

Analyzing Decision-Making Behaviors of International Students Studying in China Based on Behavioral Economics

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ABSTRACT

An increasing number of young foreigners are willing to study in China to understand and experience China on the spot for the last few years. Numerous researchers focused on international students in China. This paper applied the principles of behavioral economics to analyze the decision-making behaviors of international students choosing China as the destination for study. The purpose of the paper is to improve understanding of how international students were influenced by different choice or judgment means. The primary data were collected through surveys in a higher education institution in China and analyzed by the sequential description and explanatory analysis. The behaviors of International students selecting higher education institution abroad were probably influenced by parental education experiences. The comprehension of key elements affecting the student selection to study abroad can guide the admission strategy optimization of China and Chinese education institutions. Most international students prefer to obtain opinions from trustworthy individuals they believe in decision-making processes.

Keywords: *International students in China, Decision making, Behavioral economics.*

1. INTRODUCTION

A group of economists pioneered by Richard Taylor tried to extend the boundaries of traditional economics by introducing psychological and sociological concepts, and proposed to use irrational economic agents as the object of micro-study, thereby creating behavioral economics. As the behavioral economics gained popularity, it was gradually applied to the education sector. Student decision-making behavior is similar with customer buying behavior [1]. The group of students, as a segment of customers, is also a non-negligible part of the market.

It was discovered that numerous factors influenced student behavior. Parental education associated with undergraduates' education and a high level of correlation was found between them [2]. Six influential factors of "push and pull" have been defined by Mazzarol and Soutar [3]. These factors for making the final decision are more related to the subjective characteristics of the individual, including parental involvement,

financial situation, the location of higher educational institutions, the reputation of the institutions, the satisfaction rate of the study programs and financial support. Financial support of decision process always is important for international students and their families. Three researchers distinguished clear difference between enrolment fees and financial support, explaining that financial support of higher education institution can be designed to cover expenditures by deducting tuition fees or funding [4]. Understanding and recognition of financial factor greatly simplifies the outcome of making decisions. The institutions are putting lots of efforts into maintaining reputation and improving the academic prestige, which can lead to more admitted students [5]. Therefore, the competitive advantage of higher education institutions is remained by better reputation and higher ranking in the current education market. A good public image is greatly important that can subjectively reflect the inner behavior of the organization. As a part of the society, the human behavior is affected by social influence. The human

brain positions particularly emphasize to encode the rewarding experience about finding strong evidence of social behaviors for one's judgments [6].

In 2018, a total of 492,200 international students from 196 countries and regions have come to China for study [7]. For the huge number of international students, China and Chinese higher education institutions continuously formulated various admission strategies to attract students from all over the world. In order to enrich understanding of international student decision-making process and provide a reference for the admission strategy optimization, this paper will evaluate and reveal how potential students are affected by different means in process of selecting higher education institutions abroad from the perspective of behavioral economics. It will firstly state how to survey international students to collect primary data. Then three selected sections of the survey result will be considered as main findings to be analyzed through prospect theory, "nudge" and social proof. All analyses will be concluded and recommendations for future research will be presented in the last part of this paper.

2. METHODOLOGY

A result of the study's purpose was determined by the research method, selection of participants, data collection, and analysis technique [8]. This study has taken non experimental approach by surveying respondents to create descriptive research. The primary data was collected through the online questionnaire. Questions started with personal background, in which the result of parental education experience will be mainly focused on. The second aspect is about reasons for choosing the destination for study where the influential factors will be listed to choose. The last essay questions were designed to describe more steps during the decision-making process of studying abroad to obtain possibly detailed cues about the choice or judgement of participants. The international students who have completed the academic study for at least one semester were selected randomly as participants in this study at a university. This specific point is important as it represented that students would have lived and studied abroad and decision-making processes has ended. The researcher contacted with international student affairs offices in their institutions for a request to send the online questionnaire to international

students who have met the requirement of the specific point.

A total of 400 surveys were distributed to participants with levels of study are language training, undergraduate, graduate and doctoral, then 103 responses were received, resulting in a 25.8% response rate. The samples of 103 are from 37 countries, which contained 48 female and 55 male respondents. 71 of participants responded how to make a decision about getting higher education, studying abroad and choosing China as a destination for study. The higher education in this study referred to the university graduated or above.

3. RESULTS AND DISCUSSION (1400)

The prospect theory proposed by the behavioral economist, Daniel Kahneman, finds that people's risk preference behavior tends to change with the situation [9]. When an event is determined to be profitable, individuals are averse to the risk factors of the event, but their attitudes are risk preference when judging a loss event. The determination of loss or gain is based on a certain reference point set by themselves [10]. Currently, prospect theory is used in the analysis of student enrollment by educational behavioral economists. The level of individual reference points will affect the final decision of individual higher education admissions. Students will take their parents' academic qualifications as a reference point. If the student's parents are high school graduates, going to college will fall into the field of gain. On the contrary, if the parents of the students are university graduates, then going to college will fall into the field of loss of the student [11]. "Figure 1" displays the education level of parents and the support rate of studying in China. The number of participants who have both or one of the parents with higher education is 60 (58.2%), which higher than 36 (35%) of participants whose parents keeps the education level of vocational school, high school or middle school. Similarly, 35 (85.4%) out of 60 participants gained the support about the study from their parents, which is more than 28 (77.8%) out of 36 participants. It is inferred that most international students are probably refer to their parents' higher education as a reference point. Not choosing higher education will be a loss for them. In the loss filed, individuals prefer risky options. Therefore, international students with parental higher education tend to take risks to go to China for higher education.

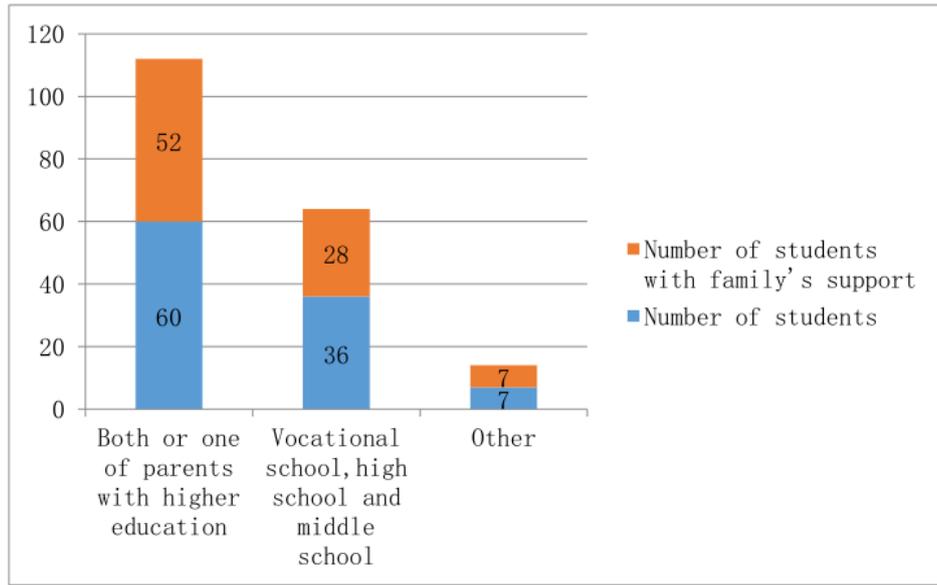


Figure 1 The education level of parents and support rate of studying in China.

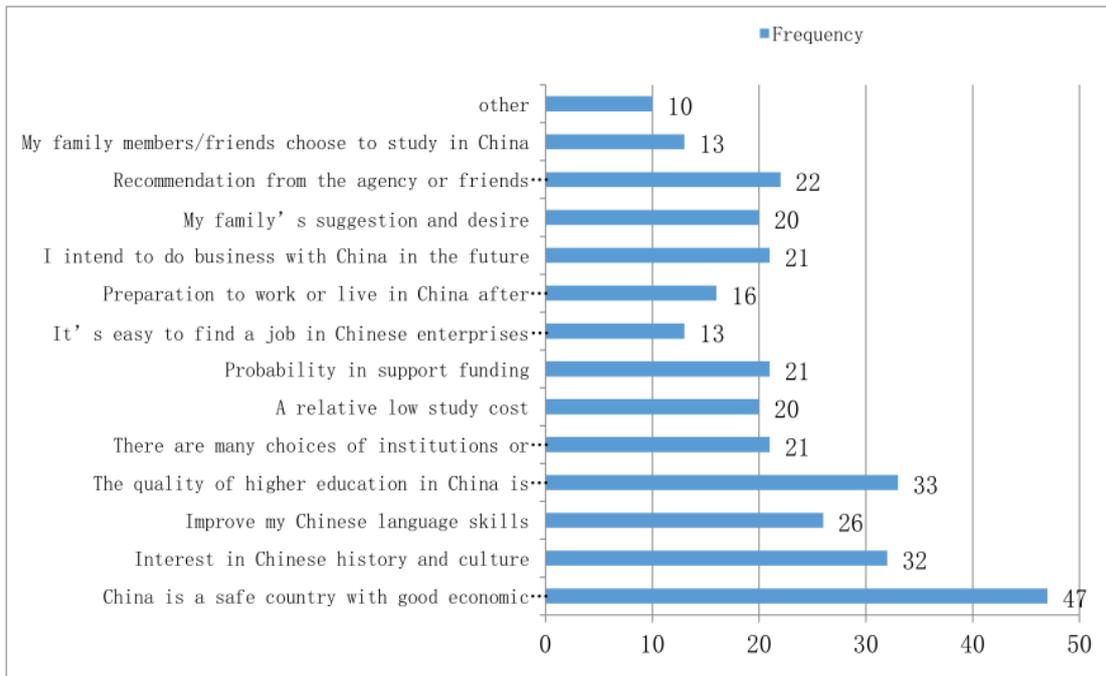


Figure 2 Frequency of selecting reasons about studying in China.

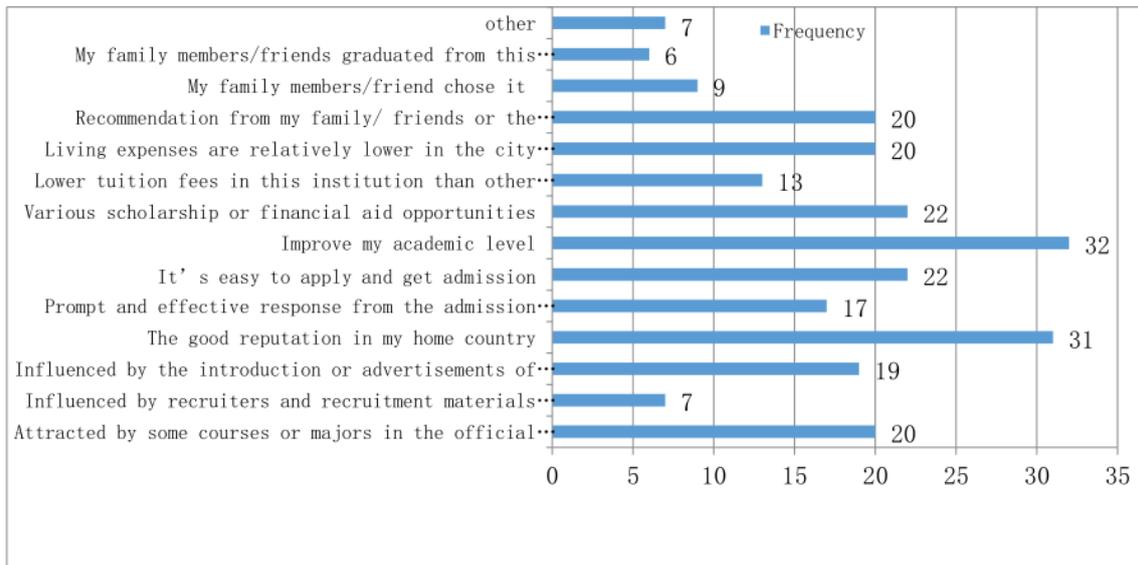


Figure 3 Frequency of selecting reasons about studying in the current institution.

The behavioral economist, Richard Thaler and Cass Sunstein [12] first proposed the concept of "nudge", indicating that strategy designers can use invisible and ingenious strategies to help objects achieve specific choices. Saghai [13] pointed out that nudge is a behavior change that preserves the freedom of choice of nudgee by triggering the automatic recognition process of nudge. Scholars have proposed different methods of nudge classification. The salience nudge is synoptically represented by Wilson et al. [14], indicating that shaping saliency through label information can influence people's behavior. Its application can be experienced in a more and new field, such as the education. About "Figure 2" and "Figure 3", participants were provided with 13 possible reasons without the limit to the number of choices. "Figure 2" indicates that the most frequent reason for being selected is that China is a safe country with good economic development. The next one is that the quality of higher education in China is better than the home countries of international students. The third-ranking reason is the interest in Chinese history and culture separately. "Figure 3" displays that the top two causes are to improve the academic level and the good reputation in students' home country. Simultaneously, reasons for various scholarship and financial aid opportunities, and the ease to apply and get admission are the third. These reasons above reveal clear focus areas where applying "nudges" would influence the decision-making process or final choice of international students. The roles of China and Chinese institutions are the strategy designers. They should

be aware of benefits of "nudge" application to influence the selection performance of international students. At the national policy level, China primarily develops appropriate "nudge" policies in aspects of national image, cultural soft power, the overall quality of higher education, to obtain attractive and powerful labels across the world. Chinese institutions principally enhance the reputation in academia and in destination countries of enrollment.

The social proof theory, popularized by psychologist Robert Cialdini [15], maintains that people who are uncertain what the proper behavior for a certain situation is, will take a cue from others. This effect is particularly significant in a situation full of uncertainty. Three open-ended questions focus on the decision process of getting further education, studying abroad and choosing China as a destination for study. 71 respondents described detailed steps. Of those, 39 (54.9%) students mentioned actions that they inquired others for guidance, 11 (15.5%) students collected related information online by themselves and the rest students did not choose the both actions, but in other various ways. It could be seen that half of respondents and above were influenced more or less by advices from others. The function of social proof existed distinctly in the decision-making process of international students studying in China.

4. CONCLUSION

In the decision-making process of studying in China, the principles of behavioral economics exist

and can be applied to analyze choice behaviors of international students. Applying behavioral economics to student higher education selection process improves understanding of how students are influenced by different choice or judgment means. The prospect theory effectively indicated that the higher education selection of students was influenced by parental education experiences. Therefore, most international students studying in China were probably motivated by their parents' higher education experience in this study. It is identified that key factors and areas are the main student priorities in process of selecting a destination for higher education. This comprehension can be applied further in strategies to attract the prospective students. High education institutions can enlighten students about these areas of their interest by providing the most relevant information. Once students keep interested in an institution but it is an uncertain field, they prefer to access more guidance about this institution and its location from others, especially experienced individuals. The positive comments in the step of decision process are vitally important. Therefore, maintaining and improving the reputation of a country or institution is an effective strategy to lead to more prospective admittees.

This study only included one higher education institution and small size convenience samples that only improved understanding of current institutions and weren't representative of entire international students in China. Expanding the study to multiple institutions for more samples is certainly worth pursuing. The data in this paper were collected only by the questionnaire, but the mixed method is recommended for future study, which began with quantitative data collection followed by qualitative interview. In the future study, it's needed to focus on the specific nations to get a better understanding of the choice preference of students from individual nations.

AUTHORS' CONTRIBUTIONS

This paper is independently completed by Zhen Liu.

REFERENCES

- [1] Kotler, P., Armstrong, G. (2015). Principles of Marketing. Global Edition. Harlow: Pearson Education Limited.
- [2] Holmlund, H., Lindahl, M., Plug, E. (2011). The Causal Effect of Parents' Schooling on Children' Schooling: a Comparison of Estimation Method. *Journal of Econ. Lit.* 49, 615-651
- [3] Mazzarol, T., Soutar, G., (2002). The Push-Pull Factors Influencing International Student Selection of Educaiton Destination. *International Journal of Educational Management* 16, 82-90.
- [4] Chatfield, H. K., Lee, S. J., Chatfield, R. E. (2012). The Analysis of Factors Affecting Choice of College: A Case Study of University of Nevada Las Vegas Hotel College Students. *Journal of Hospitality & Tourism Education* 24, 26-33.
- [5] Vught, F. (2008). Mission Diversity and Reputation in Higher Education. *Higher Education Policy* 21, 151-174.
- [6] Schnuerch, R., Gibbons, H. (2015). Social Proof in the Human Brain: Electrophysiological Signatures of agreement and disagreement with the majority. *Journal of Psychophysiology* 52(10) 1328-1342.
- [7] Zhong, J. (2019) Statistics of International Students in China in 2018. Retrieved from http://www.moe.gov.cn/jyb_xwfb/gzdt_gzdt/s5987/201904/t20190412_377692.html
- [8] Creswell, J. W. (2003) *Research Design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: SAGE.
- [9] Kahneman, D. (2003). Maps of Bounded Rationality: Psychology for Behavioral Economics. *American Economic Review*, 93 (5): 1449-1475.
- [10] Dong, Z. (2006) *Principles of Behavioral Economics*. Beijing: Beijing University Press
- [11] Jabbar, H. (2011) The behavioral Economics of Education: New Directions for Research. *Educational Researcher*, 40(9): 446-453.
- [12] Thaler R.H., Sunstein C.R. (2008) *Nudge: Improving Decisions about Health, Wealth, and Happiness*. New Haven: Yale University Press.
- [13] Saghai Y. (2013) Salvaging the Concept of Nudge. *Journal of Medical Ethics*, 2013, 39 (8), pp.487-493.

- [14] Wilson A.L., Buckley E., Buckley J.D., et al. (2016) Nudging Healthier Food and Beverage Choices through Salience and Priming. Evidence from a Systematic Review. *Food Quality and Preference*, 51, pp.47-64.
- [15] Cialdini, R.B. (1994). *Influence: The Psychology of Persuasion*, NY: Quil

APPENDIX (QUESTIONNAIRE ON WHY YOU CHOSE TO STUDY IN CHINA)

Dear all,

I am from the School of International Education of Zhengzhou University conducting a research on the decision-making behavior process of international students studying in China. The research aims to know what catalyze your decision to study in China. Your information to this research will be valuable and helpful in this regard. The researcher will like to assure you that your personal information provided will be treated with the high sense of privacy and will be used solely for this purpose as stated above. Thanks for your cooperation.

1. Nationality:
2. Gender:
3. Age:
4. Major:
5. How long have you been studying in China?
6. What's your current level of study?
 - Language training
 - Undergraduate
 - Graduate
 - Doctoral
 - Other
7. Your Chinese level:
 - Fluent in Chinese
 - Can speak Chinese, but uses English sometimes
 - Limited to speak Chinese

Cannot speak Chinese

Other

8. Your family average monthly income:

< 5,000RMB

5,000 – 10,000RMB

10,001 – 20,000RMB

> 20,000RMB

9. Your father's highest education level:

Middle school

High school

Vocational school

University graduated

Master

PhD

Other

10. Your mother's highest education level:

Middle school

High school

Vocational school

University graduated

Master

PhD

Other

11. What's the source of funding for your study's in China?

Full scholarship

Half scholarship

Self-funding

Other

12. How did you get the enrollment information of Chinese universities?

- Study-abroad agency
- Advertisement
- Family or friend's recommendation
- Internet search

13. Reasons for studying in China (Multiple Choice):

- China is a safe country with good economic development
- Interest in Chinese history and culture
- Improve my Chinese language skills
- The quality of higher education in China is better than my home country
- There are many choices of institutions or academic programs in China than in my own country
- A relative low study cost
- Probability in support funding
- It's easy to find a job in Chinese enterprises than in my home country after graduation
- Preparation to work or live in China after graduation
- I intend to do business with China in the future
- My family's suggestion and desire
- Recommendation from the agency or friends studying in China
- My family members/friends choose to study in China
- Other

14. Reasons for choosing your current institution

- Attracted by some courses or majors in the official website of this institution
- Influenced by recruiters and recruitment materials of this institution
- Influenced by the introduction or advertisements of the study-abroad agency
- The good reputation in my home country

Prompt and effective response from the admission office staff

- It's easy to apply and get admission
- Improve my academic level
- Various scholarship or financial aid opportunities
- Lower tuition fees in this institution than other Chinese institutions
- Living expenses are relatively lower in the city where this institution is than other Chinese cities
- Recommendation from my family/ friends or the study-abroad agency
- My family members/friend chose it
- My family members/friends graduated from this institution
- Other

15. Do your parents support your study or goals? In what ways?

16. Tell about decision-making process about getting further education? (make a list for or against, talk to relatives, etc.)

17. Tell about decision-making process about studying abroad? (make a list for or against, talk to relatives, etc.)

18. Tell about decision-making process about choosing China? (make a list for or against, talk to relatives, etc.)

19. Did you only apply to study in China?

20. What other countries did you apply to?

21. While making decision where to study, how did you get information about other institutions you didn't choose eventually?

22. Is there anything else you would like to add regarding your experiences as an international student?