

Sales Determinants of Restaurant Chain Business: Focused on Family Restaurants in Korea

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Abstract

Food service industry is one of the most promising business fields in Korea. The ups and downs of their sales often depend on location traits and operation strategies resulting in business failure. Therefore, clear understanding of sales variances in restaurant chain business will enable not only marketers and practitioners to understand their markets, but customers and business owners to meet their needs. Moreover, the precise operational strategies are essential to secure their business success. Due to the absence of related academic literature and empirical findings in Korea, this paper has its own contribution, in that determining factors of sales are analyzed based on location, store, and operational strategies. We analyzed 310 stores data from VIPS, Outback Steak House, and Ashley, the three major family restaurant chains. The multiple regression analysis is implemented to investigate the effect of independent variables on sales. The empirical result shows that Location traits, Operation traits, Store traits have significant influence on family restaurant sales. When considering launching a new restaurant branch, an exclusive building type of family restaurants in provincial cities with premium and accessibility is highly recommended. Also, as for operation strategies, unlimited complimentary wine service, lactation room could be an effective way for their sales increase. Understanding of variances affecting sales in restaurant chain business will enable not only researchers and market practitioners to comprehend their markets and businesses but also business owners to meet their customers' needs.

Keywords: Family Restaurant, Regression, Restaurant Chain, Sales Determinant

1. Introduction

Restaurants and dining out culture take a great part in modern society as a major social activity of its members. Nowadays, families go out more often to eat than the past. The increase of family income is naturally accompanied by the higher level of consumption resulting in the flourishing of food service industry. Recently, as people began to value health and dietary, the food service industry has grown bigger and faster both in numbers and contents, including family restaurants in a leading place. In 2012, according to Food Service Statistics, family restaurants accounted for US \$1,000 million out of a total food service industry, reaching approximately \$77,000 million, in Korea. As the food service industry dramatically expanded with the support of major conglomerate companies, such as 'Chaebol', family restaurants have become a promising business in Korea.

However, the market was very competitive, with heavy restrictions on newly opened stores by National Commission for Corporate Partnership. As a result, the industry has begun to decline since the year of 2010 due to the economic recession and consumption decrease, not to mention the reasons stated above.

The family restaurant business is fairly new but plays an important role in Korean food service industry. Also, not much of studies have been done concerning a family restaurants store. It is such high-cost business with a starting capital of no less than \$1 million and needs at least 660m² lot size. Moreover, it often needs to pay brand royalties to foreign companies if necessary¹. In the past, booming economy and growing market secured stable profit as long as the restaurants located in selected areas, e.g. station influence area. However, in a recent economic recession the discrete approaches are recommended. Food service industry should understand and meet the needs of

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the customers, coping with their taste changes, presenting new alternatives, and embracing both existing and new customers². The areas of study in family restaurants so far were mostly about customers' purchasing intention, their characteristics in the selection or their satisfaction. Not much of studies have done with respect to profitability, such as factors affecting sales.

This study, therefore, attempted to find out the determining factors affecting sales in family restaurants in Korea, analyzing effective strategies for systematic management and their business success. Based on the related literature, we used a data of sales in family restaurants and investigated the relationship between location, store, operational strategies of each brand and its sales.

As mentioned above, the clear understanding of variances affecting sales in restaurant chain business will enable not only researchers and market practitioners to comprehend their markets and businesses but also business owners to meet their customers' needs.

2. Theoretical Background

2.1 Definition and Classification of Family Restaurant

In the United States, family restaurants first started their business for families with kids. They tend to avoid dark places and alcohol and prefer cozy and joyful atmosphere. They offer various kinds of menu as well. Khan and Mahmood³ define family restaurant as a special type of restaurant where it offers various menus to families with kids, unlike fast food stores.

The U.S. National Restaurant Association (NRA) classified family restaurants according to their menu and style: Quick Service Restaurant, Mid-scale Restaurant, and Upscale Restaurant. Quick Service Restaurant serves food with quick cooking time and low customer transaction, such as chicken, donut, pizza, and sandwiches. Mid-scale Restaurant uses semi-manufactured food materials with various cooking styles and gets much higher customer transaction than Quick Service Restaurants. Upscale Restaurant offers multiple types and styles of cooked food, with a luxurious atmosphere and selective service, and holds highest customer transaction of all three¹. Family restaurants in Korea can categorize as Mid-scale Restaurant targeting families with kids^{4,5}.

2.2 Family Restaurant Business in Korea

Family restaurants in Korea have first started their business in late 1980's. They were 'Tomorrow Tiger' and 'COCO'S'. In 1992, T.G.I. Fridays launched its business with an advanced business system, followed by second movers sponsored by major companies with large capital.

Many family restaurants came in and out of business. The market matured a lot as time passed by, reaching \$1,500 million markets in 2006⁶. Those with special services and good brand image adapted to rapidly changing the market trend and survived. Others were thrown out. Passing through the turmoil, the practitioners in the business tried hard to understand their customers, analyze the market trend and look for strategies to meet their needs.

In the mid-2000, the market was extremely competitive. Twenty years have passed since family restaurants came into the market. They tried very hard to survive. Keen competition, market saturation, economic recession, and well-being trend are all dragging the feet since 2010. As a result, Kahunaville, Sizzler, Marche, Tony Romas, and Seafood Ocean went out of business. Also, 34 Outback Steak House stores out of 109, 11 Bennigan's stores out of 20, and 12 TGIF stores out of 56 were closed down⁷.

Table 1. Major family restaurant in Korea

Brand	Sales by Store (Mil. US\$/Yr.)	Number of Stores
VIPS	4.1	90
Outback Steak House	3.14	109
Ashley	2.29	155
T.G.I Fridays	1.89	44
BENNIGAN'S	2.0	12
Seven Springs	1.88	26
Mad for Garlic	1.95	41

Source : Food Industries Statistics System (www.atfis.or.kr)

2.3 Literature Review

Previous research concerning food service industry mostly focused on customer satisfaction and relationship marketing, and the relationship between location decision factors and its sales⁸. Many Studies regarding family restaurants mostly dealt with quality of service, customer satisfaction, and purchase intention by using survey method. For example, Kim and Ryu⁹ examined the quality of service and brand image of restaurants that affect customers intention of revisiting.

Several studies suggested location and store traits are affecting sales as well. Salvaneschi¹¹ explained significant consideration factors in selecting a site for retail stores: visibility, accessibility, regional exposure, high density, growth, operational convenience, safety and security, and adequate parking capacity. Choi and Lee¹⁰ asserted location and store traits, such as convenient location, parking space, atmosphere and the exterior of restaurants, significantly influence purchase behavior and characteristics of customers in selection. Kim and Kim¹² suggested that sales are affected by accessibility to a subway station and crosswalk, frontage width of the store, and cost for interior design.

Along with these studies, some researchers show operational strategy traits of franchise chain and retail store have an influence on its sales. Lee¹³ suggested a reasonable price of menu and strategies for management based on demographic factors, such as population, job distribution, and dwelling patterns, are significant for business success. Jeon and Jung⁸ confirmed that business hours of restaurants and its sales are positively related. Also, they suggested long-term business in the same place could generate loyal customers and improve their store image.

This study attempted to find out the determining factors affecting sales in family restaurants business in Korea, analyzing effective strategies for customer attraction and systematic management.

3. Empirical Study

3.1 Data and Methodology

VIPS, Outback Steak House and Ashley are top three major family restaurant chains in Korea. Their sales data of 310 stores are collected (period of Jan. 1, 2013 to Dec. 31, 2013). In addition, the specific data, such as the number of tables, the physical shape of stores and operation hours, is collected from each store.

VIPS offers self-service premium salad bars with optional steak menu by placing an order. Outback Steak House specializes in various Steak menu. Ashley has started simple salad buffet under \$10 per person, which now is changed to \$20 per person, with additional steak menu.

As determining factors of their sales, location traits, operation strategy traits, store traits, and brand dummy

categorize as independent variables. The research model built in terms of the significant factors affecting family restaurant sales; L represented location traits. O, S and B were Operation strategy traits, Store traits, and Brand Dummy respectively.

$$S = f(L, O, S, B)$$

3.1.1 Dependent Variable

The dependent variable is average store sales per table of VIPS, Outback Steak House, and Ashley. Unlike retail stores where the sales per unit are important, table turnover ratio is significant in restaurants.

3.1.2 Independent Variables

The independent variables are factors affecting sales of family restaurants: location traits, operation strategy traits, store traits, and brand dummy.

The location traits, such as Seoul and metropolitan area, are dummy variables to analyze the area differences. Location is a very significant factor, affecting customers' selection of stores^{14,15}. Distance to a bus stop and a subway station, corner building for visibility, frontal road width, and floating population are also selected.

In operational strategy traits, the weekend operation hours is set for discrete type variable to show strategic differences of stores. Stores with all year round opening, lactation room, and the unlimited complimentary wine service defined as dummy variables.

As for store traits, the number of tables to show its size, those in exclusive buildings, premium, and duplex-typed stores are selected as variables.

3.2 Descriptive Statistics

The descriptive statistics of family restaurants are shown in Table 3. The average amount of monthly store sales is \$270,000 ranging from \$63,000 to \$720,000.

The average amount of monthly sales per table is ranging from \$206 to \$3,413. For seating capacity, the average number of seats are 223, with the minimum of 80 to the maximum of 450. The average weekend business hours are 11.56 hours, from 10 hours to 13 hours and the average weekend passenger traffics are 17,178 people. The average store frontage road width ranges from 3m to 100m, and the distance from bus station is 87.6m on average.

Table 2. Definition of variables

Variable	Definition	Unit	
Monthly Sales per Table	Average monthly sales / a total table number of stores in 2013		
Location	Seoul City	If a store is located in Seoul =1	Dummy
	6 Metropolitan Areas	If a store is located in 6 metropolitan areas =1	Dummy
	Corner Building	If a store is located in corner building =1	Dummy
	Proximity to Bus Stop	Distance between a store and the nearest Bus Stop	m
	Subway Station within 500m	If a subway station is within 500m =1	Dummy
	Store Frontage Road Width	Store frontage road width	m
	Weekend Passenger Traffic	Weekend Passenger Traffic in a store's trading area	people
Operation	Weekend Business Hours	Business hours of weekend	hour
Strategy	Open all year-round	If a store opens all year-round =1	Dummy
	Dairy(Lactation) Room	If a store offers dairy(lactation) Room =1	Dummy
	Unlimited Complimentary Wine Service	If a store offers unlimited complimentary wine service =1	Dummy
	Run Business more than 10yrs	If a store has running business for more than ten years =1	Dummy
Store	Number of Seats	Number of Seats	
	Exclusive Building	If a store exclusively occupies whole building =1	Dummy
	Premium Store	If a store is a premium branch =1	Dummy
	Duplex Type	If a store is a duplex type =1	Dummy
Brand	VIPS	If a store's brand name is VIPS =1	Dummy
	Outback Steak House	If a store's brand name is Outback Steak House =1	Dummy

Table 3. Descriptive statistics (n=310)

	Unit	Avg.	Std. Dev.	Min	Max
Monthly Sales per Store	US \$	270,000	110,000	63,519	720,000
LN(Monthly Sales)		12,42	0.41	11.06	13.49
Monthly Sales per Table	US \$/ Table	1,262,74	523.10	206.23	3,413.18
LN(Monthly Sales per Table)		7,06	0.40	5.33	8.14
Number of Seats		223.49	68.09	80.00	450.00
Weekend Business Hours	Hour	11.56	0.47	10.00	13.00
Store Frontage Road Width	m	31.45	12.54	3.00	100.00
Proximity to Bus Stop	m	87.60	63.86	1.00	622.00
Weekend Passenger Traffic	people	17,178	11,298	767.75	64,833.29

3.3 Empirical Results

In this study, the multiple regression analysis using Linear model and Semi-Log model is implemented to investigate the effect of independent variables on restaurant's sales. The results are shown in Table 4. F-value of Linear model is 19.995, and 15.925 for Semi-Log model, and both models shows around 46% of adjusted R². The residual scatter plots of the two models are compared and tested for homoscedasticity (Figure 1.); the Linear model (Left) is more spread out than Semi-Log model (Right), which shows heteroscedasticity of the former. The residual scatter plots shows Linear model could have some problems in model specification. As a result, the Semi-Log model is chosen for explaining the empirical results (Table 5).

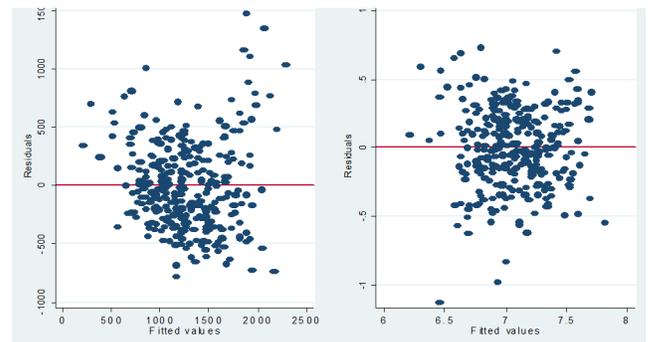


Figure 1. Comparison of residual scatter plot (Left: Linear Model, Right: Semi-log model).

First, location traits have the significant influence on family restaurant sales. Coefficient of Seoul is negatively related with sales, showing potentials of a downtown area in provincial cities for trade. The empirical result shows the family restaurants in Seoul and other metropolitan cities are lower in sales than those in provincial cities. This might be assumed that family restaurants in Seoul are so overcrowded that keen competition lowers their profit. On the other hand, stores in provincial cities are less competitive and have business value.

The coefficient value of accessibility to a subway station within 500m shows a positive relationship with store's sales, as shown in preceding literature. However, the coefficient of proximity to a bus stop is not significant. It is because the major target customers are families with kids, so that they usually use cars to visit family restaurants. The estimate of the store frontage road width is positively related to its sales, which shows the importance of attracting customers with accessibility and visibility.

Second, operation strategy traits have a significant impact on family restaurant sales. Due to the five-day workweek policy, weekend business hour factor becomes significant for food service industry. The estimate of lactation room factor is positively related. It means lactation room can be appealing to young couples with babies, the target customers of family restaurants. Unlimited complimentary wine service factor gets the highest coefficient value of 0.325. It seems that wine service strongly affects family restaurant sales. For their sales increase, it is highly recommended to launch this service.

Third, store traits have a significant influence on family restaurants sales. Coefficient of a number of seats is negatively related with sales. This means the size of the store doesn't guarantee the amount of sales per table. On the other hand, the coefficient value of exclusive building and premium store has significant positive influence on family restaurant sales. Customers prefer premium stores in detached building. In general, premium stores offer sufficient parking space, cozy and prestigious interior with the upscale premium menu. It is reasonable to infer that customers are not interested in only store's size anymore.

The coefficient values of VIPS and Outback Steak House are higher than that of Ashley. It is because their table layout, the average price of the menu, and brand awareness vary considerably in many ways. Brand power

ranking is also the same as the order of coefficient values. VIPS is an abbreviation for Very Important Person's Society and their motto is treat each and every customer as a VIP guest. VIPS has strength in its variety of salad bar. Outback Steak House, a United States' franchise chain, launched in 1997 in Korea. They have unrivaled strength in steak menu in Korea. Ashley is a late mover but the most powerful chaser. Ashley has a strength of lower cost but powerful salad bar and variety of service and store concept such as premium store and complimentary wine service.

4. Conclusions

Food service industry is one of the most promising business fields in Korea. However, the absence of related academic literature and empirical findings makes it hard to understand clearly the significant factors affecting family restaurant sales. Understanding of sales variances in restaurant chain business will enable not only researchers and market practitioners to comprehend their markets and businesses but also business owners to meet their customers' needs.

The results show that, unlike other small and medium sized restaurants, the amount of unit sales in family restaurants located in Seoul and other metropolitan cities is lower than those in provincial cities. It is because the number of stores per unit area in Seoul and other metropolitan cities is already overcrowded. Therefore, the strategy of scattering family restaurants in provincial cities is recommended for its sales increase and business success.

The corner building, the important location trait, has no influence on family restaurants sales. Many target customers who are e-generations have a tendency to search all kinds of information, such as menu, price and location via the internet, upon planning to visit a family restaurant. Blind faith for corner building location with higher rent might need modification. Online marketing tools, such as SNS and blogs, could be used as a way to raise store awareness for visibility and accessibility.

When considering launching a new restaurant branch, an exclusive building type of family restaurants in provincial cities with premium and accessibility is highly recommended. Also, as for operation strategies, unlimited complimentary wine service, lactation room could be an

Table 4. Comparison of linear and semi-log regression model

Variable		Linear Model			Semi-Log Model		
		β	SE	t	β	SE	t
Location	Seoul City	-0.124**	60.976	-2.267	-0.154***	0.0470	-2.7953
	6 Metropolitan city	-0.091*	56.632	-1.881	-0.141***	0.0437	-2.9070
	Corner Building	0.048	48.635	1.098	0.038	0.0375	0.8728
	Proximity to Bus Station	-0.050	0.366	-1.117	-0.058	0.0003	-1.3048
	Subway Station within 500m	0.0147***	54.595	2.923	0.149***	0.0421	2.9774
	Store Frontage Road width	0.185***	1.804	4.270	0.155***	0.0014	3.5806
	Weekend Passenger Traffic	0.109**	9.106	2.372	0.084	0.0070	1.8281
Operation Strategy	Weekend Business Hours	0.143***	59.215	2.700	0.162***	0.0457	3.0558
	Open all Year-Round	0.660	81.216	1.386	0.067	0.0626	1.4124
	Dairy(Lactation) Room	0.193**	88.423	2.412	0.190**	0.0682	2.3739
	Unlimited Complimentary Wine Service	0.305***	97.794	4.400	0.325***	0.0754	4.6756
Store	Run Business for more than ten years	0.156***	65.417	3.172	0.134***	0.0505	2.7129
	Number of Seats	-0.705***	0.411	-13.172	-0.682***	0.0003	-12.7342
	Exclusive Building	0.192**	117.831	2.075	0.205**	0.0909	2.2224
	Premium Store	0.149**	74.093	2.346	0.180***	0.0571	2.8370
Brand	Duplex Type	-0.079	112.014	-0.873	-0.072	0.0864	-0.7979
	VIPS	0.218**	101.623	2.505	0.258***	0.0784	2.9596
	Outback Steak House	0.185***	74.919	2.786	0.184***	0.0578	2.7727

F-Value=19.995, R²=0.497, adj.R²=0.466 F-Value=15.925, R²=0.496, adj.R²=0.465

P<0.05(**), P<0.01(***)

Table 5. Result of semi-log regression model

Variable		Non Standardized		Standardized	t	VIF	
		B	S.E	β			
Location	Seoul City	-0.1315	***	0.0470	-0.1535	-2.7953	1.7422
	6 Metropolitan city	-0.1270	***	0.0437	-0.1413	-2.907	1.3645
	Corner Building	0.0327		0.0375	0.0381	0.8728	1.1028
	Proximity to Bus Station	-0.0004		0.0003	-0.0583	-1.3048	1.1525
	Number of Subway Station within 500m	0.1254	***	0.0421	0.1494	2.9774	1.4541
	Store Frontage Road width	0.0050	***	0.0014	0.1551	3.5806	1.0841
	Weekend Passenger Traffic	0.0128		0.0070	0.0843	1.8281	1.2283
Operation Strategy	Weekend Business Hour	0.1396	***	0.0457	0.1617	3.0558	1.6165
Store	Open all Year-Round	0.0885		0.0626	0.0669	1.4124	1.296
	Dairy(Lactation) Room	0.1619	**	0.0682	0.1900	2.3739	3.6996
	Unlimited Complimentary Wine Service	0.3526	***	0.0754	0.3250	4.6756	2.7901
	Run Business for more than ten years	0.1369	***	0.0505	0.1335	2.7129	1.3997
Brand	Number of Seats	-0.0040	***	0.0003	-0.6821	-12.7342	1.6573
	Exclusive Building	0.2020	**	0.0909	0.2055	2.2224	4.9383
	Premium Store	0.1621	***	0.0571	0.1804	2.837	2.3357
	Duplex Type	-0.0689		0.0864	-0.072	-0.7979	4.7024
Constant	VIPS	0.2320	***	0.0784	0.2581	2.9596	4.3939
	Outback Steak House	0.1602	***	0.0578	0.1841	2.7727	2.5468
		5.5119	***	0.5506			

N=310, F-Value=15.925, R²=.496, adj R²=0.465

P<0.05(**), P<0.01(***)

effective way for their sales increase.

Clear understanding of variances affecting sales in restaurant chain business will enable both customers and market-related parties to meet their needs. This paper is distinctive, in that determining factors of sales are analyzed based on their location, store, and operational strategies. Therefore, it might be helpful both marketers and store owners to achieve their goals and eventually satisfy their customers.

A further research will be useful for the related market. It may use segmented approaches to understanding sales formation factors including customer survey and direct questions/answers of both parties (store owners and customers).

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