

## **Strategic Positioning, Human Capital, and Business Performance: An Exploration Study of Kindergarten Organizations in Taiwan**

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**Abstract:** *Determining the appropriate strategy position and the accumulated wealth of human capital is significant for business performance of service-oriented organizations. Kindergarten organizations are a service-oriented organization. The main research question of this study is how strategic positioning and human capital influences business performance for a kindergarten organization. In order to answer this research question, we surveyed 380 kindergarten organizations, controlling for the organization's age, size, cost, type, region, and capitalization to discuss the effect of strategic positioning and human capital on business performance. The results showed that (1) the higher the customer involvement, the better the business performance; (2) the higher the differentiation, the better the business performance; (3) the higher the human capital, the better the business performance; and (4) the interaction between the level of diversification and human capital has a significant negative effect on business performance.*

**Keywords:** *Strategic Positioning, Human Capital, Business Performance, Kindergarten Organizations*

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### **I. Introduction**

Precise strategic positioning is about the competitiveness of an organization. The operating effectiveness of a service-oriented organization depends on the ability to assume a strategic position for a distinctive edge over its competitors (Kellogg, Youngdahl and Bowen, 1997; Ennew and Binks, 1999; Bendapudi and Leone, 2003). The driving force behind an organization's strategic positioning lies in its human capital in the organization (Edvinsson and Malone, 1999; Lynn, 2000; Chen and Lin, 2003). Recent studies concluded that the greater human capital of a service-oriented organization, the better the operating performance (Bird and Beechler, 1995; Wier, Stone and Hunton, 2002; Mak and Akhtar, 2003). Facing fierce competitors, it is imperative that a service-oriented organization discover the right strategic position and take action to assume it, to amass adequate human capital.

A service-oriented organization is always ready to alter its service strategy to satisfy its customers (Snell and Dean, 1992; Porter, 1996). The question is whether such an organization makes timely adjustments to either human capital or strategic positioning in order to stay competitive when customer needs change. Hitt et al. (2001) and Skaggs and Youndt (2004) agreed that the level of human capital affects, or changes, the way strategic positioning is connected to business performance. We focused on whether there is a multiplier effect or a tradeoff between strategic positioning and human capital.

A kindergarten is a service-oriented organization. According to the 2009 statistics released by Department of Household Registration, Ministry of the Interior, Taiwan suffered a 30%-plus drop in birth rate between 2001 and 2009, when the number of newborn babies decreased from 257,231 to 192,887. Interestingly enough, the number of newly founded preschools/kindergartens rose from 6,834 in 2001 to 7,542 in 2008 during the same period. If things keep going like this, Taiwanese kindergartens will face intensifying competition, especially when authorities accelerate efforts to implement preschool policy (i.e., the integration of kindergarten and daycare centers and the availability of state-run preschools) will deal a severe blow to preschool operations. As a result, securing sufficient human capital and a strong strategic position are issues that face all kindergartens that seek to effectively enhance their competitiveness.

## II. Building the theoretical framework and hypotheses

### 2.1 Theoretical framework

As mentioned in the previous section, this present study is focused on the relations among a kindergarten's strategic positioning, human capital, and business performance. It addresses strategic positioning from the customer and product aspects, with the former comprising the two sub-aspects of customer involvement and customization, while the latter comprising another two sub-aspects (i.e., differentiation and diversity). Kindergartens with a high degree of customer involvement are clearly aware of the customer needs and capable offering the right service, which in turn bolsters its organizational performance. Meanwhile, the customization strategy ensures kindergartens a growth in income and the overall economic benefits with a diversified customer base.

An organization's human capital is the sum of its tangible and intangible knowledge (Pfeffer, 1994) and the source of all values it creates (Lepak and Snell, 1999). A number of studies have suggested that an organization's business performance depends on its human capital, such as educational attainment, work experiences in relevant fields, and skill level (Huselid, 1995; Wright, Smart and McMahan, 1995; Finkelstein and Hambrick, 1996; Pennings et al., 1998). We believe that the competitive advantage of a kindergarten, which is an institution with *people as its chief resource*, is determined by the level of human capital derived from the *people factor*.

From a viewpoint based on strategic positioning and human capital, the level of an organization's human capital affects the results of strategic positioning (Montgomery, 1982; Luthans, Luthans, and Luthans. 2004). We argue that kindergartens with a high level of human capital are more capable of delivering professional services than those with a low level of human capital. The question is this: can a kindergarten constantly inject funding to bolster human capital to improve its business performance without creating a competitive advantage through strategic positioning? To answer that question, service-oriented kindergarten organizations are used in this study as the basic unit for analyses. From the strategic positioning and human capital aspects, this study asks two questions: What are the direct effects of strategic positioning and human capital on a kindergarten's business performance? and Does human capital change the relation between strategic positioning and business performance? Figure 1 shows the theoretical framework based on these questions.

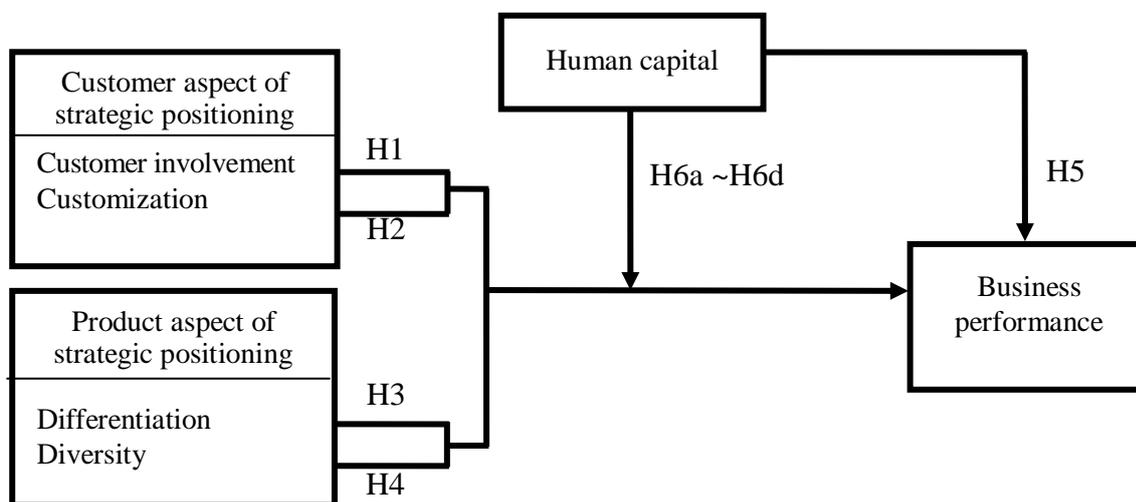


Figure 1 Theoretical framework

### 2.2 Research hypotheses

#### 2.2.1 The customer aspect of influence of strategic positioning on business performance

Customer satisfaction is a corporate goal of service-oriented organizations. According to previous studies, service-oriented organizations with a higher level of customer involvement tend to offer services that better satisfy their customers (Menon and Kahn, 1995; Ennew and Binks, 1999; Bendapudi and Leone, 2003; Skaggs and Youndt, 2004). Childhood education is a major concern of every Taiwanese family amid the declining birth rates. Young couples across Taiwan are seeking kindergartens that offer satisfactory early childhood education

for fear that their children might fall behind at the starting point. An inevitable reality is that some parents show so much concern for their children's education and growth that they get involved in the kindergartens' service-delivering processes. However, an open-minded kindergarten ready to offer parents a means of voicing opinions is more satisfying as it allows parents to feel respected. Our first hypothesis reflects these concerns:

*H1: the higher level of customer involvement, the better the kindergarten's business performance.*

Meeting the needs of individual customers is a differentiation strategy adopted by kindergartens to prove they are different from their competitors (Pine, Victor and Boynton, 1993; Wathen, 1995). Offering customized services is one of the kindergartens' strategies to remain competitive in the market. Given the wide range of modern lifestyles and the growing prevalence of core or double-income families, meeting varied needs of families seems to be an effective strategy for kindergartens to attract new customers while retaining the existing ones. Such a strategy may require a kindergarten to open earlier and extend business hours to satisfy parents with varying work routines; hence, our second hypothesis:

*H2: the higher level of service customization, the better the kindergarten's business performance.*

### *2.2.2 The influence of the product aspect of strategic positioning on business performance*

It is imperative that preschool institutions contemplate differentiation-oriented strategic positioning as an approach to surviving intensifying competitions. A differentiation strategy that results in products/services perceived by customers as noticeably unique or different from competing ones, along with a competitive advantage that is preemptory and unlikely to be emulated (Desarbo, Jedidi and Sinha, 2001). Given the evolving social environment, family structures and the enforcement of Children's Day Care Law, many Taiwanese kindergartens have ditched the old-fashioned business model of preschools to offer American-English lessons (with instructions given by native English-speakers on an all- or half-day basis) and/or skill-oriented training programs (e.g., Orff Music and Lion Art programs). Such a transformation is touted as a guarantee for differentiated services; hence, our third hypothesis:

*H3: the higher level of differentiation, the better a service-oriented kindergarten's business performance.*

Many previous studies agreed that diversity-oriented strategic positioning has a positive influence on business performance (Palepu, 1985; Jose, Nichols and Stevens, 1986; Ramanujam and Varadarajan, 1987; Lubatkin and Rogers, 1989). A diversification strategy provides a niche market that ensures an organization's survival and enhanced competitiveness. It also enables the increasingly inter-connected operations of that organization to share resources and eventually achieve an economy of scope. Findings from previous studies have suggested that a service-oriented organization must reach the growth target by means of diversification (Howard, 1991; Nayyar, 1993). Many other studies have also concluded that a service-oriented organization taking a diversification strategy would create extra customer-serving opportunities and achieve an economy of scale with an expanding operating territory (Nayyar, 1992). Consequently, service-oriented preschools seeking "resource-sharing" among its varied operations amid growing competitions usually include skill-oriented training programs (e.g., computer literacy, writing, chess instructions) in the conventional preschool curricula. That way, they would generate a synergy of services by making good use of the available building space, faculty, and equipment; hence, our fourth hypothesis:

*H4: the higher level of service diversification, the better the kindergarten's business performance.*

### *2.2.3 The influence of human capital on business performance*

Human capital is crucial resources for most organizations (Pfeffer, 1994). Indeed, a kindergarten is a service-oriented organization with *people*, or faculty, being the chief resource. The business performance of kindergartens is determined by the level of human capital that comprises the *people* factor. Previous studies have indicated that the level of human capital is closely related to an organization's business performance (Wright, Smart and McMahan, 1995; Finkelstein and Hambrick, 1996; Pennings et al., 1998; Mak and Akhtar, 2003). To be specific, the faculty's average years of occupational training, average level of educational attainment, years of relevant work experiences, and qualifications reflect the amount of human capital and strengths/weaknesses of a kindergarten; hence, our fifth hypothesis:

*H5: the larger amount of human capital, the better the kindergarten's business performance.*

### *2.2.4 The relations among strategic positioning, human capital, and business performance*

As stated earlier, the business performance of a service-oriented organization depends on its strategic positioning and the amount of human capital (Nelson, 1988; Howard, 1991; Nayyar, 1993; Lee and Miller, 1999). An appropriate strategic position helps expand the niche market for the survival of service-oriented

organizations and adequate human capital ensures the effectiveness of strategic positioning, which in turn leads to economies of both scale and scope (Mak and Akhtar, 2003). We wonder whether a service-oriented organization blindly seeking to increase human capital will see the marginal utility of business performance diminish. Meanwhile, an organization may not necessarily improve business performance without a proper strategic position that multiplies the benefits of human capital. Therefore, we contend that when an organization keeps injecting funding into its human capital, it must assume an appropriate strategic position that effectively bolsters its business performance with extra competitiveness. Conversely, an organization that has assumed the right strategic position may not necessarily enjoy improved business performance if it fails to increase human capital quickly enough. Based on such an argument, we propose the following hypotheses:

*H6a: the larger amount of human capital and greater customer involvement, the better the service-oriented preschool's business performance.*

*H6b: the larger amount of human capital and the higher level of service customization, the better the service-oriented preschool's business performance.*

*H6c: the larger amount of human capital and the higher level of service differentiation, the better the service-oriented preschool's business performance.*

*H6d: the larger amount of human capital and the greater diversity in services, the better the service-oriented preschool's business performance.*

### III. Methodology

#### 3.1 Operational definitions and measurement of variables

##### 3.1.1 The customer aspect of strategic positioning

**Customer involvement:** It refers to the degree of customer involvement in a kindergarten's service-delivering process. The "customer involvement scale" in this study was modeled after the one proposed by Skaggs and Youndt (2004). The scale contains seven measurement questions, namely "The kindergarten/daycare center values parents' advice and opinions," "Teachers at the kindergarten/daycare center directly communicate with parents (face-to-face or via phone) at least twice a week," and so on.

**The level of customization:** An organization offers customized services that meet the needs of every customer. The "customization scale" in this paper was mostly modeled after the one proposed by Skaggs and Youndt (2004). The scale contains four measurement questions, namely "The kindergarten/daycare center is capable of altering any existing services for any parent," "The kindergarten/daycare center sincerely accepts the special needs of each parent," "The kindergarten/daycare center is capable of offering personalized services to each parent," and so on.

##### 3.1.2 The product aspect of strategic positioning

**Differentiation:** Heterogeneous products unavailable at competitors should be offered to encourage customers to pay more money and meet their needs. The "differentiation scale" in this study was modeled after the questionnaire proposed by Chen (2007). The scale contains five measurement questions, namely "The kindergarten/daycare center is committed to developing new services/programs," "The kindergarten/daycare center offers highly differentiated services/programs to parents," "The kindergarten/daycare center is different from competing institutions either in business operations or in services," and so on.

**Diversity:** It is the extent to which an organization diversifies services to meet every need of its customers. The "diversity scale" in this study is modeled after the questionnaire proposed by Pitts and Hopkins (1982) and Ramanujam and Varadarajan (1989). It contains nine single-option questions and two multiple-option questions, namely "The kindergarten/daycare center is capable of extending business hours to meet the parents' needs," "The kindergarten/daycare center offers documentations of children's learning/growth process (e.g., VCDs and the learning record)," "The kindergarten/daycare center offers after-hour child care services," "The kindergarten/daycare center meets the individual needs of children (e.g., vegetarian meals and birthday parties)," "The types of instructional programs available at the kindergarten/daycare cater," and so on.

##### 3.1.3 Human capital

Human capital is the sum of tangible and intangible knowledge possessed by members of an organization, which includes knowledge, professional skills, competencies, creativity, and skills (Zahra and Nielsen, 2002; Namasivayam and Denizci, 2006). In this study, experienced and skilled the faculty are the proxy variables of a kindergarten's human capital (Snell and Dean, 1992; Pfeffer, 1994; MacDuffie, 1995). The human capital is measured by 10 questions that include "The kindergarten/daycare center is willing to spend more money on teachers' on-job training," "The kindergarten/daycare center is willing to spend more time on teachers' on-job training," "The kindergarten/daycare center hires faculty members with at least two years of experiences working in relevant fields," "Personnel cost accounts for more than 50% of total expenditures at the

kindergarten/daycare center.”

### **3.1.4 Business performance**

In this study, the “business performance scale” is modeled after the questionnaire proposed by Ramanujam and Varadarajan (1986) and Ching-chang Chen (2007). The scale contains four measurement questions, namely “The kindergarten/daycare center outperforms competitors from the same region in *profitability*,” “The kindergarten/daycare center outperforms competitors from the same region in the *number of students enrolled*,” “The kindergarten/daycare center outperforms competitors from the same region in *competitiveness*,” “The kindergarten/daycare center outperforms competitors from the same region in the *willingness of students’ younger siblings, family members and friends to also enroll in this particular institution*”. On a 5-point Likert scale, the respondents were asked to rate their actual perception of each statement by choosing one of the options (i.e., “highly disagree”, “disagree”, “so-so”, “agree” and “highly agree”).

### **3.2 Control variables**

A kindergarten’s business performance is affected by a considerable number of factors. To clearly identify how strategic positioning and human capital are related to a kindergarten’s business performance with all the irrelevant factors neglected, we conducted an empirical analysis using several control variables, namely a kindergarten’s or daycare center’s length of history, total area of premises, number of students enrolled, faculty size, total fees charged; whether a kindergarten/daycare center is part of a preschool chain, a private-owned business or a sole proprietorship; the location and capitalization amount of the kindergarten/daycare center.

### **3.3 Survey respondents**

Currently there are two types of preschool institutions in Taiwan: *kindergartens* and *daycare centers*. Overseen by the Bureau of Education at local governments in accordance with the Preschool Education Law, a kindergarten is meant for children 4 to 6 years of age. A daycare center, is overseen by the Social Affairs Bureau according to the Regulations for Establishing Child Daycare Centers and meant for children 1 month to 6 years of age. The relatively low barrier to entry lures many aspiring proprietors into the market for daycare centers, causing daycare centers to outnumber kindergartens in Taiwan. To obtain survey samples more easily, we focused on kindergartens and daycare centers in six regions (i.e., Taipei County, Taipei City, Taoyuan County, Hsinchu County, Hsinchu City, and Miaoli County). The survey was conducted in an on-site manner throughout the process and 352 out of the 380 copies of questionnaire given out were returned completed. Hence, our study has a 92.6% response rate. After deducting the 38 invalid copies, 314 copies of questionnaire were returned valid; hence, the 89.2% valid response rate. Table 1 shows the distribution of samples.

Nearly 70% (or 68.4%, to be precise) of the samples are kindergartens with a history of 10 years or longer, only 11 samples are younger kindergartens (3.5%). Kindergartens measuring 100-300-pings in area represent the largest portion of samples (41.1%), and those with fewer than 100 students enrolled account for approximately half of the samples (i.e., 52.5%). As for the faculty size, kindergartens with fewer than 10 faculty members account for the largest portion of samples (41.7%), a sign that small- and mid-sized kindergartens form a relatively larger portion of the samples. Most kindergartens surveyed charge somewhere between NT\$ 20,000 and NT\$ 50,000, although a few charge less than NT\$ 10,000 (6.7%) for cost reasons. Meanwhile, more than 70% of the kindergartens surveyed (or 70.4%, to be precise) are non-chain institutions, while 90% (or 92.4%, to be precise) are privately owned. The kindergartens surveyed registered capitalization ranging from NT\$1 million to NT\$10 million. Taipei County (33.1%) and Hsinchu City (6.1%) account for the largest and smallest portion of kindergartens surveyed, respectively.

Table 2: Distribution of variables in each dimension of preschools

Aspects of organization		Count	Percentage
Length of history	Under 3 years	11	3.5%
	4-6 years	45	14.3%
	7-9 years	43	13.7%
	10-12 years	73	23.2%
	Over 13 years	142	45.2%
Total area of premises	Under 100 pings	55	17.5%
	101-300 pings	129	41.1%
	301-500 pings	59	18.8%
	501-700 pings	18	5.7%
	Over 700 pings	53	16.9%
Number of students enrolled	Under 100 students	165	52.5%
	100-200 students	100	31.8%
	200-300 students	30	9.6%
	Over 300 students	19	6.1%
Faculty size	Under 10 faculty members	131	41.7%
	10-20 faculty members	117	37.3%
	20-30 faculty members	47	15.0%
	Over 30 faculty members	19	6.1%
Total fees charged	Under NT\$20,000	21	6.7%
	NT\$20,000-30,000	119	37.9%
	NT\$30,000-40,000	74	23.6%
	NT\$40,000-50,000	72	22.9%
	Over NT\$50,000	28	8.9%
A preschool chain or not	Preschool chain (directly operated)	81	25.8%
	Preschool chain (franchisee)	12	3.8%
	Non-chain	221	70.4%
A privately owned business or not	Privately owned business	290	92.4%
	Non-privately owned business	24	7.6%
Sole proprietorship or not	Sole proprietorship	240	76.4%
	Joint venture	74	23.6%
Region	Taipei City	36	11.5%
	New Taipei City	104	33.1%
	Taoyuan County	89	28.3%
	Hsinchu City	19	6.1%
	Hsinchu County	22	7.0%
	Miaoli County	44	14.0%
	Capitalization	Under NT\$ 1 mil.	28
	NT\$ 1 mil.-4.99 mil.	128	40.8%
	NT\$ 5 mil.-9.99 mil.	71	22.6%
	Over NT\$ 10 mil.	87	27.7%

**3.4 The reliability and validity of scales**

In this study, Cronbach’s  $\alpha$  reliability is used to explain the reliability of variables in the scales. Wortzel (1979) believes a Cronbach’s  $\alpha$  between 0.7 and 0.98 means a particular item has a highly reliability. Nunally(1978) also argued that a Cronbach’s  $\alpha$  exceeding 0.7 indicates a high reliability, but a Cronbach’s  $\alpha$  below 0.35 means the specific scale shall be discarded. The Cronbach’s  $\alpha$  of variables from this study are 0.71 for business performance and 0.77 for human capital. The reliability of variables in the customer aspect of strategic positioning is reflected by the Cronbach’s  $\alpha$  of customer involvement (0.63) and customization (0.62). The reliability of variables in the product aspect of strategic positioning is reflected by the Cronbach’s  $\alpha$  of differentiation (0.8) and diversity (0.7). Table 3 summarizes the reliability, or Cronbach’s  $\alpha$ , of measurement variables from this study.

Table 3: Reliability of variables

Variables	Number of questionnaire items	Cronbach’s $\alpha$ for each sub-scale
Business performance	6	0.714
Human capital	10	0.765
Customer involvement	7	0.628
Customization	4	0.623
Differentiation	5	0.803
Diversity	9	0.704

**IV. Analysis and Discussions**

**4.1 The variables’ average, standard deviation and correlations**

Table 4 shows descriptive statistics concerning each variable, namely the average, standard deviation, maximum, and minimum. Because all absolute values of correlation coefficients among variables fall under 0.65 (Table 5);variables in this study are independent from one another;hence, the unlikely collinearity.

Table 4: The average, standard deviation, maximum and minimum of each variable

Variables	Average	Standard deviation	Minimum	Maximum
1.Customer involvement	3.92	0.45	2.71	5.00
2.Customization	3.64	0.59	2.00	5.00
3.Differentiation	3.87	0.60	1.40	5.00
4.Diversification	3.92	0.42	2.00	5.00
5. Human capital	4.03	0.42	2.30	5.00
6.Business performance	3.66	0.54	2.00	5.00
7.Length of the institution’s history <sup>a</sup>	3.92	1.22	1.00	5.00
8.Total area of premises <sup>b</sup>	2.63	1.31	1.00	5.00
9.Size of institution (Number of students enrolled) <sup>c</sup>	1.69	0.88	1.00	4.00
10.Size of institution (size of faculty) <sup>d</sup>	1.85	0.89	1.00	4.00
11.Total fees charged <sup>e</sup>	2.89	1.11	1.00	5.00
12.Capitalization <sup>f</sup>	2.69	0.97	1.00	4.00

Note: N=314; \*p<.10; \*\*p<.05; \*\*\*p<.01

- a. The length of an institution's history is divided into five levels: 1=Under 3 years; 2=4-6 years; 3=7-9 years; 4=10-12 years; 5=Over 13 years.
- b. The area of premises is divided into five levels: 1=Under 100 pings; 2=101-300 pings; 3=301-500 pings; 4=501-700 pings; 5=Over 700 pings.
- c. The enrollment size is divided into four levels: 1=Under 100 students; 2=100-200 students; 3=200-300 students; 4=Over 300 students.
- d. The faculty size is divided into four levels: 1=Under 10 faculty members; 2=10-20 faculty members; 3=20-30 faculty members; 4=Over 30 faculty members.
- e. The sum of fees charged is divided into five levels: 1=Under NT\$ 10,000; 2=NT\$ 20,000 to NT\$30,000; 3=NT\$ 30,000 to NT\$40,000; 4=NT\$ 40,000 to NT\$50,000; 5=Over NT\$ 50,000.
- f. The amount of capitalization is divided into four levels: 1=Under NT\$ 1 million; 2=NT\$ 1 million to NT\$ 4.99 million; 3=NT\$ 5 million to NT\$ 9.99 million; 4=Over NT\$ 10 million.

Table 5: The correlation coefficients among variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Customer involvement	1											
2. Customization	0.39***	1										
3. Differentiation	0.45***	0.49***	1									
4. Diversity	0.48***	0.17**	0.42***	1								
5. Human capital	0.30***	0.27***	0.64***	0.37***	1							
6. Business performance	0.28***	0.14*	0.26***	0.05	0.25***	1						
7. Length of the institution's history	- 0.17**	- 0.17**	- 0.17**	- 0.02	0.03	0.07	1					
8. Total area of premises	- 0.08	- 0.15*	0.01	- 0.06	0.14	0.24***	0.22***	1				
9. Size of institution (Number of students enrolled)	- 0.01	- 0.10	0.07**	- 0.07	0.15*	0.37***	0.10	0.55***	1			
10. Size of institution (Size of teaching staff)	- 0.08	- 0.11	- 0.02	- 0.06	0.15*	0.32***	0.15*	0.50***	0.84***	1		
11. Total fees charged	0.04	- 0.00	0.01	0.13	0.16*	0.09	0.07	0.06	0.09	0.17*	1	
12. Capitalization	- 0.16*	- 0.09**	- 0.05	- 0.14*	0.10	0.20**	0.05	0.57***	0.50***	0.58***	0.17***	1

Note: N=314; \*p<.10; \*\*p<.05; \*\*\*p<.01 (2-tailed).

#### **4.2 The influence of control variables on business performance**

Model1 in Table 6 includes data derived from the regression analysis of control variables against business performance. The data indicates a kindergarten's or daycare center's business performance is significantly affected by its total area of premises, enrollment size, whether it is directly operated or a franchisee, and the region it belongs to. However, the business performance is only insignificantly affected by an institution's length of history, faculty size, total fees charged, whether it is publicly or privately owned, whether it is a joint venture or a sole proprietorship, and the capitalization amount.

#### **4.3 The influence of strategic positioning on business performance**

##### *4.3.1 How the customer aspect of strategic positioning affects business performance*

Model2 in Table 6 indicates a positive and significant relation between customer involvement and business performance ( $\beta=0.250$ ,  $P<0.01$ ). Not only does the finding support Hypothesis 1, it also suggests that kindergartens need to be more receptive to the parents' opinions, even if they are already offering customer-oriented services. After all, parents are more satisfied when the kindergarten pays attention to their voices, which in turn helps the kindergarten clarify its outlook while bolstering business performance. What is worth noting is that Model 2 indicates an insignificant influence of customization on a kindergarten's business performance. While the finding rejects Hypothesis 2, it is attributable to the additional costs caused by over-customization, which may burden down kindergartens with a limited amount of capitalization. By interacting with Taiwanese kindergarten owners during the survey, we realized that customization strategies, which are meant to meet the varied needs of parents, are flexibly implemented because of existing services, rather than being fully implemented. That explains the insignificant relation between the testing results and business performance.

##### *4.3.2 How the product aspect of strategic positioning affects business performance*

The product aspect of strategic positioning contains two factors: products differentiation and products diversity. Likewise, Model2 in Table 6 indicates a positive and significant relation between differentiation-oriented strategic positioning and business performance ( $\beta=0.273$ ,  $P<0.01$ ). While the result supports Hypothesis 3, it suggests an insignificant relation between diversity-oriented strategic positioning and business performance; hence, the rejected Hypothesis 4. We attribute this finding to several reasons. First, the diversity-induced profit growth may not be enough to cover the additional costs. Second, the demand for professionalism prompted parents to seek certain services from qualified service-oriented organizations, instead of expecting all their needs to be satisfied by a sole kindergarten. That is why a kindergarten's diversification strategy is proved to be insignificantly related to its business performance.

##### *4.3.3 The influence of human capital on business performance*

Model3 in Table 6 indicates the positive and significant effect of human capital on business performance ( $\beta=0.287$ ,  $P<0.01$ ). While the result supports Hypothesis 5, it suggests a majority of parents believe that experienced preschool faculty equipped with professional expertise and skills tend to be good at "children's language" and consequently capable of communicating with them, or solving potential problems facing a young child. In addition, an experienced childcare or early education worker is capable of offering parenting education and bridging over the teacher-parent gap. Service-oriented preschools with adequate human capital, usually enjoy better business performance than competitors, because parents tend to entrust them with their children's education.

Table 6: A regression analysis of strategic positioning and human capital against the institutions' business

performance					
Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Length of history	- 0.020	- 0.001	- 0.034	- 0.006	- 0.015
Total area of premises	0.164**	0.182***	0.152**	0.179***	0.167**
Size of institution(Number of students enrolled)	0.265***	0.271***	0.307***	0.281***	0.285***
Size of institution (Number of faculty members)	- 0.041	- 0.066	- 0.088	- 0.075	- 0.063
Total fees charged	0.058	0.034	0.021	0.027	0.028
Directly operated franchisee institution	Reference group				
Indirectly operated franchisee	0.104*	0.050	0.071	0.046	0.042
Non-franchisee	- 0.044	- 0.002	- 0.043	- 0.009	- 0.006
Non-privately owned business	Reference group				
Privately owned business	- 0.013	- 0.004	- 0.022	- 0.007	- 0.016
Joint venture	Reference group				
Sole proprietorship	0.011	- 0.002	- 0.002	- 0.001	0.003
Taipei City	Reference group				
Taipei County (New Taipei City)	- 0.123	- 0.111	- 0.124	- 0.113	- 0.117
Taoyuan County	- 0.202**	- 0.153*	- 0.164*	- 0.150*	- 0.146
Hsinchu City	- 0.128*	- 0.090	- 0.111*	- 0.091	- 0.097
Hsinchu County	- 0.067*	- 0.037	- 0.069	- 0.040	- 0.041
Miaoli County	- 0.197**	- 0.205***	- 0.203***	- 0.205***	- 0.214***
Capitalization	0.012	0.011	- 0.002	0.005	0.017
Customer involvement		0.250***		0.238***	- 0.229
Customization		- 0.075		- 0.062	0.230
Differentiation		0.273***		0.234***	0.190
Diversity		- 0.031		- 0.052	1.250**
Human capital			0.287***	0.086	1.069**
Human capital×customer involvement					0.749
Human capital×customization					- 0.388
Human capital× differentiation					- 0.069
Human capital×diversity					- 2.226**
Adjusted R <sup>2</sup>	0.143	0.292	0.219	0.296	0.312

Note:a. N=314; \*p<.10; \*\*p<.05; \*\*\*p<.01 (2-tailed).

b. Statistics in the table are resulted from an analysis with several control variables (i.e., the length of history, size of institution, investment approach, faculty size, total fees charged, region, and capitalization).

c. Dependent variables: the institutions' business performance.

#### 4.3.4 The inter-relationships of strategic positioning and human capital against business performance

*The connection effects of strategic positioning human capital on an institution's business performance*

Model4 in Table 6 shows data derived from simultaneous testing of four strategic positions (i.e., customer involvement, customization, differentiation, and diversity) and human capital regarding their connection effects on a kindergarten’s business performance. It is empirically proved that the findings in Model 2 agree with how, and in what direction, customer involvement and operating performance are related ( $\beta=0.238, P<0.01$ ), as well as how, and in what direction, differentiation and business performance are related ( $\beta=0.234, P<0.01$ ). Interestingly enough, the relation between human capital and business performance shifted from significant to insignificant ( $\beta=0.086, P>0.1$ ) despite the connection effects of strategic positioning and human capital. It seems that a kindergarten’s strategic positioning does not affect its business performance through the human capital level, which is a finding attributable to two reasons. First, strategic positioning is probably a parent’s chief concern when selecting preschools or daycare centers. Second, many parents care most about whether the childcare or early education workers are kind, patient, and able to look after their children while ensuring their safety. That is, the level of human capital of a childcare or early education facility is a minor concern for the parents.

*The interaction effect of strategic positioning and human capital on an institution’s business performance*

Model5 in Table 6 shows data derived from testing of the interaction effect of strategic positioning and human capital on a kindergarten’s business performance. It proves human capital;customer involvement, and customization-oriented strategic positioning have insignificant relations with the business performance;hence, the rejected Hypothesis 6a and 6b. Likewise, the insignificant relation between human capital and differentiation-oriented strategic positioning rejected Hypothesis 6c.

It is worth noting that the interaction effect of human capital and diversity-oriented strategic positioning on business performance proves significantly negative ( $\beta=-2.226, P<0.05$ ). The finding rejects Hypothesis 6d but highlights the tradeoff between human capital and diversity-oriented strategic positioning. That is, a preschool or daycare center with a high level of human capital and service diversification tended to register a poor business performance, probably because consumers expect facilities with a high level of human capital to focus on just a few core operations. After all, kindergartens blindly seeking service diversification are considered lacking in professionalism, which in turn drives consumers away and keeps the business performance from improving.

Indeed, Model5 in Table 6 indicates that human capital moderates the influence of diversification strategy on business performance, although how the latter two interact with each other remains unclear. In this study, the measurement data of kindergartens regarding service diversification and human capital is categorized into high, middle, and low levels, with the first 25% (inclusive) of data being the low level; those ranging from 25% to 75% (inclusive), the middle level; the last 25% (exclusive), the high level. It was found that, kindergartens with a low, middle, and high levels of human capital may register the best business performance with a strategy of middle-, high-, and low- level of diversity, respectively (Figure 2).

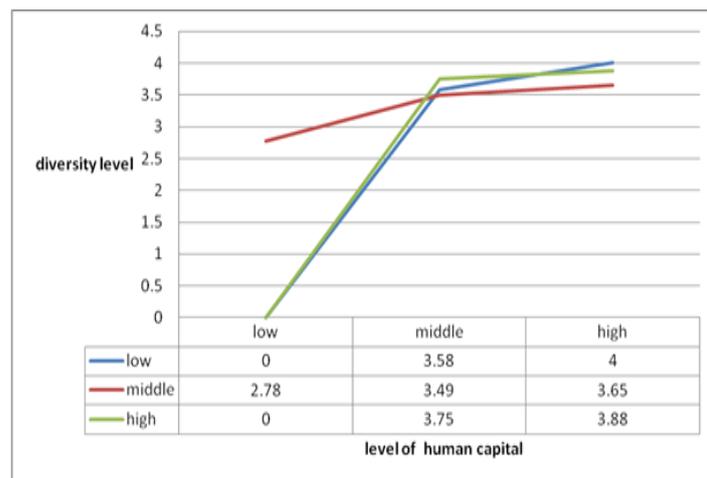


Figure 2: Various combinations of diversity and human-capital levels and the corresponding business performance

Other findings from this study regarding how the interactions between a kindergarten’s human capital and diversification strategy on its business performance include: (1) Kindergartens with a high level of human capital should assume a strategic position based on low-level diversity to achieve better business performance

compared to positions with a mid- or high-diversity level; (2) Kindergartens with a middle level of human capital should assume a strategic position based on high-level diversity to achieve better business performance compared to positions with a low- or mid-diversity level; (3) Kindergartens with a low level of human capital should assume a strategic position based on middle-level diversity to achieve better business performance compared to positions with a low- or high- diversity level. The three findings are explained as follows:

First, kindergartens with a high level of human capital are considered more professional, or qualified. Such a kindergarten will see its professionalism-based competitiveness weakened if it assumes a strategic position with high-level diversity. By wisely using the expertise to develop services/products for particular market segments, highly professional kindergartens will find it easier to lure customers and gain effective access to the target market, and subsequently bolster its business performance. We believe that parents who prefer kindergartens with a high level of human capital care more about how welltrained the faculty members are and whether they are able to offer qualified education and childcare services for early childhood. Those parents may worry that services irrelevant to childcare or early education would distract the faculty, causing them to ignore why the children were entrusted to them in the first place.

The same logic is applicable to the second reason: kindergartens with a relatively small amount of human capital need to bolster business performance by offering highly diversified services. In other words, a kindergarten with less professional faculty is forced to tout a wide range of services to lure parents. From the proprietors' point of view, nevertheless, childcare or early education workers lacking experience and training are usually more cooperative in implementing the kindergarten's strategies. Such workers tend to contribute more to the kindergarten's diversification and market expansion.

Given the intensifying competition, kindergartens need to offer new and diversified services to achieve economies of scale and human capital is a crucial resource for implementing diversification strategy. That is why the interactions between a kindergarten's service diversification and human capital exert a significant influence on its business performance. How customer involvement, customization, and differentiation interact with human capital, nevertheless, has only an insignificant effect on the business performance. In other words, a high level of human capital is not necessary for a kindergarten with a high level of customer involvement, customization, or differentiation to improve business performance.

Finally, the following five findings were derived from empirical data in Table 6 and afore-mentioned analyses/discussions: (1) The greater customer involvement, the better the kindergarten's business performance; (2) The higher level of differentiation, the better the kindergarten's business performance; (3) The greater amount of human capital, the better the kindergarten's business performance; (4) After scrutinizing the connection effect of strategic positioning and human capital on business performance, it is learned that, when a service-oriented preschool considers the effects of strategic positioning and human capital on business performance, strategic positioning will be a crucial determinant of business performance; and (5) A kindergarten's human capital serves as a moderator in the relation between service diversification and business performance.

## **V. Conclusions and Managerial Implications**

### *5.1 Conclusions*

Preschools in Taiwan are faced with ever-intensifying competitions as they sprout up amid declining birth rates. Given the fact that a kindergarten's business performance depends on its ability to assume the right strategic position and enhanced competitiveness, we address the influence of strategic positioning and human capital on a kindergarten's business performance. In order to clarify how strategic positioning and human capital are related to each other, 380 kindergartens from the six counties/cities north of Miaoli were selected as samples in an empirical survey that generated several findings. The first finding is about strategic positioning: the higher level of customer involvement and differentiation, the better the kindergarten's business performance. Second, the amount of human capital affects a kindergarten's business performance: the higher level of human capital, the better the business performance. As for the interactions between strategic positioning and human capital, the third finding suggests that the interactions between a kindergarten's service diversification and human capital have a significantly negative influence on its business performance. After scrutinizing the samples, we learned that a kindergarten seeking improvements in business performance needs to obtain human capital of an amount that matches the diversity level. To find out the right combinations of, or interactions between the level of service diversification and human capital that help bolster the business performance. A survey was conducted to show that the best business performance is achieved when an organization with a mid-or low-level human capital adopts a high-diversity strategy or when an organization with a high level of human capital adopts a low-diversity strategy.

### *5.2 Managerial implications*

To interpret messages underlying the aforementioned findings, including the messages for business managers, the following pieces of advice are proposed to kindergarten owners.

1. With the birth rates declining, showing respect for parents' opinions and listening to customers' needs might be an effect strategy for kindergartens to improve business performance.
2. In a highly competitive industry, it is imperative that preschool institutions provide target customers with differentiated services, to meet the varying needs.
3. The previous literature has argued that an organization's human capital includes the average educational attainment, experiences, and relevant skills of the organization members. Meanwhile, an organization's performance improves along with its members' average educational achievement, work experiences, and relevant skills (Wright, Smart and McMahon, 1995; Finkelstein and Hambrick, 1996; Pennings et al., 1998). That finding agrees with the previous literature, a sign that amassing human capital is an important issue facing the management of preschools.
4. The trend toward diversified operations causes kindergartens to offer a growing variety of services other than the conventional tasks of childcare and early education. Kindergartens in Taiwan are attaching growing importance to such additional services as after-school education programs (skill-oriented or not), documentations of children's growth, and assistance in applying for government grants. A service-oriented preschool with a focus on human capital is therefore advised to improve business performance by obtaining the right amount of human capital that matches its diversity-oriented strategic position.

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