

The impact of resource self-help capability on user entrepreneurship performance—case study of knowledge payment project

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Abstract: *Based on the theoretical perspective of resources bootstrapping, this paper studies how resource-poor users innovate their resource acquisition ability in the initial stage of entrepreneurship, and discusses the internal relationship between user resource acquisition innovation ability and user entrepreneurship performance. And how independent entrepreneurial users can use resources to obtain the required resources and influence entrepreneurial performance under the embedded network platform. At the same time, taking the knowledge payment project of multiple network platforms as an example, the collected case information is coded and analyzed, and then an empirical research theoretical framework is established for the relationship between user resource acquisition innovation ability and entrepreneurial performance. The research suggests that resource-poor self-employed users can strengthen their resource acquisition ability through resource self-help to better affect the survival and growth performance of enterprises.*

Keywords: *Platform embedding; User entrepreneurship; Self-service of resources; Innovation ability; Entrepreneurial performance*

1. Introduction

With the rapid development of the Internet, the social interaction based on the network platform also covers all aspects of life. The platform interaction has the characteristics of fast propagation and wide range of influence, which also promotes the change of business model. When platform users realize their great attention, they will commercialize their unique knowledge structure and realize their business value through the platform network, that is, "knowledge payment".

This innovative business model based on the platform reduces the threshold and cost of user entrepreneurship, and is an important driving force to promote the transformation from user innovation to user entrepreneurship. The success of entrepreneurship cannot be separated from the coordinated use of financial and other related resources, but the innovation and entrepreneurship based on individual users is a resource-poor player, so in its initial stage, it is more important to innovate the ability to obtain resources, so as to gain survival advantages in competition with established large-scale enterprises, and promote the growth and transformation of survival and growth performance. Here, we can use the four technologies in resource self-help to obtain resources, make up for the lack of resources in the initial stage of independent user entrepreneurship, promote the growth of survival performance, and improve the survival rate of user entrepreneurship.

2. Literature review and research framework

2.1. User's entrepreneurial willingness

Users refer to all companies or individual consumers and other objects that expect to achieve personal needs by accepting a product or service and benefiting from it^[1]. The user entrepreneurship will promote the transition from user innovation to user entrepreneurship. The user's entrepreneurial intention refers to the user's willingness and planning to integrate their own unique knowledge structure, spread in the community and further form the organization and business^[2]. Knowledge-based users have their own unique professional knowledge, innovation ability, entrepreneurial experience and other prior knowledge, as well as the user's community and organizational support, organizational

maintenance mode and late entrepreneurial performance^[3].

2.2. Self-service ability of user resources

User innovation capability is also an important factor to promote the realization of user entrepreneurship, and also an important factor to affect the mode of user entrepreneurship process and entrepreneurship performance. Resource self-service includes the following four technologies: first, customer relevance, that is, customers who choose to pay in advance; The second is to delay payment, that is, to sign an agreement with the partner in advance to determine the cooperation relationship, and to save expenses by leasing related resources instead of purchasing; Then it is owner related, that is, efficient use of personal, family, friends and other resources, such as their credit card lending; The last is joint utilization, that is, sharing equipment, space, staff and other resources^[4].

2.3. Platform network embedding and its impact on user entrepreneurship

Network embeddedness describes the relationship between the enterprise and the community, platform and space in the network. Specifically, it means that knowledge-based users interact with the outside through the network community from their own unique knowledge structure to obtain the necessary resources to realize the survival and development of the knowledge payment column. Network embeddedness improves the dissemination and success rate of user innovation^[5]. The new media online system enables community interaction. The dissemination and sharing of knowledge has become easier^[6].

2.4. Knowledge payment

The business model of knowledge payment can be summarized as follows: (1) platform users register members; (2) Content sharing time-limited transaction; (3) Flow diversion and multiple harvesting; (4) Personalized push advertising implantation; (5) Multi-party integration of virtual entities. According to the explanation of marginal non-scarce resources in the IP theory, the reason why knowledge payment platform is favored by most users is that its marginal cost is zero based on the characteristics of platform bearing, which is also the essence of the explosion and rapid expansion of the Internet economy^[7].

2.5. Independent user entrepreneurship mode

From the perspective of interaction between subjects, users actively integrate resources and use platform embedding to maximize their effectiveness. Users' entrepreneurial ability and willingness are extremely high. This user entrepreneurship mode is divided into user independent entrepreneurship. Independent entrepreneurship has high requirements for external entrepreneurial resources and risk taking. It innovates products or services based on personal needs. After obtaining the patent right for innovative products, some users will choose to commercialize the creativity and realize the user entrepreneurship process. There are three factors to summarize the motivation of users' entrepreneurship: (1) internal motivation related to enthusiasm, enjoyment and willingness to help others; (2) Lack of alternative methods to spread their innovation in the market (3) entrepreneurship has a less dangerous life cycle^[8].

2.6. User entrepreneurship performance

Entrepreneurial performance is the key issue of entrepreneurship research. It is an indicator system to measure the effectiveness of entrepreneurial activities and the degree of goal achievement, including survival performance and growth performance, innovation performance, financial performance and non-financial performance^[9]. Knowledge payment user entrepreneurship is based on the innovation and entrepreneurship activities that users meet their own needs, and its performance evaluation pays more attention to the dimensions of survival and growth.

3. Case collection and analysis

3.1. Case selection

In case selection, follow the principle of theoretical sampling, and the selected cases are in line with the needs of theoretical interpretation. First, the selected case meets the basic condition of user entrepreneurship; Secondly, these users lack the necessary resources for enterprise development at the initial stage of entrepreneurship; Finally, these users promote the performance growth of start-ups through resource self-help capabilities. Finally, the knowledge payment projects of Himalayan FM, Zhihu and Bilibili were determined.

3.2. Case analysis

3.2.1. Himalayan FM

Himalayan FM is a professional audio sharing platform. In more than two years since 2013, the number of registered users has been increasing, and it has become the network audio sharing platform with the largest number of registered users. In June 2016, the knowledge payment project was launched to realize the initial drainage with the help of celebrity effect. At the same time, attract professionals from all walks of life with their own unique knowledge structure to share knowledge, and finally commercialize the personal knowledge system through the platform knowledge payment column, so as to realize knowledge realization and promote the formation of user entrepreneurship.

3.2.2. Zhihu

Zhihu was founded in June 2007, integrating user resources from all walks of life to create a professional online Q&A community. Users use their unique knowledge structure with the help of the Internet to continuously expand the breadth of knowledge. The cross-application of knowledge is a major feature of Zhihu. Later, it launched the "Zhihu live" knowledge payment project in 2016.

3.2.3. Bilibili

Bilibili completed its registration in 2009, and its users are younger. It is a video website for ACG (animation, comics, games) content creation and sharing. Since its development, the platform has mainly taken users as the starting point, introduced creative content through multiple channels to create personalized services, built an ecological and diversified interactive cultural circle, and is committed to meeting the needs of users at different interest circles.

3.3. Case discovery

3.3.1. User resource acquisition and innovation ability affect user entrepreneurship mode

According to the theory of resource dependence, resources determine the survival and development of start-ups, and financial resources play a decisive role in the development of enterprises. In order to better improve the initial production performance, users need to strengthen the ability of independent access to resources, such as using the four technologies of resource self-help to innovate the ability of resource access: leading consumers to pay first and then watch, and establishing long-term cooperative relationship with the advanced payment technology; Sign long-term cooperation agreements with the platform and other partners to advance the delayed payment technology of acquiring and utilizing external resources; The technology of making reasonable use of relevant resources of owners such as family members and friends; Multiple users start businesses to jointly bear the cost of office, equipment and other resources, and reduce the use of joint sharing technology for unnecessary financial resources. The above four technologies of resource self-help will continuously improve users' entrepreneurial willingness and ability, and promote the formation of independent users' entrepreneurial model.

3.3.2. The impact of platform network embedding on user entrepreneurship performance

The resource acquisition and innovation ability of user entrepreneurship promotes the dynamic evolution of user entrepreneurship types. Independent entrepreneurial users have accumulated a certain amount of traffic under the platform network embedment, promoting the growth of survival performance, and the entrepreneurial willingness and ability of users are high, so they are classified as independent users. Its early innovation and utilization of resource acquisition capabilities to achieve the goal of survival among established large enterprises with sufficient resources. Therefore, independent users pay attention to the growth of survival performance in the early stage of entrepreneurship. For

example, the paid content related to Zhihu's "salt selection plan" (paid vip content) is open for free reading in the early stage of the course, the paid knowledge of Bili Bili has a certain free viewing time, and the free popular science audio of Himalayan FM, etc, These are the practices of independent user entrepreneurship to improve survival performance by using drainage in the early stage.

3.3.3. The impact of platform network embeddedness on user entrepreneurship mode by adjusting user resource innovation capability

Different from the traditional command type of work assignment, users outsource certain businesses to non-specific public volunteers in the form of free and voluntary entrepreneurship. That is to do product development demand research through the network, and improve the product based on the user's use experience. This process relies on the construction of the platform network, for example, Bilibili uses the platform's bullet screen function to build a bridge between viewers, Zhihu's big data algorithm recommendation to more accurately target customers, priority recommendation, web page top, keyword search, etc. The embedding of the network platform broadens the access of users to resources, improves the efficiency of users' entrepreneurial resources acquisition, and makes users' entrepreneurs more active access to external entrepreneurial resources, which also helps them improve their ability to take risks.

4. Conclusion

First of all, this paper develops a mediation model to explain how independent users' entrepreneurial ability to obtain innovative resources and how their entrepreneurial model affects users' entrepreneurial performance. This paper deals with the independent user entrepreneurship model, in which the user entrepreneurship subject is highly interactive and has high requirements for external entrepreneurial resources and risk taking. Such initial enterprises lack the necessary resources for survival and development. They can use the four technological innovation resources of resource self-help to obtain the ability.

Secondly, the findings of this paper are conducive to a more specific study of user entrepreneurship model and its performance. Users with high innovation ability and high entrepreneurial intention are classified as independent users. This type of users have strong ability to access and use resources, and strong subject interaction. The independent user entrepreneurship embedded in the platform will gain more resources, and use the platform algorithm to optimize the development of knowledge payment projects, help knowledge payment projects better screen and transform potential member users, and promote the transformation of user entrepreneurship survival performance to the growth performance paradigm. At the same time, it will also bring more attention to the platform, optimize the quality of user innovation and entrepreneurship, and form a win-win virtuous cycle.

Finally, through in-depth research on how user innovation ability affects the process mode of user entrepreneurship under the joint effect of user entrepreneurship intention and the embedding of maker space network, we can solve the problem of how user innovation extends and transforms into user entrepreneurship.

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