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**Article**

## Factors Influencing the continuation of start-up companies

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## GENERAL & APPLIED ECONOMICS | RESEARCH ARTICLE

# Factors Influencing the continuation of start-up companies

Yukiko Konno<sup>1\*</sup>

**Abstract:** This study investigates the factors that influence the discontinuation of Japanese business start-ups using the resource-based view (RBV) framework. By conducting an empirical study using the binary logit model, this study reveals the factors that caused start-ups that began in 2006 to suspend operations by 2010. According to the results of the analysis, the better the company was prepared for potential threats before it opened, the higher the probability that the business would remain in operation. Moreover, it was found that business continuity is higher when the manager has business experience related to the current business. In terms of model fit, it was found that start-up preparation is more important to continuity than manager attributes.

**Subjects:** Medicine; Economics; Industrial Economics; Entrepreneurship and Small Business Management

**Keywords:** start-up; RBV; continuation; preparation; manager's attributes

## 1. Introduction

The phenomenon of venture companies and the resulting innovations have attracted worldwide attention. Andr c et al. (2005) and Doran et al. (2018) found that entrepreneurial attitudes stimulated GDP per capita in high-income countries. Therefore, entrepreneurship is an essential element of a country's economic growth.

In 2013, the Abe Cabinet of Japan approved a growth strategy entitled "Japan Revitalization Strategy: JAPAN is BACK." This strategy is aimed at ensuring that start-up rates are higher than closure rates. The goal is to raise the current 5% start-up and closure rates to 10%, equivalent to the rates in the United States and the United Kingdom. However, Japan ranks 39th among 190 countries in the World Bank Group's ranking of business easiness (World Bank Group (2018)).

## ABOUT THE AUTHOR

Yukiko Konno is an associate professor at the Faculty of Economics, Kokugakuin University. Her research interests include management, financial management and quantitative analysis of company activities.

## PUBLIC INTEREST STATEMENT

This study investigated the pre-establishment status of Japanese start-up entrepreneurship and the attributes of managers, and clarified whether or not they affect the discontinuity of entrepreneurship after the establishment. According to the analysis results, the more the company was well prepared before the opening of business, the higher the probability that the business will continue. Moreover, it was found that business continuity is higher when the manager has business experience related to the current business. Moreover, the results show that start-up preparation is more important to continuity than manager attributes.

The purpose of this study is to empirically examine the factors that contribute to the business suspension of Japanese start-up companies. The findings help start-up company owners manage their businesses and avoid going out of business. In addition, these findings will be useful to start-up stakeholders for analysing credit risk.

This study analyses the discontinuation of start-up companies using the resource-based approach (RBV) proposed by Barney (1991). This method defines businesses as a heterogeneous collection of resources and capabilities. The role of company management is to acquire and gather these resources and capabilities to gain a competitive advantage. In the context of RBV, resources and capabilities take many forms, including both tangible or intangible assets. When these resources and capabilities are valuable, rare, and difficult to imitate or substitute, a company gains a competitive advantage.

Alvarez and Busenitz (2001) argued that managers must recognise resources and capabilities and also seek other resources and capabilities to adjust to the business environment and, thus, gain competitive advantage. Therefore, a manager's ability to adapt to a changing environment is also an important resource and capability.

Using RBV, this study examines the relationships between the resources and capabilities of companies at both business start-up and close. This framework suggests that competitive advantage is achieved by acquiring rare resources and capabilities in each industry. Conversely, if companies do not acquire rare resources, they will not have a competitive advantage. Therefore, companies that can procure scarce resources in the industry at start-up have a better chance of succeeding and continuing in business.

This study empirically analysed the factors that affected the start-up of new businesses in 2006 but were discontinued after 2010. The results of this study show that resources and capabilities are the key issues that will ensure start-up business continuation. Ohlson (1980) analysed the default predicted probabilities using a binary logit model. Following Ohlson (1980), this study uses a binary logit model as its statistical method.

The contributions of this study are as follows. First, this study conducts an empirical study on the continuity of Japanese start-up companies with a sufficient sample size. Second, this study analyses the influence of pre-startup preparation, received support, and manager's attributes (age, education and experience working in the current business) on post-startup continuity. Third, this study finds that preparation before start-up and business experience working in the current business has a significant impact on their continuity, suggesting that business experience and preparation of management resources in advance are important as management resources from the perspective of RBV.

This study is organised as follows: In Section 2, the literature review section describes previous studies that considered strategies to discontinue business. Section 3 describes the analysis method and the data used. Section 4 presents the results of the empirical studies. Section 5 discusses the results of the empirical studies, which are compared to the results of existing studies. Finally, Section 6 concludes with a discussion of the factors that can affect the discontinuation of business.

## 2. Literature review

### 2.1. Finance of start-up companies

There are the following studies on the finance of start-up companies. Görg et al. (2000) presented empirical evidence into the determinants of start-up size, using data for manufacturing firms in

Ireland and found that the determinants of start-up size for the Irish manufacturing firms differ in their importance for small and large-scale entrants. Cicea et al. (2019) examined how certain economic and social factors influence short- and long-term performance of small and medium enterprises. The result suggested that in developed economies, in the short-run, factors such as the perceived level of corruption or the level of GDP influence on SMEs performance, indirect way, while in developing economies, SMEs' performance establishes a relationship in the short-run with factors having a more direct influence, factors such as the funds absorption rate or the unemployment. Rostamkalaei and Freel (2017) surveyed small and medium-sized businesses in the UK and found that seeking financial advice before starting to apply for a loan reduced business risk and resulted in successful loan applications. Corsi et al. (2019) examined the data of Italian entrepreneurs and found that manager's age is an important factor in receiving public support.

## **2.2. Finance variable and continuation of start-up companies**

Several researchers have studied the relationship between financial variables and the continuity of start-up companies. Shumway (2001) analysed companies listed on the NYSE or AMEX between 1962 and 1992, and showed that accounting ratios, market size, and historical price-earnings ratios of companies can help calculate default forecasts. Bonfim (2009) analysed a database that contained the monthly information on loans granted to firms and households in Portugal and found that a company's financial position, including profitability and liquidity, affects the probability of default. Mishra et al. (2018) examined annual data of accounting and financial variables for a sample of 1,450 Indian firms that existed continuously between 2003 and 2014. They found that efficiency in managing liquid assets and capital is the most important factor in determining solid revenue growth. Honjo (2000) and Higuchi et al. (2007) conducted studies focusing on Japanese start-ups and concluded that small capital companies are likely to default. Åstebro and Bernhardt (2003) investigated the relationship between the survival of new U.S. small businesses and bank loans. They found a negative correlation between bank loans and business survival and a positive correlation between non-bank loans and survival.

## **2.3. Manager's characteristics and SMEs**

As a representative of quality analysis of executives, there is the upper echelons theory proposed by Hambrick and Mason (1984). Hambrick and Mason (1984) proposed that executives' characteristics serve to filter and distort information in a three-step process: executives' experiences, values, and personalities affect their field of vision (the directions they look and listen), selective perception (what they actually see and hear), and interpretation. However, Lawrence (1997) argued that the psychological and social processes by which executive profiles are transformed into strategic choices remain largely black boxes.

Although the upper echelons theory emphasises the psychological factors of executives in this way, in actual research, psychological factors are difficult to measure, so they can be observed from the outside. It has been advocated from the beginning to substitute demographic data (age of management, tenure, tenure, education level, and heterogeneity among executives), and empirical research has been accumulated. Miller (1991) analysed the tenure of CEOs, and showed that CEOs with shorter tenures tended to adopt strategies and organisational structures that were adapted to the business environment. Wiersema and Bantel (1992) analysed a sample of Fortune 500 companies and found that the firms most likely to undergo changes in corporate strategy had top management teams characterised by lower average age, shorter organisational tenure, higher team tenure, higher educational level, higher educational specialisation heterogeneity, and higher academic training in the sciences than other teams. Crossland and Hambrick (2007) argued that CEOs in different countries face systematically different degrees of constraint on their latitudes of action, and hence they differ in how much effect they have on firm performance. Crossland and Hambrick (2007) analysed U.S. firms, German firms and Japanese firms and found that the effect

of CEOs on firm performance is substantially greater in U.S. firms than in German and Japanese firms and the CEOs of Japanese companies had barely any statistical effect on performance, suggesting that CEOs in Japan are essentially interchangeable.

Kozubikova et al. (2017) surveyed Czech SMEs and found that entrepreneurs' knowledge of debt financing varied by education and gender. Au et al. (2016) surveyed future entrepreneurs on how they consider funding from family and outsiders and found that they tend to seek outsider funding when the venture risk was high and the family was not close. Frid et al. (2016) examined the relationship between entrepreneurs' assets and external start-up funding in the United States. The results showed that wealthier entrepreneurs received more external funding. Jabeen et al. (2017) surveyed women entrepreneurs in the UAE and found that the majority of women entrepreneurs prefer internal funding (their own savings, loans from family and friends to start up their businesses) over external funding.

From studies in this section, it was found that the characteristics of the manager influence the management of the company. Based on the results of these studies, this study analyses the relationship between the characteristics of managers and the continuation of start-up companies.

#### **2.4. Human capitals and continuity of start-up companies**

There are also studies on the relationship between manager human capital and the continuity of start-up companies. Cressy (1996) surveyed UK start-ups and showed that human capital is the real determinant of business survival and that the correlation between financial capital and survival is faulty. Lee and Osteryoung (2001) compared Korean and U.S. small businesses in terms of owner/manager and firm characteristics and the relative importance placed on the determinants of business start-up. Lee and Osteryoung (2001) found a significant difference between the attributes and factors considered important by entrepreneurs in Korea and the U.S. Nofsinger and Wang (2011) examined the determinants of the initial start-up financing of entrepreneurial firms in 27 countries. The evidence showed that the mean of external financing diversity is nearly identical for start-ups managed by experienced entrepreneurs vs those managed by inexperienced entrepreneurs. With respect to the external financing ratio, those managed by experienced entrepreneurs had a higher percentage of external financing. Frid (2014) found that nascent entrepreneurs in the process of creating an organization follow paths of least resistance when acquiring financial resources, which differ according to the entrepreneur's race, as well as firm and industry characteristics. Coleman et al. (2016) examined the debt-equity financing decisions of U.S. start-up firms and indicated that growth firms use more personal sources of debt, and owners who lack work experience tend to rely more on personal sources of debt. Cotei and Farhat (2017) examined how start-up businesses finance their operations over time and indicated that owner's education and race have a significant impact on the type of capital injections over the business life cycle. Highly educated owners choose to inject lower proportions of personal debt and trade financing, whereas white owners inject lower proportions of personal equity and rely more on trade financing. Nguyen et al. (2017) surveyed Vietnamese companies and found that director human capital has a positive impact on the company's performance.

#### **2.5. RBV and continuity of start-up**

According to RBV, the managerial experience is an important resource for predicting business continuity. Brüderl et al. (1992), Cooper et al. (1994), Van Praag (2003), and Coleman et al. (2013) found that managers who are more skilled and knowledgeable about managing and running a business have a significant impact on the survival of that business. Bates (1990) examined U.S. start-up entrepreneurs and found that highly educated entrepreneurs were most likely to create firms that remained in operation. However, Gimeno et al. (1997) surveyed U.S. start-up entrepreneurs and found that a manager's experience does not affect a business's chances of survival and success. In Japan, Honjo (2004) founds that the entrepreneur's age and educational

background affected the growth of start-ups and Harada (2005) founds that small-scale companies often closed down because of a manager's age or health status.

According to RBV, the more capable a company is at raising funds, the more likely it is to survive. Brüderl et al. (1992), Cooper et al. (1994), and Parker and Belghitar (2006) found that businesses whose managers can access financial resources are less likely to fail. Parkes et al. (2018) examined UK companies and argued that entrepreneurs who use advisors are more likely to be successful in raising funds.

## **2.6. Background of this study**

This subsection explains the background of this study in relation to previous studies. There are already various studies on the analysis of the finances of start-ups, and the relationship between the continuation of start-ups and their finances, as shown in Section 2.1 and Section 2.2. There are also studies on the analysis of manager's ability and start-ups, and the relationship between manager's characteristics and the continuation of start-ups, as in Section 2.3 and Section 2.4.

According to RBV, gathering critical resources and capabilities can help a company to compete and survive. Therefore, it is important to determine what the critical resources and capabilities are, and they can be various management resources such as manager's skills and financial capabilities as described in Section 2.5.

To the best of our knowledge, there is no empirical study that analyses which resource or capability is more important for continuity, preparation of the start-up or attributions of managers. Therefore, this study analyses the resources and capabilities that are important for the continuation of start-ups, focusing on the preparation at the time of start-up and the attributions of managers. In addition, this study examines the impact of support on the continuity of start-ups.

The reason why this study focuses on failure rather than success of start-up company is that if start-up company goes bankrupt, it will have a great impact on stakeholders such as shareholders, creditors, and employees. Especially when a financial institution lends funds to a start-up company, if it is possible to find out whether or not there is a tendency to go bankrupt by examining the preparation status of the company and the characteristics of the manager, it should lead to the risk aversion of the financial institution. On the contrary, as a start-up company, if it can be shown that the probability of failure is low, it should be advantageous in raising funds.

From the above viewpoints, this study investigates the preparation situation of start-up companies, the characteristics of managers, and the continuity of start-up companies.

## **3. Research methodology**

### **3.1. Data overview**

This study uses data from a panel survey of the Japan Finance Corporation (JFC) business start-ups conducted by JFC and the Panel Data Research Center at Keio University. The JFC is a public corporation wholly owned by the Japanese government for the purpose of supplementing the financial activities of private financial institutions. The JFC provides business loans to small businesses and start-ups. To collect data for the JFC Start-up Panel Survey, JFC sent a questionnaire to all companies that had received funding and started business in 2006.

The respondents to the questionnaire were individuals from the JFC Start-up Panel survey data. The sample size was 2,521 (including 382 discontinuous firms). The questionnaire conducted in December 2006 included questions about the business' profile, management attributes, financing



status, and the extent of preparation at the time the business was launched. These data can be used to obtain non-financial characteristics for start-ups, such as management attributes and the extent to which they are prepared to start a business. The monthly sales were collected in the JFC Start-up Panel Survey and the value as of December 2006. Since the financial ratio was not collected in the JFC Start-up Panel Survey, the financial ratio can not be analysed in this study. Discontinuing companies are the companies that JFC has confirmed that they discontinued business by December 2010 among the companies that responded to the questionnaire in 2006.

The company data was countrywide, except for Okinawa, so there was no regional bias. This study used these data to analyse the factors that influenced the discontinuation of businesses by start-ups.

### 3.2. Variables and statistical fundamentals

The variable for the next two categories of start-ups is  $y_i$ . The value of  $y_i$  for firm  $i$ , which started its business in 2006 and continued through 2010, was 0 (continued), while the value of  $y_i$  for firm  $i$ , which had discontinued its business by 2010, was 1 (discontinued).

The explanatory variable vector for the characteristics of company  $i$  in 2006 was  $x_i$ . Explanatory variables were as follows: The unit of age for a manager is one year. The unit of sales per month is 10,000 yen. Experience working in the current business was either 0 (no experience) or 1 (experience). Manager education level was 0 (middle school graduate), 1 (high school graduate), 2 (junior college or vocational school graduate), 3 (college graduate), or 4 (graduate school graduate). The status of preparation before starting the business in 2006 required either 1 (none), 2 (not much), 3 (somewhat), or 4 (well done). The received public support and the received support through personal connections are either 0 (not received support) or 1 (received support). These values were the original values from the JFC questionnaire and were not manipulated by the authors.

The descriptive statistics for each variable are given in Table 1. Since the correlation of the explanatory variables used in the analysis is small, the problem of multicollinearity does not occur.

### 3.3. Analysis method

The study provides an empirical analysis of the factors that make start-ups discontinue their businesses. The explanatory variable  $y$  is a binary variable that represents the state of the firm and is either “discontinuance” ( $y_i = 1$ ) or “continuance” ( $y_i = 0$ ). Given the explanatory variables  $x_i$  (manager attributes, preparation for a start-up, and other matters in 2005), this study assumes that  $y_i$  has a Bernoulli distribution. Therefore, given  $x_i$ ,  $P(y_i|x_i)$  represents the discontinuity probability.

Next, this study uses a binary logit model to analyse which of these explanatory variables affects the start-up’s discontinuity probability  $P(y_i|x_i)$ . Using a binary logit model, this study estimates parameters and identifies the relationship between a company’s discontinuance probability and explanatory variables. Details of the binary logit model can be found in Winkelmann and Boes (2009).

### 3.4. Model selection

This study analyses the relationship between the explained variable  $y_i$  (continued or discontinued) and the explanatory variables  $x_i$ , using a binary logit model. By changing the combination of variables contained in  $x_i$ , this study sets up models 1 and 2 in the following manner. Based on the data from the JFC Business Start-up Panel Survey, this study creates Model 1 for investigating the attributes of managers and Model 2 for examining the preparation status at start-up. This study considers monthly sales as an indicator of the business scale. By using monthly sales as a control variable, this study can be eliminated by the influence of the business scale.



**Table 1. Descriptive statistics for each variable**

|   | (1)      | (2)         | (3)          | (4)        | (5)        |
|---|----------|-------------|--------------|------------|------------|
| <b>Variables</b>                              | <b>N</b> | <b>Mean</b> | <b>S Dev</b> | <b>Min</b> | <b>Max</b> |
| Discontinued by 2010                          | 2,521    | 0.152       | 0.359        | 0          | 1          |
| Age   | 2,521    | 46.27       | 10.07        | 25         | 79         |
| Education                                     | 2,521    | 1.980       | 0.982        | 0          | 4          |
| Experience working in the current business    | 2,521    | 0.880       | 0.325        | 0          | 1          |
| Sales per month                               | 2,521    | 281.1       | 492.1        | 0          | 8,000      |
| Preparation status at the time of starting    | 2,521    | 1.754       | 0.689        | 0          | 3          |
| Received public support                       | 2,521    | 0.330       | 0.470        | 0          | 1          |
| Received support through personal connections | 2,521    | 0.852       | 0.355        | 0          | 1          |

Source: Author own calculation, based on Stata/SE 15 software.

The explanatory variables included in Model 1 are the manager's age, manager's education level, manager's experience working in the current business, and monthly sales. The explanatory variables included in Model 2 are the preparation status at the time of starting the business, the received public support, the received support through personal connections, and monthly sales.

The goodness of fit of each model is shown by comparing the log-likelihood with the pseudo R<sup>2</sup>. Winkelmann and Boes (2009) included details of log-likelihood and pseudo-R<sup>2</sup>.

#### 4. Calculation & results

This subsection gives an overview of the results. The estimated results of each model are shown in Table 2 .

Model 1 analysed the impact of managerial attributes on the discontinuation of businesses. The analysis showed that experience working in a current business had a positive impact on continuity. In other words, it is more likely that the business will continue if the manager has related work experience before opening. The age and the educational attainment of managers had no significant effect. In other words, this study could not obtain statistically significant results that confirmed that age and educational background influence business continuity. The control variable "sales per month" had a significant negative effect on discontinuity. In other words, the results show that the larger the companies, the more likely they are to continue in business.

Model 2 analyses how start-up preparation influenced the tendency toward discontinuation. The preparation that occurred at the time of start-up had a significant negative impact on discontinuation. In other words, the result was that the better the preparation status before opening the business, the more likely the business was to continue. The public support received and the support received through personal connections had no significant effect. In other words, whether public assistance or personal assistance were used had no statistically significant effect on business

**Table 2. Results of the binary logit analysis. source: author own calculation, based on Stata/SE 15 software**

| Variable                                      | Model 1                    | Model 2                    |
|---|----------------------------|----------------------------|
| Age   | 0.00734<br>(0.00602)       |                            |
| Education                                     | −0.0428<br>(0.0573)        |                            |
| Experience working in the current business    | −0.574 ***<br>(0.154)      |                            |
| Sales per month                               | −0.000744 **<br>(0.000254) | −0.000799 **<br>(0.000263) |
| Preparation status at the time of starting    |                            | −0.449 ***<br>(0.0792)     |
| Received public support                       |                            | −0.0412<br>(0.124)         |
| Received support through personal connections |                            | −0.210<br>(0.151)          |
| Constant                                      | −1.317 ***<br>(0.369)      | −0.593 **<br>(0.193)       |
| Observations                                  | 2521                       | 2521                       |
| Pseudo $R^2$                                  | 0.019                      | 0.026                      |

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Source: Author own calculation, based on Stata/SE 15 software.

continuity. As in Model 1, the sales per month as a control variable had a significant negative effect on discontinuity. In other words, the results showed that the larger companies, the more likely they are to continue in business.

Standard errors in parentheses

## 5. Discussion

Based on the empirical analysis results, this study discusses in detail the factors that influence the discontinuity trend for start-ups according to RBV.

In Model 1, it was revealed that the more experience related to the current business the manager has, the higher the business' chances of continuing in business. In other words, the experience of managers related to the current business is found to be an important resource and capability in RBV. This result is consistent with the results of Brüderl et al. (1992), Cooper et al. (1994), Van Praag (2003), and Coleman et al. (2013), which are studies based on RBV. Managers who already have skills and knowledge in the current business can manage the company better and have a significant impact on the survival and success of the business. According to Small and Medium Enterprise Agency (2011), most of the entrepreneurs in Japan have retired from their previous companies and started without any relation to the company. However, in recent years, the number of goodwill-type entrepreneurs who have retired from their previous jobs but have independently started a business while maintaining a relationship with that company is increasing. Therefore, the number of independent

entrepreneurs that are increasing their experience in their previous jobs is increasing. The manager's age and educational background did not significantly affect the continuation of the new business. In other words, the manager's age and educational background are not important resource and capability in RBV. This result is inconsistent with Bates (1990), Honjo (2000), Harada (2005), and Honjo and Yasuda (2015), which are studies based on RBV. Bates (1990) showed that a self-employed person with a high level of education is more likely to survive a business. In Japan, Honjo (2000) found that the entrepreneur's age and educational background affected the growth of start-ups. Harada (2005) stated that small businesses will close due to non-economic conditions such as the age of managers because younger managers tend to want to withdraw from the business. Honjo and Yasuda (2015) came to the same conclusion about younger managers. The reason for this is that relatively younger managers have more opportunities to change jobs or to switch to other businesses. Therefore, they have a higher expected utility after withdrawal. As a result, they are less obsessed with their current businesses. However, in this study, it is inferred that related work experience has a greater influence on business continuity than age and education.

In Model 2, the results showed that the more well prepared the company was, the likely more the business was to continue. From the perspective of RBV, it is important to gather resources and capabilities before starting a business, but to the best of our knowledge, there is no empirical analysis on pre-opening preparation and continuity. This is the major discovery of this study. Because the higher the self-evaluation of the preparation status before the start of business, the more business continuity; it is suggested that it is better to carefully prepare before the start-up.

Utilisation of personal contacts and public support did not significantly affect business continuity. This result is inconsistent with the results of Dubini and Aldrich (1991), Dyer et al. (2009), Parkes et al. (2018), and Crepon and Duguet (2003). With regard to personal connections, Dubini and Aldrich (1991) pointed out that networking is necessary for founding a company because it is unlikely that the entrepreneur has sufficient management resources already and can only supplement the resources and abilities. In addition, Dyer et al. (2009) identified having personal connections as one of the characteristics of innovative entrepreneurs. Regarding funding, Parkes et al. (2018) pointed out that entrepreneurs using advisors are likely to be successfully funded. Regarding public support, Crepon and Duguet (2003) pointed out that the use of start-up support contributed significantly to the increase in survival rates. In this study, the possibility of business continuity was higher when the preparations before opening the business were adequately conducted, than it was using personal contacts and public support. However, according to Japan Finance Corporation (2011), the credit guarantee association guarantees about 35 trillion yen in Japan, and about 38% of SMEs use the credit guarantee system to raise funds. To use public funds efficiently, it is necessary to focus on preparations before applying for public support.

According to the log-likelihood value and the pseudo  $R^2$ , Model 2 is a better model. From these results, this study finds that start-up preparation is important for enabling a start-up company to continue in business. In terms of RBV, the state of preparation before opening the business has more influence on the continuity of start-up than the attributes of the manager. This finding is also a contribution of this study.

## 6. Conclusion

This study investigated the factors that influenced the business closures of Japanese start-ups using the RBV framework. Specifically, by conducting an empirical study using the binary logit model, this study reveals the factors that caused start-ups that started in 2006 to suspend operations by 2010. In terms of model fit, start-up preparation is more important to continuity than manager attributes. According to the analysis results, the more the company was well prepared before the opening of business, the higher the probability that the business will continue.

Moreover, it was found that business continuity is higher when the manager has business experience related to the current business. Therefore, even when the government supports the opening of a business, there are indications that more efficient support can be provided by helping businesses make preparations before opening. Also, support can be provided that focuses on management experience related to the start-up business.

The contributions of this study are as follows. First, this study conducts an empirical study on the continuity of Japanese start-up companies with a sufficient sample size. Second, this study analyses the influence of pre-startup preparation, received support, and manager's attributes (age, education and experience working in the current business) on post-startup continuity. Third, this study finds that preparation before start-up and business experience working in the current business has a significant impact on their continuity, suggesting that business experience and preparation of management resources in advance are important as management resources from the perspective of RBV. In Japan, there is no other study that investigated the relationship between the attributes and preparation status of managers before the establishment of company and the discontinuity status of the company after establishment. This point is the novelty of this study. In addition, no other study has compared in Japan whether the attributes of managers or the state of preparation affected discontinuity. This point is the originality of this study.

The main practical implications of the results of this study are the following two points. First, as mentioned in Section 1, Japan has fewer new businesses than other countries. However, according to the Japan Finance Corporation Research Institute (2019) survey, 16% of Japanese are interested in start-ups. Many people are actually unable to start a business, despite their interest. The reasons why those who are interested in start-ups are not doing business are “insufficient self-funding (53%)” and “the risk of failure is large (36%)”. On the other hand, 21% of the respondents say that they cannot start a business because they have “knowledge about work” and that is, about 80% have knowledge about work. This study finds that it is hard to be discontinued if entrepreneurs prepare enough for entrepreneurship. Therefore, if the problem of self-financing can be cleared and if those who are interested in starting a business recognise that the risk is low if they are well prepared, more start-ups are possible.

Second, from the analysis results of this study, receiving public support did not significantly affect discontinuity. This means that, despite the presence of public support, it has not been utilised successfully. According to the Japan Finance Corporation Research Institute (2019), those who wish to start a business are demanding the enhancement of tax/legal system consultation, the opportunities to improve skills and the support for business financing. Based on these results, it will be necessary for the government to provide support that meets the needs of those who want to start a business.

The main limitation of this study as follows. This study analysed only the companies that received a loan from the JFC at the time of their start-ups. Therefore, it was not possible to clarify the problem of the continuation of companies that did not receive a loan from the JFC at the time of their start-ups. These companies may have different characteristics of continuation. In addition, this study analyses only Japanese companies. Therefore, it was not possible to clarify whether the same result would be obtained in countries other than Japan. In countries other than Japan, the characteristics of corporate continuation may differ due to differences in financial systems and legal systems. Furthermore, regarding the question of whether public support was used at the time of start-ups, the question in the questionnaire was “whether public support was used”. It was not possible to analyse the detailed contents of the public support. Therefore, it was not possible to clarify the detailed discussion of what kind of public support is effective. Depending on the type of public support, there may be some that are effective in the continuation of the start-up and some that are not so effective.

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