

Analysis of Influencing Factors of Turnover of the Catering Industry-Taking Catering Industry in Guangzhou as an Example

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ABSTRACT

This paper mainly analyzes the key factors affecting the turnover of catering industry enterprises, and conducts empirical research by establishing a regression model. In this paper, taking the turnover of catering enterprises in Guangzhou from 2018 to 2023 as the dependent variable, the regression model was established, and the total number of stores of chain catering enterprises, the number of employees of catering enterprises, the consumption level of residents and the number of urban populations was selected as the independent variables. By building a linear model and collecting data, linear regression analysis using SPSS software, yielded high goodness of fit, but the model with four independent variables had an insignificant effect on the dependent variable. Further stepwise regression analysis showed that only the consumption level of residents and the number of employees in the catering enterprises had a significant impact on the turnover. The final regression model indicated that these two factors had a positive influence on the turnover.

KEYWORDS

Catering industry; Influencing factors; Regression model; Econometrics

1. RESEARCH BACKGROUND

With the rapid growth of China's economy, the service industry is gradually becoming a new engine to promote economic development, and the catering industry, as a leader in the service industry, has attracted numerous attention and investment. Guangzhou, a bustling city, is undoubtedly a bright pearl of the development of the catering industry. In recent years, Guangzhou's catering industry has ushered in an unprecedented prosperity, all kinds of restaurants, snack bars like stars, all over the streets of the city.

An in-depth analysis of the development trend of the catering industry and the economic drivers behind it are particularly critical for enterprises and individuals. This not only helps us better grasp the pulse of the market, but also occupies a good position in the competitive market. The development trend of the catering industry is diverse, among which the most important is the dual pursuit of quality and experience of consumers. They are no longer just satisfied with the abdominal desire, but also look forward to obtaining a unique cultural experience and spiritual enjoyment during the meal.

The key factors affecting the catering industry turnover, it covers a number of aspects. First of all, the chain restaurant brand is still crucial, which directly determines the customer flow and potential customer group. Secondly, the scale of catering enterprises and the quality of dishes are also can not be ignored, only on the large-scale enterprises continue to bring forth the new, to meet the diversified needs of consumers, in order to remain in an invincible position in the market. In addition, the

consumption level of residents, the number of urban population (potential consumers), marketing strategies and other factors are equally important.

Guangzhou, as the forefront of the catering industry development, is leading the innovation and reform of the industry. In-depth study and understanding of the development trend of the catering industry and the economic drivers behind it, analysis of how to develop and the factors affecting the turnover of the catering industry, will help more enterprises and individuals to deeply understand the economic principles behind their development.

2. ANALYSIS OF VARIANCE

(I) The dependent variable

Turnover of catering enterprises (Y): the turnover of catering enterprises refers to the income obtained by catering enterprises from providing services or selling goods in business activities. The turnover of the catering industry enterprises can better reflect the development of the catering industry.

(2) Independent variables

1) Total number of stores of chain catering enterprises (X1): the total number of stores of chain catering enterprises refers to the number of all stores (including directly operated stores and franchised stores) owned by the chain enterprises. Among them, the main store (if the head office has a store) is handled as a direct store. In addition, stores of holding shares according to the statistics as same as direct store. The number of stores of chain catering enterprises can better reflect the development of the catering industry. The more stores, the better the development of the catering industry.

2) Number of employees in catering enterprises (X2): with the development of the catering industry, the enrollment of enterprises is constantly expanding, and the number of employees is also increasing. The growth of enterprises also symbolizes the prosperity of the industry.

3) Residents consumption level (X3): the increase of residents' consumption level means the increase of residents income, indicating that the economic development of the region is in good. Food, as a necessity of human life, with the rise of residents' consumption level, people are willing to spend more money in restaurants, and the turnover of catering enterprises will also increase.

4) Urban population (X4): compared with rural areas, the urban catering industry is more developed, the number of restaurants is more, and people are more likely to consume in the catering industry. Therefore, it is believed that the urban population increases, and the turnover of catering enterprises is higher.

3. MODEL BUILDING AND DATA COLLECTION

(1) Establish a linear model

The linear model is: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$

(2) Data collection is as shown in Table 1.

Table 1. Data collection

a particular year	Catering industry enterprise turnover (100 million)	Total number of stores of chain catering enterprises (one)	Number of employees in catering enterprises (people)	Consumption level of residents (RMB)	Urban population (ten thousand people)
2023	651.7	5133	253600	52912	1878
2022	581.4	4734	230226	48883	1880
2021	540.6	4239	228016	39200	1877
2020	530.8	3871	233974	36057	1858
2019	520.7	3596	233518	33337	1825
2018	543.5	3079	248833	30350	1784

4. REGRESSION ANALYSIS

Linear regression analysis of the models using the SPSS software yielded the following conclusions.

(1) Goodness of fit

R² was 0.997, indicating that the four independent variables together explained 99.7% of the dependent variables, and the model fit quite well.

(2) Coefficients

By reading the model coefficient, the turnover of the number of chain catering enterprises increased by RMB 195,525.325 yuan; the turnover of the catering enterprises increased by RMB 211519.468 yuan; for every increase of the consumption level of the catering enterprises increased by RMB 323325.646 yuan; for every 1 increase in the urban population, the turnover of the catering enterprises decreased by RMB 1326.868 yuan.

(3) The F-test is shown in Table 2.

Table 2. ANOVAa

model	quadratic sum	free degree	mean square	F	conspicuousness
1 regression	1.186E+20	4	2.965E+19	72.929	.088b
residual	4.065E+17	1	4.065E+17		
amount to	1.190E+20	5			

A. Dependent variable: turnover of catering enterprises

B. Predictor variables (constant): urban population, number of employees of catering enterprises, consumption level of residents, and number of stores of chain catering enterprises

According to Table 2, $F_{0.05}(4,1) = 225 > 72.929$, indicating that the model containing these four independent variables has no significant effect on Y, and it is preliminarily speculated that irrelevant or insignificant effects on the model are included in the model.

(4) Gradually Return

As shown in Table 3.

A. Dependent variable: turnover of catering enterprises.

Using the stepwise regression method, it can be seen from Table 3 that only two independent variables of household consumption level and the number of employees in catering enterprises appeared in the

final model, and the significance level of 0.05 was less than 0.05, indicating that both had a significant impact on the model.

The final regression model is:

$$Y = -1.336E+10 + 437\,542.938 X_3 + 218\,229.148 X_2 + \mu$$

Table 3. Coefficient of a

model	Unstandardized coefficients		Standardization coefficient	t	conspicuousness
	B	standard error	Beta		
1 (constant)	3.680E+10	5 244689666		7.017	.002
Consumption level of residents	482111.814	128 094.308	.883	3.764	.020
2 (constant)	-1.336E+10	3970584 056		-3.364	.044
Consumption level of residents	437542.938	19983.142	.801	21.896	.000
Number of employees in catering enterprises	218 229.148	16916.354	.472	12.900	.001

5. SUMMARY

According to our detailed analysis through the regression model, the results show that the number of employees of catering enterprises and the consumption level of residents are two significant factors affecting the turnover of catering enterprises. Specifically, with the increase of the number of employees, enterprises can provide customers with more thoughtful and meticulous service. This improved service quality can attract more customers to come to eat, thus directly promoting the growth of enterprise turnover. In addition, the increase of consumption level means that residents are more comfortable, and although the cost of cooking at home is relatively low, residents are more willing to eat out considering the investment of time and energy. This shift in consumption bias will also further drive the growth of business turnover. Therefore, for catering enterprises, a reasonable increase in the number of service personnel, optimizes the customer service experience, is one of the important strategies to improve the turnover. At the same time, enterprises should also consider opening stores in areas with high consumption level to make full use of the consumption potential of residents. In this way, enterprises can not only avoid potential losses, but also further increase their turnover and achieve sustained business growth. In short, catering enterprises should pay close attention to the changes in the number of employees and the consumption level of residents, and develop business strategies according to these factors to ensure that they maintain advantages in the competitive market.

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