Foreign E-commerce Practitioners in “Taobao Village”: Isolation and Integration

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ABSTRACT

This research mainly analyzes the actual situation of social integration of migrant E-commerce practitioners in Xintang Town of Guangdong Province through field survey. According to the survey, the overall level of social integration is relatively low, and there are three isolation barriers, namely time, space and psychology. Regarding the influencing factors of social integration level, it is concluded through the principal component analysis that five main factors impacting the social integration of migrant E-commerce practitioners are life factor, business factor, housing factor, social factor and individual factor. By establish a multiple logistic analysis model, it is found that type of friends, interest protection and frequency of recreational activities would impact the social integration of migrant E-commerce practitioners most significantly among all factors.

1. Introduction

1.1 “Taobao Village” and “Taobao Practitioners”

From the first “double 11” shopping carnival to the present new year promotion, “618” mid-year promotion, “double 11”, “double 12” and year-round livestreaming commerce, Chinese e-commerce platforms hits new records of sales volume constantly in the more and more intensive promotions. While we are busy calculating for cash back or using coupons through our phone or computer screens, people who make the convenient shopping mode possible are also working busily on the other end of network.

In 2019, the trading volume of Chinese E-commerce reached 34.81 trillion Yuan, including 10.63 trillion Yuan of online sales, with a year-on-year growth of 16.5%, and the online retail sales of physical goods was 8.52 trillion Yuan, and its proportion in the total retail sales of consumer goods increased to 20.7%[1]. The number of E-commerce practitioners reached 51,256,500. Different from the general understanding that E-commerce features flexibility, it is quite common that these E-commerce practitioners have a tendency to agglomerate[2]. Since E-commerce is extremely sensitive to the source of goods, cost, and logistics, places where there are many low-rent houses, source advantage or convenient logistics would become the natural gathering place of E-commerce practitioners.

Owing to the fact that places with these features are mostly villages in the city or villages in the urban fringe or villages and towns with characteristic industries, these gathering places are called “E-commerce village” or “Taobao village”. According to the definition of Alibaba Research Institute, “Taobao Village” refers to a village with more than 10% of the local households participating in E-commerce or has annual trading volume more than 10 million Yuan. According to the Research Report on
China’s Taobao Village (2020), During 2013 to 2019 the number of Taobao Village in China grew rapidly to 4310 from the original 20 within 7 years, and it even reached 5425 in June 2020\(^3\).

### 1.2 Xintang Town

This Study focuses on Xintang Town, which is well-known throughout the country for its denim clothing processing and sales. There are denim commercial service complexes such as Xintang Cowboy Town and Fangyu-an E-commerce Industrial Park. In 2013, Xintang Town had 4766 denim textile and garment production related enterprises. Xintang Town consists of 8 “Taobao village”, and produces more than 800 million denim garments annually, accounting for 60% of domestic denim clothing sales and 30% of denim clothing export of China in 2013. Around 2010, low-cost labor in Southeast Asia caused sudden drop in overseas orders, coupled with the rise of the Taobao industry, many factories in Xintang Town began to pay more attention to domestic sales in response to changes in market demand, and the Taobao industry is flourished.

At present, Xintang Town has formed a mature denim clothing e-commerce industry chain, ranging from production, inventory, agent delivery, business training to logistics services, online advertisement and review management, attracting a large number of foreign e-commerce related workers. Thus it is a typical area for studying the integration of foreign e-commerce practitioners.

### 1.3 Literature Review

Currently, studies on “Taobao Village” mainly focus on the reasons of agglomeration, its business mode and its impact on local economic development, but there are few studies on the life and social integration of individuals that constitute the “Taobao Village”. On the other hand, researches on social integration of traditional migrant workers are abundant.

Regarding the status of social integration, Wang Guixin and Luo Enli (2007) found in a study of migrant workers in Shanghai that their degree of social integration is low, but in the process of improvement\(^4\); Yang Xusong et al. (2006) surveyed migrant workers in Shenzhen, found that there is a considerable degree of isolation between migrant workers and the locals\(^5\). In Li Shuzhuo’s (2008) professional survey of migrant workers in Shenzhen, it was found that in terms of behavior integration, migrant workers lack social support, while in terms of emotional integration, their integration situations are generally in better condition\(^6\).

Regarding the social integration models, Li Peilin and Tian Feng (2012) used linear regression analysis to point out that social integration does not have a progressive relationship at the economic, social, psychological, and identity levels\(^7\). Zhu Li (2002) pointed out that there is gradualism in the process of social integration at all levels\(^8\). Yang Juhua (2010) further specifically pointed out this progressive relationship, which is based on the economic level, with identity level being the final stage\(^9\).

This paper mainly studies E-commerce practitioners in Guangdong’s largest “Taobao Town”, namely Xintang Town, through questionnaires and interviews, and analyzes the basic mode of their work and life, level of local integration and factors influencing the social integration.

### 1.4 Data Source

The data used in this study is mainly derived from data obtained from two field surveys in Xintang Town. The first survey was conducted during 2015 based on the related national innovation project. A total of 200 questionnaires were distributed to all residents, including 175 valid ones. The second survey was conducted in March-April 2017 for local F-commerce practitioners. A total of 840 questionnaires were distributed, of which 630 valid questionnaires were recovered.

### 2. Evaluation of the Social Integration Level of Foreign E-Commerce Practitioners

#### 2.1 Index Evaluation

Since social integration is a complex dynamically-changing process covering various aspects, there has not been a unified standard for defining the level of social integration. Currently, different measurement standards are usually adopted according to the actual situation, and usually consist of two evaluation methods, namely single-index measurement and multi-dimensional measurement.

Single index measurement mainly extracts a key research index and takes it as the standard for judging the level of social integration. For instance in the research on the social integration status of female migrant workers in three cities of Hubei Province, the researcher selected “the willingness to stay” as a single index (Xiang Lihua, 2013)\(^10\); in the survey of social integration of migrant workers in Shenzhen, Li Shuzhuo took the identity as the index for judging the social integration level.

Multi-index measurement method follows the theoretical requirements on the multi-perspective observation of social integration. In terms of the factors that influence the social integration, influencing factors may vary according
to the targets of research. Based on the existing studies on the social integration of migrant workers in China, the following core indexes can be summarized.

Table 1. Common indexes of social integration measurement

| Dimension          | Index                                                                 |
|--------------------|----------------------------------------------------------------------|
| Economic dimension | Disposable income                                                     |
|                    | Average monthly expenditure                                           |
|                    | Housing (living space, living environment, rent affordability, rent and purchase condition) |
|                    | Occupation (reputation, stability, safety, strength, welfare)         |
| Social dimension   | Social condition (willingness to make friends, type of friends, friends-making scale, relationship with friends and relatives, organization) |
|                    | Community activities (activity participation)                         |
|                    | Political participation (election and being elected, local political concern) |
|                    | Policies (household register system, welfare policies)                |
|                    | Rights and interests protection (difficulty of legal rights protection, approach of legal right protection) |
|                    | Public services (education and medical treatment)                     |
| Cultural dimension | Traffic smoothness                                                     |
|                    | Living habits (food, clothing, tradition)                             |
| Psychological dimension | Emotional identification (life satisfaction)                     |
|                    | Identity (whether the local identity is approved)                     |
|                    | Willingness to stay                                                   |

Combining the actual situation of Xintang Town, namely migrant E-commerce practitioners are mainly from the surrounding regions within the province, there are small social integration barriers in language, lifestyle and customs, and other aspects, which may lead to a high level of social integration in cultural dimension. Therefore, this research selects three dimensions, including the economic dimension, social dimension and psychological dimension, and three representatives respectively, including occupational stability, friends-making willingness, and identity. First of all, the three indexes are analyzed one by one.

2.1.1 Occupational Stability Index

In terms of the occupational stability index, migrant E-commerce practitioners’ stability perception of this industry is selected as the evaluation criterion. According to the questionnaire results, most people insist that local E-commerce industry is generally stable, accounting for 57% of total respondents, and few people, only 5%, think it “really poor” or “really good”. Regarding this index, it reflects that practitioners’ perception of local E-commerce stability is in the middle level.

2.1.2 Friends-Making Willingness Index

Concerning the friends-making willingness index, in the question “are you willing to make friends with local people”, those selecting “willing to” and “quite willing to” account for 54% of all respondents, while those expressing “unwilling to” and “quite unwilling to” only account for 3%, suggesting that foreign E-commerce practitioners have good performance in the willingness of making friends. On one hand, it reflects their strong willingness of social integration, and on the other hand, it shows the lack of relationship and connection network between foreign E-commerce practitioners and local friends.

Combining the survey on the friends type of foreign E-commerce practitioners, it can be found that this group is inclined to making friends with foreigners than locals, and the proportion of respondents selecting “most are foreigners” and “all are foreigners” is as high as 50.8%, while those selecting “most are locals” and “all are locals” only take up less than 10%, indicating the poor relationship with local people and proving the lack of local social relationship network among foreign E-commerce practitioners.

Figure 1. Proportion chart of the occupational stability evaluation on E-commerce practitioners

Figure 2. Proportional chart of E-commerce practitioners’ friends-making willingness

Figure 3. histogram of the distribution of E-commerce practitioners’ friends

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2.1.3 Identity index

In respect of identity index, respondents are inclined to deem themselves as foreigners, and the proportion is as high as 42%, while those thinking themselves as locals only takes up 3%, indicating that foreign E-commerce practitioners hold a low affective commitment to locals, and it is also consistent with the interview results that they thinks it is the workplace, rather than the hometown. In addition, 29% respondents think that they are both locals and foreigners, highlighting the dual identity.

![Figure 4. Distribution diagram of the identity types of E-commerce practitioners](image)

2.2 Comprehensive Index Evaluation

To study the social integration of foreign E-commerce practitioners much more comprehensively, average assignment of the three indexes is conducted to obtain the social integration index of the respondents, so as to evaluate their social integration level.

Table 2. Data assignment of each index of social integration

| Index Points | Occupational stability (the degree of stability of local E-commerce for respondents) | Willingness to make friends (the willingness of respondents to make friends with locals) | Identity (What group of people do the respondents think they belong to) |
|--------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|
| 1            | Very poor                                                                 | Quite unwilling to make new friends                                             | Foreigners                                                       |
| 2            | Poor                                                                     | Unwilling to make new friends                                                  | Neither a local nor a foreigner                                   |
| 3            | Common                                                                   | Common                                                                         | Both a local and a foreigner                                       |
| 4            | Good                                                                     | Willing to make new friends                                                    | New local                                                        |
| 5            | Very good                                                                | Quite willing to make new friends                                              | Local                                                            |

Since the variable “work stability” may be greatly impacted by management type, business scale, economic condition, and other factors, its weight is defined as 0.2, while the other two indexes, “willingness to make friends” and “identity”, are defined as 0.4 respectively. As a result, the social integration index of each sample is obtained, and the data features are as follows:

Table 3. Frequency distribution table of social integration indicators

| Data range | [1,2) | [2,3) | [3,4) | [4,5) |
|------------|-------|-------|-------|-------|
| Number     | 70    | 191   | 279   | 90    |
| Frequency  | 0.11  | 0.30  | 0.44  | 0.14  |

Table 4. Data characteristics

|                | Average | Median | Mode | Variance | Range |
|----------------|---------|--------|------|----------|-------|
|                | 2.95873 | 3      | 2.2  | 0.59     | 2.6   |

According to the problem setting, “work stability”, “willingness to make friends” and “identity” are within the 1-5 scoring system, in which, the higher the score is, the lower the social integration level will be, so the social integration level after weighted processing also has this characteristic.

In accordance with this characteristic, the most concentrated numerical results of social integration indexes are [3,4), accounting for 44%. Statistically, the sample size ranging between [2.5,5) is 41, accounting for 65%, suggesting that the social integration of foreign E-commerce practitioners is poor. In terms of extremum, very good social integration refers to the number in [1,2) and very poor social integration refers to the number in [4,5). The number of samples in the two sectors differs slightly, suggesting that local social integration is relatively concentrated, on the moderate or poor level.

3. Analysis on the Influencing Factors of Social Integration of Foreign E-Commerce Practitioners

3.1 Principal Component Analysis

Since the questionnaire involves numerous variables, to better analyze factors impacting the social integration of foreign E-commerce practitioners, SPSS software is used for the analysis of correlation coefficient matrix shown as follows, and it is clear that some factors may impact each other and even overlap.
Table 5. Correlation coefficient matrix of respective variables

| Table 5. Correlation coefficient matrix of respective variables |
|---------------------------------------------------------------|
| **Correlation matrix****a,b** | gender | age | education | marital status | household registration | way to come here | willingness to make friends | type of friends | rights infringement | rights satisfaction | operating time | stability |
|--------------------------------|--------|-----|-----------|----------------|------------------------|-------------------|---------------------------|----------------|-------------------|-------------------|---------------|----------|
| gender                        | 1.000  | .247| .244      | .120           | -.293                 | -.478            | .048                       | .090           | -.657             | .151             | .398          | .239     |
| age                           | .247   | 1.000| -.100     | .516           | -.340                 | -.361            | -.246                      | -.458          | -.081             | -.107            | .060          | .513     |
| education                     | .244   | -.100| 1.000     | -.340          | .092                  | 1.000            | -.092                      | .750           | .060             | .548             | -.149         | .000     |
| marital status                | .120   | .516 | -.340     | 1.000          | .000                  | .125             | .147                       | .017           | -.120            | -.516            | .516          | .395     |
| household registration        | -.293  | -.361| .092      | .000           | 1.000                 | -.408            | -.478                      | -.257          | .189             | .309             | -.094         | .044     |
| way to come here              | -.478  | .147 | -.510     | .125           | -.408                 | 1.000            | .472                       | .750           | .060             | .444             | -.215         | -.044    |
| willingness to make friends   | .048   | .472 | -.543     | .250           | -.653                 | .650             | .025                       | -.038          | .139             | .218             | .360          | -.170    |
| type of friends               | .090   | -.446| -.257     | .189           | -.340                 | -.361            | -.038                      | -.090          | .513             | .750             | -.246         | -.047    |
| rights infringement           | -.657  | -.458| -.081     | -.107          | .060                  | .085             | .123                       | -.048          | -.516            | .215             | .204          | .204     |
| rights satisfaction           | .151   | .513 | -.107     | .553           | .044                  | .125             | .017                       | .094           | .215             | .204             | .204          | .204     |
| operating time                | .398   | .750 | .060      | .548           | -.149                 | .000             | -.246                      | -.120          | .285             | .285             | .285          | .285     |
| stability                     | .239   | .258 | .085      | .250           | .408                  | .062             | .472                       | .094           | .475             | .475             | .475          | .475     |
| monthly income                | .120   | .516 | -.170     | -.250          | .408                  | .062             | .094                       | .472           | .285             | .285             | .285          | .285     |
| residence type                | .131   | .646 | .000      | .548           | -.149                 | .000             | .123                       | .094           | .285             | .285             | .285          | .285     |
| type of houses                | .452   | -.056| -.385     | .094           | .000                  | .120             | .094                       | .478           | .285             | .285             | .285          | .285     |
| housing satisfaction          | .200   | .599 | .081      | -.120          | -.683                 | .120             | .215                       | .395           | .204             | .204             | .204          | .204     |
| residence plan                | .114   | -.020| .604      | -.068          | .502                  | .547             | .094                       | -.447          | .459             | .459             | .459          | .459     |
| Identity                      | -.393  | .000 | -.310     | .274           | -.447                 | .548             | -.038                      | -.048          | .123             | .050             | -.047         | -.047    |
| frequency of recreational activities | .273  | .595 | .417      | .175           | -.358                 | -.307            | -.038                      | -.048          | .411             | .123             | .050          | -.047    |
| utilization of cultural and sports facilities | -.121 | -.225| .139      | .218           | .360                  | -.170            | -.038                      | -.048          | .123             | .050             | -.047         | -.047    |
| cultural and sports satisfaction | .310  | .585 | -.325     | .342           | -.391                 | -.137            | -.038                      | -.048          | .123             | .050             | -.047         | -.047    |
| Membership in community groups | -.293 | -.120| -.092     | -.408          | -.333                 | .408             | -.038                      | -.048          | .123             | .050             | -.047         | -.047    |
| public service satisfaction   | -.219  | .474 | -.156     | .574           | -.375                 | .459             | -.038                      | -.048          | .123             | .050             | -.047         | -.047    |

Correlation

**Correlation matrix**

| Correlation | willingness to make friends | type of friends | rights infringement | rights satisfaction | operating time | stability |
|-------------|-----------------------------|----------------|---------------------|--------------------|----------------|-----------|
| gender      | .048                        | .090           | -.657               | .151               | .398           | .239      |
| age         | .472                        | -.446          | -.458               | .513               | .750           | .258      |
| education   | -.543                       | -.257          | -.081               | -.107              | .060           | .085      |
| marital status | .250                       | .189           | -.120               | .553               | .044           | .125      |
| household registration | -.653                       | .309           | -.098               | -.516              | -.215          | .204      |
| way to come here | .650                       | .094           | .478                | .395               | -.044          | -.313     |
| willingness to make friends | 1.000                       | -.038          | -.048               | .411               | .123           | .050      |
| type of friends | -.038                       | 1.000          | -.090               | -.060              | -.464          | -.047     |
| rights infringement | -.048                       | -.090          | 1.000               | -.151              | -.524          | -.418     |
| rights satisfaction | .411                       | .060           | -.151               | 1.000              | .139           | -.198     |
| operating time | .123                       | .464           | -.524               | .139               | 1.000          | .285      |
| stability     | .050                        | -.047          | -.418               | -.198              | .285           | 1.000     |
| monthly income | .025                       | -.094          | -.478               | -.158              | .636           | .219      |
| residence type | .000                       | -.414          | -.131               | .520               | .480           | -.274     |
| type of houses | .151                       | .286           | -.452               | -.239              | -.033          | .472      |
| housing satisfaction | .382                       | .632           | .200                | .302               | .608           | .299      |
| residence plan | -.602                       | -.052          | -.310               | -.086              | .060           | -.239     |
| Identity     | .383                        | .104           | .393                | .693               | -.432          | -.342     |
| frequency of recreational activities | -.088                       | -.762          | -.147               | .305               | .538           | .153      |
| utilization of cultural and sports facilities | -.104                       | .418           | .066                | -.108              | -.524          | -.194     |
| cultural and sports satisfaction | .219                       | -.517          | -.310               | .303               | .492           | .068      |
| membership in community groups | .163                       | .000           | .293                | .000               | .072           | .204      |
| public service satisfaction | .505                       | .043           | .055                | .725               | -.141          | -.143     |
### Correlation Matrix

|               | gender | age | education | marital status | household registration | way to come here | willingness to make friends | type of friends | rights infringement | operating time | monthly income | type of houses | housing satisfaction | residence plan | identity |
|---------------|--------|-----|-----------|----------------|------------------------|------------------|-----------------------------|----------------|-------------------|-----------------|----------------|----------------|----------------------|----------------|----------|
| monthly income| 0.120  | 0.516 | -0.170    | 0.250          | -0.408                | -0.062           | 0.025                        | 0.094          | -0.478            | -0.158         | 1.000           | -0.047        | 0.411                         | 0.342          | -0.616   |
| residence type| 0.131  | 0.646 | 0.000     | 0.548          | 0.149                  | 0.000            | 0.000                        | 0.414          | -0.131            | 0.520           | 1.000           | 1.000         | 0.000                             | 0.000          | 1.000    |
| type of houses| 0.452  | -0.056 | -0.385    | 0.094          | 0.000                 | -0.378           | -0.151                        | -0.286         | 0.250             | -0.239         | -0.407          | -0.325        | -0.100                         | -0.687         | 0.302    |
| housing satisfac-| 0.200  | 0.599 | 0.881     | -0.120         | -0.683               | -0.062           | 0.382                        | 0.286          | -2.00             | 0.302          | 1.000           | -0.409        | 1.000                         | 0.300          | 0.600    |
| tion          | 0.114  | 0.020 | 0.604     | -0.068         | -0.502               | -0.547           | -0.602                        | -0.052         | -0.310            | -0.086         | 0.342           | 1.000         | 0.100                         | 0.693          | 0.432    |
| residence plan | 0.439  | 0.547 | 0.548     | -0.104         | -0.310               | -0.342           | 0.342                        | 0.131          | -0.207            | -0.374         | 1.000           | -0.409        | 1.000                         | -0.374         | 0.616    |
| identity      | -0.393 | -0.537 | 0.000     | 0.251          | 0.219                 | 0.204            | -0.531                       | 0.489          | 0.000             | 0.000          | 0.000           | 0.725         | 0.153                         | 0.208          | 0.459    |

### Correlation Matrix

|               | gender | age | education | marital status | household registration | way to come here | willingness to make friends | type of friends | rights infringement | operating time | monthly income | type of houses | housing satisfaction | residence plan | identity |
|---------------|--------|-----|-----------|----------------|------------------------|------------------|-----------------------------|----------------|-------------------|-----------------|----------------|----------------|----------------------|----------------|----------|
| frequency of recreational activities | 0.273  | 0.595 | 0.417     | 0.175          | -0.358                | -0.307           | -0.088                       | -0.762         | -0.147            | 0.538           | 0.153          | 0.044        | 0.673                         | 0.204          | 0.000   |
| utilization of cultural and sports facilities | -0.121 | -0.225 | 0.139     | 0.218          | -0.360               | -0.170           | -0.104                       | -0.418         | -0.066            | -0.524          | -0.033         | -0.010       | -0.010                         | -0.489         | 0.012   |
| cultural and sports satisfaction | 0.310  | 0.585 | -0.325    | 0.342          | -0.391               | -0.137           | 0.219                        | 0.517          | 0.310             | 0.492           | 0.137          | -0.142       | -0.010                         | -0.572         | 0.055   |
| membership in community groups | -0.293 | -0.120 | 0.092     | -0.408         | -0.333               | -0.408           | -0.219                       | -0.000         | -0.293            | 0.072           | -0.435         | -0.524       | -0.010                         | 0.293          | 0.043   |
| public service satisfaction | -0.219 | -0.474 | -0.156    | 0.574          | -0.375               | -0.143           | -0.505                       | -0.000         | 0.251             | 0.725           | -0.201         | -0.251       | -0.010                         | 1.000          | -0.725  |

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For instance, the correlation between “way to come here” and “identity”, as well as “frequency of recreational activities” and “recreation satisfaction” is significant. To clearly analyze the influencing factors of social integration, principal component analysis is conducted for all variables, and the results are shown as follows.

According to the results, the characteristic value of the first 7 components is over 1, and the accumulating contribution rate is 91.58%, namely it is able to explain 91.58% of the variance. According to the scree plot, the slope of curve change decreases at the seventh factor, and it becomes flat at the 12th factor, so the first 7 principal components are extracted for comprehensive evaluation.

Concerning the component matrix, variables of greater

### Table 6. Principal component analysis results

| component   | Initial eigenvalue | Explained total variance | Extract sum of squares and load |
|-------------|--------------------|--------------------------|---------------------------------|
|             | total              | variance %               | accumulation %                  | total              | variance %               | accumulation %                  |
| 1           | 5.751              | 25.005                   | 25.005                          | 5.751              | 25.005                   | 25.005                          |
| 2           | 4.837              | 21.030                   | 46.035                          | 4.837              | 21.030                   | 46.035                          |
| 3           | 3.375              | 14.673                   | 60.708                          | 3.375              | 14.673                   | 60.708                          |
| 4           | 2.805              | 12.196                   | 72.904                          | 2.805              | 12.196                   | 72.904                          |
| 5           | 1.852              | 8.050                    | 80.954                          | 1.852              | 8.050                    | 80.954                          |
| 6           | 1.318              | 5.732                    | 86.686                          | 1.318              | 5.732                    | 86.686                          |
| 7           | 1.125              | 4.891                    | 91.577                          | 1.125              | 4.891                    | 91.577                          |
| 8           | .807               | 3.507                    | 95.084                          | .807               | 3.507                    | 95.084                          |
| 9           | .567               | 2.463                    | 97.547                          | .567               | 2.463                    | 97.547                          |
| 10          | .322               | 1.401                    | 98.948                          | .322               | 1.401                    | 98.948                          |
| 11          | .242               | 1.052                    | 100.000                         | .242               | 1.052                    | 100.000                         |
| 12          | 8.51 E-16          | 3.703E-15                | 100.000                         | 8.51 E-16          | 3.703E-15                | 100.000                         |
| 13          | 6.115E-16          | 2.695E-15                | 100.000                         | 6.115E-16          | 2.695E-15                | 100.000                         |
| 14          | 5.308E-16          | 2.368E-15                | 100.000                         | 5.308E-16          | 2.368E-15                | 100.000                         |
| 15          | 4.130E-16          | 1.796E-15                | 100.000                         | 4.130E-16          | 1.796E-15                | 100.000                         |
| 16          | 2.94E-16           | 1.041E-15                | 100.000                         | 2.94E-16           | 1.041E-15                | 100.000                         |
| 17          | 1.894E-17          | 8.235E-17                | 100.000                         | 1.894E-17          | 8.235E-17                | 100.000                         |
| 18          | 5.513E-18          | 2.397E-17                | 100.000                         | 5.513E-18          | 2.397E-17                | 100.000                         |
| 19          | -1.853E-17         | -8.058E-17               | 100.000                         | -1.853E-17         | -8.058E-17               | 100.000                         |
| 20          | -2.008E-16         | -8.991E-16               | 100.000                         | -2.008E-16         | -8.991E-16               | 100.000                         |
| 21          | -4.951E-16         | -2.153E-15               | 100.000                         | -4.951E-16         | -2.153E-15               | 100.000                         |
| 22          | -6.361E-16         | -2.766E-15               | 100.000                         | -6.361E-16         | -2.766E-15               | 100.000                         |
| 23          | -7.973E-16         | -3.467E-15               | 100.000                         | -7.973E-16         | -3.467E-15               | 100.000                         |

### Table 7. Component matrix

| component  | 1    | 2    | 3    | 4    | 5    | 6    | 7    |
|------------|------|------|------|------|------|------|------|
| gender     | .285 | .525 | -.165| .307 | .514 | .069 | -.418|
| age        | .878 | .232 | .207 | .145 | -.180| .221 | .105 |
| education  | -.176| .462 | .073 | -.612| .412 | .397 | .043 |
| marital status | -.397 | -.051 | .571 | .527 | .056 | -.108| .335 |
| household registration | -.674 | .422 | .186 | .176 | -.298| -.019| .375 |
| way to come here | .242 | .291 | .092 | .014 | -.467| .188 | -.184|
| willingness to make friends | .546 | .507 | .078 | .379 | -.125| .188 | -.199|
| type of friends | -.531 | -.262 | .114 | .622 | .185 | .221 | -.167|
| rights infringement | -.289 | -.630 | .072 | -.476| -.206| .273 | .142 |
| rights satisfaction | .633 | -.346 | .461 | .076 | .303 | .175 | -.094|
| operating time | .673 | .529 | -.181| -.048| -.345| .202 | -.166|
| stability  | .141 | .339 | -.485| .324 | .033 | .339 | .587 |
| monthly income | .161 | .595 | .207 | .336 | -.664| .138 | -.065|
| residence type | .389 | .290 | .650 | -.131| -.134| -.227 | -.045|
| type of houses | .012 | .136 | -.546| .689 | .314 | -.267| .096 |
| housing satisfaction | .801 | .020 | .469 | -.282| .092 | .141 | .069 |
| residence plan | -.298 | .644 | .584 | -.257| .083 | .135 | -.111|
| Identity   | .249 | -.818| .279 | -.083| .273 | -.079| .134 |
| frequency of recreational activities | .667 | .398 | .117 | -.484| .207 | -.085 | .225 |
| utilization of cultural and sports facilities | -.513 | .008 | .610 | .194 | .168 | .202 | .080 |
| cultural and sports satisfaction | .762 | .201 | -.102| .116 | .064 | -.569| .046 |
| membership in community groups | .092 | -.499 | -.623| -.264| -.085| .312 | .130 |
| public service satisfaction | .446 | -.515 | .489 | .139 | .200 | .244 | .237 |

Extraction method: principal component.

4-7 components have been extracted.
Variables of greater correlation coefficient with the second principle component include gender, residence plan, operating time, and monthly income, and the correlation coefficient is higher than 0.5. Variables of greater negative correlation coefficient of this principal component include the way to come here, willingness to make friends, rights infringement, identity and public service satisfaction, of which the absolute value of coefficient is over 0.5, suggesting that the component is greatly related to the business condition, and it is in a negative correlation with social life, thus named “business factor”.

As for the third principal component, factors of great correlation coefficients include marital status, residence type, residence plan, rights satisfaction, and utilization of cultural and sports facilities, in which, the residence type, residence plan and utilization of cultural and sports facilities are directly related to the present situation of community where respondents live, thus named “housing factor”.

As for the fourth principal component, variables whose correlation coefficient is over 0.5 include housing type, marital status, and type of friends, since it aims at foreign E-commerce practitioners, it is named as “social factor”.

Concerning the fifth principal component, variables whose correlation coefficient is over 0.5 include gender and education level, and others of great correlation coefficient include rights satisfaction and housing type, thus named “individual factor”.

Since in the sixth and seventh principle component, the correlation coefficient of all factors is relatively small, and it also distributes averagely. Moreover, the cumulative contribution value of the first five components is over 80%. Therefore, regarding the impact on social integration, “life factor”, “business factor”, “housing factor”, “social factor” and “individual factor” are mainly discussed.

3.2 Multiple Logistic Regression Analysis

To analyze the factors impacting the social integration level more accurately, the figure ranging in [1,2) is defined as high integration level and assigned to be 0; the one ranging in [3,4,5) is defined as low integration level and assigned to be 1; the one ranging in [4,5) is defined as low integration level and assigned to be 2, as the dependent variables of this research. Since the variable is tri-variate, multiple logistics regression analysis model is adopted for research.

3.2.1 Objective Factors

(1) Data Processing of Objective Factors

Gender: males are assigned to be 0, while females are assigned to be 1.

Age: those “below 20” and “21-30 years old” are combined into the group “below 30”, and assigned to be 0; those “between 31 and 40”, “between 41 and 50” and “above 50” are combined into a group, and assigned to be 1.

Level of education: those in “primary school and below” and “junior high school” are combined into “junior high school and below” group and assigned to be 0; those in “senior high school/ vocational school” is assigned to be 1; those in “junior college” and “undergraduate and above” are combined into the highly-educated group “junior college and above” and assigned to be 2.

Marital status: the unmarried is assigned to be 0, while the married is assigned to be 1.

Household type: agricultural household is assigned to 0, while non-agricultural household is assigned to be 1.

Reasons to come here: driven by relatives and friends is assigned to be 0, while through employment is assigned to be 1.

Concerning the friendship: those in “all are locals” and “most are locals” groups are combined into the group “inclined to locals”, and assigned to be 0; “the number of locals and foreigners is similar” is marked to be 1; those in “most are foreigners” and “all are foreigners” groups are combined into “inclined to foreigners” group, and assigned to be 2, forming a tri-variate variable.

Monthly income: “within 2000” and “2001-5000” are combined into the group “below 5000”, and assigned to be 0, and the rest is sorted out into “above 5000 Yuan”, and assigned to be 1.

Community participation: in the question “are you in a local social group or organization (team, labor union), etc.”, those answering yes are assigned to be 0, or it is 1.

Operation time: “within three months” and “three to six months” are combined into “short-term business” and assigned to be 0; “6 months to a year” is defined as “mid-term business” and assigned to be 1; “1 to 3 years” and “more than 3 years” are combined into “long-term operation” group and assigned to be 2, forming a tri-variate variable.

(2) Multiple Logistic Regression Analysis of Objective Factors

The processed social integration level is taken as a dependent variable, five demographic indexes, including gender, age, residence permit, marital status and house-
hold type, are set as co-variates, and eight grading indexes, including level of education, type of friends, operating time, monthly income, frequency of recreational activities and association members, and way of coming here, are set to be independent variables, for the multiple logistic regression analysis. Results show that the significance level is 0.040<0.05, so the model has significance.

According to the above likelihood ratio test, the significance level of the five independent variables, namely gender, age, type of household, type of friends and frequency of recreational activities is less than 0.1, indicating the great influence on dependent variables, namely social integration. The significance level of the holding of residence permit, monthly income, participate in the association or not is over 0.4, indicating the small impact on social integration.

### 3.2.2 Subjective Psychological Cognitive Factors

These independent variables mainly reflect respondents’ subjective satisfaction over the present life. Therefore, “quite satisfied” and “relatively satisfied” answers to three questions, namely “protection of the rights and interests of labors in the place of employment”, “satisfaction of the current housing”, and “satisfaction of the overall public service facilities in the place of residence” are combined into “satisfied” group, and assigned to be 0; those answering “common” is assigned to be 1; those answering “relatively dissatisfied” and “very dissatisfied” are combined into “dissatisfied” group and assigned to be 2, forming a tri-variate variable. Since it is the subjective view of respondents, which is closely related to other factors. Therefore, it is taken as a group of variables for logistic regression analysis.

According to the results, the significance level of this regression analysis is 0.025<0.05, so the model is significant, and of high goodness of fit. According to the likelihood ratio test in the following table, in the three satisfaction indexes, the significance level of rights satisfaction is below 0.1, indicating the great influence on social integration, while the significance level of the other two variables is over 0.1, indicating the small influence on social integration.

### 4. Conclusion and Reflection

Although foreign E-commerce group shows poor social

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**Table 8. Multivariate logistic regression analysis of objective factors**

| Model          | Model fit standard | likelihood ratio test |
|----------------|--------------------|-----------------------|
|                | -2 times log likelihood | chi square | df | significant level |
| Intercept only | 107.559             |           |    | 0.040            |
| Final          | 60.271              | 47.289     | 32 |

**Table 9. Objective factor multiple logistic regression analysis likelihood ratio test table**

| effect                      | Model fit standard | Likelihood ratio test |
|-----------------------------|--------------------|-----------------------|
|                             | -2 times log likelihood of the simplified model | chi square | df | Significant level |
| intersect                   | 60.271*            | .000                  | 0  |                |
| gender                      | 65.328             | 5.057                 | 2  | .080            |
| age                         | 65.390             | 5.120                 | 2  | .077            |
| residence permit            | 61.225             | .954                  | 2  | .621            |
| marital status              | 64.213             | 3.942                 | 2  | .139            |
| household registration      | 70.022             | 9.752                 | 2  | .008            |
| education                   | 67.309             | 7.039                 | 4  | .134            |
| type of friends             | 72.844             | 12.574                | 4  | .014            |
| operating time              | 65.475             | 5.204                 | 4  | .267            |
| monthly income              | 62.059             | 1.788                 | 2  | .409            |
| frequency of recreational activities | 69.897             | 9.627                 | 4  | .047            |
| membership in community groups | 61.219             | .948                  | 2  | .622            |
| way to come here            | 63.234             | 2.963                 | 2  | .227            |
Table 10. Multivariate logistic regression analysis parameter estimation table for objective factors

| parameter estimation | a              | b              | standard error | wald   | df | significant level | Exp(B) |
|----------------------|----------------|----------------|----------------|--------|----|------------------|--------|
| intersect            | 17.917         | 9924.495       | .000           | 1      | .999          | 1.724E-8 |
| gender               | -17.876        | 1181.614       | .000           | 1      | .998          | 3.108E11 |
| age                  | 26.462         | 2637.090       | .000           | 1      | .992          | 9.048E11 |
| residence permit     | -23.126        | 5476.393       | .000           | 1      | .997          | 8.485E20 |
| marital status       | -43.913        | 3338.085       | .000           | 1      | .960          | 9.048E-11 |
| household registration| -7.884        | 8360.668       | .000           | 1      | .999          | .000    |
| [education=0]        | -.456          | 3.252          | .020           | 1      | .889          | .634    |
| [education=1]        | 15.316         | 1181.611       | .000           | 1      | .990          | 4483152.498 |
| [education=2]        | 0              | .              | .              | 0      | .             | .       |
| [type of friends =0] | -51.150        | 6873.206       | .000           | 1      | .994          | 6.107E-23 |
| [type of friends =1] | 3.541          | 2.671          | 1.757          | 1      | .185          | 34.493  |
| [type of friends =2] | 0              | .              | .              | 0      | .             | .       |
| [operating time =0]  | -11.937        | 3139.021       | .000           | 1      | .999          | 6.546E-6 |
| [operating time =1]  | -2.945         | 1.843          | 2.554          | 1      | .110          | .053    |
| [operating time =2]  | 0              | .              | .              | 0      | .             | .       |
| [monthly income =0]  | -2.293         | 2.413          | .903           | 1      | .342          | .101    |
| [monthly income =1]  | 0              | .              | .              | 0      | .             | .       |
| [frequency of recreational activities =0] | -1.419 | 1.913 | .550 | 1 | .458 | .242 |
| [frequency of recreational activities =1] | 16.623 | 1181.611 | .000 | 1 | .989 | 16575204.800 |
| [frequency of recreational activities =2] | 0 | . | . | 0 | . | . |
| [membership in community groups =0] | -3.128 | 3.794 | .680 | 1 | .410 | .044 |
| [membership in community groups =1] | 0 | . | . | 0 | . | . |
| [way to come here=0] | 15.621         | 1181.609       | .000           | 1      | .989          | 6080272.406 |
| [way to come here =1] | 0 | . | . | 0 | . | . |

0

1

| parameter estimation | a              | b              | standard error | wald   | df | significant level | Exp(B) |
|----------------------|----------------|----------------|----------------|--------|----|------------------|--------|
| intersect            | -23.994        | 2.950          | 66.140         | 1      | .000          | 1.724E-8 |
| gender               | .395           | .974           | .164           | 1      | .685          | 1.484   |
| age                  | 3.656          | 1.882          | 3.775          | 1      | .052          | 38.709  |
| residence permit     | 2.192          | 2.357          | .865           | 1      | .352          | 8.950   |
| marital status       | -3.983         | 1.681          | 3.42           | 1      | .559          | .374    |
| household registration| 22.467        | .000           | 1              | 1      | .571E9        | 5.718E9 |
| [education=0]        | -.661          | 1.478          | .200           | 1      | .655          | .516    |
| [education=1]        | -2.466         | 1.658          | 2.211          | 1      | .137          | .085    |
| [education=2]        | 0              | .              | .              | 0      | .             | .       |
| [type of friends =0] | 2.994          | 1.831          | 2.674          | 1      | .102          | 19.960  |
| [type of friends =1] | 1.071          | 1.125          | .906           | 1      | .341          | 2.918   |
| [type of friends =2] | 0              | .              | .              | 0      | .             | .       |
| [operating time =0]  | -2.282         | 1.745          | 1.709          | 1      | .191          | .102    |
| [operating time =1]  | -1.112         | .979           | 1.289          | 1      | .256          | .329    |
| [operating time =2]  | 0              | .              | .              | 0      | .             | .       |
| [monthly income =0]  | .725           | 1.233          | .346           | 1      | .557          | 2.064   |
| [monthly income =1]  | 0              | .              | .              | 0      | .             | .       |
| [frequency of recreational activities =0] | -1.339 | 1.115 | 1.442 | 1 | .230 | .262 |
| [frequency of recreational activities =1] | -1.133 | 1.266 | .801 | 1 | .371 | .322 |
| [frequency of recreational activities =2] | 0 | . | . | 0 | . | . |
| [membership in community groups =0] | 2.60  | 1.151 | .051 | 1 | .821 | 1.297 |
| [membership in community groups =1] | 0 | . | . | 0 | . | . |
| [way to come here=0] | .253           | .865           | .086           | 1      | .770          | 1.288   |
| [way to come here =1] | 0 | . | . | 0 | . | . |
integration in Xintang Town, but the overall willingness of social integration is relatively strong. Regarding the influencing factors, they can be classified into life, business, housing, social and individual aspects, in which gender, age, type of household, type of friends, frequency of recreational activities and satisfaction over rights protection have significant impact on the social integration of foreign E-commerce practitioners.

The social integration of foreign E-commerce practitioners is not merely a process of combining two into one, but a complicated process of mutual communication and interaction. Currently, the social integration of foreign E-commerce practitioners in Xintang Town is relatively poor, which would impact the further development of local urban construction, social harmony and E-commerce industry. To promote the social integration of foreign E-commerce groups, efforts can be made to its influencing factors.

Since it is less possible to change the demographic characteristics of foreign E-commerce practitioners, such as gender, age and household, policies can focus on the change in the type of friends, increase of the frequency of recreational activities, and improvement of rights protection system.

It is mentioned above that foreign E-commerce groups have a strong willingness to make friends, but they tend to make friends with foreigners. Since quite a few E-commerce practitioners come here with their relatives and friends and develop a social relationship network with foreigners settling down here. Although this network of social relationship provides foreign E-commerce practitioners with a sense of security and mental support, it prevents the communication with other local residents to a certain extent. In the interview with local E-commerce practitioners, some mention that they lack effective social communication. To urge them to step out of the relationship network with foreign relatives and friends and integrate into the local social life, more opportunities to communicate with other local groups shall be provided.

In addition, the analysis shows that frequency of recreational activities is in a positive correlation with social integration, since recreational activities have significant

### Table 11. Subjective factor multiple logistic regression analysis model fitting information table

| Model          | Model fit standard | likelihood ratio test |
|----------------|--------------------|-----------------------|
|                | -2 times log likelihood | chi square | df | significant level |
| Intercept only | 86.149             |           |   |                  |
| Final          | 49.337             | 36.812     | 22 | .025             |

### Table 12. Subjective factors multiple logistic regression analysis goodness of fit table

|          | chi square | df | significant level |
|----------|------------|----|-------------------|
| Pearson  | 43.082     | 50 | .745              |
| deviation| 37.020     | 50 | .914              |

### Table 13. Subjective factors multiple logistic regression analysis likelihood ratio test table

| effect                  | model fit standard | likelihood ratio test |
|-------------------------|--------------------|-----------------------|
|                         | -2 times log likelihood of the simplified model | chi square | -2 times log likelihood | significant level |
| intersect               | 49.337             | .000                   | 0 |                  |
| gender                  | 51.628             | 2.291                  | 2 | .318              |
| age                     | 52.887             | 3.550                  | 2 | .169              |
| residence permit        | 50.276             | .939                   | 2 | .625              |
| marital status          | 49.758             | .420                   | 2 | .810              |
| household registration  | 54.688             | 5.351                  | 2 | .069              |
| rights satisfaction     | 58.145             | 8.808                  | 4 | .066              |
| Housing satisfaction    | 53.138             | 3.800                  | 4 | .434              |
| Public service satisfaction | 53.712          | 4.374                  | 4 | .358              |
impacts on the happiness of foreign E-commerce practitioners and provide them with places and opportunities to communicate with other local groups.

Satisfaction over rights protection is also an important factor influencing the social integration. But what is different is that it can only be interfered by the government. With the reform of urban-rural system, systems and policies for the rights protection of foreign E-commerce practitioners would be remarkably enhanced, but for local government, it is essential to publicize the ways to protect interests and rights.

References

[1] China E-Commerce Report 2019, Commerce Department.
[2] Xinhuang Zheng, Jiuwen Sun. Agglomeration Effect in the Development of Rural E-commerce [J]. Study and Practice, 2016(06):28-37.
[3] Data source: Alibaba Research Institute and ii Media Research.
[4] Wang Guixin, Luo Enli. Investigation on the Status of Social Integration of Migrant Workers in Shanghai [J]. Journal of East China University of Science and Technology (Social Science Edition), 2007(03):97-104.
[5] Yang Xusong, Jin Xiaoyi, Xiao Qunying, et al. The Status Quo and Policy Research of Migrant Workers’ Social Support and Social Integration: Taking Shenzhen as an Example [J]. China Soft Science, 2006(12):18-26.
[6] Li Shuzhuo, Ren Yike, Jin Xiaoyi. Research on the Social Integration of Chinese Migrant Workers and Its Influencing Factors—Based on the Analysis of Social Support Network [J]. Population and Economy, 2008(02):1-8+70.
[7] Li Peilin, Tian Feng. Intergenerational Comparison of Chinese Migrant Workers’ Social Integration [J]. Society, 2012, 32(05):1-24.
[8] Zhu Li. Vulnerable Groups and Social Support [J]. Jiangsu Social Sciences, 1995(06):130-134.
[9] Yang Juhua. The Index System of Floating Population’s Social Integration in the Place of Inflow [J]. Population and Economy, 2010(02):64-70.
[10] Xiang Huali. Analysis of Social Integration of Female Migrant Workers and Its Influencing Factors—Based on the survey of 3 cities in Hunan [J]. China Population Resources and Environment, 2013, 23(01):103-110.

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