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Capital Structure and Labor Investment Efficiency: Based on the Resource-Based Viewpoint

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Abstract: Labor investment efficiency reflects how effectively enterprises manage labor resources, directly influencing production efficiency and profitability. Efficient labor investment avoids waste, ensures optimal resource allocation, and supports social stability by promoting effective employment, especially in the context of an aging labor market. However, enterprises with high debt ratios often face inefficiency due to financing constraints, which hinder effective labor resource investment. The resource-based view theory suggests that alleviating financing constraints and optimizing resource use can improve labor investment efficiency. High resource richness can lead to agency problems, and resource uncertainty further impacts efficiency. Traditional studies focus on agency problems related to financing constraints and information asymmetry. This paper posits that enterprises with high debt ratios often experience inefficiency in labor investment, particularly when resources are abundant and environmental uncertainty rises. Additionally, as population aging progresses, technological advancements will interact with labor investment, with information technology reform helping companies enhance labor investment efficiency, thus better meeting future demands for new quality productivity.

Keywords: Labour investment inefficiency, leverage, agency theory, resource viewpoint

1. Introduction

In recent years, with the decline in the birth rate of newborns and the improvement of life expectancy, China has accelerated its aging society, and the reduction in labor supply has directly affected the production capacity and economic vitality of enterprises, and also brought some problems to enterprise's labor investment, such as the aggravation of market supply and demand imbalance, which not only leads to the rise of labor costs, but also increases the operating costs of enterprises. In addition, the labor structure of enterprises will also be affected to some extent, with the increase of the elderly population, the age structure of labor force gradually aging, and the proportion of young people gradually decreasing. This change has a profound impact on the vitality of the labor market, because young labor force usually has a high level of education and skills, and can bring higher production efficiency and innovation ability to enterprises. However, the elderly labor force, although experienced, may have difficulties in adapting to new technologies and environments, which to some extent restricts the enterprise's labor investment decision.

In a corporation, resources are the most important, and resources were further divided into natural resources and social resources in the industrial era. It is obvious that labor is defined as a type of resource, and labor as a resource can also produce value for the enterprise. Currently, more and more enterprises are paying more attention to efficient labor investment decisions. First of all, investment is an important link in the enterprise's production and operation activities. Good investment projects and appropriate investment scale can bring higher returns to the enterprise and promote its development. However, the existence of agency costs and information asymmetry makes the actual investment scale deviate from the optimal investment scale, leading to ineffective investment. In this ineffective investment problem, financing constraints and agency problems are inevitably influenced. In ineffective investment, financing constraints may lead to underinvestment, while agency problems may lead to overinvestment. Different enterprises may face different problems, but it cannot be denied that when these problems arise, they are all ineffective investments. With the development of contemporary information economics, financing constraints, a financial variable, appear more frequently in enterprise investment models. However, looking back at traditional investment theory, including neoclassical investment theory, people believe that when a firm's internal and external financing costs are equal, choosing any financing method will not have an impact on the firm. However, in this era, regardless of the size of the enterprise, they will face information asymmetry or agency problems, which may cause the enterprise to pay higher costs for external financing, thereby leading the enterprise to be more inclined to internal financing, and the enterprise's investment behavior is constrained by financing conditions.

According to the theory of asymmetric information, it is possible for a firm to abandon a project with the net present value is greater than zero under the following circumstances: 1. Internal funds are insufficient and external financing costs are too high. 2. Enterprises are currently facing financing constraints. In these cases, some enterprises will settle for second best and may give up projects with net present value greater than 0, resulting in underinvestment. Fazzari [1] systematically discussed the relationship between investment-cash flow sensitivity and corporate financing constraints for the first time, and empirically tested the relationship between financing constraints and investment-cash flow. Cleary [2] pointed out that the key difference between some research results lies in the different criteria for determining that a company is subject to financing constraints, and the different criteria lead to the different relationship between the company's investment-cash flow sensitivity and the degree of financing constraints, which is ultimately an empirical problem. However, existing studies show that improving financing constraints can help alleviate the phenomenon of excessive investment. Wei Feng and Liu Xing [3] confirmed the correlation between financing constraints and corporate investment, but held that the relationship between the two was affected by information asymmetry and the amount of financing, so no clear conclusion could be reached. Based on the perspective of financial mismatch, Xu Chenyang analyzed the data of listed A-shares and showed that the increase of financing constraints would reduce the phenomenon of over-investment of enterprises, but in the case of financial mismatch, this inhibitory effect would be alleviated.

The free cash flow hypothesis holds that there is a general agency problem between shareholders and management, that is, there is a conflict of interest. Clear studied the investment-cash flow sensitivity of 1317 American listed companies by using the financing constraint index constructed by a multivariate discriminant analysis method as the classification standard of financing constraints, and held that the reason for this result could be explained by the free cash flow agency cost hypothesis. Financing constraints are not the only cause of investment-cash flow sensitivity. For example, when there are no good projects or good investment opportunities, the management would rather keep the funds in the enterprise for inefficient investment than distribute them to the shareholders. Because the internal funds are under the control of managers, and the more abundant the internal funds are, the lower the supervision and restraint degree of external financing on managers will be, and the greater the non-compensation income of managers will be.

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For enterprises, the main reasons that affect the investment efficiency are the agency problem and financing constraints caused by information asymmetry. It is worth mentioning that the paper published by Feng Wei (1999)is regarded as the pioneering research on the relationship between investment and cash flow in the domestic theoretical circle. Considering that the company value usually reaches its maximum at the optimal investment scale, underinvestment and overinvestment both indicate that the actual investment expenditure of the company deviates from the optimal investment scale, and the capital and production factors are idle or wasted, thus adversely affecting the profitability of the enterprise investment. However, due to the different nature of under-investment and over-investment, the former means that the actual investment expenditure of the company is less than the optimal investment scale, and it gives up part of the investment in all feasible projects that can improve the value of the company. The latter means that the actual investment expenditure of the company exceeds the optimal investment scale, and in addition to the projects with net present value greater than 0, the company also invests in the projects with net present value less than 0. If there is a monotonous positive correlation between investment and the company's operating performance, it indicates that the company's investment is insufficient, and financing constraints are the main cause. If there is a monotonous negative correlation between investment and the company's operating performance, it indicates that the company has excessive investment, and agency conflict is the cause. If the relationship between investment and business performance is inverted U-shaped, it indicates that the inefficient investment of enterprises includes both under-investment and over-investment, which is the result of the joint action of financing constraints and agency conflicts.

2. Literature Review

The inefficient investment of enterprises mainly falls into two categories: overinvestment and underinvestment. Generally, the cause of underinvestment is financing constraint, and the corresponding agency problem leads to overinvestment. According to the theory of information asymmetry, Li Yanxi et al. [4] calculated financing constraints and conducted regression analysis with investment, concluding that enterprise investment will decrease due to the increase of financing constraints, and both have a negative impact. Vogt [5] pointed out that more investment opportunities would increase the financing cost of enterprises, which would easily lead to under-investment, while the reduction of investment opportunities would reduce the financing cost of enterprises, which would lead to over-investment. Similar to physical capital investment, the existence of financing constraints and agency problems may also lead to the deviation of labor investment from the optimal level, resulting in the inefficiency of labor investment. Scholars at home and abroad have carried out a lot of research on the labor investment efficiency of enterprises from the perspectives of information asymmetry, the agency problem of financing constraints and corporate social responsibility.

Maintaining the optimal decision of hiring employees is of great significance to the survival and development of enterprises. Deviation from the optimal labor investment will lead to the problem of overcapacity, which will reduce productivity in the case of overinvestment, or lead to the lack of growth momentum in the case of underinvestment. Information asymmetry and principal-agent problems are the key to the deviation of firm labor investment from the optimal level.

2.1. Financing constraints affect inefficient labor investment

Corporate financing constraints affect firms' investment efficiency and labor productivity by limiting their investment ability, especially for those firms that cannot meet their investment needs through internal funds. Li et al. [6] pointed out that financing constraints would not only lead enterprises to reduce the size of labor force, but also affect the efficiency of labor investment. Financing constraints make it impossible for enterprises to make full use of their investment opportunities. At the same

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time, employee compensation and employee recruitment occupy a large part of enterprise costs. BOOCHUN JUNG pointed out that these costs gradually take on the characteristics similar to fixed costs, so enterprises are very likely to find it difficult to maintain the optimal scale of employee employment with relatively high costs in the face of high debt financing costs. Inefficiency of labor investment such as insufficient employment occurs. In addition, many studies have shown that CSR can alleviate financial constraints and improve corporate labor efficiency to a certain extent. Tao Xinxin [7] proposed that the fulfillment of corporate social responsibility helps to improve the efficiency of corporate labor investment, and the alleviation of internal financing constraints and debt financing constraints is the main path for the fulfillment of social responsibility to affect the efficiency of labor investment.

2.2. The agency problem affects inefficient labor investment

There is information asymmetry between corporate shareholders and managers, and corporate managers are often on the side with information advantage. It may also make operation and management decisions based on its own preferences, which may ultimately adversely affect the operation and development of the enterprise and damage the interests of shareholders. Obviously, this principal-agent problem between shareholders and managers will lead managers to make self-interested labor investment decisions and reduce the labor investment efficiency of enterprises. Lee, K. Y. K., & Mo, K. [8] pointed out that the higher the analyst coverage rate is, the higher the labor investment efficiency of enterprises is. Further tests show that solving the problem of underinvestment (especially the problem of over-dismissal) can improve the efficiency of labor investment, and analysts can strengthen the external supervision of management, reduce information asymmetry and alleviate the agency problem. Studies have shown that, high quality financial reporting quality [9] and low stock price synchronism [10] are conducive to alleviating the principal-agent problem caused by information asymmetry between internal and external enterprises. It supports the theoretical expectation that information asymmetry and principal-agent problems affect the labor investment efficiency of firms. Based on this, many scholars start to study inefficient labor investment from the perspective of internal agency cost of enterprises. Mehdi Khedmatia [11] found through research that the closer the relationship between the CEO and the board members is, the less conducive it is to the implementation of effective supervision, which is actually a strengthening of the principal-agent problem, so it will reduce the efficiency of enterprise labor investment and damage enterprise value. Meanwhile, Le, A. T., & Tran, T. P [12] proposed that the reform of the board of directors is positively correlated with the efficiency of labor investment, because the reform of the board of directors is conducive to reducing the over recruitment, dismissal, underrecruitment and dismissal of enterprises, which also verified that the agency problem is closely related to the efficiency of labor investment.

2.3. Resource richness and labor investment efficiency of firms

Many enterprises improve the efficiency of labor investment by releasing the resource effect and easing their financing constraints, releasing resource effects mainly refer to positive social or economic benefits through effective management and use of resources to maximize their utility. For a long time, The problem of "difficult and expensive financing" has always been the pain point and difficulty of "cost reduction and efficiency increase" and high-quality development of enterprises. Financial constraints may is an important factor leading to the decline of labor investment efficiency. Because employee recruitment, training and labor compensation occupy the cost of enterprises and presents a quasi-fixed cost characteristic [9] . When firms lack competitive advantage in the product market potential, unable to provide stable internal cash support, or subject to market interest friction and high debt financing costs, extremely it is easy to cause financing difficulties for enterprises, and it is difficult to maintain the optimal employment scale with high costs, resulting in underemployment and other labor investment inefficiency.

At present, more and more people use ESG performance to measure the resource integration ability of enterprises. For the labor force investment decision of enterprises, the financing ability also affects the labor force investment decision of enterprises. According to the theory of information asymmetry, enterprises with high financing constraints are more likely to have inefficient labor force investment decision. The comprehensive ESG performance of enterprises delivers high value-added specific information except financial information to creditors and investors, and the information disclosure is more sufficient [13], which is subject to more external attention and supervision from analysts and media, and less earnings management based on profit manipulation, which will effectively reduce information asymmetry. It is convenient for enterprises to obtain investment, expand the scale of human capital investment and attract high-quality employees. In addition, good ESG performance is highly consistent with the national goals of strengthening environmental quality construction and realizing common prosperity, and it is easier for enterprises to obtain external financing, such as government subsidies and green environmental protection subsidies, thus alleviating the problem of insufficient funds for labor investment of enterprises [14].

3. Theoretical analysis and propositions

3.1. Impact of financial constraints on debt ratio

Firms with high asset-liability ratios tend to be more vulnerable to financing constraints. Because enterprises with high asset-liability ratio are usually heavily indebted, debt pressure is greater, and financing costs are correspondingly higher. At this time, if the firm needs further financing to support business development, it will face greater financing constraints. At the same time, financing constraints will further aggravate the debt pressure of enterprises and make the asset-liability ratio higher.

3.2. Impact of financing constraints and debt ratio on labor investment decisions

First of all, financing constraints are an important factor affecting firms' investment decisions. Financing constraints can be divided into internal and external financing constraints. Internal financing constraints are mainly related to the internal capital status of enterprises, while external financing constraints involve the constraints encountered by enterprises in the process of external financing, such as credit constraints of financial institutions and restrictions of policies and regulations. These constraints will affect the investment decisions of firms. For example, when firms face financing constraints, it may limit their ability to scale up production or increase their labor force, leading to underinvestment in labor. Zhu [15] pointed out that financing constraints have a significantly negative impact on the change of labor income share, which indicates that when enterprises are faced with financing constraints, they may reduce their investment in labor. Therefore, it can be concluded that under the condition of high financing constraints, enterprises with high debt ratio have low labor investment efficiency.

Proposition 1:When the debt ratio of enterprises is high, the labor investment of enterprises will be inefficient.

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3.3. Resource richness and labor investment efficiency of firms

3.3.1. Resource-based view

The resource-based view is a strategic management theory, which emphasizes that an enterprise is a collection of resources, which are valuable, scarce, difficult to imitate and irreplaceable in the competitive environment, thus bringing competitive advantages to the enterprise, and the competitive advantages of the enterprise come from the unique internal resources. Resources are the general term of various material elements such as material resources, financial resources and human resources, which are also divided into two categories: natural resources and social resources. The former includes sunlight, air, water and so on. The latter includes labor resources, information resources and various material wealth created through labor.

3.3.2. Scarcity of resources

The scarcity of resources is one of the core assumptions of resource-based theory. The scarcity of resources is one of the basic principles of economics, and all economic theories are based on this principle. Because of the scarcity of resources, enterprises and individuals in economic activities need to make choices about how to most effectively use limited resources to meet unlimited needs. For example, certain mineral resources or special licenses are scarce resources, and enterprises with these resources tend to be able to obtain higher profits in the market.

3.3.3. Value of resources

The resources owned by the firm must be able to create value for it, whether through improving production efficiency, reducing costs, or innovating products and services to meet market demands. A firm with a unique technology, for example, can use that technology to produce a more competitive product, thereby gaining market share and profits.

3.3.4. Inimitability and irreplaceability of resources

This means that it is difficult for other firms to replicate or substitute these resources, thus maintaining the competitive advantage of the firm. For example, corporate culture, brand reputation, customer relationship and so on are resources that are difficult to imitate and replace, which create unique competitive advantages for enterprises and make them more competitive in the market.

3.3.5. Labor and resource-based view

From the perspective of the industrial age, labor force is a resource, because manpower, namely labor force, is the sum of people with the ability to work in a society. At the same time, labor is a valuable economic resource, which creates value for enterprises together with other resources. In the era of knowledge economy, labor resources are even regarded as the most important and valuable resource in enterprises. The workforce has future service potential or profitability, which is essential for the continued operation and profitability of the business. An enterprise has the right to control and use the Labour force of the worker within the scope of the Labour contract signed with the worker. This means that, within the period agreed in the contract, the labor force of the laborer becomes a resource at the disposal and use of the enterprise to some extent.

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4. Agency problem

4.1. The impact of agency problems on labor investment decisions

The agency problem may lead to overinvestment in labor, which can be divided into redundant hiring and underfiring. Williamso believed that managers may find it difficult to resist the motivation to expand the scale of employees, because it is the source of security, power, status, prestige and career achievements. Relevant studies show that under the background of the government intervention in state-owned enterprises, which leads to the double agency conflict in state-owned enterprises, the agency conflict in state-owned enterprises is significantly positively correlated with excess employees. In addition, managers' preference for a "quiet life" may also lead to underfiring. For example, Bertrand and Mullainathan argue that the lack of firing may be due to managers' preference for a quiet life. The essence of management's empire building behavior is the agency problem of enterprises. Ee, M., Hasan, I., & Huang, H. [16] found in their study on stock liquidity and labor investment efficiency that stock liquidity can alleviate excessive recruitment of enterprises to a certain extent, which may also be the result of management's empire building. This also shows that the agency problem has a direct relationship with labor investment efficiency. On the other hand, agency problems may lead to underinvestment in labor, specifically distinguished as underhiring or overfiring. For example, Porter argued that managers are under abnormal pressure from external stakeholders, which may prompt them to excessively dismiss employees with poor performance. Jung [9] argued that managers may pursue short-term goals, resulting in insufficient labor investment. It can therefore be said that myopic labor investment decisions by managers, or risk aversion to labor capital, may lead to under-hiring or over-firing.

4.2. The impact of agency problems on overindebtedness and resource acquisition

Due to the emergence of agency problems, managers' pursuit of personal interests may cause their management objectives to deviate from shareholders. This problem of asymmetric information and inconsistent goals makes it possible for management to make decisions that are detrimental to the business, leading to excessive debt . Second, overdebt refers to firms that are too heavily indebted to repay principal and interest and lack liquidity to ensure the sustainability of the debt chain. This situation is often caused by management taking on excessive debt for risky investments or consumption in pursuit of personal interests or short-term gains, while ignoring the long-term financial health of the business . 2. There is agency conflict between shareholders and creditors. Due to the unequal responsibility between them, shareholders generally prefer high-yield investment, while creditors are on the contrary. According to the "peck-order financing theory", creditors cannot determine the security of financing due to the lack of information, so they take higher loan interest rate as a means of risk compensation. As a result, the cost of external financing increases, and the source of funds required for all valuable investment projects is insufficient, resulting in inefficient investment. To sum up, the agency problem of enterprises will make it difficult for enterprises to obtain resources, waste existing resources and reduce investment efficiency.

Proposition 2: In the case of high resource abundance, firms are more likely to have agency problems; In the case of higher debt ratio, the labor investment efficiency of the firm will also be lower

4.3. Resource uncertainty and labor investment efficiency

The impact of resource and environment uncertainty on investment efficiency : Resource and environment uncertainty refers to the changes and fluctuations of the external environment, which will have a significant impact on the investment efficiency of enterprises. The greater the

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environmental uncertainty is, the lower the labor investment efficiency is. This is mainly because the uncertainty of the environment increases the difficulty and risk of enterprise decision-making, which makes it difficult for enterprises to accurately evaluate the feasibility and rate of return of investment projects, thus affecting the efficiency of investment decision-making.

Proposition 3: The greater the uncertainty of resources and environment is, the lower the labor investment efficiency of enterprises is.

When considering the impact of environmental uncertainty on labor investment efficiency, financing constraints are an important factor. When enterprises are faced with greater financing constraints, the shortage of funds will limit the scale of labor investment of enterprises, making enterprises more cautious in the face of environmental uncertainty and tend to reduce investment, thus reducing the risk of overinvestment. On the contrary, if the financing constraints of enterprises are small, abundant funds may encourage enterprises to increase the scale of labor investment when the environmental uncertainty is large.

5. Conclusion

The efficiency of labor investment is primarily influenced by agency problems, financing constraints, and labor resources, as labor investment decisions are a crucial link in the production and operation of enterprises. Agency problems can lead to either over-investment or under-investment in labor, while financing constraints can also result in under-investment. Enterprises with a high asset-liability ratio are more susceptible to financing constraints. From a resource perspective, in high-debt enterprises, agency problems make it difficult to obtain necessary resources and waste existing resources, thus reducing investment efficiency. In the context of aging populations and decreasing labor supply, improving labor investment efficiency can significantly enhance the production efficiency and competitiveness of enterprises, thereby contributing to overall economic development.

Efficient labor investment not only boosts the competitiveness of enterprises but also promotes effective employment and maintains social stability and healthy development. By improving labor investment efficiency, enterprises can optimize the allocation of labor resources, reduce unemployment, and foster social harmony and stability. Furthermore, the improvement of labor investment efficiency reflects the overall employment situation in society. It plays a crucial role in reducing unemployment and contributing to the stability of society. Therefore, enhancing labor investment efficiency is essential for both enterprise and societal development.

There is a close interaction between the improvement of labor investment efficiency and the new quality productivity, which is primarily driven by technological breakthroughs emphasizing green, intelligent, and efficient development. The transition and upgrading of new quality productivity can be further promoted by optimizing labor investment structures and improving labor resource utilization. This stems from the technological revolution brought by new quality productivity, which helps improve matching efficiency to reduce human resource waste, enhance information transparency to improve labor investment management, and promote internal innovation to better integrate technology and talent. In this way, enterprises can improve labor investment efficiency. To sum up, enterprises should actively seize the opportunities presented by information technology innovation, promote the improvement of labor investment efficiency, and contribute to the development of new quality productivity.

References

[1] *Fazzari, S. M., Hubbard, R. G., & Petersen, B. C. (1988). Financing constraints and corporate investment. Brookings Papers on Economic Activity, 1988(1), 141-206.*

[2] *Cleary, S., Povel, P., & Raith, M. (2007). The U-shaped investment curve: Theory and evidence. Journal of Financial and Quantitative Analysis, 42(1), 1-39.*

[3] *Wei, F. (1999). Internal cash flow and corporate investment: Evidence from the financial reports of listed companies in the Chinese stock market. Economic Science, 1, 45-62.*
[4] *Li, Y., Du, R., Gao, R., & Li, N. (2007). Sensitivity study on investment expenditure and financing constraints of listed companies. Management Science, 20(1), 7-16.*
[5] *Vogt, S. C. (1994). The cash flow-investment relationship: Evidence from U.S. manufacturing firms. The Financial Management, 23(2), 3-20.*
[6] *Li, X., Wan, Z., & Lu, Y. (2019). Economic dynamics. Economic Dynamics, 3, 14.*
[7] *Tao, X., Jiang, X., Xie, Z., & Ma, L. (2022). Does the fulfillment of social responsibility affect the efficiency of enterprise labor investment? Accounting Research, 6, 14-24.*
[8] *Lee, K. Y. K., & Mo, K. (2020). Do analysts improve labor investment efficiency? Journal of Contemporary Accounting and Economics, 16, 100213. https://doi.org/10.1016/j.jcae.2020.100213*
[9] *Jung, B., Lee, W. J., & Weber, D. P. (2013). Financial reporting quality and labor investment efficiency. Contemporary Accounting Research, 31(4), 1047-1076.*
[10] *Ben-Nasr, H., & Alshwer, A. A. (2016). Does stock price informativeness affect labor investment efficiency? Journal of Corporate Finance, 41, 249-271.*
[11] *Khedmati, M., Sualihu, M. A., & Yawson, A. (2019). CEO-director ties and labor investment efficiency. Journal of Corporate Finance, 101492. https://doi.org/10.1016/j.jcorpfin.2019.101492*
[12] *Le, A. T., & Tran, T. P. (2021). Corporate governance and labor investment efficiency: International evidence from board reforms. Corporate Governance: An International Review.*
[13] *Song, X., Hu, J., & Li, S. (2017). Social responsibility information disclosure and stock price crash risk: Path analysis based on information effect and reputation insurance effect. Financial Research, 4, 161-175.*
[14] *Zeng, T. (2019). Relationship between corporate social responsibility and tax avoidance: International evidence. Social Responsibility Journal, 15(2), 244-257.*
[15] *Zhu, S., & Zhao, Y. (2016). Statistical analysis and applications. Journal of Statistical Research, 33(9), 8-17.*
[16] *Ee, M., Hasan, I., & Huang, H. (2021). Stock liquidity and corporate labor investment. Journal of Corporate Finance.*