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Familiarity Bias and Economic Decisions:
Evidence from A Survey Experiment*

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May 2023

Abstract

This paper provides experimental evidence that people in China have strong familiarity bias identified by hometown and education locations when making merger and acquisition decisions. Emotions and genders could affect the role of familiarity bias in merger and acquisition decisions.

JEL Classification: C93, G34

Keywords: Familiarity bias; Home bias; Emotion; Merger and acquisition decisions

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Abstract

This paper provides experimental evidence that people in China have strong familiarity bias identified by hometown and education locations when making merger and acquisition decisions. Emotions and genders could affect the role of familiarity bias in merger and acquisition decisions.

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1. Introduction

Familiarity bias has been applied to explain many economic decisions (e.g., Cao, Han, Hirshleifer, and Zhang, 2011; Pool, Stoffman, and Yonker, 2012). Specifically, investors prefer to invest in assets or areas they are familiar with. Home bias is the most widely studied familiarity bias, referring to that investors prefer to invest in their home markets when making investment decisions (e.g., Coval and Moskowitz, 1999, 2001; Cornaggia, Cornaggia, and Israelsen, 2020). Home bias affects the choice of investment targets through cognitive convergence channels such as cultural background (e.g., Grinblatt and Keloharju, 2001; Anderson, Fedenia, Hirschey, and Skiba, 2011).

In this paper, we adopt an experimental approach to examine the role of familiarity bias in economic decisions. Specifically, we consider two proxies for familiarity bias. The first is the well-known home bias. The second is the education location bias, which is an alternative proxy for home bias. Wang and Yin (2018) show that decision makers such as CEOs prefer to invest in locations where they received undergraduate and graduate degrees. The location in which people received undergraduate and graduate degrees would be their second hometown. In addition, we focus on the merger and acquisition (M&A) decision, which is an important investment decision.

The experimental approach has its merits. There are many factors that influence M&A decisions (e.g., Datta, Iskandar-Datta, and Raman, 2001; Yim, 2013). It is hard to control for all related factors in the traditional empirical analysis. The experimental approach could efficiently control for these related factors and directly test the role of home bias in the M&A decision-making in our case. In addition, the experimental approach could create data available for variables such as emotions that is unavailable and hard to measure in traditional empirical studies (e.g., Karlan, 2005). Moreover, the repeatability of economic experiments could allow researchers to re-test existing studies by replicating the same economic experiments (Smith, 1994).

Specifically, this paper sets up the context of firm M&A decision-making through a questionnaire in China.¹ Because M&A decision-makers often have advanced educational backgrounds, we seek college students as subjects, making it less difficult to control noise variables. Our survey shows that decision makers normally prefer their hometowns and education locations than other cities when they make M&A decisions. Moreover, these decision makers prefer their hometown cities than education cities. These results provide strong evidence that people have familiarity bias on economic decisions. Moreover, the bias seems to be positively related to the degree of familiarity.

Furthermore, we are interested in how emotions influence people's familiarity bias on economic decisions. Existing studies show that emotions could affect people's investment decisions (e.g., Alimov and Mikkelson, 2012; Bacha and Azouzi, 2019). The mood maintenance hypothesis in Isen and Patrick (1983) argues that individuals first generate certain risk perceptions about the decision object when making decisions. Individuals with a positive emotion are risk averse to maintain the positive emotion to the maximum extent. In contrast, individuals with a negative emotion tend to be risk seeking in order to pursue positive emotions. Moreover, because people with higher risk aversion characteristics tend to exhibit larger home bias (e.g., Beugelsdijk and Frijns, 2010; Anderson et al. 2011), we expect that emotions could affect the role of home bias in M&A decisions.

To examine the role of emotions, we consider the emotional shocks in the experiment, allowing participants to make M&A decisions under positive and negative emotional shocks respectively. The results show that when influenced by positive (negative) emotions, decision makers tend to reflect stronger (weaker) home bias in M&A decisions.

In sum, this paper contributes to the literature by adopting an alternative

¹ The detailed questionnaire is available upon request.

experimental approach to provide strong evidence on the significant role of familiarity bias in economic decisions. Moreover, to some extent positive or negative emotions could affect the role of familiarity bias in economic decisions. We also show that genders matter.

2. Experimental Design

This study employed a questionnaire to conduct the research. The experimental subjects were 150 randomly recruited college students and the final valid sample number is 134, of which 103 participants had bachelor's degrees, 27 respondents had master's degrees, and 4 subjects had doctoral degrees. The experiment was conducted in three stages.

To examine subjects' home or education location bias and the differences between them, in the first stage, we allocated each participant 100 cash points to investigate their willingness to choose projects in different types of cities, assuming that the theoretical benefits of M&A projects in different types of cities are consistent, but the actual risks are unknown. In the second stage, we explored the impact of emotional shocks on respondents' M&A decisions. To do so, we used three images expressing positive emotions and three images expressing negative emotions to impact the subjects' emotional perceptions, asking them to express their willingness to choose different types of cities under the impact of different emotions. Finally, the questionnaire sought to elicit a brief understanding of the participants' familiarity with different types of cities.

3. Experimental Results

Due to the limited number of doctoral-level participants, we only report the data results of the undergraduate and master's groups.

3.1 Home Bias

Table 1 presents the phenomena of subjects' home and education location bias. For the undergraduate group in Panel A, we determined that 32.64% of the subjects were willing to choose M&A projects located in home cities when making M&A decisions, while 25.30% were willing to choose M&A projects located in undergraduate cities, indicating a trend of decreasing willingness to relocate. This is consistent with the rule revealed by the subjects' familiarity with the two types of cities in Table 2. However, only 13.76% of the respondents were willing to conduct M&A projects in any city, which was much lower than the willingness to conduct M&A projects in the other two types of cities. In addition, a paired sample t-test revealed that the willingness to acquire projects in both home and undergraduate cities significantly differed from the willingness to acquire projects in any city.

Panel B shows that when participants had a master's degree, home bias in the M&A decision-making process remained significant. On average, 33.85% of the respondents were willing to choose M&A projects located in their home cities, 22.96% were willing to choose M&A projects located in undergraduate cities, and 17.52% were willing to choose M&A projects located in master's cities, all of which are significantly higher than those in any city, at only 5%.

Therefore, we draw the conclusion that when faced with M&A decisions, decision-makers will be more inclined to choose projects that are located in home and education cities, indicating a strong sense of home and education location bias, with home bias stronger than that of education location bias.

3.2 The Role of Emotion

This study also examined the role of emotions on the Chinese respondents' M&A decision-making process. After applying positive emotional shocks, the undergraduate group's emotional perception score reached 8.29 (the higher (lower) the score, the more positive (negative) the emotion is), while the master's group's emotional perception score

reached 8.22. When subjects receive negative emotional shocks, the undergraduate (master) group's emotional perception score dropped to 5.02 (4.26). The findings indicate that the emotional impact method we use is effective.

Table 3 shows that bachelor's respondents' willingness to engage in M&A projects in their home cities significantly increased from 32.64% to 36.86% following the positive emotional impact, suggesting that bachelor's participants were more willing to engage in M&A projects with higher levels of familiarity under positive emotions. The impact of positive emotions on M&A projects located in undergraduate or policy-supported cities, or their willingness not to engage in M&A, did not change significantly, while the willingness to choose M&A projects in any city significantly decreased, from 13.76% to 11.19%, indicating that undergraduate subjects were less willing to choose M&A projects with higher uncertainty. In summary, under the impact of positive emotions, decision-makers may directly choose the most familiar home city seeking to maximize or maintain current positive emotions and reduce the possible risks of the M&A decision-making process, demonstrating risk aversion.

Panel B in Table 3 shows that under the impact of negative emotions, bachelor's respondents significantly reduced the willingness to choose M&A projects in home and undergraduate cities, from 32.64% and 25.30% to 29.31% and 22.61%, respectively. The impact of negative emotions significantly increased the willingness to choose M&A projects in any city, from 13.76% to 18.17%. In summary, when faced with negative emotions, to ultimately achieve positive emotions, decision-makers could choose riskier options in an attempt to alter the current circumstances, heightening risk-seeking characteristics.

Table 4 shows that under the impact of positive emotions, master's participants increased their willingness to choose M&A projects in home cities and the cities where they completed master's studies, with a range of 2.22% and 2.15%, while reducing the

willingness to choose M&A projects in any city, with a range of 0.41%. This is basically consistent with the conclusions of the undergraduate group, but neither is significant. When impacted by negative emotions, master's subjects significantly reduced their willingness to choose M&A projects located in home, undergraduate cities, and master's cities, with ranges of 7.44%, 4.19%, and 4.04%, respectively. Respondents' willingness to choose M&A projects located in policy-supported cities also lowered, with a range of 0.96%, which was not significant. Notably, master's participants' willingness to choose M&A projects in any city significantly increased by 16.04%. This reflects the tendency of decision-makers to preference risk to affect the status quo under the influence of negative emotions, which is consistent with the previous analysis results.

3.3 The Role of Gender

Genders matter in economic decisions (e.g., Huang and Kisgen, 2013). Our survey shows that both male and female participants in the undergraduate group exhibit a strong but asymmetric familiarity bias. Under the impact of positive emotions, the willingness of female participants for M&A projects in home cities increases by 4.04%, while there is no significant change in male participants. Under the impact of negative emotions, the willingness of male participants for M&A projects in other cities increases by 6.78%, while there is no significant change in female participants. In the master group, genders do not matter under the impact of positive emotions, while male participants exhibit strong risk-seeking under the impact of negative emotions.

4. Conclusion

This study conducted an experiment using a questionnaire to explore Chinese decision-makers' familiarity bias in mergers and acquisitions. The results suggest that when facing M&A decisions, respondents exhibited strong familiarity bias, specifically prioritizing to hometowns and education locations, and the home bias is stronger than the

education location bias.

Furthermore, this study also considered the role of emotions in the M&A decision-making process. We find that when influenced by positive emotions, participants tended to reflect stronger home bias in M&A decisions, manifested as a certain degree of risk aversion. Subjects' home bias weakened when influenced by negative emotions, increasing the city arbitrariness of M&A projects, exhibiting significant risk-seeking characteristics.

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Table 1: Home Bias and Education Location Bias of M&A Decisions

This table presents the home bias and education location bias results of experimental subjects. Panel A and Panel B respectively show the average cash point allocation of undergraduate group and master group for home city, education location city, and any city. Diff refers to the cash point distribution difference of M&A projects between a specific city and any city. *, **, and *** indicate significance at the 10%, 5%, and 1% levels (two-tailed), respectively.

Panel A: Undergraduate Group			
(1)	Home City	Any City	Diff
Mean value	32.64	13.76	-18.88***
(2)	Undergraduate City	Any City	Diff
Mean value	25.30	13.76	-11.54***
Panel B: Master Group			
(1)	Home City	Any City	Diff
Mean value	33.85	5.00	-28.85***
(2)	Undergraduate City	Any City	Diff
Mean value	22.96	5.00	-17.96***
(3)	Master City	Any City	Diff
Mean value	17.52	5.00	-12.52***

Table 2: Home Bias versus Education Location Bias

This table respectively presents the degree of familiarity of the undergraduate group and master group with home city and education city.

Panel A: Undergraduate Group	
City	Familiarity
Home City	8.01
Undergraduate City	7.59

Panel B: Master Group	
City	Familiarity
Home City	8.70
Undergraduate City	8.19
Master City	8.63

Table 3: The Role of Emotions for Undergraduates

This table presents the role of emotions in the undergraduate group's M&A decision-making. Panel A and Panel B respectively show changes in cash point allocation of subjects to various M&A projects before and after the impact of positive and negative emotions. Diff refers to the difference between the acquisition intention after the emotional shock and the original intention. *, **, and *** indicate significance at the 10%, 5%, and 1% levels (two-tailed), respectively.

Panel A: Positive Emotional Shock			
City	Before the shock	After the shock	Diff
Home City	32.64	36.86	4.22**
Undergraduate City	25.30	24.72	-0.58
Policy-supported City	20.16	20.16	0.00
Any City	13.76	11.19	-2.56***
Have no willingness	8.15	7.07	-1.08

Panel B: Negative Emotional Shock			
City	Before the shock	After the shock	Diff
Home City	32.64	29.31	-3.33*
Undergraduate City	25.30	22.61	-2.69*
Policy-supported City	20.16	22.89	2.74
Any City	13.76	18.17	4.41**
Have no willingness	8.15	7.02	-1.13

Table 4 The Role of Emotions for Master Students

This table presents the role of emotions in the master group's M&A decision-making. Panel A and Panel B respectively show changes in cash point allocation of subjects to various M&A projects before and after the impact of positive and negative emotions. Diff refers to the difference between the acquisition intention after the emotional shock and the original intention. *, **, and *** indicate significance at the 10%, 5%, and 1% levels (two-tailed), respectively.

Panel A: Positive Emotional Shock			
City	Before the shock	After the shock	Diff
Home City	33.85	36.07	2.22
Undergraduate City	22.96	21.93	-1.04
Master City	17.52	19.67	2.15
Policy-supported City	12.37	12.19	-0.19
Any City	5.00	4.59	-0.41
Have no willingness	8.30	5.56	-2.74

Panel B: Negative Emotional Shock

City	Before the shock	After the shock	Diff
Home City	33.85	26.41	-7.44*
Undergraduate City	22.96	18.78	-4.19
Master City	17.52	13.48	-4.04*
Policy-supported City	12.37	11.41	-0.96

Any City	5.00	21.04	16.04***
Have no willingness	8.30	8.89	0.59
