Higher Education Studies; Vol. 6, No. 4; 2016
ISSN 1925-4741 E-ISSN 1925-475X
Published by Canadian Center of Science and Education

The Investigation on Brand Image of University Education and Students' Word-of-Mouth Behavior

Chin-Tsu Chen[1]

[1] Department of Commercial Design and Management, National Taipei University of Business, Taiwan

Correspondence: Chin-Tsu Chen, Department of Commercial Design and Management, National Taipei University of Business, Taiwan. Tel: 886-34-506-333. E-mail: cathy80249@ntub.edu.tw

Received: June 30, 2016 Accepted: August 1, 2016 Online Published: September 6, 2016

doi:10.5539/hes.v6n4p23 URL: http://dx.doi.org/10.5539/hes.v6n4p23

Abstract

This study aimed to find how the brand image and satisfaction of universities influence university students' word-of-mouth behavior, including the sharing of satisfying experiencesand recommendations to others. This study conducted a questionnaire survey and distributed 400 questionnaires to students and graduates of universities in Taiwan; 336 valid questionnaires were retrieved. Data were analyzed using Structural Equation Models (SEM). According to the findings, brand image significantly and positively influences loyalty; satisfaction significantly and positively influences loyalty; loyalty significantly and positively influences haring of satisfying experience; and loyalty significantly and positively influences recommendations to others. Brand image and satisfaction can influence the sharing of satisfying experience sand recommendations to others by the moderating effect of loyalty. The loyalty effect model of higher education institutes constructed by this study could explain and predict the effects of brand image and satisfaction of higher education institutes on university students' word-of-mouth behavior, and it could function as the criteria for marketing strategies of higher education institutes.

Keywords: brand image, satisfaction, loyalty, word-of-mouth behavior

1. Introduction

With the progress of corporate brands in Taiwan and their participation in international markets, brands have turned from business circles to the educational world, and the era of educational brand operations has arrived. Universities and colleges have gradually become business operations with their students as the customers. Student customers' satisfaction has thus become important in academia. Universities have to pay attention to student satisfaction (Elliott & Shin, 2002). Brand is the quality constructed by long-term efforts and scientific exploration, and it has become the key to acquiring customer loyalty as well as long-term survival and development for firms. Educational institutions are no exception. Corporate brand image is the indicator of the enhancement potential of the original customers' intention to approach organizations (Mazzarol, 1998). Brand is the important connection between firms and consumers and it significantly influences customers' purchase decision-making and judgment. In the current competitive market of school recruitment, for schools, brands are the external symbols. In university education of Taiwan, in order to enhance competitiveness and with limited educational resources, institutes are now based on the concept of business operations, and they use value marketing and performance to establish a brand image and attract more prominent students. Successful corporate brands can lead to outputs for firms. High-quality school brands will enhance the material and human resources of schools. For universities, brand image is critical. The brand image of public universities is superior to that of private universities; however, in Taiwan, there are more private universities than public universities. Students tend to study in public universities with a better brand image. In recent years, the number of higher education institutes in Taiwan has increased; however, the number of freshmen has decreased. Also, the biggest drop in enrollment occurs during the freshman year, most universities find it essential to focus retention efforts on first year students (Tompson & Brownlee, 2013). Students in universities are becoming more consumer oriented than ever before. Private universities with inferior brand images are encountering the challenge of a competitive market. The students are the most important focus in a school, and how to strengthen students' intention to study is an important issue for higher education institutes. When school operating conditions are similar, people will not distinguish schools through their external characteristics. A unique brand image is what schools need to convey to student customers. Educational brand image thus influences the selection of students, parents and society.

For sustainable development, firms must have the support of their customers. Besides the maintenance of brand image, customers' identification with the operation, products or brands of business organizations and support for brands are also critical. Punjaisri and Wilson (2007) emphasized that corporate internal brand operation and efforts on brand identification and brand loyalty will influence the views of employees, consumers and investors. Thus, the operation of external brand image is not the only measure for business organizations; brand loyalty is also important. When the concept represented by a brand is more consistent with the consumers' self-concepts, brand loyalty will be higher. This study tried to find if private university students have low affective attachment and identification with private universities and inconsistent self-concepts with the school brands, because the image of private universities is inferior to that of public universities. In other words, would the degree of brand image influence customers' identification with the brand? With the superior brand image of public universities, university students at such schools should identify more with the institution. However, brand image is not the single factor of brand loyalty. Therefore, this study also investigated customer satisfaction and tried to find if the students' satisfaction with schools would influence their loyalty.

Brand loyalty means that even when other brands produce a superior appearance, convenience or value, customers will continue purchasing the original brands. Firms can lower their marketing costs due to the existence of consumer loyalty. It means that the relationship between firms and sales channels is enhanced, and the lowers the threats from rivals. Brand loyalty is the source of profits. Thus, concern about brand loyalty is an effective method to manage brand equity. Students are the customers of universities, and with high-quality customers, firms (universities) can develop maximum profits.

In the operation of university education, if university students highly identify with schools, will they have high brand loyalty to the schools? After students have high brand loyalty, will they lower their intention to transfer and then continue studying in the school's master program? This study attempted to find if university students' loyalty to schools would influence their selection of schools. However, universities are non-profit organizations and they are more conservative in their marketing and advertising. In a severely competitive environment, they should be concerned about the measures used to attract students. Word-of-mouth behavior is the most common and natural way. The cost is low and the effect is significant. Word-of-mouth plays a significant role in customers' consumption behavior and influences their purchase decision-making of products (Gelb & Sundaram, 2002). Thus, with limited funds, word-of-mouth is the most proper marketing technique for universities. Students are the subjects of word-of-mouth. Loyal customers will create positive word-of-mouth for firms and help the firms resist rivals' strategies. For organizations, a positive customer relationship maintains the customers' loyalty and is the key of success. Thus, this study also tried to find if the brand loyalty of schools would influence word-of-mouth behavior. The selection of a higher education institute is one of the important life decisions of university students. After all, educational level will be the base for an individual's career. Educational level and attendance at a good school are intangible advantages. The brand image of a school significantly influences students' enrollment intentions. Students' satisfaction with and loyalty to their school during study are important. Positive recommendations of the overall school image from seniors who have studied in a school will usually enhance the freshmen's intention to study. Thus, the overall brand image of a school considerably influences students' loyalty and word-of-mouth behavior. Multi-dimensional enhancement of school brand image and customers' satisfaction is the essence needed to establish the competitive advantages of university education institutes (Palacio, Meneses, & Perez, 2002). Based on above, this study treated the brand image and satisfaction of university education and students' word-of-mouth behavior as variables and explored the moderating effect of brand loyalty. Students who had received university education were the subjects. This study explored brand image and satisfaction of schools and the subjects' word-of-mouth behavior in order to find the operation of university education institutes and create a high-quality brand image of higher education.

2. Literature Review

Brand image is the key in marketing. Brand image is treated as the clue of information. By brand image, consumers predict product quality, develop purchase behavior and save it in their memory. Likewise, in an educational system, the brand image established by schools is an important factor when students select a school. With a positive school brand image, students can recognize the differences among schools and develop their selection intention. Based on different consumers' benefits, Park, Jaworski, and MacInnis (1986) developed three brand concept-images. The functional brand image is used to solve consumers' external consumption demands. It means the products or services provided by the schools can satisfy the customers' functional needs and solve the problems related to consumption. It is the image perception of materials such as building facilities, environmental resources and instruction of the curriculum. The symbolic brand image aims to connect individuals with specific groups, roles or self-images. It means the school brand can satisfy the consumers' upgrading of self-value, enhancement of social roles, harmony in group relationships and identification with self-image. It is a social image perception related to social reputation, instructional characteristics and characteristics of human resources. The experiential brand image aims to satisfy consumers' internal pursuit of excitement and diverse needs. It emphasizes the satisfaction with the school brand and the stimulation effect of cognition. It refers to the image perception related to the learning experience, educational experience and life experience. According to past scholars' views of brand image, brand image is in the consumers' memory and is the association with the brand. It is adopted to infer or maintain the perceived quality of products, and it represents all the information of a product. Thus, for different brand images, consumers infer various kinds of perceived quality; however, they mostly mention functional, symbolic and experiential brand images. Thus, this study measured brand image according to the suggestion of Park, Jaworski, and MacInnis (1986), who divided student customers' perceived brand image into functional, symbolic and experiential brand images.

According to Pate (1990), university students' satisfaction with schools during their study will influence their intention to recommend the schools to others and their intention to have advanced study or donation in the same schools. When students evaluate satisfaction, they will reflect on their experience on campus. Schools can analyze and improve their service quality according to the investigation results. Schools are organizations, and effective schools should fulfill their educational functions. At the stage of higher education, they should properly enhance their educational quality, value the instructional process, appropriately use instructional resources, establish complete curriculum planning and increase the students' learning interest. When the upgrading of school instructional quality matches the students' and parents' expectations, the students' potential and competitiveness will be shown. Students who match the job market will be cultivated, and this will enhance the students' satisfaction with the schools. Davis and Ellison (1995) suggested that if students are familiar with the campus, including academic knowledge, services and facilities, their satisfaction will the schools will increase. Thus, students can perceive the campus and reconsider the service content of the schools. In this study, satisfaction with schools referred to the students' subjective assessment of service efficiency, curriculum quality and facilities.

Oliver (1999) defined loyalty as consumers' repurchase intention and the lack of changing behavior due to the influence of various situations. Aaker (2012) suggested that brand loyalty means the capability of a brand to attract and keep consumers. Jacoby and Chestunt (1978) suggested that brand identification and brand loyalty are highly similar. Brand loyalty can be observed by consumers' specific behavior, while brand identification is a kind of psychological attitude that cannot be shown by behavior. However, they both are based on the customers' perspectives. In addition, brand loyalty is based on identification and satisfaction with a brand. According to Robertson (1976), if consumers have strong identification with a brand, they will stick to specific products of one brand and be loyal.

Word-of-mouth is people's face-to-face communication without commercial intentions. The information exchange of specific goods or services influences consumers' evaluation and consumption intentions (Bansal & Voyer, 2000; Wirtz & Chew, 2002). Word-of-mouth is powerful because it is live, direct, experiential and face-to-face. It conveys information without commercial intention. Thus, it is usually identified and trusted by information receivers (De Bruyn & Lilien, 2008; Gruen, Osmonbekov, & Czaplewski, 2006). In research on retail sales, Swan and Oliver (1989) defined word-of-mouth as consumers sharing consumption experiences with others and consumers recommending retailers to others. This study adopted the definition of Swan and Oliver (1989). Word-of-mouth can be both positive and negative (Richins, 1983); however, only students' positive word-of-mouth can help a school. This study aimed to explore positive word-of-mouth, which is normally just called word-of-mouth in the research, and further explored the sharing of satisfying experiences and recommendations to others. This study defined word-of-mouth as university students' sharing of satisfying experiences in their studies and recommendations of their schools to others.

3. Methods

The research framework was developed according to the literature review and related studies (see Figure 1). The framework included the independent variables, dependent variables and moderating variables. The independent variables included brand image and satisfaction. The dependent variable was word-of-mouth behavior, which included the sharing of satisfying experiences and recommendations to others. The moderating variable was brand loyalty.

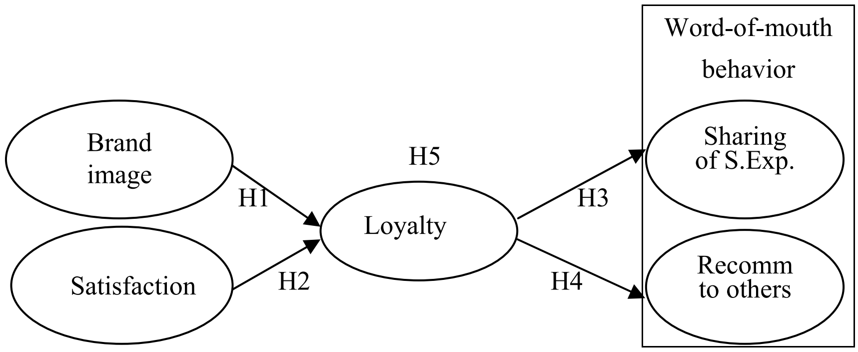

Figure 1. Research framework

3.1 Hypotheses

The hypotheses of this study were developed according to theories from the literature review and were validated by the following data analysis. Based on the research purposes, the literature review and the research framework, this study proposed the following hypotheses for empirical study:

H1: The brand image of universities significantly and positively influences loyalty.

H2: The satisfaction of universities significantly and positively influences loyalty.

H3: The loyalty of universities significantly and positively influences the sharing of satisfying experiences.

H4: The loyalty of universities significantly and positively influences recommendations to others.

H5: Loyalty has a mediating effect on the influence of brand image and satisfaction on the sharing of satisfying experiences and recommendations to others.

H5a: Loyalty has a mediating effect on the influence of brand image on the sharing of satisfying experiences.

H5b: Loyalty has a mediating effect on the influence of brand image on recommendations to others.

H5c: Loyalty has a mediating effect on the influence of satisfaction on the sharing of satisfying experiences.

H5d: Loyalty has a mediating effect on the influence of satisfaction on recommendations to others.

3.2 Measurement Tools

The questionnaire included five sections: basic information, brand image of higher education institutes, satisfaction with schools, brand loyalty, and word-of-mouth behavior. The questionnaire items were designed according to the literature review and the characteristics of higher education. The items for the brand image of higher education institutes were based on Park, Jaworski, and MacInnis (1986). Satisfaction with schools was based on Davis and Ellison (1995). Loyalty was based on past scholars' related literatures and the themes of this study and contained four items. Word-of-mouth behavior was revised according to a review of Swan and Oliver (1989), and purposes and content of this study. Basic information was measured using a nominal scale, while the rest of the questions were measured using a Likert five-point scale.

3.3 Participants and Procedure

From the perspective of loyalty and by a questionnaire survey, this study aimed to find the effects of brand image and satisfaction for the universities selected by students based on word-of-mouth behavior. This study thus treated former and current university students in Taiwan as the subjects. A total of 400 questionnaires were distributed and retrieved between July 15 and August 15 of 2015. There were 380 returns, and showing a return rate of 95%. After coding, there were 336 valid questionnaires, indicating a valid return rate of 88%.

3.4 Statistical Procedure

Data analysis was based on SPSS 12.0 and AMOS 17.0. As to statistical methods, in order to probe into the optimal model, this study adopted Structural Equation Modeling (SEM) for several tests to validate the effects of the variables in research framework and the significance of the effects. This study examined the causal relationship among brand image, satisfaction and word-of-mouth behavior. Also, try to find if loyalty had a moderating effect on the relationships among brand image, satisfaction and the student customers' word-of-mouth behavior.

3.5 Sample Analysis

This study treated current and former university students in Taiwan as the subjects (Table 1). Among the overall valid respondents, females were the most (214 subjects; 63.69%). As to type of school, private schools were the most (171 subjects; 50.89%), and as to location, northern Taiwan was the most (257 subjects; 76.49%). Most of the respondents had already graduated from university (228 subjects; 67.86%). For the current students, most of the respondents were sophomores (31 subjects; 28.70%), and most of them were older than (and including) 34 years old (115 subjects; 34.23%).

Table 1. Analysis of basic information

	Frequency	Percentage (%)	Accumulated percentage (%)
Gender			
Male	122	36.31	36.31
Female	214	63.69	100.00
Type of school			
Public	165	49.11	49.11
Private	171	50.89	100.00
Location of school			
Northern Taiwan	257	76.49	76.49
Central Taiwan	22	6.55	83.04
Southern Taiwan	54	16.07	99.11
Eastern Taiwan	3	0.89	100.00
Studying status			
Studying	108	32.14	32.14
Graduated	228	67.86	100.00
Year of study			
Freshman	21	19.44	19.44
Sophomore	31	28.70	48.15
Junior	23	21.30	69.44
Senior	13	12.04	81.48
Graduate student	13	12.04	93.52
Other	7	6.48	100.00
Age			
Below (and including) 18 years old	2	0.60	0.60
19~23 years old	103	30.65	31.25
24~28 years old	57	16.96	48.21
29~33years old	59	17.56	65.77
Above (and including) 34 years old	115	34.23	100.00

4. Results

4.1 Confirmatory Factor Analysis of Measurement Model and Model Fit Analysis

Using Confirmatory Factor Analysis (CFA), this study measured the reliability and validity of the measurement model, as shown in Table 2. The chi-square test is the most typical method used to judge model fit in SEM

(Structural Equation Modeling). In the measurement model, χ^2 (46)=303. 111 (p=0.00<0.05). However, chi-square values are sensitive to large samples and skewness distribution. When there are more samples or the skewness of data is serious, the chi-square values will increase. Thus, based on the opinions of Bagozzi and Yi (1988), this study adopted the residual analysis measure (*RMSEA*=0.065) without the limitation of freedom. The lower limit of 0.08 suggested by Hu and Bentler (1995) was the criterion. In addition, three measures were used to measure to model fit. The goodness of fit index (*GFI*=0.912), the normed fit index (*NFI*=0.949) and the comparative fit index (*CFI*=0.969), were above 0.90 and were acceptable. The above indices matched the requirement, indicating that the overall model fit was good. Using Cronbach's α, this study measured the consistency of the observed variables in the same dimension. The Cronbach's α of brand image, satisfaction, loyalty, sharing of satisfying experiences and recommendations to others were above 0.7. Based on the above, internal consistency and reliability of the questionnaire were good. In addition, this study measured the internal consistency of the dimensions using the Composite Reliability (*CR*) of the latent variables. A higher CR would mean the internal consistency of the indices was higher. In this study, the CRs of all latent variables were higher than the lowest limit of 0.60 suggested by Fornell and Larcker (1981); therefore, the internal quality of the research model was satisfying. As to validity, according to the analytical result of Table 2, the factor loadings of the observed variables on the latent variables were above 0.652 and the *t* values were significant, which indicated that observation variables and latent variables were significantly related (Anderson & Gerbing, 1988; Bagozzi & Yi, 1988). The Average Variances Extracted (*AVE*) of all dimensions were above 0.5 and were acceptable (Fornell & Larcker, 1981) (see Table 3). Thus, this study had good convergent validity. In addition, the square roots of the average extracted variance of the latent variables in the model were above the correlation coefficients among the dimensions. Therefore, the latent variables of this study revealed satisfying discriminant validity (Jöreskog & Sörbom, 1992).

Table 2. Confirmatory factor analysis of the measurement model

Dimensions	Items	Loading	Errors	α	*CR*
Brand image	X1. Positive reputation	0.887***	0.189	0.924	0.927
	X2. Benchmark position	0.911***	0.200		
	X3. High evaluation from friends and teachers.	0.916***	0.167		
	X4. Unique image	0.766***	0.393		
Satisfaction	X5. High service efficiency	0.771***	0.131	0.775	0.751
	X6. Curriculum quality	0.816***	0.128		
	X7. Facility	0.652***	0.377		
Loyalty	Y1.I do not have the intention to transfer to other school.	0.850***	0.156	0.927	0.923
	Y2. If I have the opportunity of re-selection, I will still choose the school.	0.893***	0.244		
	Y3. I have strong affection with the school.	0.853***	0.205		
	Y4. For advanced study, I will treat the school as the priority.	0.870***	0.140		
Sharing of satisfying experiences	Y5. I will actively share my positive learning experience in the school with others.	0.868***	0.146	0.939	0.940
	Y6. It is enjoyable to share my experience in the school with others.	0.887***	0.110		
	Y7. I often share my positiveexperience in the school with others.	0.899***	0.122		
	Y8. I am willing to share other classmates'	0.913***	0.088		

	satisfying experience in the school.				
Recommendations to others	Y9. I will encourage others to study in the school.	0.964***	0.060	0.927	0.934
	Y10. If someone asks for my opinion, I will recommend the school to him (her).	0.959***	0.088		
	Y11. I am willing to spread positive news of the school to others.	0.792***	0.232		
Model fit measures					
	$\chi 2$ (46) = 303.111, *RMSEA* =0.065, *GFI* =0.912, N*FI* =0.949, *CFI* = 0.969				

Note. * indicates p<0.05, ** indicates *p*<0.01, *** indicates *p*<0.001.

Table 3. Square roots of the correlation coefficient matrix and *AVE*

	Brand image	Satisfaction	Loyalty	Sharing of satisfying experiences	Recommendations to others	AVE
Brand image	0.872					0.761
Satisfaction	0.651	0.750				0.562
Loyalty	0.666	0.707	0.867			0.751
Sharing of satisfying experiences	0.534	0.716	0.715	0.892		0.796
Recommendations to others	0.606	0.745	0.872	0.719	0.908	0.825

Note. Correlation coefficients are shown at the bottom of matrix and the root of mean of *AVE* is on the diagonal line.

4.2 Validation of the Structural Model and Hypotheses

As to the analytical method, this study used AMOS to establish Structural Equation Models for the structural model analysis. There were two stages. At the first stage, the research framework model was tested to measure the propriety of overall theoretical model. At the second stage, the effects of the latent variables were validated to measure the causal relationship among the latent variables in the structural model. The hypotheses were also validated.

4.2.1 Test of the Structural Model

The purpose of finding the overall model fit is to determine if the theoretical model can explain the data by actual observations or if the theoretical model fits the data observed (Anderson & Gerbing, 1988). Thus, this study adopted the items proposed by Bagozziand Yi (1988) (see Table 4). It was found in this study that χ^2 =331.973 (p=0.00<0.05). However, chi-square values are sensitive to large samples andskewness distribution, and they will increase with more samples or serious data skewness. Thus, based on Bagozzi and Yi (1988), this study adopted the residual analysis index (*RMSEA*=0.068) without limitation of freedom and treated the lowest limit of 0.08 suggested by Hu and Bentler (1995) as the index. This study used another three indices to measure the fit of the research model. The goodness of fit index (*GFI*=0.903), the normed fit index (*NFI*=0.944) and the comparative fit index (*CFI*=0.965), were above 0.90 and were acceptable. The above indices matched the requirements and indicated that the overall model fit was good.

Table 4. Measures of overall model fit

Fit measures	Test result	Judgment of model fit
χ^2	331.937 (P=0.000)	No
RMSEA	0.068	Yes
GFI	0.903	Yes

NFI	0.944	Yes
CFI	0.965	Yes

4.2.2 Validation of Causal Relationships

The path values were estimated using MLE to find if the hypotheses were significant. The validation result of the hypotheses is shown in Table 5. According to the result of Table 5, the hypothesis path of brand image and loyalty was 0.236 ($p<0.001$) and was significant, indicating that brand image significantly and positively influences loyalty. In other words, brand image enhances the relationship with loyalty. Thus, H1 was supported.

As to satisfaction and loyalty, the hypothesis path was 0.673 ($p<0.001$) and was significant, indicating that satisfaction significantly and positively influences loyalty. In other words, satisfaction will enhance the relationship with loyalty. Thus, H2 was supported.

As to loyalty and the sharing of satisfying experiences, the hypothesis path was 0.750 ($p<0.001$) and was significant, indicating that loyalty significantly and positively influences the sharing of satisfying experiences. In other words, loyalty will enhance the relationship with the sharing of satisfying experiences. Thus, H3 was supported.

As to loyalty and recommendations to others, the hypothesis path was 0.887 ($p<0.001$) and was significant, indicating that loyalty significantly and positively influences recommendations to others. In other words, loyalty will enhance the relationship with recommendations to others. Thus, H4 was supported.

Table 5. Hypotheses and validation result

Path	Hypothesis relationship	Path value	Corresponding hypothesis	Hypothesis results
Brand image -> loyalty	Positive	0.236***	H1	Supported
Satisfaction -> loyalty	Positive	0.673***	H2	Supported
Loyalty -> sharing of satisfying experience	Positive	0.750***	H3	Supported
Loyalty -> recommendation to others	Positive	0.887***	H4	Supported

Note. * indicates $p<0.05$, ** indicates $p<0.01$, *** indicates $p<0.001$.

4.2.3 Validation of the Moderating Effect

Past validations on the moderating effect were based on the measure of Baron and Kenny (1986). However, since this measure lacked statistical effectiveness, other tests were developed (Sobel, 1982); however, these were still unstable. Currently, most scholars suggest testing the moderating effect using the bootstrap method, which is statistically effective and stable. Thus, this study validated the moderating effect using the bootstrap method (Cheung & Lau 2008). The measure requires a (1-α) 100% confidence interval (it is commonly set as 95% CI) that does not include zero, which means it is statistically significant at the α significance level. According to the test result of Table 6, brand image is significantly affected by the moderating effect of the path from loyalty, to the sharing of satisfying experiences, and then to recommendations to others (95% confidence interval). Likewise, satisfaction was significantly different from zero due to the moderating effect of the path from loyalty, to the sharing of satisfying experiences, and then to recommendations to others. Based on the above, H5 (including H5a~H5d) was totally supported.

Table 6. Bootstrap and validation results

Path	95% confidence interval	Path value	Corresponding hypothesis	Hypothesis results
Brand image -> loyalty-> sharing of satisfying experience	(0.072,0.266)	0.177**	H5a	Supported

Brand image ->loyalty->recommendation to others	(0.082,0.317)	0.209**	H5b	Supported
Satisfaction -> loyalty-> sharing of satisfying experience	(0.408,0.623)	0.505**	H5c	Supported
Satisfaction ->loyalty->recommendation to others	(0.495,0.712)	0.597**	H5d	Supported

Note. * indicates $p<0.05$, ** indicates $p<0.01$, *** indicates $p<0.001$.

5. Discussion

According to the findings, word-of-mouth behavior can be divided into the two indicators of sharing satisfying experiences and recommendations to others. University students' brand image, satisfaction and loyalty will influence the sharing of satisfying experiences and making recommendations to others. Regarding the overall framework of this study, the fit measures used to validate the assumed model indicated that the model had a good fit. In addition, the correlation path coefficient, p value, of the variables was significant; thus, the five hypotheses of this study were supported. Loyalty has a moderating effect on the influence of brand image and satisfaction on the sharing of satisfying experiences and recommendations to others.

The exploration of the relationship between brand image and loyalty revealed that brand image significantly and positively influences loyalty. Thus, H1 was supported. It was concluded that when universities have a positive brand image, university students will be more loyal. As to effect of student customers' satisfaction with schools, after the hypotheses were validated, the findings showed that the students' satisfaction with schools positively influences loyalty. Thus, it was concluded that when students are more satisfied with their universities, they will be more loyal to the schools.

Regarding word-of-mouth behavior, the empirical findings showed that university students' loyalty positively influences word-of-mouth behavior. Thus, this study concluded that when university students are highly loyal to their schools they have high word-of-mouth behavior. This study divided word-of-mouth behavior into the sharing of satisfying experiences and making recommendations to others. According to the empirical findings, brand loyalty positively influences the sharing of satisfying experiences. Thus, this study concluded that when university students are more loyal to schools, their sharing of satisfying experiences will be enhanced. In addition, it was found that loyalty positively influences recommendations to others. Thus, this study concluded that when university students have higher loyalty, they will tend to recommend the schools to others. Since the hypotheses of the two behaviors were supported, this study concluded that university students' higher loyalty to schools will enhance their word-of-mouth behavior.

This study adopted the statistically effective and stable bootstrap method (Cheung & Lau, 2008) to test the moderating effect of loyalty on the influence of brand image and satisfaction on the sharing of satisfying experiences and recommendations to others. According to the test result, the moderating effect on brand image by the path from loyalty to the sharing of satisfying experiences, and then to recommendations to others was significant. Likewise, the moderating effect on satisfaction by the path from loyalty to the sharing of satisfying experiences, and then to recommendations to others was significantly different from zero. Thus, H5a-H5d were supported.

Based on the research purposes and the above findings, the author proposed suggestions regarding the practical operation of universities and future research. Brand image significantly influences the construction of students' loyalty. University managers should properly cultivate the brand image and reputation of the school and enhance the brand image. This will not only attract students but also easily construct student loyalty. In addition, enhancing the positive quality of campus service has become a critical issue in recent years. The interaction between service personnel in the school administration and student customers particularly influences the students' views toward the school and their attitude toward the brand. In the past, few university administrators noticed the interaction between service personnel and students. However, with the changing educational trend, administrators must start recognizing this issue. According to the findings of this study, students' satisfaction with schools relatively influences their loyalty. Therefore, university administrators should not only enhance their external brand image but also pay attention to satisfaction with internal service equality, such as the administration personnel's service attitude, the quality of the curriculum and the facilities, in order to develop a friendly campus and construct positive campus service quality.

6. Managerial Implications

The findings of this study had a number of constructive managerial implications. There have been numerous past business management studies on loyalty; however, these studies did not probe into the antecedents of loyalty. They recognized that loyalty is an important factor to keep customers, but they could not propose specific reasons. From the perspective of university management, this study treated brand image and satisfaction as the antecedents of loyalty and loyalty as the antecedent of word-of-mouth behavior, and these antecedents were supported by the empirical results. This study could serve as references for future research on related antecedents. In addition, past research on loyalty mostly suggested that brand identification will lead to loyalty, repurchase behavior, or the intention to switch brands. This study developed and explored the two dimensions of sharing satisfying experiences and making recommendations to others. These dimensions were also supported by the empirical results. Future studies can further explore the behavior related to word-of-mouth. Finally, this study treated loyalty as the moderator to explore the moderating effect on the influence of brand image and satisfaction on the sharing of satisfying experiences and recommendations to others. These moderators were validated, and the hypotheses, which have never been proposed in past research, were supported by the empirical results in this study. Thus, this study could provide a new direction for future related studies.

In Taiwan, universities have been influenced by the myth of school brand. Many parents and students pursue star universities and neglect the effect of university service quality on students. The empirical results of this study showed that although brand image is the key factor of student loyalty, student satisfaction with schools is also important. The results could function as criteria for modern university administrators, who should not only enhance the brand but also pay attention to the service quality of schools. At present, university administrators in Taiwan recognize that students are customers of the schools. They should not only develop students' brand identification and actively establish brand image but also attract new students. When advertising and tuition discounts become less effective, university administrators must know how to create low-cost and effective marketing methods. This study proposed a new thinking direction for university administrators. The creation of word-of-mouth behavior and the use of live advertising marketing strategies will allow for the sustainable operation of schools.

References

Aaker, D. A. (2012). *Building strong brands*. Simon and Schuster.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411-423. http://dx.doi.org/10.1037/0033-2909.103.3.411

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equationmodels. *Journal ofthe Academy of Marketing Science*, *16*(1), 74-94. http://dx.doi.org/10.1007/BF02723327

Bansal, H. S., & Voyer, P. A. (2000). Word-of-mouth processes within a services purchase decision context. *Journal of Service Research*, *3*(2), 166-177. http://dx.doi.org/10.1177/109467050032005

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182. http://dx.doi.org/10.1037/0022-3514.51.6.1173

Bruyn, A., & Lilien, G. L. (2008). A multi-stage model of word-of-mouth influence through viral marketing. *International Journal of Research in Marketing*, *25*(3), 151-163. http://dx.doi.org/10.1016/j.ijresmar.2008.03.004

Cheung, G. W., & Lau, R. S. (2008). Testing mediation and suppression effects of latent variables. *Organizational Research Methods*, *11*(2), 296-365. http://dx.doi.org/10.1177/1094428107300343

Davis, T. M., & Ellison, L. (1995). Improving the quality of schools: Ask the Clients？ *School organization*, *15*, 5-12.

Elliott, K. M., & Shin, D. (2002). Student satisfaction: An alternative approach to assessing this important concept. *Journal of Higher Education Policy and Management*, *24*(2), 197-209. http://dx.doi.org/10.1080/1360080022000013518

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50. http://dx.doi.org/10.2307/3151312

Gelb, B. D., & Sundaram, S. (2002). Adapting to "word of mouse". *Business Horizons*, *45*(4), 21-25. http://dx.doi.org/10.1016/S0007-6813(02)00222-7

Gruen, T. W., Osmonbekov, T., & Czaplewski, A. J. (2006). EWOM: The impact of customer-to-customer online know-how exchange on customer value and loyalty. *Journal of Business Research*, *59*(4), 449-456. http://dx.doi.org/10.1016/j.jbusres.2005.10.004

Hu, L. T., & Bentler, P. M. (1995). Evaluating Model Fit. In R. H. Hoyle (Ed.). *Structural Equation Modeling: Concepts, Issues, and Applications* (pp. 76-99). Thousand Oaks, CA: Sage.

Jacoby, J., & Chestnut, R. W. (1978). *Brand loyalty: Measurement and Management*. New York: John Wiley & Sons.

Jöreskog, K. G., & Sörbom, D. (1992). *LISREL: A Guide to the Program and Applications* (3rd ed.). Chicago: Scientific Software International, Inc.

Mazzarol, T. (1998). Critical success factors for international education marketing. *The International Journal of Educational Management*, *12*(4), 163-175. http://dx.doi.org/10.1108/09513549810220623

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, *63* (Special Issue), 33-44.

Palacio, A. B., Meneses, G. D., & Perez, J. P. (2002). The configuration of the university image and its relationship with the satisfaction of students. *Journal of Educational Administration*, *40*(5), 486-505. http://dx.doi.org/10.1108/09578230210440311

Park, W. C., Jaworski, B. J., & MacInnis, J. D. (1986). Strategic brand concept-image management. *Journal of Marketing*, *50*(10), 62-78.

Pate, W. S. (1990). *Modeling consumer satisfaction, determinants of satisfaction, andpost purchase actions among, consumers of undergraduate higher education* (Unpublished doctoral dissertation). University of North Carolina, Chapel Hill.

Punjaisri, K., & Wilson, A. (2007). The role of internal branding in the delivery of employee brand promise. *Journal of Brand Management*, *15*(1), 57-70. http://dx.doi.org/10.1057/palgrave.bm.2550110

Richins, M. L. (1983). Negative word-of-mouth by dissatisfied consumers: A pilot study. *Journal of Marketing*, *47*(1), 68-78. http://dx.doi.org/10.2307/3203428

Robertson, J. S. (1976). Low-commitment consumer behavior. *Journal of Advertising Research*, *16*, 19-24.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, *13*, 290-312. http://dx.doi.org/10.2307/270723

Swan, J. E., & Oliver, R. L. (1989). Post-purchase communications by consumers. *Journal of Retailing*, *65*(4), 516-533.

Tompson, H., & Brownlee, A. (2013). The First Year Experience for Business Students: A Model for Design and Implementation to Improve Student Retention. *Journal of the Academy of Business Education*, *14*(2), 57-88.

Wirtz, J., & Chew, P. (2002). The effects of incentives, deal proneness, satisfaction and tie strength on word-of-mouthbehaviour. *International Journal of Service Industry Management*, *13*(2), 141-162. http://dx.doi.org/10.1108/09564230210425340

Copyrights