionalism to purchase intention

Facet	Attractiveness	Reliability	Professionalism	Purchase intention
Pearson correlation	Attractiveness	1		
	Reliability	0.850** (0.000)	1	
	Professionalism	0.772** (0.000)	0.810** (0.000)	1.
	Purchase intention	0.596** (0.000)	0.539** (0.000)	0.687** (0.000)

N=281 , *p<.05, **p<.01, ***p<.001

4. Regression analysis

This section mainly discusses the relationship between the reliability of endorsers and the purchase intention, and uses multiple regression analysis to verify the relationship between the independent variables and the purchase intention of dependent variables. The analysis results in Table 6 show that, through the reliability of the endorser, the multiple regression analysis of the purchase intention of each structure has a significant impact on purchase intention.

Table 6Regression analysis

	Unstandardized coefficients		Standardized coefficient	t	Significance
	βestimate	Standard error	βdistribution		
(Constant)	1.917	0.287		6.680	0.000
Attractiveness	0.073	0.126	0.061	0.578	0.565
Reliability	0.389	0.139	0.323	2.805	0.005
Professionalism	0.088	0.107	0.079	0.823	0.411
R=.443		R ² =.196adjusted R ² =.188F=22.56			

N=281 · *p<.05,**p<.01,***p<.001

V. Conclusions and recommendations

1. Conclusions

The main issue explored in this study is to study the influence of the reliability of female celebrity endorsement sports brands on the purchase intention of female consumers. The verification results are as follows:

According to the analysis results, it is found that the attractiveness, reliability, and professionalism of female celebrity endorsers are highly significantly related to purchase intention. Studies by scholars Kao, Lin, and Yen³ find that the reliability of female celebrity endorsers has a positive effect on female consumers' purchase intentions, which is consistent with the findings of this study. Therefore, consumers have a positive impression on the attractiveness and reliability of female celebrity endorsement and the product image, which increases consumers' purchase intention. Based on the arguments of the researchers, it could be found that the benefits brought by female celebrity endorsement are very wide. Most of the studies show that the marketing strategy of female celebrity endorsement could promote the purchase intention, and the sports products endorsed by female celebrities would increase the purchase intention of female consumers^{6,13,14}. Therefore, the best way for female consumers to pay attention to sports products is the "attraction" factor of female celebrity endorsement, which also indicates that the "attraction" of female celebrities could support the endorsement products through extensive publicity of their own image and fame, enhance brand awareness, and further improve the purchase intention of female consumers.

2. Research limitations and recommendations

This research focuses on female college students from three universities in the Taoyuan area. It is suggested that future research could be expanded to other regions in Taiwan. It could further analyze the regional characteristics of female consumers and increase the number of female office workers or elderly population and through the analysis of various data to provide more diversified marketing strategies for the industry. It is recommended that when future sports brand companies choose female celebrity endorsements as their marketing strategy, the connection between the endorser and the product could enhance brand awareness, build brand image, increase female consumers' loyalty to the brand, and thus increase female consumers' purchase intention.

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