

# *Analysis of Signing Incomplete Contracts between Maker Space and Start-Ups*

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**Abstract:** With the advancement of science and technology, innovation has become one of the main ways to promote social development. In such an environment, the concept of maker space emerged. Maker space provides entrepreneurs with the services they need, helps entrepreneurs save costs, and simplifies the entrepreneurial process. Maker space also uses the effect of scale to provide these services at a relatively low cost and make profits. However, the development of maker space has entered a bottleneck period, and it is difficult to break through the profitability and market size, so it is necessary to seek optimization in the business model. Incomplete contracts provide a potential possibility. Incomplete contracts have the characteristics of low cost and strong incentive ability, which meet the needs of the maker space. In this context, this paper studies how incomplete contracts can achieve benefits between the maker platform and start-ups. Using SWOT analysis, it is concluded that the use of incomplete contracts between the maker space and start-ups has positive advantages. A suggestion that incomplete contracts should be widely used in the future contract signing between the maker space and start-ups is drawn. This study believes that the application of incomplete contracts has broad prospects in the future.

**Keywords:** maker-space, incomplete contracts, start-ups, business model, SWOT analysis

## 1. Introduction

### 1.1. Research Background

Premier Li Keqiang proposed in the Davos Forum to vigorously develop a new round of grassroots entrepreneurship and mass entrepreneurship, and promote "mass entrepreneurship and innovation" [1]. Promoting national innovation and entrepreneurship is the most urgent requirement at the current stage of my country's economic development. It is also an important way to adapt to the economic situation at home and abroad, promote economic development, improve the economy, and develop quality. The report of the 19th CPC National Congress pointed out that my country's economy has shifted from a stage of high-speed growth to a stage of high-quality development. When resource advantages and demographic dividends gradually disappear, the development concept must be changed, and the status of innovation is also highlighted. Innovation is the first driving force for development. Building a modern economic system requires innovation as strategic support. As an important carrier of "entrepreneurship and innovation", the maker space has triggered a new research boom [2]. Maker space is a new type of office model. Maker space provides a unified office space

for start-ups, which is rented out in smaller units, and provides public meeting rooms and other office facilities. Maker space has the characteristics of flexible leasing, low cost, strong communication and interaction, and a high turnover rate. For start-ups or independent office workers, Maker space is more flexible and convenient than traditional offices, and at the same time has lower costs, and is also convenient to communicate with other workers and create new opportunities. Entrepreneurs can flexibly choose annual, monthly, or daily rent according to their needs, which greatly reduces the risk of vacant workstations for startups. At the same time, it also greatly facilitates startups to flexibly adjust their businesses and not be bound by office contracts. Maker Space provides a low-cost, low-risk, and high-efficiency office method for startups and independent workers. Using the concept of resource integration, efficient utilization, and sharing of resources, has significantly helped startups and independent workers [3].

A start-up is a small enterprise located in the early stage of entrepreneurship, with the characteristics of small scale, scarce capital, insufficient cash flow, and weak anti-risk ability. In cooperation with start-ups, the crowd-creation platform can take advantage of the flexible lease period of office space and the advantages of easy adjustment of the rental scale to avoid the capital risk of office resources caused by business changes. You can also use the legal affairs, taxation, and other business services provided by the crowd-creation space to significantly reduce costs and simplify human resources. At the same time, the crowd-creation space also provides lectures, training, and other services for start-ups, and can also introduce investors to start-ups.

For Maker Space, it can rely on economies of scale to provide start-ups with low-cost office space, office hardware such as conference rooms, and human resources such as taxation and legal affairs, while earning corresponding profits. At the same time, long-term returns can also be obtained by investing in start-ups [4]. Nowadays, the overall development trend of Maker Space at home and abroad are showing stable growth [5]. There are also many studies on Maker Space in the academic circle, such as "From Maker Space to Maker Space: Functional Model and Service Path Based on Innovation 2.0", which studies the unique functions and models of Maker Space [6]. "Exploring the Development Status and Model of Maker Space in Shanghai" [7]. This investment summarizes the development process of Maker Space; "Maker Education and Its Space Ecological Construction" [8]. This article navigates the impact of Maker Space on start-ups.

## 1.2. Research Gap

However, the existing research on how to sign incomplete contracts between crowd makes and start-ups is relatively scarce. The question studied in this paper is how incomplete contracts can achieve benefits between crowd makes and start-ups. Incomplete contract theory is a contract between start-ups and investors that dynamically allocates funds and control rights based on specific signals from the future market. Compared with traditional contracts, incomplete contracts can better distribute the rights and interests between investors and enterprises [9]. This model is very feasible to apply between crowd makes and start-ups, and the crowd makes and start-ups can also better allocate funds and control accordingly. It has a positive effect on the development of maker space and start-ups. This paper will study the relevant literature on maker space and start-ups, combine the concept of incomplete contracts, and use example verification to study the application of incomplete contracts between maker space and start-ups.

## 1.3. Structure of This Paper

This paper will study the relevant literature on Maker Space and start-ups, combine the concept of incomplete contracts, and use example verification to study the application of incomplete contracts between Maker Space and start-ups.

## 2. Literature Review

### 2.1. Definition & Development

"Incomplete contract theory" in academia usually refers specifically to the analytical approach pioneered by Grossman Hart and Hart Moore and is often referred to simply as GHM theory [10]. GHM theory studies who has the right to make decisions when situations not expressly stipulated in the contract arise, and to whom this power should be allocated. GHM makes rights not expressly stipulated in the contract residual rights of control and points out that residual rights of control naturally belong to non-human resource owners. The emergence of GHM theory is based on Transaction Cost Economics. Transaction Cost Economics studies the cost of entering into a contract in Primary-Agent Theory [11]. Transaction cost economics research led by Williamson shows that there are a lot of transaction costs in the real transaction process. The search fee that the parties must spend to find a suitable trading partner; the various times that the parties to the transaction expected to occur within the valid period of the transaction relationship and the forecast cost of their corresponding strategies; the signing fee spent by the parties to the transaction to negotiate the signing to reach an agreement; the execution cost of monitoring and implementing the terms of the contract. The existence of these transaction costs results in an incomplete contract, that is, a contract with gaps or missing clauses. From this, Hart and Moore note that while transaction cost economics places great emphasis on fees and contract incompleteness and entertainment, and has strong explanatory power, this theory does not pay enough attention to the distribution of control rights and the distribution of rights among economic agents. In transaction cost economics, it ignores the study of the sources of power within organizations, nor how power is distributed within organizations, which prompted Hart and Moore to study these issues [12]. However, there are still some problems with the incomplete theory at this time. Although the parties are not constrained by wealth to drive the theory of optimal property rights allocation of the Municipal Party Committee, this also makes the GHM theory out of touch with reality, and seriously weakens the explanatory power of the theory. Aghion and Bolton first discovered this problem [13]. As a background, military service bonds put forward a very important idea, that is, the optimal allocation of residual control rights should be that when the business operation state is good, the control right belongs to the business operator, and when the business operation state is not good, the control should be transferred to investors. So far, the incomplete theory has a lot of practical significance.

### 2.2. Important Results

The research points out that the incentive mechanism between the maker space and the start-up can significantly affect the effort level of the start-up. The effort level of the start-up is also positively correlated to its entrepreneurial success rate. Therefore, in the signing of contracts between the maker platform and the start-up, the incentive mechanism and final incentive effect of the contract are crucial. The research shows that the incentive effect of incomplete contracts on start-ups is relatively significant. Therefore, incomplete contracts have great application prospects in the signing of contracts between start-ups and the maker space. At the same time, incomplete contracts can also dynamically allocate control rights according to market signals, thereby helping start-up owners and maker spaces to achieve a balance of interests in the ever-changing market environment in the future. In addition, incomplete contracts can also simplify the process and negotiation of contract signing, make it more difficult for entrepreneurs to reach cooperation with all parties in the maker space, reduce the cost of signing contracts, and lower the threshold for entrepreneurs to join the maker space. Let more entrepreneurs choose to cooperate with the maker space.

### 2.3. Summary

The incentive mechanism of Maker Space is crucial to the development of its start-ups. The distribution of control rights and incentives between investors and entrepreneurs in the incomplete contract theory is significant. Therefore, it is advantageous to sign incomplete contracts between Maker Space and start-ups

## 3. Method

### 3.1. Research Design

SWOT analysis was first proposed by a professor at the University of San Francisco in the 1980s. With the continuous development of international business competition strategy theory, it has also been gradually improved and developed. In SWOT theoretical analysis, S (strengths) refers to strengths, W (weaknesses) refers to weaknesses, O (opportunities) refers to opportunities, and T (threats) refers to threats. SWOT is a strategic analysis method that draws conclusions through analysis and comprehensive evaluation of the strengths and weaknesses, opportunities, and threats of the analyzed object. Through the integration of internal and external resources and environment, analyze the research object's shortcomings, resource advantages, opportunities and challenges. Then, from both tactical and strategic levels, adjust methods and resources to ensure the implementation of the analyzed object to achieve the goal to be achieved. This is a method that can accurately and objectively study and analyze the analyzed object. Use this method to conduct accurate, systematic, and comprehensive research on the analyzed object. Finally, according to the research results, formulate corresponding development strategies and countermeasures. Using the SWOT analysis method commonly used in the enterprise field to analyze the Strengths, weaknesses, opportunities, and threats of the application of incomplete contracts in the maker space can well demonstrate its potential. It is helpful for the development of the application of incomplete contracts in the maker space.

### 3.2. Maker Space

Maker Space is an open and comprehensive service platform that provides low-cost, convenient, and all-elements for the growth of small and micro-innovative enterprises and individual innovation and entrepreneurship. It is an open new service platform that aims to provide technical services, open space, professional decision-making consultation, and all-element processing equipment, organize R & D activities, and help makers turn ideas into real products. By gathering innovative entrepreneurs, providing technological innovation services, strengthening entrepreneurship financing services, carrying out entrepreneurship education and training, establishing a team of entrepreneurship mentors, holding innovation and entrepreneurship activities, integrating and implementing entrepreneurship policies and other professional services, entrepreneurs and entrepreneurs can be promoted to use new technologies to create new products and expand new markets. Maker Space has its unique workspace, cyberspace, resource sharing space, and social space. At the same time, it can also provide them with entrepreneurial training, team integration, investment and financing docking, policy application, business registration, legal finance, media consulting, business model construction ,and other comprehensive entrepreneurial services ecosystem.

### 3.3. SWOT Analysis

**Strength:** The advantages of Maker Space using incomplete contracts to sign contracts with start-ups are as follows: Incomplete contracts can reduce signing costs and negotiation costs. In turn, the

cost and difficulty of entrepreneurs joining Maker Space can be reduced, so that more entrepreneurs choose to join Maker Space. Expanding the market, the increase in the base of entrepreneurs can not only bring more revenue to Maker Space but also greatly increase the number of companies that successfully develop and grow, thereby allowing Maker Space to obtain more returns on investing in start-ups. At the same time, the growth of the number of entrepreneurs can also allow the maker space to form a prestige in the community and enhance the branding impression so that the maker space can also gain a better reputation, enhance the company's value, and win the trust of other capital to obtain more investment. Incomplete contracts are very effective incentives for start-ups. The existence of a large number of incentive mechanisms can enhance the enthusiasm and effort of entrepreneurs, so it can make entrepreneurs more likely to succeed and improve the ROI rate of the maker space. At the same time, the cases of more outstanding successful entrepreneurs can also let more entrepreneurs know about the maker space, and are more willing to start a business in the way of the maker space, thereby expanding the market base. In general, incomplete contracts can make the maker space more competitive, help the maker space attract more companies, expand the scale, and improve efficiency. This can also improve profitability, which is beneficial to the long-term development of enterprises.

**Weakness:** The disadvantage of Maker Space using incomplete contracts to sign contracts with start-ups is the instability of incomplete contracts. When the situation changes, neither party has absolute control. Insufficient control may lead to the breakdown of cooperation, or the failure to achieve the desired effect. The incompleteness of the contract makes it more likely that Maker Space and start-ups will conflict with changes in control caused by market signals. This instability may cause start-ups to lose the possibility of surviving and developing by relying on their efforts or operating technology to change the situation during the economic downturn. The use of incomplete contracts may lead to frequent defaults, and the maker space lacks a strong restraint on the behavior of defaults.

**Opportunity:** Maker spaces enjoy relatively high government support, including financial subsidies, preferential treatment in services, and policy support. At the same time, the current social environment also encourages entrepreneurs to try the innovation. The improvement of people's educational level has made more college graduates potential entrepreneurs, which has also increased the development potential of the Maker platform. The use of incomplete contracts can help the maker space attract more entrepreneurs, reduce the cost of starting a business, and increase the platform's profit. This could also help the maker space cultivate competitiveness in the long-term development.

**Threaten:** The competition in the maker space is relatively fierce, the services provided are relatively homogeneous, and the degree of binding between entrepreneurs and the maker space is not high. The deterioration of the potential market environment and the arrival of the economic crisis also make entrepreneurs' enthusiasm for innovation relatively low. At the same time, traditional social concepts may not encourage young people to innovate. These have brought certain obstacles to the development of the maker space. In addition, the profitability of many Maker Spaces partly relies on government subsidies. If government subsidies are not maintained, Maker Spaces may encounter profitability difficulties. Incomplete contracts are a more avant-garde form of contracts, so the widespread use of incomplete contracts may also cause legal troubles.

#### 4. Result & Discussion

After the above research, this paper found that the signing of incomplete contracts between Maker Space and start-ups can greatly promote the entrepreneurial enthusiasm of start-ups, improve the effort level of start-ups, and make start-ups have a higher possibility of entrepreneurial success. At the same time, Maker Space, as a provider of enterprise ontology and entrepreneurial platforms, can also benefit from the incentives for start-ups from incomplete contracts. Therefore, the application of



incomplete contracts in start-ups and Maker Space is very promising. The application of incomplete contracts between maker spaces and start-ups has the potential to reduce contracting costs and negotiation costs. It can reduce the difficulty of entrepreneurs starting a business, improve their competitiveness, expand the market, and promote innovation. At the same time, incomplete contracts can well motivate entrepreneurs and make them more likely to succeed in starting a business and developing their own products. The market environment and government subsidies also encourage people to innovate, providing greater development potential for maker spaces. But at the same time, the instability of incomplete contracts also leads to the need to strengthen the anti-risk ability of maker spaces, and maker spaces need to be able to deal with and deal with risks. According to the conclusions of the SWOT analysis, it is recommended that Maker Space make extensive use of incomplete contracts in future contract signing with start-ups, set up more reasonable incentive mechanisms, reduce costs and expand the market, and also bring more profits to Maker Space itself. In the future, incomplete contracts with incentive mechanisms should become the mainstream form of contracts between Maker Space and start-ups.

## 5. Conclusion

This paper studies the application and possible prospects of incomplete contracts between crowd-creation spaces and start-ups under the background that the market scale has been initially formed after the rapid rise of crowd-creation spaces. What are the advantages and disadvantages of incomplete contract theory between crowd-creation spaces and start-ups? By sorting out the incomplete contract theory and SWOT analysis of the crowd-creation space, it is concluded that signing incomplete contracts between crowd-creation spaces and start-ups can reduce contracting costs, improve enterprise competitiveness, expand the market scale, motivate entrepreneurs to improve their efforts and promote innovation. But at the same time, incomplete contracts also have the disadvantage of instability, which requires enterprises to have the ability to deal with risks. The social environment encourages innovation and requires innovation, which also gives the maker space a lot of growth potential. Based on this analysis, it is also concluded that the maker space should widely apply the theory of incomplete contracts to the signing of contracts with start-ups. Provide appropriate incentives for start-ups, thereby encouraging the enthusiasm of entrepreneurs and improving the degree of effort of entrepreneurs. This can also create stronger profitability for the maker space itself. Avoid the risk of relying on government subsidies to survive, open up a larger market, enhance the value of enterprises, and also exert a positive impact on society. The research in this paper provides suggestions based on an analysis for this possibility. In future research, more details can be further explored, such as what is the optimal incentive mechanism for the use of incomplete contracts between the maker space and the start-up to motivate the start-up. How to configure the control rights of the maker space and the start-up, etc. These issues are not discussed further in this study and can be supplemented in future research.

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