

# The Impact of Gig Economy on Entrepreneurial Activities: Empirical Evidence from Large Sample Micro Surveys

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**Abstract:** *This paper, based on data from the China Household Finance Survey (CHFS) in 2017 and 2019, employs a bivariate logistic regression analysis to examine the factors influencing entrepreneurial activities, analyzing them at both individual and household levels. The study finds that whether an individual has experience in gig economy work, their age stage, residential area attributes (urban-rural differences), and family size all significantly impact participation in entrepreneurial activities. Specifically, gig economy work experience positively promotes entrepreneurial intentions and actions; aging is negatively correlated with entrepreneurial enthusiasm; compared to urban residents, rural residents have a lower proportion of those participating in entrepreneurship; and an increase in family members may provide more resource support and motivation for entrepreneurial activities within certain limits. Based on these findings, the paper proposes a series of policy recommendations and social advocacy measures aimed at optimizing the entrepreneurial environment and stimulating social entrepreneurial vitality.*

**Keywords:** Gig economy; Entrepreneurial activities; China Household Finance Survey.

## 1. INTRODUCTION

In today's global economic landscape, the gig economy, as an emerging and dynamic economic form, is thriving at an unprecedented rate. This economic model not only transforms the structure of traditional job markets but also has profound and complex impacts on regional entrepreneurial activities. The gig economy, with its unique working methods and flexible employment relationships, offers new job opportunities and income sources to many unemployed and underemployed individuals, becoming a significant supplement to the labor market.

On the one hand, the rise of gig economy platforms has provided convenient access to those seeking stable employment opportunities. These platforms connect service providers with demanders, reducing transaction costs and enhancing market efficiency, which may, to some extent, diminish people's motivation for self-employment. For some individuals, the relatively stable job opportunities and income offered by the gig economy might make them more inclined to choose this flexible employment model rather than taking on the risks and uncertainties associated with entrepreneurship.

On the other hand, the high work flexibility and relatively reliable income security provided by the gig economy have also injected new vitality into regional entrepreneurial activities. The development of the gig economy has lowered the threshold for entrepreneurship, allowing more people to try and explore new business opportunities while maintaining their existing sources of income. This "work-and-entrepreneurship" model not only offers individuals more choices but also promotes the emergence of innovative ideas and the prosperity of entrepreneurial activities.

Despite the growing impact of the gig economy on regional entrepreneurial activities, empirical research in this area remains relatively scarce. To gain a deeper understanding of the relationship between the gig economy and entrepreneurial activities, as well as their mechanisms, this project conducts empirical studies based on large-scale micro-individual survey data. The aim is to reveal the specific effects of the gig economy on entrepreneurial activities through scientific methods and analytical tools, and to explore the underlying mechanisms. The findings of this project will not only enrich the literature on this emerging field, providing valuable references for academia, but also offer decision-making support for policymakers. By gaining a deeper insight into the relationship between the gig economy and entrepreneurial activities, policymakers can more accurately gauge the pulse of economic development, formulate policies that better meet actual needs, and promote the healthy development of both the gig economy and entrepreneurial activities, driving regional economic prosperity and progress.

## 2. LITERATURE REVIEW

### 2.1 Research on the Gig Economy

The term "gig economy" first appeared in 2009, sparking extensive discussions among scholars both domestically and internationally. Its research can be traced back to the exploration of temporary and part-time workers by scholars from the last century. Especially with the emergence of platforms like Uber and Upwork, the gig economy has become a focal point of academic study. Generally, the gig economy provides a large number of job opportunities and income sources for the market, and it enhances the efficiency of labor market operations (Stanton and Thomas, 2015). In their study of gig economy workers, Ai et al. (2023) conducted team formation and inter-team competition field experiments on ride-sharing platforms, finding that one of the main reasons for gig workers leaving these platforms is the lack of organizational identity. Allon et al. (2023) analyzed the labor decisions and responses to incentives of gig economy workers by collaborating with ride-hailing platforms to establish econometric models. Their research found that economic incentives have a significant positive impact on work decisions and job duration, confirming the positive income elasticity hypothesized by standard income effects. In other aspects of gig economy practitioners, Wu and Zhu (2022) studied the impact of competition on Chinese novel writing platforms on the efforts and creativity of gig workers, and the results found that fierce competition led authors to produce content faster, which had a weak impact on the novelty of books.

Despite the lack of official statistics to accurately measure the scale of the gig economy, relevant studies and reports indicate that it shows significant trends such as market size expansion, industry diversification, and digital skill-driven growth. McKinsey Global Institute (2016) reported that 15 countries in Europe and America have 162 million gig economy participants, accounting for about 20% to 30% of the working-age population in these countries. This finding highlights the rapid growth and importance of the gig economy in global labor markets. The report further predicts that by 2025, various internet-based gig platforms could contribute approximately 2% of the global GDP. In China, by the end of December 2021, the number of ride-hailing users had reached 453 million (Zhang et al., 2021). From a macro perspective, Zhang et al. (2021) found that measures taken by relevant authorities to regulate platform competition have, to some extent, protected workers' rights to compensation and leave, which is crucial for attracting more workers to participate in the gig economy. From an industry perspective, since Uber's establishment in 2009, the rapid growth of ride-hailing services globally can largely be attributed to its efforts in reducing market transaction costs, improving resource allocation efficiency, and enhancing passenger service quality.

### 2.2 The Current Situation of Entrepreneurship Research

In the field of entrepreneurship research, scholars both domestically and internationally have conducted extensive studies on the essence of entrepreneurship, entrepreneurship education, and entrepreneurial capabilities, continuously advancing the depth and development of entrepreneurship research. In traditional research on the essence of entrepreneurship, studies primarily focused on the nature and sources of uncertainty in the entrepreneurial process (McKelvie et al., 2011). Early scholars mainly investigated the process of entrepreneurship, the motivations of entrepreneurs, and the personal traits and abilities of entrepreneurs (Shapiro and Sokol, 1982). In modern digital entrepreneurship, some scholars believe that digital entrepreneurship involves the extensive use of digital technologies, social media, and other emerging information and communication technologies to identify, develop, realize, and improve entrepreneurial opportunities. Regarding entrepreneurship education, researchers have collected data through surveys to construct a theoretical model of the impact of entrepreneurship education on entrepreneurial capabilities, with satisfaction in entrepreneurship courses and entrepreneurial passion serving as mediating factors. Empirical analysis has shown that entrepreneurship education can significantly enhance entrepreneurial capabilities, with satisfaction in entrepreneurship courses and entrepreneurial passion playing a mediating role. In terms of entrepreneurial capabilities, some scholars define independent innovation capability as achieving breakthroughs in technology and market through one's own efforts. The academic community divides independent innovation capability into broad and narrow aspects; the narrow aspect emphasizes the independent completion of innovation and R&D processes by enterprises, while the broad aspect emphasizes not only the ability to invent technology but also the capability to implement the technology and convert its results into commercial value.

### 2.3 The Relationship between Gig Economy and Entrepreneurship

The gig economy, a new economic model based on platforms, has not only transformed traditional employment

methods but also had a profound impact on entrepreneurial activities and various industries. On one hand, the gig economy offers unprecedented work flexibility and autonomy to individuals. Hall and Krueger (2018) found that the primary reasons for Uber drivers to participate include job flexibility, salary levels, and the stability of hourly earnings, which to some extent reduce the risks and barriers to entrepreneurship. The flexible work opportunities provided by gig economy platforms (Huang et al., 2020) offer economic security to potential entrepreneurs, easing their time constraints (Agrawal, 2018), significantly boosting entrepreneurial activities in these cities. This effect is particularly evident in regions with poorer socioeconomic conditions, as the gig economy provides more entrepreneurial opportunities and choices for individuals in these areas (Barrios et al., 2022). Cutolo and Kenney (2019) revealed a new form of entrepreneur, the "platform-dependent entrepreneur," within the gig economy ecosystem. From these perspectives, we can conclude that the gig economy has certain positive effects on entrepreneurial activities.

On the other hand, the gig economy's impact on entrepreneurial activities is not entirely positive. Burtch et al. (2018) found a significant negative correlation between the introduction of ride-hailing platforms like Uber X and local entrepreneurial activity. This is mainly because gig economy platforms provide viable employment opportunities for the unemployed and underemployed, thereby reducing their motivation to engage in entrepreneurship. The real-time flexibility and variable pay retention of gig economy workers (such as those from Uber) allow them to earn more than twice the income compared to traditional work arrangements (Chen et al., 2019), which clearly diminishes their enthusiasm for self-employment. Entrepreneurial decision-making is a complex process involving multiple factors. Bennett and Chatterji (2019) pointed out that entrepreneurs need to comprehensively consider and compare the expected returns of entrepreneurship with those of alternative work arrangements. This comparison involves not only economic benefits but also non-economic factors such as personal interests, satisfaction, and career development. In addition to these direct negative impacts, the gig economy can influence the quality of products in seemingly unrelated local industries through the labor market. Shin et al. (2023) found that the presence of Uber and Lyft has led to increased turnover among restaurant staff, thus lowering service quality. From the above aspects, it is evident that the gig economy has certain negative inhibitory effects on entrepreneurial activities.

In summary, compared to foreign studies, there is relatively less research domestically on the impact of gig work economy on regional entrepreneurial activities. Overall, existing studies show a clear correlation between the gig work economy and regional entrepreneurial activities, but these studies mainly focus on the influence effects from a macro perspective of cities, lacking empirical research at the micro-individual level. Moreover, several existing studies have inconsistent conclusions, even reporting diametrically opposed results. Based on this, this project aims to focus on the Chinese context, using large-sample micro-individual survey data to empirically examine the impact of gig work economy participation on entrepreneurial activities, and further test its mechanisms of action.

### **3. DATA SOURCES AND KEY VARIABLES ARE CONSTRUCTED**

This paper uses data from the China Household Finance Survey (CHFS) database for the years 2017-2019 to study the impact of gig work on entrepreneurial activities. The China Household Finance Survey includes information related to demographic characteristics and employment, assets and liabilities, income and consumption, social security and insurance, as well as subjective attitudes. Since the latest data published up to 2019 is available, the 2017 and 2019 data were used for the research.

#### **3.1 Variable Selection**

##### **3.1.1 Dependent Variable: Family Entrepreneurship**

This study selected whether families engaged in industrial and commercial production and operation projects in 2017 and 2019, including individual households, leasing, transportation, online stores, business enterprises, etc., to construct create to measure whether they started a business. This paper will answer "yes" as 1 and "no" as 0.

##### **3.1.2 Key explanatory Variable: Nature of Work**

This study selected the nature of last year's work, temporary work was recorded as 1 and other work was recorded as 0 to construct nafwork to measure whether they had engaged in gig economy.

##### **3.1.3 Controlled Variable**

The control variables selected in this paper include age, gender, marital status, education level, number of family members, and whether they live in rural areas. The assignment and descriptive statistics of each variable are shown in Table 1.

**Table 1: Variable Settings and Descriptive Statistics**

Statistical Indicators	Variable Name	Assignment Description	Mean	SD
The Nature Of One's Job	Nafwork	Temporary Work = 1, Other =0	0.404	0.491
Start-up Situation	Create	Engaged In Industrial And Commercial Operation = 1, No =0	0.214	0.41
Age	Age	Age	45.081	11.521
Sex	Gender	Male = 1, Female = 0	0.847	0.361
Marital Status	Marriage	Married = 1, Other = 0	0.884	0.32
Educational Attainment	Edu	No school = 1, Primary School = 2, Middle School = 3, High School = 4, Technical Secondary School/Vocational High School = 5, Junior College/Vocational College = 6, University Undergraduate = 7, Master's Graduate = 8, Doctoral Graduate =9	4.606	2.028
Number Of Family Members	Num	Number Of Family Members	3.307	1.374
Whether They Live in Rural Areas	Rural	Rural = 1, Urban =0	0.221	0.415

### 3.2 Model Building

Because the dependent and independent variables in this paper are both dichotomous variables, the binary logistic regression model is used for linear regression, and the formula is:

$$\text{Logit}(y_i) = \beta_0 + \beta_1 x_1 + \dots + \beta_i x_i$$

This paper first screens and removes data from CHFS2017 and the mid-2019 dataset to obtain 1,499 complete datasets. Then, in binary logistic regression analysis, the dependent variable  $y_i$  is set as entrepreneurial status, with a value range of (0,1). The independent variables include work nature, while age, gender, marital status, education level, number of family members, and whether living in rural areas are considered control variables.

### 3.3 VIF Checkout

**Table 2: VIF Test**

Variable	VIF
Edu	1.99
Rural	1.38
Age	1.37
Num	1.31
Marriage	1.25
Nafwork	1.17
Gender	1.11
Mean VIF	1.35

As can be seen from Table 2, the VIF value of each variable is between 0 and 5, and the mean VIF value is 1.35, indicating that the collinearity test meets the relevant standards. Therefore, there is no multiple collinearity among the independent variables selected in this paper, so regression analysis can be carried out.

## 4. EMPIRICAL ANALYSIS AND DISCUSSION

Table 3 presents the regression results of the impact of gig economy on entrepreneurial activities. As shown in Table 3, residents who have engaged in the gig economy show a significant positive correlation with participation in entrepreneurial activities, which may be due to their more flexible time for starting businesses; age has a significant negative correlation with entrepreneurial activities, suggesting that as people age, their passion and motivation for entrepreneurship might gradually diminish; living in rural areas has a significant negative correlation with entrepreneurial activities; the number of family members has a positive correlation with

entrepreneurial activities.

**Table 3: Regression results**

Variable	Creat
Natfwork	2.387*** (12.58)
Age	-0.028*** (-3.83)
Gender	0.009 (0.04)
Rural	-0.835*** (-3.91)
Marriage	-0.056 (-0.21)
Edu	-0.006 (-0.13)
Num	0.124** (1.99)
Constant	-1.906*** (-3.54)
Observations	1,492

Robust z-statistics in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## 5. CONCLUSIONS AND RECOMMENDATIONS

The experience of gig work is significantly positively correlated with entrepreneurial activities, primarily due to the more flexible time arrangements provided by gig jobs, which facilitate entrepreneurship. However, age is significantly negatively correlated with entrepreneurial activities, indicating that as people age, their enthusiasm and motivation for starting businesses may wane. Moreover, living in rural areas has a significant negative impact on entrepreneurial activities, possibly due to limitations in resource access and market opportunities. Notably, the number of family members is positively correlated with entrepreneurial activities, suggesting that family support may play a positive role in the entrepreneurial process.

Based on the above research conclusions, to promote entrepreneurial activities, it is recommended that the government and all sectors of society pay attention to and support the development of gig economy, providing more flexible employment opportunities for residents with entrepreneurial aspirations. At the same time, enhance entrepreneurship training and guidance to improve their entrepreneurial capabilities. In terms of age factors, policies to support entrepreneurship among middle-aged and elderly individuals can be introduced to stimulate their entrepreneurial potential. In rural areas, efforts should be increased in infrastructure construction and market development to improve the entrepreneurial environment and attract more talent to return and start businesses. Additionally, the role of families in entrepreneurship should be emphasized, encouraging collaboration and support among family members to jointly create a favorable family atmosphere for entrepreneurship.

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