"Brand" and performance in a new environment: Analysis of the law school market in Japan.

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Abstract

   Using Japanese panel data for 2006-2009, this study attempts to examine how the pass rate of law school student taking the new bar examination influences the number of applicants for the law school in the following years. The major finding is that the higher the law school student pass rate, the greater the number of applicants for the law school becomes. Furthermore, the positive effect of the pass rate is larger for a prestigious university's law school than for other schools. It follows that the "brand" and the school's current performance are complementary in increasing demand for places in the law school.

1. Introduction

It has been pointed out that the supply of lawyers in Japan is below the optimum level, mainly the result of the extremely low pass rate for the bar examination (e.g., Kinoshita 2000, 2002). A new bar examination was introduced in 2006 with the aim of admitting larger numbers to the Japanese bar. A requirement to get permission to take the new bar examination is to graduate from a law school that commenced operations from 2004. The Justice System Reform Council (Hereafter, JSRC) originally called on law school administrators to provide a legal education that would be comprehensive enough to enable about 70 to 80 % of candidate students to pass the new bar examination (JSRC 2001). This expected pass rate was far higher than the approximately 2-3% of the previous bar examination; therefore, it increased the motivation of university students to enter law school. Once the new law school system was formally launched, most of Japan's major universities rushed to establish their own law school. Inevitably, many more schools were built than had originally been expected. As a consequence, the pass rate for the new bar examination was far lower than anticipated. This caused the law school market became more competitive than predicted. The numbers of applicants to law schools gradually decreased. Indeed, some law schools did not fill their quota of examinees. It became necessary for law schools to improve the quality of their education to survive.

The pass rate for the previous bar examination varied widely among universities from which applicants had graduated. Especially, there was a large gap between the "prestigious universities" and others (Ramseyer and Nakazato, 1999; Nakazato et al., 2007). It seems appropriately argued that a "prestigious position" provides a "brand" that can be considered as information that the quality of these universities is high. Applicants for law schools have good reason to demand "brand-name" law schools because they can be more confident in the quality of the education they will receive. Hence, these universities have an advantage attracting students. However, under conditions such as those surrounding the newly introduced bar examination, it is not certain that a "prestigious position" under the old bar examination would have a similar performance reflecting role in increasing applicants for the new bar examination. On the other hand, only after the results of the new bar examination were announced, could people who wanted to take the new bar examination use such information to select their law school.

Applicants for law school obtain two kinds of information concerning the quality of schools; the "brand" and the current performance in the new examination. A question naturally arises: How does this kind of information influence the decision when applicants choose a law school? It is uncertain whether the relationship of the "brand" and its current performance is complementary when its effect on gathering applicants is explored. Thus the main purpose of this paper is to (1) explore the effect of a law school's pass rate for the new bar examination on the following year's number of applicants for the law school and (2) to investigate how "brand" influences the effect of the pass rate on the number of the applicants for the law school.

2. The setting (situation surrounding the new bar examination).

I begin by looking at the new bar examination as well as that of the law school examination by using aggregated level data. Figure 1 presents the ass rates for the new

bar examination after its inception. From this, a constant decline can be observed in the pass rate. Figure 2 shows the total number of applicants for the law school entrance examinations. This shows that, with the exception of 2006-2007, the number of applicants steadily decreased. The decline is thought to further reduce the incentive to become a law school student. These declining tendencies were not anticipated and so it might be desirable to increase the supply of lawyers (Kinoshita 2009).

For closer examination, I use an individual level data set to observe the relationship between the law school's pass rate for the new bar examination and the number of applicants for the law school in the following year. A cursory examination of Figure 3 reveals that the pass rate is positively associated with the number of applicants for the law school in the following year. This implies that, in line with intuition, the pass rate in the new bar examination is important information for people when they choose a law school.

It is widely known that the "big five", The University of Tokyo and Kyoto University, the leading national universities, and Waseda, Keio, and Chuo University, the leading private ones, produced a large number of successful candidates for the "old bar examination" (Omura et al. 2005). As well, besides The University of Tokyo and Kyoto University, there are five universities whose the predecessor was the imperial university; Hokkaido University, Tohoku University, Osaka University, Nagoya University, and Kyushu University. Many lawyers graduated from these universities, which are also considered leading universities. In this paper, these 10 universities are defined as a "prestigious university". All have established law schools and these are defined as a "prestigious law school".

I divide the sample into "prestigious law schools" and "non-prestigious law schools". The relationship between the pass rate for the new bar examination and the number of applicants for the entrance examination to the law school in the following year is seen in Figure 4 (a) for the "prestigious law schools" and in Figure 4 (b) for the "non prestigious law schools". Consistent with the above explanation, I see from Figure 4 (a) that the pass rate scores and the number of applicants are located in a high and large area. Furthermore, Figure 4 (a) and (b) present the positive relationship between the pass rate and the number of applicants. The slope of the line in Figure 4 (a) is 2.9, slightly larger than that in Figure 4 (b), 2.7. Considering Figures 3, 4(a) and (b) jointly leads me to postulate a hypothesis that the pass rate in the new bar examination increases applicants and its effect is larger for a "prestigious law school" than other law schools.

3. Estimated model and interpretation of results

3.1. Data

Table 1 includes variable definitions, means (rates), standard deviations, and max and minimum values. The dependent variable is the number of applicants for the law school. The set of the independent variables is: the law school's pass rate in the bar examination in the previous year, the law school's number of quotas for taking the entrance examination, the number of full-time professors, and tuition fees. These data are from the Nikkei Career Magazine (various years). The data set used in this study is law school level panel data from 2006 to 2009. However, the pass rate for the new bar examination is a lagged variable and so data used in the regression estimations is the three years period 2007-2009. Sixty-eight new law schools commenced operation in

2004 with another six openings in 2005. Accordingly, students from 68 law schools could apply for the new bar examination in 2006. Hence, the observations of the lagged pass rate in the examination used for the estimations of 2007 are fewer than in other years. Furthermore, other control variables such as *TUIT, SCAL* and *NPROF* were not available from some law schools, resulting in a reduction of the sample used for the estimations.

3.2. Function form

To examine the arguments in the previous section, the estimated function takes the following form:

$$Ln(NAPLI)_{it} = \alpha_0 + \alpha_1 PASRAT_{i,t-1} + \alpha_2 PASRAT_{i,t-1} * PRES_i + \alpha_3 Ln(TUIT)_{it} + \alpha_4 Ln(SCAL)_{it} + \alpha_5 SLn(NPROF)_{it} + v_i + \omega_{it},$$

where *NAPLI* represents the number of applicants for the law school i in year t, and α's represents the regression parameters. $PASRAT_{it-1}$ denotes the law school's pass rate of the new bar examination in year $t-1$. v_i represents the constant individual-level specific effects and ω_{it} is the standard error. To account for unobserved individual-level specific effects, the Fixed Effects model is employed. This model allows v_i to be correlated with the independent variables, and the constant individual-specific effects v_i are differenced out (Baltagi, 2005). *TUIT* is included to capture the cost of the law school. *SCAL* and *NPROF* are incorporated to capture the scale of the law school. Besides $PASRAT_i$, all variables are log-form. Based on the definition of a "prestigious law school" as explained in the previous section, $PRES_i$ and the cross term of $PRES_i$ with *PASRAT* are constructed. In the following section, added to the estimation results of the Fixed effects model, those of the OLS model are presented.

4. Results.

Table 2 exhibits the results of OLS estimation. Table 3 presents the results of the Fixed effects estimation. The differences in the observations among estimations are because some universities did not disclose some control variables. Looking at Table 2 tells us that *PASRAT* yields positive signs that are significant at the 1 % level in all estimations. Hence, the pass rate has a positive effect on applicants to the law schools. Signs of *PRES* are not the same, indicating that the effect of the "brand" of the law school is ambiguous. Looking at columns (4)-(6) reveals that signs of *PASRAT* PRES* are unstable and do not become statistically significant. As shown in columns (1) and (4), *SCAL* becomes the statistically positive at the 1 % level.

As shown in Table 3 where *PRES* disappears because unobserved fixed effects have been controlled for, *PASRAT* continues to produce a positive sign and be statistically significant at the 1 % level. The combined results of *PASRAT* shown in Tables 2 and 3 reveal that the pass rate in the new bar examination has an important role in increasing applicants to the law school in the following year. *SCAL* continues to yield a statistically positive sign. *SCAL* results in Tables 2 and 3 imply that the scale of a law school is positively associated with its number of applicants. Coefficient values of *PASRAT* as well as *SCAL* in Table 3 are far smaller than those in Table 2. It follows from this that unobserved law school characteristics lead to an upwards bias for these variables although their effects continue to be significant. As appears in columns (4)-(6), it is

interesting to observe that the signs of *PASRAT* PRES* are positive and statistically significant at the 1 % level in all columns, which is remarkably different from the results in Table 2. The evidence provide by the results of the Fixed effects model is that, even after controlling for the fixed effects of a law school, the "brand" of a "prestigious law school" augments the pass rate effect on the number of applicants. From this I can derive the argument that the pass rate in the new bar examination has a greater positive effect on increase of demand for "prestigious law schools" than for the other law schools.

5. Conclusion

This analyzes how the current performance of a law school affects the demand for places in it under conditions affecting the recently developed law school market in Japan. This note also explores how a university's prestigious position under conditions of the old bar examination is related to the effect of its current performance. After controlling for a university's fixed effect, the major findings are as follows: The higher the law school's pass rate in the new bar examination, the larger the number of applicants for the law school in the following year. What is more, the positive effect of the pass rate on demand for the law school is larger for a prestigious university's law school than for other law schools. This implies that the relationship between the "brand" and its current performance is complimentary when I consider the determinants of demand for the law school under conditions of the newly introduced bar examination. That is to say, a high pass rate enhances the favored "brand" of the law school. On the other hand, the pass rates of the "prestigious law schools" in the new bar examination are higher those of the other law schools. Combining these results makes it evident that the universities that had entrenched their "brand" before establishing a law school had a great advantage for surviving in the new environment of the newly developed law school market.

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TABLE 1
Descriptive statistics

Variables	Definition	Mean	Standard deviation	Min	Max
NAPLI	Number of applicants for the entrance examination of a law school.	524	605	23	3864
PASRAT_1	Rate of successful candidates for the new bar examination in the previous year (%)	0.31	0.18	0	1
PRES	Prestigious law school dummy. Takes 1 if one is a prestigious law school, otherwise 0.[a]	0.14	----	----	----
SCAL	The law school's quota for the entrance examination	114	31	20	300
TUIT	Tuition (Thousands of yen)	1142	316	656	2250
NPROF	Number of full-time professors	22	11	10	78

Notes: a. Instead of a mean value for the prestigious law school dummy, the rate of prestigious law schools over total law schools is reported in the third column.

TABLE 2

Determinants of the number of applicants for a law school
(OLS model)

Variables	(1)	(2)	(3)	(4)	(5)	(6)
PASRAT_1	1.65**	3.08**	2.71**	1.70**	3.14**	2.69**
	(5.26)	(5.75)	(5.29)	(5.05)	(5.39)	(4.94)
PASRAT_1*				-0.82	-0.79	0.22
PRES				(-1.14)	(-0.92)	(0.24)
PRES	-0.49**	0.74**	0.68**	-0.08	1.14**	0.57
	(-4.35)	(4.21)	(3.58)	(-0.23)	(3.05)	(1.28)
Ln(TUIT)	-0.20	0.94**		-0.18	0.96**	
	(-1.17)	(4.35)		(-1.03)	(4.33)	
Ln(SCAL)	1.78**			1.77**		
	(10.8)			(10.5)		
Ln(NPROF)	-0.38*			-0.37*		
	(-2.00)			(-1.92)		
R-square	0.73	0.39	0.37	0.74	0.39	0.37
Number of Observations	187	192	198	187	192	198

Notes: Numbers in parentheses are t-values calculated using a robust standard error. ** and * mean statistically significance at the 1 % and 5% levels, respectively. A constant is included in all estimations, but not reported to save space.

TABLE 3

Determinants of the number of applicants to a law school

(Fixed effects model)

Variables	(1)	(2)	(3)	(4)	(5)	(6)
PASRAT_1	0.85**	0.89**	0.88**	0.76**	0.78**	0.77**
	(4.13)	(4.27)	(4.34)	(4.13)	(3.61)	(3.66)
PASRAT_1* PRES				0.80**	0.94**	0.96**
				(2.97)	(3.14)	(3.26)
Ln(TUIT)	0.17	0.18		0.14	0.15	
	(0.38)	(0.41)		(0.30)	(0.32)	
Ln(SCAL)	0.26**			0.26**		
	(2.55)			(2.84)		
Ln(NPROF)	0.20			0.19		
	(0.72)			(0.69)		
R-square	0.16	0.17	0.16	0.18	0.19	0.18
Number of Observations	187	192	198	187	192	198

Notes: 74 law schools exist and their fixed effects are controlled for. Numbers in parentheses are t-values calculated using the robust standard error. ** and * mean statistically significant at the 1 % and 5% levels, respectively.
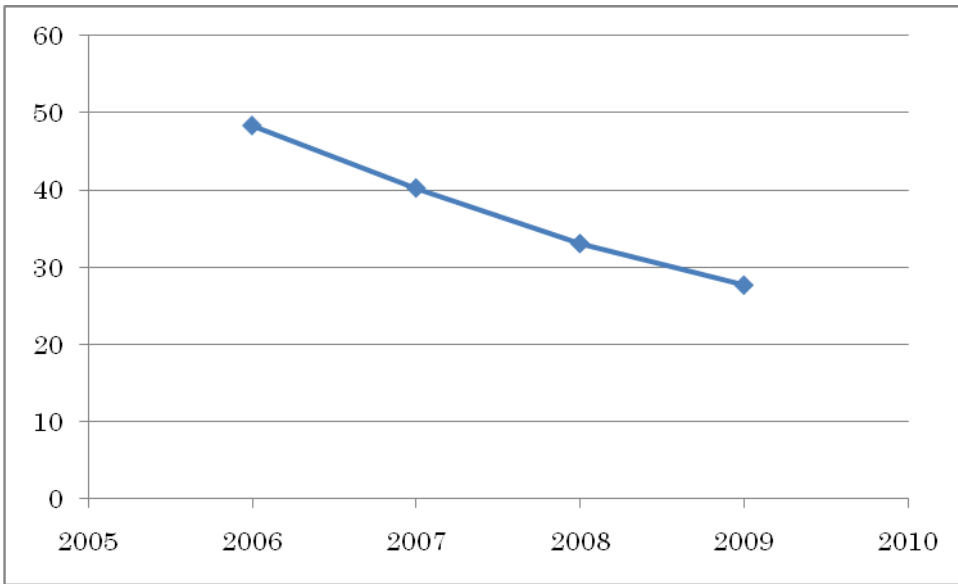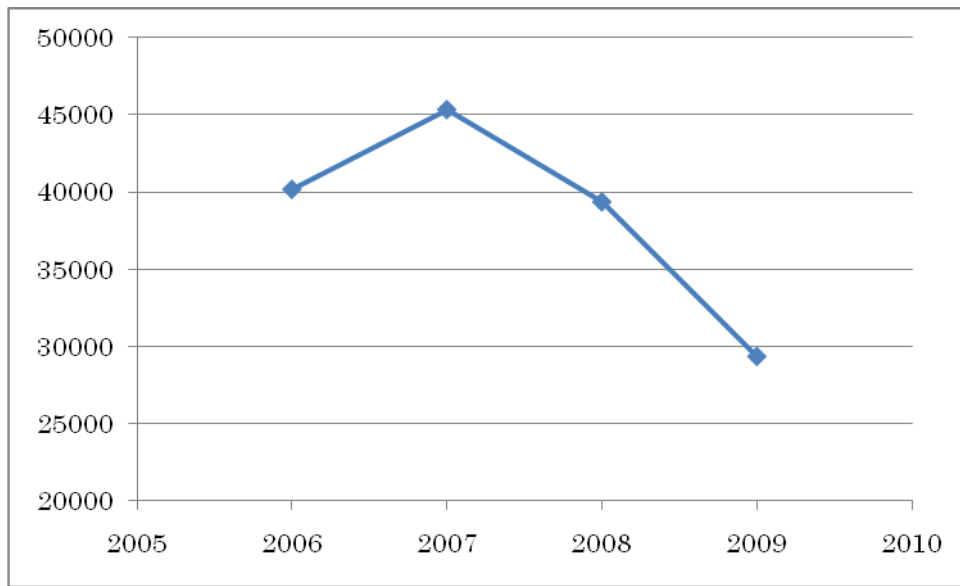
FIGURE 1
Pass rates for the new bar examination

FIGURE 2
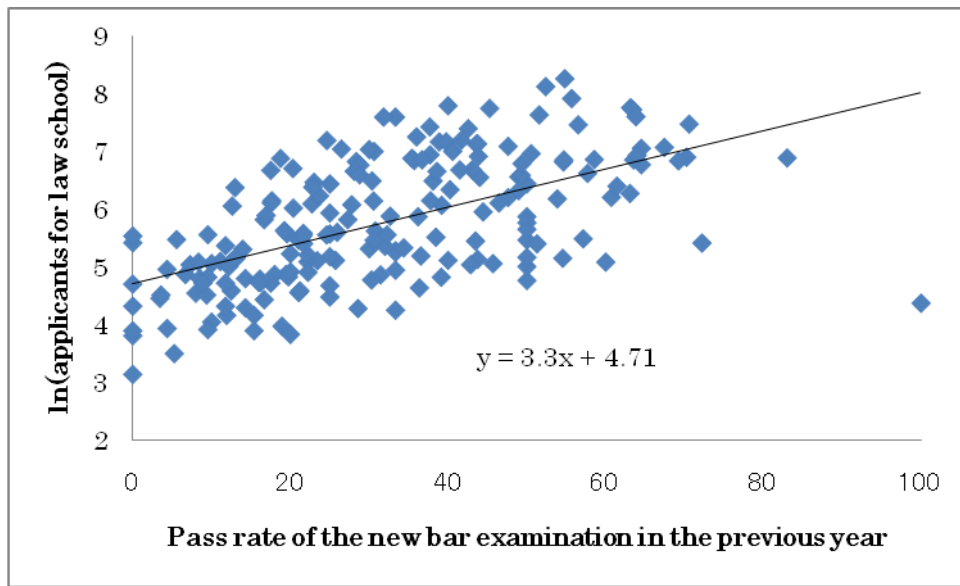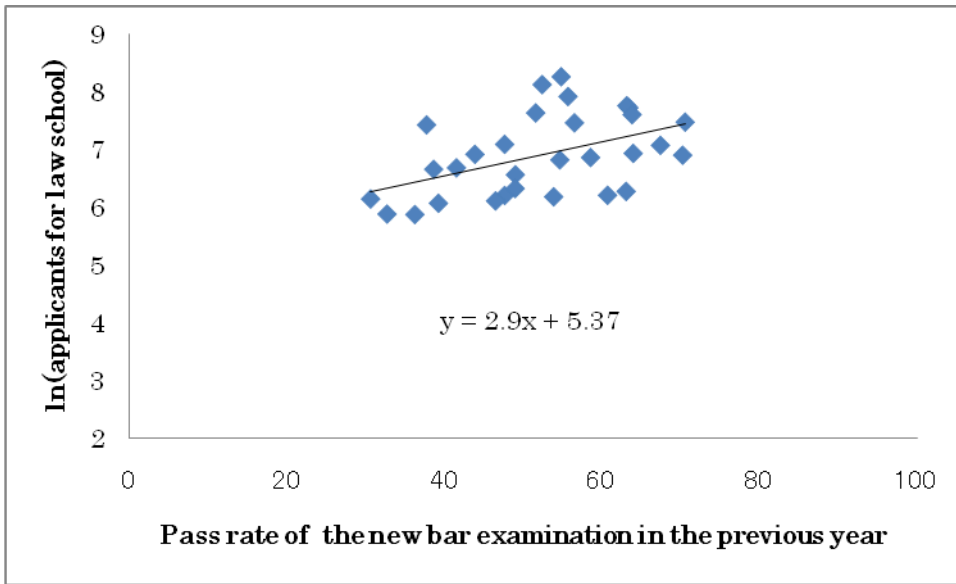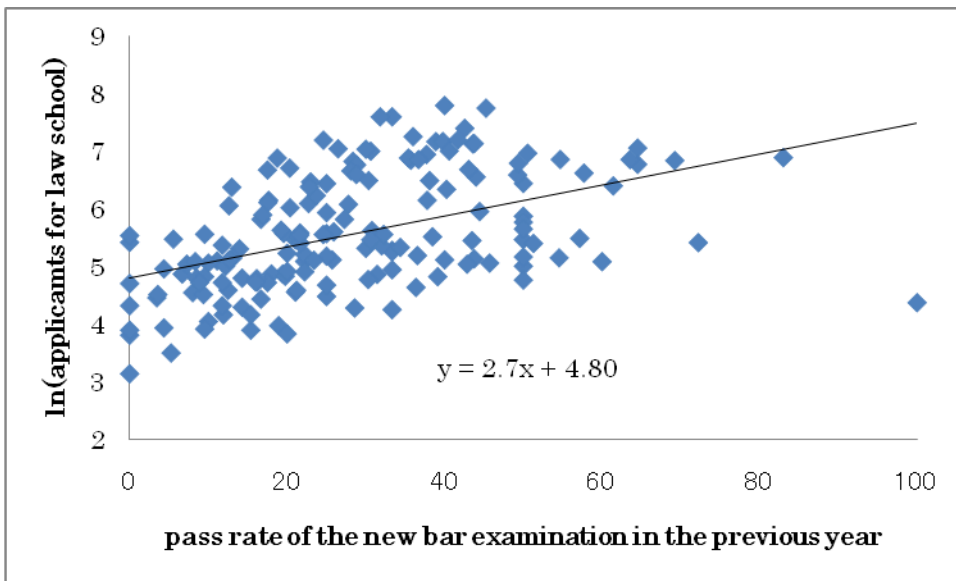Total number of applicants for entrance examinations of law schools.

FIGURE 3
Relationship between the pass rate in the new bar exam and applicants for law schools.

(a) Prestigious law schools.

(b) Non-prestigious law schools.

FIGURE 4

Relationship between the pass rate in the new bar exam and applicants for law schools.