

Analysis of Factors Influencing School Choice Behavior in Private Colleges and Universities—An Empirical Study Based on Student Groups

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Abstract: The development of private education has been highly valued and supported by the state, and due to the increasingly fierce competition in higher education, especially the competition for students poses a challenge to the survival and development of private colleges and universities. The purpose of this paper is to study the factors that influence students to choose private colleges and universities to attend, and to conduct a questionnaire survey on the freshmen of the class of 2020 in three private colleges and universities in mainland China. The results show that the brand communication of private colleges and universities affects the brand support behavior of private colleges and universities by enhancing students' personal development expectations, and that the recommendation of others has a direct impact on students' formation of brand trust in private colleges and universities and whether they choose to enroll in them. The study finds that "brand trust" is the core element that private universities need to improve at this stage. The study on brand support behavior of private colleges and universities proves that private colleges and universities should design targeted communication methods to enhance the trust of candidates and parents, and should also help students shape their future development blueprints. They should try to establish a beneficial and long-lasting brand communication mechanism, so as to enhance the attractiveness of private universities' brands to students.

1. Introduction

The decision of students to choose colleges and universities to attend is influenced by many factors. There are many differences between private colleges and universities and public ones in terms of physical mechanisms. In the stage of popularization of higher education, public colleges and universities enjoy more autonomy in the setting of majors, introduction of teachers, evaluation of titles and salary allocation, which threatens the advantage of private colleges and universities that used to rely on institutional mechanism and get the required educational resources. The low arrival rate of new students in private colleges and universities has become one of the important reasons that restrict the development of schools [1]. Therefore, in order to better attract students, private colleges and universities begin to pay attention to school branding and communication. Some scholars suggested that private undergraduate colleges and universities should pay attention to brand construction as early as the beginning of the 21st century. They pointed out that private colleges and universities should establish a correct brand concept and should not equate brand communication with advertising [2]. The school organizers and administrators should care about the influencing factors for students to choose the school brand, so as to continuously improve the attractiveness of the school to education consumers.

2. Research Status Quo

2.1 College Branding and School Choice Behavior

T.W. Schultz viewed educational institutions as a kind of industry and argued that school branding can be seen as a business specializing in the production of academic qualifications. The discussion of university marketing began when the first non-public universities were established.

Colleges and universities, as one of the main educational institutions, have similarities to corporate branding, but with essential differences. The value created by enterprise products or services is real-time and can be added in a short period of time, but the value created by college and university brands is lagging, and the contribution of colleges and universities to social production and economic growth needs time to prove, and for customers (students) who choose a particular brand, a longer period of time is needed to verify it compared to the enterprise brand [3]. Branding distinguishes an organization from its competitors, and college branding is the embodiment of characteristics used to distinguish it from other colleges and universities [4]. It represents a school's ability to meet the needs of its students [5], is a commitment to the quality and competence of the particular type and level of higher education it can offer [6], and can help potential new students make the right admissions decisions [7].

For the student population, school choice is the ultimate expression of students' brand-supportive behavior toward colleges and universities, and school choice behavior is a complex and evolving process [8], a decision made after a very confident evaluation of alternatives [9]. School choice behavior is expanded from behavioral intention connotations [10]. Zeithaml et al. confirmed that behavioral intentions can be classified as positive and negative. When consumers or customers have positive intentions towards a brand, they engage in positive behaviors, such as generating brand preferences, praise behaviors, purchase behaviors, and communication behaviors; conversely, they develop negative resistance behaviors towards the brand [11].

2.2 Factors Influencing Students' Choice of School

The factors influencing students' school choice behavior in this study can be explained using 'consumer behavior', and existing research on consumer behavior has been conducted in two main ways: First, based on the concept of rational consumers [12]. Based on cognitive psychology, the concept focuses on how consumers obtain information about products or services and how they process and use this information. This type of research focuses on the process of consumer decision making and brand evaluation, that is, how consumers perceive and feel about the communication activities of the brand side. Second, as opposed to the concept of rational consumers, consumer behavior is studied from emotional, social and cultural aspects, focusing mainly on the investigation of consumer emotions and feelings. These two types of research actually make up for each other's shortcomings and, when combined with each other, are better able to cover the multiple causal principles of consumer involvement in the decision-making process and behavior of purchase. As in Bagozzi's study, a necessary prerequisite for an emotional response to a product or service is that the consumer has developed an interest in it and is willing to evaluate it rationally to support this interest or to alleviate the concerns arising from the behavior [13].

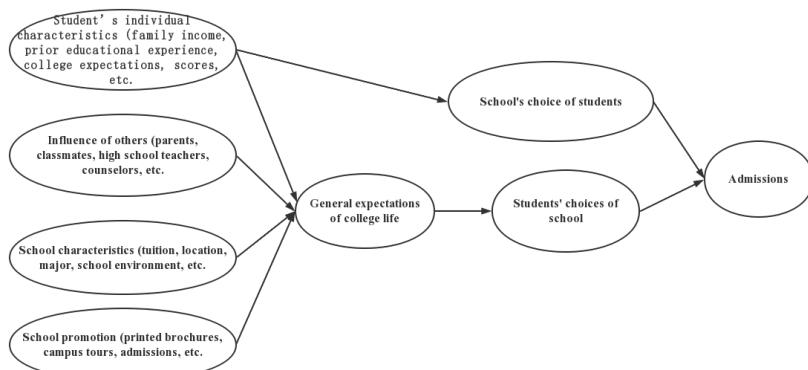


Fig.1 Chapman r.g School Choice Model

For the decision-making process involved in college selection behavior, Chapman R.G [14] proposed a model of the college selection process in which five stages are established: 1- Pre-search behavior, 2- Search behavior, 3- Application, 4- Selection, and 5- Admission [14]. The model fully takes into account the influence of external factors on students' choice of school. As shown in

Figure 1, the influence of others, institutional characteristics, and school outreach to the student body are the main factors that influence students' choice of school. The influence of others is the cornerstone of the model and is key to "shaping potential students' expectations of college". Another important factor in the model is institutional characteristics: admissions requirements, location of the school, chosen major, etc. The last important factor is "communication", i.e., the means by which the school promotes itself in order to increase its attractiveness to students.

The application process for admission to higher education institutions in China differs from that of foreign countries in that at stage 4, prospective students abroad can be offered admission to more than one school at the same time, but in China, students are not accepted to more than one college or university at the same time, so the application stage (volunteering) is particularly important.

3. Study Design and Data Collection

3.1 Questionnaire Design and Variable Measurement

Through reviewing the literature, it was found that factors such as brand communication of colleges and universities, perception of educational services, students' expectations of their future development, brand trust, and recommendations from others can predict and explain students' selection behaviors of private colleges and universities. Therefore, the author tried to construct a model of the key factors influencing students to choose private colleges and universities to attend and the degree of influence of these factors on school selection behavior, as shown in Figure 2.

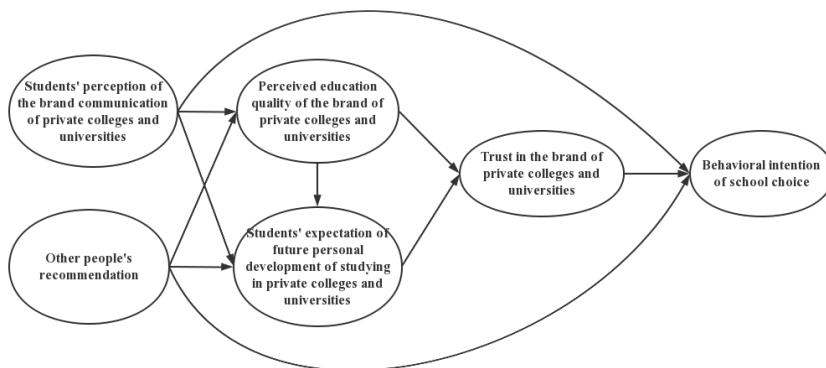


Fig.2 Influence Model of Students' Choice of Private Colleges and Universities

Table 1 Description of Variables and Scale Sources

Variable name	Number of items	Variable description	Scale source
Attitude towards school brand communication	6	Reinforce existing consumer behaviors and maintain a high level of brand awareness, enhance consumer connection to the brand	Cubillo, Sanchez and Cervino ^[15]
Brand trust	7	The consumer's evaluation of the attributes and performance of the product or service that help achieve the goal and intended outcome reflects the degree to which the consumer believes in the brand.	Chaudhuri and Holbrook ^[16]
Perceived quality of school services	13	Perceived quality of educational services e.g., courses, majors, faculty, campus life, etc.	Tavares, Justino and Amaral ^[17]
Personal development expectations	3	Individuals assess their expectations of future development by attending private colleges and universities	Agustin and Singh ^[18]
Other people's recommendation	5	The influence of people close to the individual in the school choice process on the individual's decision making	David Chapman ^[19]
School choice behavior intention	7	Individuals assess their likelihood of wanting to attend a private college or university and a range of positive behaviors, such as preferences, praise, and communication behaviors	Zeithaml.et.al ^[11]

This study used a questionnaire as a research tool, which contained basic information about the respondents, students' attitudes toward school brand communication activities, brand trust, perceived quality of educational services, personal development expectations, recommendations from others, and behavioral intentions for school choice. See Table 1.

All items of the scale in the questionnaire were stated in a positive and affirmative manner, and respondents were required to score the degree of agreement with these items according to their personal reality, with a 7-point Likert scale of semantic differences, with 7 being fully agree and 1 being fully disagree, for a total of 7 levels, with 7 points for fully agree and 7, 6, 5, 4, 3, 2, and 1 points for each level in descending order.

3.2 Sample Selection and Data Collection

In this study, three schools were randomly selected from the top ten private colleges and universities ranked by third-party institutions for the class of 2019. The questionnaire was distributed online, and a total of 691 students participated in filling out the questionnaire. The questionnaires with a repetition rate of more than 80% and less than 120s were excluded, and 556 valid questionnaires were obtained with an efficiency rate of 80.4%. Among them, 253 were female students and 303 were male students; 200 (36%) chose the institution as their first choice; 111 (20%) chose the institution as their second choice; and the remaining 245 chose the institution as their third or later choice. The results of the above data showed that all the students who filled in the questionnaire are already students of private colleges and universities, but the volunteering situation shows that 36% of students took private colleges and universities as their first choice, and 44% of students took private colleges and universities as their third or later choice, which is higher, so it revealed that private colleges and universities are not the best choice for most students.

3.3 Questionnaire Reliability and Validity Analysis

The results of the reliability analysis of the questionnaire showed that the Clonbach coefficients of the six variables in Table 1 above were above 0.8, the commonality values of all study items were higher than 0.5, the KMO value was 0.933, and the cumulative variance explained after rotation was $77.12\% > 50\%$, indicating that the information content of the study items could be extracted effectively. This paper only reports the results of formal questionnaire reliability and validity as shown in Tables 2-4. The data results showed that the questionnaire used in this study has good parameters of indicators, high model fit and good reliability, which can be used as a tool to measure the brand support behavior of private college and university education consumers.

Table 2 Reliability of Each Scale of the Formal Measurement Questionnaire and Results of Factor Analysis

Factor name	Content	CITC	The alpha coefficient of the deleted item	Cronbach α	Factor loading factor	Commonality
Attitude towards school brand communication(V1)	1 I think this school's communication content is very effective	0.925	0.962	0.970	0.943	0.790
	2 I think this school's communication content is very true	0.915	0.964		0.932	0.852
	3 I think the school's communication pictures and videos are attractive	0.892	0.966		0.905	0.816
	4 I can easily find information about the school	0.894	0.966		0.907	0.719
	5 I am satisfied with the way this school is	0.902	0.965		0.921	0.819

	advertised					
	6 I think the content of the school's communication is exactly what I need	0.892	0.966		0.909	0.798
Brand trust(V2)	1 If I can get a better education, I think there is no difference between public and private schools	0.721	0.933	0.935	0.792	0.673
	2 I don't have any worries about going to this school	0.791	0.926		0.818	0.730
	3 I think that if the government recognizes it, it is a regular school	0.773	0.928		0.827	0.756
	4 I am very confident in the educational experience I will get when I pay the tuition fee	0.716	0.930		0.861	0.757
	5 I don't think employers will treat students from public and private colleges and universities differently after graduation	0.812	0.924		0.829	0.869
	6 I believe that I will have a good time at this school	0.811	0.926		0.761	0.848
	7 I think the brand of this school is trustworthy	0.798	0.930		0.814	0.899
Perceived quality of education in private colleges and universities(V3)	1 The level, geographical location, climate, economic and cultural conditions of the city where the school is located	0.766	0.975	0.976	0.805	0.756
	2 Key majors or special projects of the school: school-enterprise cooperation, study abroad exchange program, etc.	0.863	0.974		0.677	0.780
	3 Teaching quality, faculty level, employment rate after graduation	0.862	0.974		0.796	0.803
	4 The possibility and quantity of student loans and scholarships	0.855	0.974		0.827	0.795
	5 Tuition and living expenses	0.766	0.975		0.783	0.701
	6 Learning environment of the school (classrooms,	0.827	0.974		0.848	0.816

	laboratories, computer rooms, practical training bases, library facilities, etc.)					
	7 Living environment on campus (greenery, playground, canteen, accommodation, student activity center, fitness, daily shopping, etc.)	0.829	0.974		0.896	0.882
	8 Off-campus environment and transportation	0.785	0.975		0.855	0.808
	9 Extracurricular activities on campus, club activities, academic lectures	0.775	0.974		0.864	0.820
	10 School ranking, honors and awards received	0.871	0.974		0.816	0.870
	11 Personal honors, awards and personal deeds of the president (school leader)	0.796	0.974		0.873	0.856
	12 School philosophy and policy (school spirit, school motto, school goals, etc.)	0.864	0.974		0.928	0.833
	13 Cooperation projects between the school and third-party institutions	0.827	0.974		0.925	0.726
Students' expectations for future personal development(V4)	1 I think I can get better opportunities for further education (graduate school, civil service, study abroad, etc.) by studying at this college or university	0.791	0.897	0.910	0.879	0.853
	2 I think I can get good inter-college exchange opportunities by studying at this college or university	0.835	0.860		0.913	0.820
	3 I think I can get good job opportunities by studying at this college or university	0.842	0.853		0.786	0.808
Other people's recommendation (V5)	1 Recommendation from parents, family or relatives	0.757	0.929	0.935	0.867	0.659
	2 Recommendation from high school	0.823	0.921		0.960	0.777

	teachers					
	3 Recommendation from friends and classmates	0.809	0.922		0.940	0.809
	4 Recommendation from a current student of the intended school	0.812	0.922		0.673	0.757
	5 Recommendation from a third-party authority or professional	0.805	0.923		0.677	0.841
School choice behavior intention(V6)	1 I think it is wise to choose this school	0.880	0.943	0.954	0.887	0.841
	2 I think this school offers good value for money	0.790	0.952		0.824	0.774
	3 I have positive feelings about this school	0.836	0.947		0.839	0.770
	4 I think this school is very attractive	0.855	0.946		0.808	0.784
	5 I am seriously considering applying to this school	0.902	0.945		0.869	0.830
	6 I will say positive things about this school when talking about it	0.859	0.951		0.791	0.823

Table 3 Validation Row Factor Analysis

Indicator	X ² /df	GFI	AGFI	PGFI	RMSEA	NFI	NNFI	CFI	SRMR
Numerical value	2.807	0.926	0.967	0.910	0.032	0.997	0.998	1.00	0.01
Recommended Criteria	<3.0	>0.90	>0.80	>0.50	<0.80	>0.90	>0.90	>0.90	<0.10

Table 4 Aggregate Validity Analysis Results with Pearson Correlation and Ave Square Root

Factor name	Average variance extracted AVE value	Combined reliability CR value	V1	V2	V3	V4	V5	V6
V1	0.616	0.918	0.785					
V2	0.821	0.932	0.595	0.906				
V3	0.779	0.913	0.574	0.527	0.833			
V4	0.852	0.945	0.535	0.782	0.477	0.923		
V5	0.866	0.951	0.568	0.783	0.540	0.780	0.930	
V6	0.749	0.856	0.580	0.441	0.552	0.436	0.539	0.865

Note: Diagonal numbers are AVE square root values

4. Research Result Analysis

4.1 Data Analysis

This study constructs a model of factors influencing the brand support behavior of private colleges and universities through statistical means such as path analysis. The model was tested by path analysis, and the model fit was found to be substandard. According to the MI value index, it was found that the MI value of other people's recommendation for trust in the brand of private colleges and universities was greater than 20, indicating that the path exists. The new paths were added to the model. The model fit index was good after the new paths were added, and the regression coefficients between the paths were further analyzed. The data analysis results found that the recommendations of others had no significant effect on the perception of private college and university education services and brand trust, so the two paths were removed one by one and the

model was verified again, and only the final results were presented in this paper, as detailed in Tables 5-6.

Table 5 Final Model Fit Metrics

Indicator	X2/df	GFI	AGFI	PGFI	RMSEA	NFI	NNFI	CFI	SRMR
Numerical value	1.235	0.995	0.989	0.095	0.043	0.987	0.992	0.997	0.024
Recommended criteria	<3.0	>0.90	>0.90	>0.90	<0.10	>0.90	>0.90	>0.90	<0.10

Table 6 Summary of Final Model Regression Coefficients

X	→	Y	Non-normalized path coefficient	SE	z	p	Normalized path coefficient
V1	→	V3	0.550	0.063	8.725	0.000***	0.614
V1	→	V4	0.320	0.096	3.348	0.001***	0.285
V3	→	V4	0.552	0.107	5.174	0.000***	0.441
V3	→	V2	0.456	0.090	5.053	0.000***	0.414
V4	→	V2	0.217	0.070	3.090	0.002**	0.247
V2	→	V6	0.216	0.043	4.971	0.000***	0.240
V1	→	V6	0.336	0.059	5.697	0.000***	0.379
V5	→	V2	0.185	0.066	2.819	0.005**	0.202
V5	→	V6	0.332	0.053	6.247	0.000***	0.403

Note: *p<0.05; **p<0.01; ***p<0.001.

4.2 Result Analysis

In summary, the results of path analysis showed that students' perceptions of brand communication of private colleges and universities have influence on both perceived quality of brand education of private colleges and universities and students' expectation of future personal development, with standardized path coefficients of 0.614 and 0.285; perceived quality of brand education of private colleges and universities has positive influence on students' expectation of future personal development, with standardized path coefficient of 0.441. The perceived quality of private college and university brand education, students' expectation of future personal development and other people's recommendation all have positive effects on private college and university brand trust, with the standardized path coefficients of 0.414, 0.247 and 0.240 respectively; students' feelings about private college and university brand communication, other people's recommendation and private college and university brand trust have significant effects on private college and university brand support behavior, with the standardized path coefficients of 0.379, 0.202, 0.403.

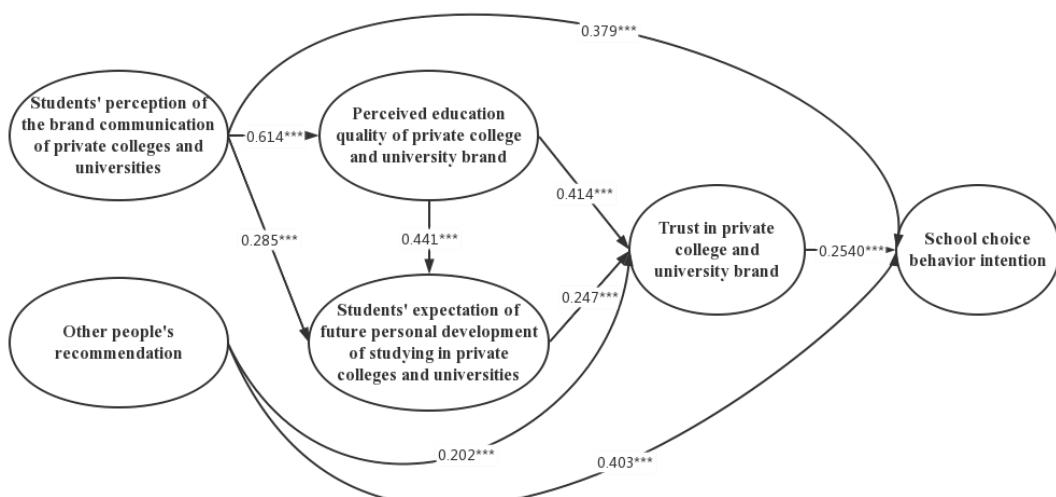


Fig.3 Influence Model of Students' Choice in Colleges and Universities (Values Are Standardized Path Coefficients)

5. Research Conclusion

5.1 Self-Publicity of Colleges and Universities Has an Impact on Their Behavioral Intention to Support Their Brands

The results of data analysis in this study showed that the brand communication of private colleges and universities directly contributed to the positive influence of students' behavioral intention to support their brands. Private colleges and universities attach great importance to advertising and publicity at the early stage of their establishment, using media such as newspapers, TV and radio, as well as enrollment brochures and promotional materials independently designed and issued by the schools. With the development of new media, the school enrollment publicity release information channels are more extensive. After the analysis of questionnaire data, the author found some of the surveyed students for interviews, which verified that the school's own publicity has a direct impact on students' choice to attend the school. Students generally received phone calls, QQ messages, and promotional materials from their enrollment teachers or classmates. Almost all of them chose to visit their local enrollment sites for consultation, believing that the information given by the enrollment promotion was necessary, and most of them recognized that it was because of these promotions that they chose the institutions they were currently attending. Most students believe that the school's publicity provides them with effective and detailed information.

Research shows that brand communication of private colleges and universities can effectively enhance students' perceptions of their educational quality and thus influence brand support behaviors. The development history and institutional environment of private colleges and universities make it inevitable that private colleges and universities choose to enhance students' perception of their educational quality through the dissemination of brand information such as high-quality videos, authentic pictures, and government recognition. The enrollment system and admission procedures make it impossible to avoid a practical problem for students attending private colleges and universities, which is that most students who choose to apply for private colleges and universities have lower scores. When they are not confident of being admitted to a public school, they have to choose a private college or university to "get a higher degree". The interviews revealed that the brand communication of private colleges and universities prompted students to think that "this is the only way for me to get a bachelor's degree", "I don't want to go to a specialist, I want to get a bachelor's degree", "I have to go to a bachelor's degree because I want to go to graduate school", "there are good school-enterprise cooperation programs and internships can be arranged after graduation", and so on. Brand communication not only enhances students' perception of education quality of private colleges and universities, but also makes students have good expectation of "better future". Therefore, the brand communication of private colleges and universities does improve the students' perception of the quality of education and the impression that they can get a "better" future. The research analysis further found that the large amount of information carried by private colleges and universities in their brand communication messages reflects that private colleges and universities prepare good learning conditions and rare resources for students to grow and become successful in talent cultivation, which prompt students to have trust in private colleges and universities and thus generate behavioral intention to enroll in private colleges and universities.

5.2 The Key to Enhance Brand Support Behavior of Private Colleges and Universities is to Improve Brand Trust

The study showed that brand trust is the key to enhance brand support behavior in private colleges and universities. During the interview process, the most frequent concerns of students about the teaching quality of private colleges and universities and their trust in the brand also emerged. Almost all students expressed that they verified the authenticity and reliability of the filled-in institutions and the recognition of their qualifications in the social production activities through various channels. For example, "I don't think there will be a problem with schools that are recognized by the state and can be found on the official website of the Ministry of Education." The first time I saw a student, my parents asked their friends and relatives. Some students generally said

that their elders still do not agree with private colleges and universities, and “their families still want to enter public institutions, which are run by the state after all, so they are more at ease”. From the data results, it is clear that the more students trust the school brand, the stronger their intention to choose the school.

5.3 Recommendation from Others is an Important Influencing Factor for Students to Choose Private Colleges and Universities

From the conclusion of the research model, the recommendation of other people can also enhance students' trust in private colleges and universities, which further influences students' behavioral intention to choose colleges and universities. It is often categorized as “word-of-mouth” communication in communication science. Private colleges and universities have gone through a difficult journey with the reform and opening up in China. It takes a long time to build and form their own brands. Private colleges and universities have a single source of funding for development. Admission is always a key issue for the survival and development of private colleges and universities. The asymmetry of educational information brings problems for students and parents to choose, so students and parents rely on the recommendations of their trusted “authorities”. From the interviews, it is clear that students and parents choose to consult with friends or relatives in the education field, high school teachers, and students who are interested in attending the school, whenever they have the opportunity to do so. The eagerness of students and parents to find third-party “witnesses” to verify information sent by schools shows the direct influence of other people's recommendations on students' school choices.

6. Conclusion

The research results surfaced that at this stage, the brand communication of private colleges and universities is in line with the expectations of communication subjects. School brand communication behavior effectively plays the role of attracting students' choice. Brand trust is very important for students and parents in the development of private colleges and universities so far, so the organizers and managers of private colleges and universities should face up to this problem and make efforts in brand communication planning to make the content, communication methods, communication strategies and frequency of private college brand communication more conducive to establishing brand image.

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