



Student Satisfaction and School Reputation: The Moderating Role of Student Loyalty and School Image

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Abstract

Nowadays, education services play an important role in Hong Kong's economic growth, such that 93% of Hong Kong's Gross Domestic Product (GDP) was derived from the service sector in 2012. Due to the impact of globalization on higher education, the growth of higher education in Hong Kong has emerged as a business through the support from government and in response to financial needs around the world. As self-financed higher education institutions struggle to maintain their competitiveness, quality and reputation are crucial for distinguishing their competitive edge and superior quality. This research investigated the quality and reputation by studying the moderating effects of student loyalty and school image on the relationship between student satisfaction and school reputation. 297 responses from students in four self-financed higher education institutions, which gave a response rate of 92.81%, were collected. The results found that student loyalty and school image had full moderating influence on the relationship between student satisfaction and school reputation.

Key words: Student loyalty, school image, student satisfaction, school reputation, moderating

1. Introduction

Since its return to China in 1997, Hong Kong has seen a significant change in the local economy (Cha, 2010). The emergence of a knowledge-based economy and the influences of globalization, internationalization and diversification in Hong Kong's higher education sector, prompted the Chief Executive to provide a thorough analysis of the economy in the 2009/10 Policy Address ("Breaking New Ground Together"), in which he clearly stated that "education services . . . to enhance Hong Kong's status as a regional education hub" (HKSAR Government, 2009, p. 11). To enhance Hong Kong's

global competitiveness as it transformed into a high-quality service provider, Hong Kong has undergone a series of changes and recently developed into a regional education hub (Tse, 2013; Cha, 2010).

Self-financed higher education institutions having a good reputation, just like other service providers in a business setting, helps and supports organizational sustainability, performance and growth (Deephouse, 2004). A good school reputation can alleviate students' uncertainty about institutional performances, strengthen competitive advantage, contribute to public confidence, and create value by maximizing an institution's ability to receive a premium for services provided (Vidaver-Cohen, 2007). Some researchers, such as, Singh and Weligamage (2010), Tetrevova and Sabolova (2005) and Clarkson (1998), argued that the greater the ability to provide a good quality educational service and achieve stakeholder satisfaction, the higher the recruitment rate, reputation and ranking the education institution enjoys. Therefore, the most important goals for managers of self-financed schools are to enhance the quality of their educational service and satisfy stakeholders' needs and wants (Kundi, Khan, Qureshi, Khan and Akhtar, 2014; Rasli, Danjuma, Yew and Igbal, 2011) in order to facilitate attracting and retaining students in the increasingly competitive global market (Standifird, 2005; Bush, Ferrell, and Thomas, 1998).

Good branding provides a strong indication to existing and future student about the quality and credibility of the education institution (Thomson, 2002). Other cues such as the training quality (academic staff), appeal to emotion (trust, recognition) and ethical aspect (ethical behavior, honesty) can also help students evaluate the attractiveness of a particular educational institution (Ultey, 2002). Further, student loyalty can reinforce an institution's reputation and external image by acting as the institute's advocates, that is, by providing positive word-of-mouth and referrals (Helgesen and Nettet, 2007). To sum up, if an education institution wants to sustain its operation in the highly competitive higher education sector, it must develop a positive reputation and image, maintain good service quality, enhance student loyalty with potential and existing students and alumni and achieve student satisfaction. Although there were extensive research about student satisfaction, student loyalty, school image and school reputation (Ghosh, Whippie, and Bryan, 2001; Kazoleas, Kim, and Moffit, 2001) in the areas of reputation management in higher education, an integrated model of school reputation with moderating effects of school image and student loyalty is still lacking. Accordingly, this research replicated Vidaver-Cohen's (2007) model of reputation by adding two moderators, namely student loyalty and school image, and investigated those impacts on school reputation of self-financed higher institutions in Hong Kong.

1. Literature Review

1.1 Vidaver-Cohen's (2007) Model

This research suggests a new measurement model for reputation management in self-financed higher education institutions in Hong Kong by extending Vidaver-Cohen's (2007) model with two moderators: school image and student loyalty. Vidaver-Cohen (2007, p. 280) developed a conceptual model of business school reputation (refer to Figure 1) that was based on the RepTrak model. The RepTrak model (Reputation Institute, 2006) was developed by the Reputation Institute. The reputation construct (outcome variable) is reflectively operationalized by assessing the degree of trust, admiration, good feeling and perceived public esteem; the predictor variables include organizational performance, product/service quality, leadership practices, governance procedures, workplace climate, citizenship activities and approach to innovation (refer to Figure 1). The RepTrak model is a simplified emotion-based measure of corporate reputation, which can untangle the drivers of organizational reputation from the measurement of the constructs (Reputation Institute, 2006). Vidaver-Cohen (2007, p. 280) argued that identifying differences in stakeholders' expectations for business school performance is crucial for an

assessment of a business school's reputation and for identifying ways that reputation assessments are affected by third party judgements.

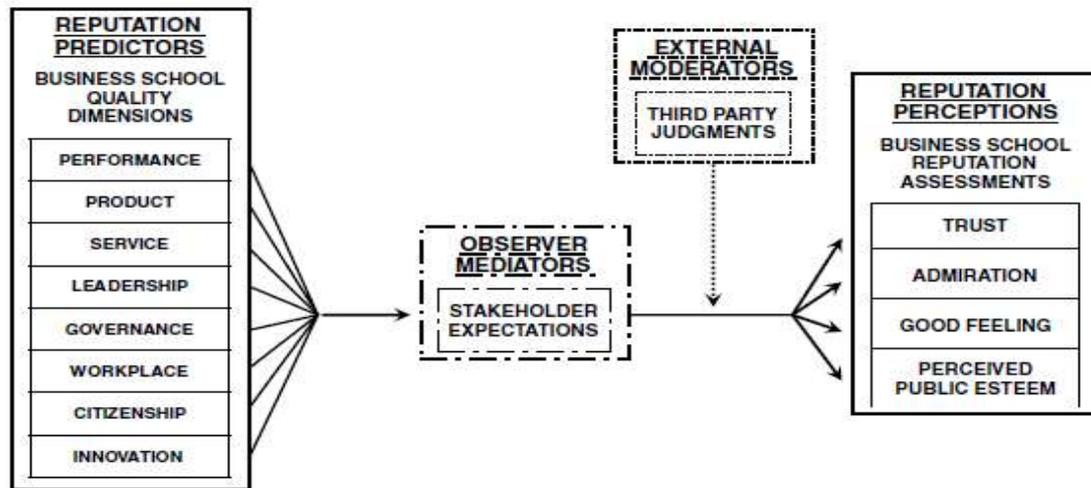


Figure 1. Conceptual Model of Business School Reputation

Source: Vidaver-Cohen(2007, p. 284)

1.2 Moderating Roles of Student Loyalty and School Image

A moderating variable (M) is one that has a strong contingent effect on the predictor-outcome (independent-dependent) variable relationship (Sekaran and Bougie, 2010). A moderator can weaken the causal relationship between independent (X) and dependent variables (Y) (Kenny and Judd, 2010; Baron and Kenny, 1986). The interaction of X and M measures the moderation effect. Path analysis is used to test whether the relation between X and Y changes as a function of moderating variable M (Baron and Kenny, 1986). This research recognizes student loyalty and school image as simple moderators that influence the effects of various variables separately.

1.2.1 Moderating Role of Student Loyalty on Student Satisfaction and School Reputation

The moderating effect of corporate loyalty on the relationship between consumer ethnocentrism and repurchase intent was studied by Akdogan, Ozgener, Kaplan and Coskun (2012), while Li and Xie (2010) studied the moderating effect of switching costs (customer loyalty) on the relationship between product quality and customer satisfaction, and Yang and Peterson (2004) identified the moderating effect of customer loyalty through customer satisfaction and perceived value (service quality) in e-Commerce. Although there appears to be no empirical studies in relation to the moderating effect of student loyalty on student satisfaction and school reputation, it is expected that such an effect occurs in the Hong Kong context. It was therefore hypothesized in this research that:

Hypothesis H1: Student loyalty moderates the relationship between student satisfaction and school reputation in Hong Kong's self-financed higher education institutions.

1.2.2 Moderating Role of School Image on Student Satisfaction and School Reputation

Only a few studies have focused on the moderating effect of corporate image. Banki, Ismail, Dalil and Kawu (2014) found a significant moderating effect of affective destination image on the relationship between tourists satisfaction and behavioural intention. Yeoh (2010) found brand image has a moderating effect on the relationship between customer

satisfaction and loyalty. Although no empirical studies can be found in relation to the moderating effect of school image on student satisfaction and school reputation, it was expected that such an effect would occur in the Hong Kong context. It was therefore hypothesized in this research that:

Hypothesis H2: School image moderates the relationship between student satisfaction and school reputation in Hong Kong’s self-financed higher education institutions.

1.3 Proposed Model of School Reputation in Higher Education Institutions

A new proposed model of school reputation in self-financed higher education institutions is developed in this research by replicating and extending Vidaver-Cohen’s (2007) model with two moderating variables: student loyalty and school image (refer to Figure 2).

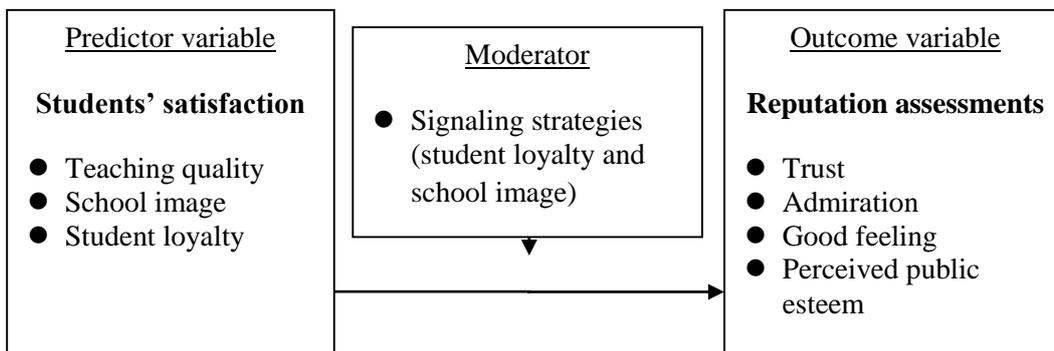


Figure 2. Proposed Model of School Reputation in Higher Education Institutions

Adapted from Vidaver-Cohen(2007, p. 284)

The model of this research with four constructs is shown in Figure 3 below.

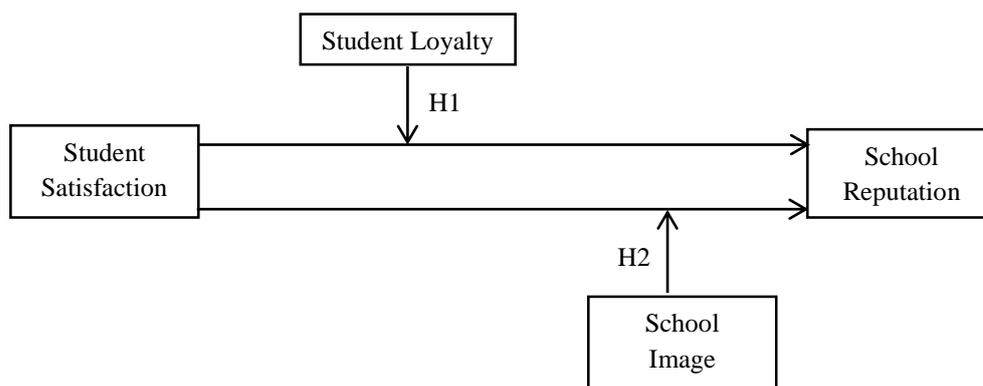


Figure 3. Research Model

2. Methodology

2.1 Sample and Data Collection

This research took a quantitative approach. A self-administrative anonymous questionnaire survey was conducted to collect data for statistical analysis. Potential participants in the survey were randomly selected from full-time students studying at

self-financed higher education institutions in Hong Kong. Questionnaires distributed to 320 students at the four higher education institutions in Hong Kong elicited 297 responses (92.81% response rate).

2.2 Measurement Instrument

The questionnaire was designed with a total of 13 statements to collect data regarding student satisfaction, student loyalty, school image, and school reputation. The measurement instruments are shown in Table 1 below.

Student satisfaction	Questions (Constituent Variables)
SQ1	I am satisfied with my institution in general.
SQ2	I am satisfied with my institution when compared with my initial expectations.
SQ3	I am satisfied with my institution when compared with an institution that is considered ideal.
Student loyalty	Questions (Constituent Variables)
LQ1	I will recommend my institution to friends or acquaintances.
LQ2	I will maintain a relationship with my institution after I graduate.
LQ3	If I had the chance to enroll in an institution for study again, I would enroll in this institution.
School image	Questions (Constituent Variables)
IQ1	I have a good impression of my institution.
IQ2	My institution has a good image in the minds of its students.
IQ3	My institution is better than other institutions.
IQ4	My institution has good course programmes when compared with other institutions.
School reputation	Questions (Constituent Variables)
RQ1	My institution fulfils the promises it makes to its students. (honoring promise)
RQ2	My institution has a good reputation. (good reputation)
RQ3	My institution is better than other institutions. (better reputation than others)

Table 1. Questions for each Construct in this Research

2.3 Data Analysis

The moderating effect of student loyalty and school image on the relationship between student satisfaction and school reputation was tested based on Baron and Kenny's (1986) and Hair, Black, Babin and Anderson (2010) suggestions. The data collected on student loyalty and school image were transformed into a nominal scale data as "agree", "neutral" and "disagree". The strongly agree, agree and slightly agree responses were added to represent "agree" while the strongly disagree, disagree and slightly disagree were added to represent "disagree" and "neutral" was kept in order to not to ignore the possible "neutral" responses (Dagger and David, 2012; Vlachos, 2012; Kline, 2011; Hair et al., 2010; Sauer and Dick, 1993). Structural Equation Modeling (SEM) was applied to the four constructs, the chi-squares and degrees of freedom were estimated for a model with all categories (ALL), the model with the "agree" category, "neutral" category and "disagree" category. The differences between the categorical chi-square value and degrees of freedom were estimated. Finally, the chi-square differences were divided with degrees of freedom of each category revealing a ratio. The comparison of ratios of chi-square over degrees of freedom (df) was made. The change is considered significant if the ratio of change is greater (>) than 3 (Kline, 2011; Hair et al., 2010), while such the variable concern is considered to exude significant moderating impact.

3. Analysis of Results

3.1 Sample Characteristics

The characteristics of the sample are shown in Table 2 below.

Demographics	Frequency	Percentage (%)
Gender		
Male	150	50.5
Female	147	49.5
Age		
18-25	292	98.3
>25	5	1.7
Division of study		
Business	265	89.2
Science and technology	13	4.4
Communication and social science	13	4.4
Others	6	2.0
Course of study		
Associate degree	144	48.5
Higher diploma	5	1.7
Undergraduate degree	148	49.8

Table 2. Sample Characteristics of the Respondents

The majority of students who responded were below 25 years old (98.3%) while a very small percentage (1.7%) was above 25 years old. The majority of responses that came from the young age group of students reflect the fact that 48.5% of respondents were pursuing associate degrees, while 49.8% were pursuing undergraduate degrees, and a small number (1.7%) were pursuing a higher diploma at the universities where the data was collected. The majority of respondents were business students, a small percentage (4.4%) were pursuing programmes in the science and technology division, another small percentage (4.4%) were enrolled in programmes in the communication and social science division, whilst 2% were pursuing programmes in other divisions within their respective university.

3.2 Significance Testing of Moderating Relationships

The moderating effect of student loyalty and school image on the relationship between student satisfaction and school reputation were studied using categorically placed variables. Student loyalty and school image which were measured using a Likert scale or interval scales that were transformed into a 3-category measure of codes: 1- disagree, 2 - neutral, 3 - agree. Studies show rating scales can be converted into categorical measures to accommodate moderator analysis with several theoretically appealing cut-off points such as those used in this study (Sauer and Dick, 1993; Baron and Kenny, 1986). The analysis began with the development of SEM's structural model to evaluate the moderation effect of student loyalty and school image on the relationship between student satisfaction and school reputation. The H1 and H2 were arbitrated with related and respective standardised regression weights, the chi-square values and ratios of chi-square over degrees of freedom for the three categories (disagree, neutral, agree). As suggested in past studies, two runs of analyses were

performed (Sauer and Dick, 1993; Subhash, Durand and Gur-Arie, 1981). In the first run all the three categories of measures (agree, neutral, disagree) were used together, while in the second run was for each of the categories separately. These outcomes were then compared using the difference in chi-square values of the outcome from all the categories and the chi-square values of individual categories. The ratios of these differences over the differences in their respective degrees of freedom were compared (Kline, 2010; Hair et al., 2010; Sauer and Dick, 1993).

3.2.1 Moderating effect of student loyalty

Based on the above suggestion on the evaluating procedure of moderating impact, the moderating effect is confirmed using the ratio of the change (Δ) in chi-square over change in degrees of freedom (df). There is a clear difference in the ratio of change in chi-square over degrees of freedom (df) as depicted in Table 3, hence student loyalty seems to play the role of a moderator in the relationship between student satisfaction and school reputation. The change is significant as the ratio of change is greater ($>$) than 3 (Kline, 2011; Hair et al., 2010).

Statistics	All	Agree	Neutral	Disagree
Chi-square	2245	1696	522	102
df	205	51	51	51
Δ chi square		549	1723	2143
Δ in df		154	154	154
Δ chi square/ Δ in df		4	11	14
		Value $>$ 3	Value $>$ 3	Value $>$ 3

Table3.Comparison of the 3 Categories of Response to Loyalty

The standardised estimates of the 3 categories as shown in Table 3 clearly shows a significant relationship between the moderator (student loyalty) and the endogenous variable (school reputation) and exogenous variable (student satisfaction) thereby supporting H1 by indicating student loyalty’s moderating role in the relationship between student satisfaction and school reputation. Interestingly, Table 4 below indicates smaller estimates of the relationship between student satisfaction and student loyalty. Similarly the relationship between student reputation and loyalty has lost its effect as the estimates show smaller values than the direct relationship between the relationship between reputation and satisfaction. This shows that student loyalty has an added effect on the relationship between satisfaction and reputation. This could be observed in all three categories of “agree”, “neutral” and “disagree”, which enhances support for H1.

		Estimate agree code = 3	Estimate disagree code=1	Estimate neutral code = 2
satisfaction	<--- loyalty	.089	.037	.052
reputation	<--- satisfaction	.503	.589	.608
reputation	<--- loyalty	.000	.000	.000

Table 4. Standardized Estimates of Student Loyalty as a Moderator

3.2.2 Moderating effect of school image

The moderating effect of school image was tested using the structural equation modeling which shows school image as a categorical moderator. The responses were transformed into a 3-category response whereby “agree” was coded as 3,

“neutral” was coded as 2, and “disagree” was coded as 1. These were then run in SEM in two stages. Firstly, all three categories were run together, giving an outcome for the “All” category. Then each category was run, providing chi-square values, regression weights, and estimates that were then used to evaluate the differences and the changes that happened when the categories were tested together versus when the categories were tested individually (Hair et al., 2010; Kline, 2010; Sauer and Dick, 1993).

Table 5 indicates there is a significant difference in the ratio of chi-square change to degrees of freedom (df) change compared to data that includes all the categories. Moreover, the significance of a moderating variable is accepted when at least one significant difference is noted and the values of the ratios are greater than 3 (Kline, 2011; Hair et al., 2010). The change that was taken note of is a general change rather than directional change, as the reduction nor the increase in value of change in chi-square for all categories was not taken into consideration as the interest here is restricted to the change in value (Sauer and Dick, 1993; Subhash et al., 1981).

Statistics	All	Agree	Neutral	Disagree
Chi-square	1087.61	3542.334	483.968	374.986
Df	204	51	51	51
Δ chi square		2455	603	713
Δ in df		153	153	153
Δ chi square/Δ in df		16	4	5
		Value > 3	Value > 3	Value >3

Table 5. Comparison of the 3 categories of response to image

Furthermore, the standardised estimates in Table 6 indicate that the relationship between school reputation and student satisfaction exists and is strong. However, the relationship between student satisfaction and school image and between school reputation and school image do not exist with the addition of school image as a moderator (Bagozzi and Yi, 1989). As such, the notion that school image contributes to the relationship between student satisfaction and school reputation is confirmed. Thus H2 that depicts the moderating effect of school image is supported (Kline, 2011; Hair et al., 2010).

			Estimate Agree Code=3	Estimate neutral Code= 2	Estimate Disagree Code=1
satisfaction	<---	image	.000	.000	.000
reputation	<---	satisfaction	.431	.091	-.296
reputation	<---	image	.000	.000	.000

Table 6. Standardized Estimate of School Image as a Moderator

The above outcomes of the analysis performed on the four constructs identified for this research, indicate the direct relationships and indirect relationships of student loyalty and school image on the relationship between student satisfaction and school reputation. Their roles as moderators show the importance of these constructs in increasing the reputation of an institution.

4. Discussion

H1 and H2 are supported with findings indicating a positive moderating effect of student loyalty and school image on the relationship between student satisfaction and school reputation. This implies that student loyalty is crucial for student satisfaction to turn into school reputation, and that school image should increase in order for school reputation to increase. Although there appears to be no empirical studies to compare with in regard to the moderating effect of student loyalty and school image on the relationship between student satisfaction and school reputation, the findings of H1 and H2 can nevertheless be used as a guide for education service providers who may be considering ways to turn satisfied students into loyal students and ways to enhance school image and turn it into reputation. As a significant moderator, student loyalty and school image further enhance the effect of student satisfaction on reputation. This is in agreement with previous studies, as student satisfaction may not directly have a strong effect on building reputation. It takes time and effort to build reputation and it is undeniable that student satisfaction is one of the many ways to improve reputation. Nevertheless, once a good reputation is established it attracts repeated purchase and repeated use of the service. Subsequently, a self-financed higher education institution could become the first recommended school when students and parents make school choices and, perhaps more importantly, it could be the school that is in the forefront of one's mind when the need to recommend arises (Nguyen and LeBlanc, 2001, 2000). Thus, as a moderator, student loyalty tends to be crucial, even though student satisfaction has been achieved. Moreover, school image and reputation are closely related, giving image a big role to play. Studies indicate that image is essential to increase reputation (Shamuganathan and Tong, 2010; Nguyen and LeBlanc, 2001, 2000). Thus, the current research verifies the relationship between reputation and image and loyalty, and solidifies the crucial moderating role played by image and loyalty.

Furthermore, student loyalty, as a moderator, enhances the effect of student satisfaction on school reputation. Self-financed higher education institutions need to find ways to create loyal stakeholders. Even though students may have a certain level of satisfaction with a school, satisfaction itself may not directly and significantly help improve school reputation. Since likely no empirical analysis performed on the moderating impact of loyalty on the relationship between customer satisfaction and reputation, the current findings provide a valuable contribution to this area in the context of self-financed higher education. School image, being a moderator, is essential to improve school reputation through student satisfaction. Self-financed higher education institutions need to find ways to improve their image by exploring and developing the relationship with their external and internal stakeholders. Even though students may have a certain level of satisfaction with a school, the satisfaction may not directly and significantly help improve the school's reputation without a good school image. Thus, higher education institutions should consider how to improve their image and reputation by exploring their relationship with different stakeholders. Since there appears to be no prior empirical studies conducted on the moderating effects of image on the relationship between customer satisfaction and reputation, the current findings provide a contribution in this area in the context of self-financed higher education.

5. Recommendations

The findings of this research validated that the moderating of student loyalty and school image fully affect the relationship between student satisfaction and school reputation respectively. Although the significance of the results found, it is suggested that a qualitative study can be conducted in order to explore other factors to generate a more wide-reaching research model. It is also recommended to collect data from more extensive population in different institutions or countries for a comparison of results.

6. Conclusion

In this research, student loyalty was found to have a full moderating influence on the relationship between student satisfaction and school reputation. This suggests that the good reputation of a self-financed higher education institution may not be solely due to student satisfaction but rather that student loyalty also plays an important part in building the reputation. As a significant moderator, student loyalty improves the effect of student satisfaction on school reputation. Therefore, self-financed higher education institutions need to find ways to 'create' loyal stakeholders. Even though students might have a certain level of satisfaction with a school, the satisfaction may not directly and significantly help improve the school's reputation. Since no empirical analysis performed on the moderating impact of loyalty, on the relationship between customer satisfaction and reputation, the findings in this research provide contributions in this area in the setting of self-financed higher education.

Same as student loyalty, school image was confirmed to have a significant moderating impact on the relationship between student satisfaction and school reputation. This suggests the fact that a self-financed higher education institution has a good reputation may not be solely due to student satisfaction but also to school image. Further, school image, being a moderator, is essential to improve school reputation through student satisfaction. Self-financed higher education institutions need to find ways to improve their image by exploring and developing the relationship with their external and internal stakeholders. Although students may have a certain level of satisfaction with their school, the satisfaction may not directly and significantly help improve school reputation without a good school image. Thus, higher education institutions should consider how to improve their image and reputation by exploring their relationship with different stakeholders. Since there appears to be no prior empirical studies conducted regarding the moderating effects of school image on the relationship between customer satisfaction and reputation, the current findings contribute to this area in the setting of self-financed higher education.

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