Research on the Impact of Foreign Investment on Enterprise Value Under the Background of Digital Transformation

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ABSTRACT
In the era of digital economy, the application of related technologies has not only met the needs of the digital industry, but also an important means to realize the reform and innovation of traditional industries. With the emergence of a large number of differentiated and personalized products, the level of asset specificity shows a trend of substantial improvement. In this context, based on the asset specificity theory, this paper studies the impact of foreign investment on enterprise value under the background of digital transformation. The results show that digital transformation will promote enterprises' foreign investment, and the increase of enterprises' foreign investment will significantly enhance the value of the company. Combined with the characteristics of innovation driven and cross-border integration, this paper expands the asset specificity theory to a certain extent; In practice, it helps to promote the deep integration of digital transformation and real economy, and promote the more effective implementation of digital transformation plan.

Keywords: *Digital transformation, Enterprise foreign investment, Enterprise value.*

1. INTRODUCTION

In the era of digital economy, some distinctive characteristics of the times are not difficult to find. For example, more and more entrepreneurs begin to invest abroad in various ways, and many entrepreneurs (especially those engaged in "digital transformation" related industries or entering "digital transformation") usually also have the identity of investors. According to a statistics, in the first half of 2017, among the top ten global digital transformation enterprises in terms of market value, China occupied five places, namely Alibaba, Tencent, baidu (BAT), jd.com and NetEase. From the data of listed companies, we can also find that entrepreneurs' foreign investment has increased significantly. On the whole, China's leading enterprise in digital transformation was established around 2000, and the industry's foreign direct investment began after the international financial crisis. For example, Alibaba acquired Vendio in 2010 to connect it with express, Tencent acquired riot games in 2011 to start its overseas direct investment journey, and the industry's foreign diversified investment began to highlight in 2013 [1-4]. Since 2014, the scale of foreign investment, geographical coverage and industry penetration of China's digital transformation enterprises have entered a new stage. According to the data, the number of overseas investment projects of Chinese digital transformation giants in 2015-2016 was 1.5 times that of American digital transformation giants. However, the growth rate of Chinese Internet users has been 10% lower since 2012 and has continued to decline. In the same period, the growth rate of network economic revenue has been generally lower than 50% since 2013, saying goodbye to the era of rapid growth. When the demographic dividend of Chinese Internet users disappears and the digital penetration rate and consumption penetration rate enter the growth bottleneck [5-7], foreign direct investment has become the inevitable choice for Chinese digital enterprises to seek sustainable development.

Therefore, based on the perspective of digital transformation, this paper studies the relevant impact of enterprise foreign investment on enterprise value, and obtains some useful conclusions.

2. BACKGROUND

2.1. Enterprise Characteristics of "Digital Transformation"

High operational and financial risks: "digital transformation" enterprises, as representatives of high-tech industries, have uncertainty in R&D achievements and profit cycle. It is mainly reflected in two aspects: on the one hand, in the development period, the product development cycle of digital transformation enterprises is long, which needs to invest a lot of funds as support. At the same time, the technology upgrading is fast [8-9], and it is unknown whether the successfully developed products can be profitable; On the other hand, due to the large competition in the digital transformation industry, difficult to master user preferences, changing policy environment and other factors, it is impossible to accurately predict the future of the enterprise, so the operation risk and financial risk are huge.

Single financing channel: in order to obtain a certain number of users, digital transformation enterprises need to invest a lot of money to attract Internet users through advertising or preferential promotion, which requires a lot of money to ensure. However, digital transformation enterprises have high operation risk and special growth mode, which usually can not meet the debt financing conditions provided by financial institutions. Therefore, equity financing has become the main way for digital transformation enterprises to obtain funds.

Large user scale but weak stickiness: with the popularity of digital transformation, the number of network users in China reached 989 million by the end of 2020, and is still growing. The number of users and profits of large digital transformation enterprises increased sharply. For example, in 2021, Alibaba ecosystem had more than 1 billion annual active consumers worldwide, and the commodity trading volume reached 8.1 trillion yuan. In addition, digital transformation enterprises have the characteristics of strong user mobility and poor stickiness. In the development period of digital transformation enterprises, the first consideration is user scale, and the subsequent stage will focus on enhancing user stickiness [10-12]. Having a large number of users with strong stickiness can ensure that digital transformation enterprises have high profitability. Therefore, user size and stickiness are important reference indicators for value evaluation of digital transformation enterprises.

2.2. "Digital Transformation" and Enterprises' Foreign Investment

An intuitive explanation for the significant increase of entrepreneurs' foreign investment is that these foreign investments can obtain high returns, and higher returns stimulate more entrepreneurs to invest abroad. Then, a question that needs further analysis is: why can foreign investment in the era of digital economy obtain high returns? This should be related to the digital economy era, especially the digital economy era with the combination of virtual and real. The emergence of a large number of extreme, differentiated and personalized products has generally improved the level of asset specificity. Assets with high specificity can help enterprises form a certain occupancy rent, which can also help enterprises obtain higher returns. In short, the general improvement of asset specificity is an important reason for the increase of entrepreneurs' foreign investment. According to the asset specificity theory proposed by Williamson when facing a high level of specificity, it is advantageous to produce the asset through internal organization compared with the market mechanism. The existence of this advantage will stimulate entrepreneurs' motivation to obtain special assets through integrated M&A or investment.

2.3. "Digital Transformation" and Enterprise Value

Using the relevant data of non-state-owned listed companies in China's capital market, this paper has the following findings: with the implementation of "digital transformation", entrepreneurs' foreign investment has increased significantly. This should be related to the general improvement of asset specificity, which will stimulate entrepreneurs' foreign investment and vertical integration M&A or investment. Entrepreneurs' foreign investment will significantly improve the company's valuation because highly specialized assets can help enterprises form a certain occupancy rent, help enterprises obtain excess profits, and then improve the company's valuation. Once enterprises deeply implement "digital transformation", they can use various technologies of digital transformation, such as big data analysis, to accurately analyze the market demand, so that these special assets can more effectively match the markets and customers with different needs, and these special assets will play a greater role. Therefore, the implementation of "digital transformation" will significantly strengthen the positive impact of entrepreneurs' foreign investment on the company's valuation.

The research of this paper has certain practical significance and theoretical contribution. In practice, on the one hand, this paper provides important empirical evidence for the more effective implementation of the "digital transformation" policy. Combined with some characteristics of the digital economy era and some specific behavior characteristics of the real economy, this paper explores the characteristics of digital transition economy and its theoretical development, which will help to implement the policy more effectively. On the other hand, this paper not only found the phenomenon that the level of asset specificity has been greatly improved, but also found some new problems and risk points in the integration process, which has important practical guiding value for promoting the implementation of the "digital transformation" plan and the deep integration of virtual economy and real economy. Theoretically, Williamson, based on the assumptions of bounded rationality and opportunism [13], proposed for the first time that the degree of asset specificity will significantly affect vertical integration M&A. Some subsequent studies point out that integrated M&A is not necessarily detrimental to the innovation of the target company; On the contrary, holding part of the equity of some innovative companies can not only alleviate the capital pressure of these target companies, but also give the executives of these companies a strong incentive to do better in R&D (Williamson, 1985).

This paper emphasizes that in the digital economy era of the combination of virtual and real, asset specificity has a significant impact on entrepreneurs' foreign investment. This view seems to be different from the asset specificity theory proposed by Williamson (197, 1985), but there is no conflict in essence. However, with the universal existence of cross-border integration under the changes of the times, the concept of integrated M&A has become more and more vague. The viewpoint of this paper does not violate the asset specificity theory, but attempts to evolve, expand and test the classical theory based on the new era, new environment and new characteristics of digital transformation.

3. "DIGITAL TRANSFORMATION" PROMOTES ENTREPRENEURS' EXTERNAL TRANSFORMATION

Xie Ping (2015) put forward the zero marginal cost theory in the era of digital economy. The theory holds that in the fields related to digital transformation, the products of enterprises generally have the characteristics of high fixed cost but low marginal cost, and the marginal cost may even be close to zero. The characteristic of zero marginal cost will stimulate enterprises to invest a lot of R&D expenses, design expenses and other expenses, and strive to maximize the attributes of products. Therefore, an interesting phenomenon will appear in the digital transformation environment: the average cost of some high-quality products is not high, and their price is not high; On the contrary, the price of some poor quality products is not low. The emergence of this situation will not only greatly speed up the renewal of products, but also accelerate the survival of the fittest among enterprises. A large number of enterprises will quickly perish because they do not adapt to the development of the market.

Williamson (1985) pointed out that in a market with a high level of asset specificity and requiring a lot of R&D, entrepreneurs should concentrate on developing this market; As for the R&D related to this market, it should rely on other independent entrepreneurs and small enterprises to complete; If the R&D is successful, these enterprises engaged in R&D will be acquired; After that, it will be developed into a large and diversified enterprise. If an enterprise acquires other independent R&D enterprises in the early stage, it will weaken the incentive of entrepreneurs who conduct independent R&D, because the net income and net loss of R&D are no longer fully borne by independent R&D entrepreneurs. Although many large enterprises have strong long-term R&D and marketing capabilities, large enterprises find it more beneficial to rely on various R&D achievements of small companies. A better way is to invest in these independent R&D companies and hold some equity of these companies, which can not only alleviate the financial pressure of these independent R&D companies, but also give the executives of these companies a strong incentive to do better R&D. There is no doubt that the digital economy era is an era full of innovation, even subversive innovation (Li Haijian et al., 2014; Cheng Liru, 2013; Xie Pingping, 2015). In such an environment, entrepreneurs will face more investment opportunities and higher investment risks. After all, there are risk points different from the traditional business environment in the digital economy era (Zeng Jianguang et al., 2013; Zeng Jianguang, 2015; Yang Deming and Shi Yaya, 2018). Whether to invest in more R&D projects or reduce investment risks, entrepreneurs tend to invest in a "small amount and large amount" to avoid various uncertainties and risks. Because the acquisition has a high lower limit of shareholding ratio and hard constraints, the best choice for entrepreneurs should be to invest in some technologies with important application prospects, rather than directly acquire them. From this, we can learn that "digital transformation" can promote entrepreneurs' foreign investment.

4. ENTREPRENEURS' FOREIGN INVESTMENT PROMOTES THE CORPORATE VALUE

Luo min and Li Liangyu (2015) believe that with the help of interconnection, enterprises can obtain "connection bonus". "Connection bonus" means that such enterprises not only sell goods, but regard products as an entrance to connect and aggregate customers. With the help of connection entrance, enterprises create sustainable value for consumers in the continuous communication, coordination and interaction with consumers, so as to obtain "connection bonus". In this case, the products of the enterprise for the consumer community and the investors of the enterprise and the consumer community in the process of value interaction and value synergy can be understood as asset specific investment. Because this kind of investment has no effect if it is transferred to other consumer communities, it can also be regarded as the rent brought by special assets. For an enterprise, once it obtains a specific asset, it often obtains a competitive advantage over its competitors. In this case, the enterprise can not only obtain normal profits, but also obtain the excess profits brought by owning special assets (all kinds of occupancy rents). In the digital economy era, entrepreneurs' foreign investment is often related to special assets, which can not only bring certain excess profits to their property right subjects, but also bring additional investment returns to relevant investors. It can be concluded that entrepreneurs' foreign investment promotes the promotion of enterprise value.

5. DIGITAL TRANSFORMATION WILL STRENGTHEN THE POSITIVE IMPACT OF ENTREPRENEURS' FOREIGN INVESTMENT ON COMPANY VALUATION

Entrepreneurs' foreign investment in some highly specialized assets may also bring a certain risk of being "ripped off" later for enterprises. Shleifer and Vishny used the industry equilibrium model to predict that once these specialized assets are reconfigured for other purposes or other regions, they will not be able to obtain the occupancy rent brought by asset specificity, and even their investment cost may not be recovered; Once the enterprise has operating difficulties, it will further amplify this risk. Kim (2018) further proved the risks brought by special assets and found that when the industry in which the enterprise is located is impacted by negative cash flow or deterioration of financial situation, the M & a premium of the target company with more industry-specific assets is significantly lower than that of the target company with more general assets. Some domestic studies (Wang Zhuquan et al., 2017) found that with the increase of asset specificity, the negative effect of capital mismatch will be amplified. Once an enterprise deeply implements the "digital transformation", it should not only strengthen the positive promotion effect of entrepreneurs' foreign investment on the company's valuation, but also reduce the risks brought by special assets. This is because once enterprises deeply implement "digital transformation", they can accurately analyze market demand by using various technologies based on digital transformation, such as big data analysis, so as to make these special assets more effectively match different markets and different needs and give play to greater value. The risk of special assets mainly comes from that the assets cannot be effectively and reasonably allocated to the areas with the highest value. The essence of digital economy era and "digital transformation" is cross-border integration and connecting everything (Ma Huateng et al., 2015). With the interconnection and connection environment created by digital transformation, it should be easy to find the application field of special assets and avoid the risk of loss caused by the mismatch of special assets and subsequent "rip off". It can be concluded that digital transformation will strengthen the impact of entrepreneurs' foreign investment and promote the promotion of enterprise value.

6. CONCLUSIONS AND PROSPECT

This paper finds that the degree of "digital transformation" will significantly improve entrepreneurs' foreign investment. This should be related to the general improvement of asset specificity in the digital economy era of the combination of virtual and real economy. Because the variable "digital transformation" can well reflect the integration degree of real economy and virtual economy (digital transformation), the empirical results show that the improvement of asset specificity level stimulates entrepreneurs' foreign investment. Of course, the findings of this paper are different from Williamson's asset specificity theory. Williamson emphasizes that asset specificity significantly affects vertical integrated M&A or vertical integrated investment, while this paper emphasizes that asset specificity significantly affects entrepreneurs' foreign investment.

Further research found that entrepreneurs' foreign investment will significantly improve the company's valuation, and the implementation of "digital transformation" has significantly strengthened the positive impact of entrepreneurs' foreign investment on the company's valuation. This is because assets with high asset specificity can help enterprises form a certain occupancy rent and help improve the company's valuation. Once an enterprise deeply implements "digital transformation", it can accurately analyze the market demand by using various technologies based on digital transformation, such as big data analysis, so as to make these special assets match more effectively for different markets and different needs, and give play to greater value, so as to avoid asset mismatch. Based on the above research conclusions, this paper obtains the following enlightenments:

In order to better adapt to the environment of the digital economy era, enterprises should actively integrate into the "digital transformation" and better realize the deep integration with the digital transformation. The implementation of "digital transformation" is a "double-edged sword", which may not only help enterprises achieve leapfrog development, but also lead to rapid failure. An idea put forward in this paper is that enterprises should implement deep "digital transformation" and deeply integrate with digital transformation, rather than simply integrate or follow the trend. With the improvement of enterprises' implementation of "digital transformation", the possibility of asset mismatch will be greatly reduced, which will help to improve the valuation. On the one hand, due to the insufficient utilization of digital transformation and big data, it is difficult to obtain more information conducive to enterprise investment decision-making; On the other hand, it has little effect on the improvement of valuation, and may even have a negative impact. For those state-owned enterprises that are more suitable for market-oriented operation, on the basis of further improving the governance mechanism and risk prevention system of state-owned listed companies, we should reduce various constraints on the investment of state-owned listed companies, help state-owned listed companies better realize the deep integration with digital transformation, and better adapt to the general direction of development in the era of digital economy.

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