

A Review of Corporate Green Mergers and Acquisitions on Corporate Performance: Effects, Motivations and Paths

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Abstract: With the increasingly severe global environmental problems, green development has become an important path. It can promote the transformation and upgrading of enterprises and the sustainable development of the economy and society. The concepts of green economy and circular economy have gradually taken root in people's hearts, which will minimize the impact on the environment. Meanwhile, it also achieves a win-win situation for both the economy and the environment. As one of the important means to realize green development, corporate green M&A has received extensive attention from academia and the industry in recent years. The purpose of this paper is to explore the impact of corporate green M&A on corporate performance, including the effect of green M&A on corporate performance, the motivation of corporate green M&A and the realization of the path of these three aspects. This paper serves as a valuable reference for other enterprises seeking to engage in environmentally friendly mergers and acquisitions, facilitating performance improvement and bolstering market competitiveness.

Keywords: Green M&A; Enterprise Performance; Motivation Analysis; Path Impact; Impact Effects

1. Introduction

Against the background of increasing attention to global climate change and environmental protection, corporate green M&A, as a new type of strategic means, is gradually becoming an important way for enterprises to realize sustainable development and performance improvement. Green M&A is not only related to the economic performance of enterprises, but also closely linked to corporate social responsibility, environmental performance and long-term competitiveness. The purpose of this

paper is to explore the effects, motivations and realization paths of green M&A on corporate performance, with a view to providing theoretical support and practical guidance for relevant enterprises and policy makers.

2. Definition and Characteristics of Green M&A

2.1 Definition of Green M&A

Green M&A refers to the introduction of green concepts into the company's M&A decision-making, in order to achieve sustainable development for the purpose of M&A behavior. Specifically, it refers to the listed companies in order to obtain or expand the green resources, green technology or green management experience required for enterprise development, etc., through M&A means to achieve the goal of energy saving and emission reduction, environmental protection. It can promote the transformation of enterprises to low-pollution, low-energy consumption industry. This kind of M&A behavior not only focuses on economic benefits, but also emphasizes ecological benefits, aiming to achieve a win-win situation between enterprise development and environmental protection.

2.2 Characteristics of Green M&A

2.2.1 Strong purpose

The purpose of green M&A is extremely strong. It is not only a kind of enterprise strategic behavior, but also an important initiative for enterprises to actively respond to the requirements of society, government and other parties on the green development of enterprises. In today's society, with the general enhancement of environmental awareness and the government's continuous strengthening of environmental protection regulations, enterprises are facing more and more pressure for green development. In order to meet these external requirements, enterprises need to promote their own green transformation and

sustainable development through a variety of ways. Green mergers and acquisitions is one of the effective means. By acquiring green resources and technologies through M&A, enterprises can develop more environmentally friendly and energy-saving products to meet consumer demand for green products, thus expanding new market space. At the same time, green mergers and acquisitions can also help enterprises to enhance their brand image, establish a positive and responsible green corporate image, and enhance consumer trust and loyalty to the enterprise.

2.2.2 Technology-oriented

Green mergers and acquisitions to a large extent show a clear technology-oriented nature, which is essentially a technology merger and acquisition in a broad sense. This kind of M&A behavior usually occurs in those manufacturing enterprises with large industrial emissions of three wastes and more serious environmental pollution. These enterprises often face severe environmental scrutiny and development dilemmas due to their long-standing production methods and technological level limitations. In the increasingly stringent environmental regulations and public awareness of environmental protection under the double pressure, they urgently need to find an effective way to break through the current development bottleneck. These companies have turned their attention to green M&A, hoping to acquire advanced green technologies through mergers and acquisitions. These technologies can not only help them reduce pollutant emissions and improve resource utilization efficiency, but also promote the overall green transformation of their products, production processes and management models. Through the technological upgrading acquired through green M&As, these enterprises are expected to realize a fundamental change in their production methods, thus escaping from environmental difficulties and realizing sustainable development.

2.2.3 Dual Benefit Pursuit

Green M&A, as a new type of corporate strategic behavior, is notable for its dual pursuit of economic and ecological benefits. This characteristic gives green M&A a unique advantage in promoting the transformation and upgrading of enterprises. In traditional M&A activities, enterprises tend to focus more on the pursuit of economic benefits, i.e., expanding

market share, improving production efficiency, reducing costs, etc. through M&A. However, in green M&A, enterprises not only focus on economic benefits, but also fully consider environmental protection and social responsibility. This means that when conducting green M&A, enterprises will assess whether the target enterprise meets environmental protection standards, whether it possesses advanced green technology and management experience, and whether it can improve its own environmental performance and social responsibility after the M&A. This pursuit of dual benefits makes green M&A have greater potential in realizing enterprise transformation and upgrading. Through green M&A, enterprises can acquire advanced green technologies and equipment, improve production efficiency and product quality, and at the same time reduce pollutant emissions and environmental risks. This not only helps enterprises to meet market and consumer demand for green products, but also enhances their brand image and market competitiveness.

3. The Effect of Green M&A on Corporate Performance

3.1 Enhancement of Economic Performance

Green M&A, as a strategic means, enables enterprises to quickly acquire target enterprises with green technology and market potential, so that they can quickly enter new green production areas and occupy market pre-eminence. This market pre-eminence not only means that enterprises can seize more market share and increase sales revenue, but also further enhance their profitability and market competitiveness by optimizing resource allocation and reducing production costs. Specifically, through green M&A, an enterprise can acquire the advanced green technology and intellectual property rights of the target enterprise, which helps the enterprise to improve product quality, develop new green product lines, and meet the growing market demand for environmentally friendly products. At the same time, the target enterprise may have already established a certain market position and brand influence in the field of green production. It enables the acquirer enterprise to take advantage of this advantage to rapidly expand market share and increase sales revenue. Through mergers and

acquisitions, enterprises can integrate the resources of both sides, realize resource sharing and complementary advantages, and improve the efficiency of resource utilization. At the same time, the application of green technology also helps enterprises to reduce energy consumption and waste emissions, thus reducing production costs and improving profitability.

3.2 Impact of Social Performance

While pursuing economic interests, enterprises need to actively fulfill their social responsibilities to shareholders, employees, consumers, communities and the environment. This assessment should not only look at whether the enterprise has complied with the relevant laws and regulations, but also examine its actual investment and effectiveness in environmental protection, public welfare, employee welfare and other aspects. An enterprise that can actively fulfill its social responsibility can often gain more social recognition and support, thus enhancing its brand image and market competitiveness. Green M&A has a positive impact on corporate environmental management. Specifically, the positive correlation between green M&As and corporate environmental governance is strong in places that have received extensive media attention because these companies face more legitimate benefits and illegal penalties ^[1]. Green M&A, as a positive environmental initiative, will help to enhance the social image and reputation of companies if it is recognized and accepted by the public.

4. Analysis of the Motivation of Green M&A

This part of the section provides the motivation for green M&A from three aspects: national green strategies and policies, the demand for green transformation in the industry, and the market competitiveness of enterprises (as is shown in Figure 1).

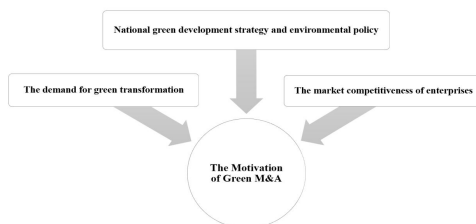


Figure 1. Green M&A Drivers Map

4.1 National Green Development Strategy and Environmental Policy Implementation

Global climate change and the increasing severity of environmental problems, such as ecological degradation and shortage of non-renewable resources. These have posed a major challenge to the sustainable development of the global economy and society, and these environmental problems have led to an increasing number of green M&A transactions ^[2], and governments have recognized this trend and actively promoted green, low-carbon and sustainable development models to cope with the environmental crisis and promote economic long-term healthy development. On the one hand, the government encourages heavily polluting enterprises to carry out green mergers and acquisitions by providing policy measures such as environmental protection subsidies to enhance their own level of green innovation. Such policy guidance not only helps enterprises to transform and upgrade, but also promotes the development of the whole industry in a more environmentally friendly and sustainable direction. On the other hand, green M&A itself has a significant environmental management cost advantage, which can reduce the investment cost of enterprises in environmental protection and at the same time enhance their green innovation ability. Especially after the implementation of the new Environmental Protection Law, the motivation for enterprises to engage in green M&A is even stronger, which is both a positive response to laws and regulations, and also due to the intrinsic demand for cost reduction and innovative development ^[3]. Therefore, through green M&A, enterprises can not only respond positively to national policies and show their commitment to environmental protection and social responsibility, but also obtain a series of policy support and preferences from the government, such as financial subsidies, tax reductions, credit preferences and so on. These policy preferences further reduce the operating costs of enterprises, improve their market competitiveness, and also reduce business risks. Through green M&A, enterprises are able to realize the dual goals of economic efficiency and environmental protection and embark on a green, low-carbon and sustainable development path. This not only contributes to the long-term development of the enterprise

itself, but also is of great significance in promoting the green transformation and sustainable development of the whole society.

4.2 Demand for Green Transformation and Upgrading of the Industry

With consumers' rising concern for environmental protection, health and safety issues, as well as the international community's increasingly stringent requirements for carbon emissions and environmental protection, many traditional industries are facing unprecedented pressure for green transformation and upgrading. This trend not only reflects the awakening of public awareness of environmental protection, but also the common pursuit of the goal of sustainable development on a global scale. In such a context, green economic development has become an important driving force for enterprises to implement green M&A [4]. Green M&A, as an emerging corporate strategic behavior, is centered on combining traditional M&A activities with the concept of green development. Through green M&A, enterprises can obtain cutting-edge green technology resources, enhance their own technology content, and realize technological change and innovation. In this process, enterprises can not only obtain advanced green technology and equipment, but also introduce environmental management experience and energy-saving and emission reduction technology, so as to comprehensively improve their environmental protection ability and market competitiveness. Especially for heavily polluting enterprises, green M&A is the urgent need to realize green transformation. By combining the concept of green M&A with their own transformation needs, these enterprises can acquire the required green resources and technologies in a more targeted manner and accelerate their own greening process [5-6]. This not only helps enterprises to reduce pollutant emissions and improve environmental performance, but also enables them to establish a more positive and responsible green image in the market, thus winning more consumers' trust and support. In addition, green M&A can also promote green innovation of enterprises. In the process of mergers and acquisitions, enterprises can learn from the green innovation experience and practice of the target enterprise, and promote

their own green transformation in product development, production process, marketing and other aspects. This kind of innovation is not only reflected in the technical level, but also involves the green transformation of enterprise management mode, corporate culture and other aspects. Through green mergers and acquisitions and green innovation, enterprises can realize the smooth promotion of the green transformation path, so that they can gradually shift to the green industry and occupy a favorable position in the wave of the global green economy [7]. This is not only a responsible choice for the enterprise's own development, but also a positive contribution to global environmental protection and sustainable development goals.

4.3 Enhance the Market Competitiveness of Enterprises

In the fierce market competition, enterprises need to continuously improve their comprehensive strength and brand influence in order to maintain their leading position and sustained growth. In this regard, green M&A, as an effective strategic means, can help enterprises quickly enhance market competitiveness, expand market share and improve profitability. Through M&A of enterprises with green technology advantages or market advantages, the main merger enterprise can quickly obtain advanced green technology and intellectual property rights, so as to improve the environmental performance and quality of its own products. This not only meets the growing consumer demand for environmentally friendly products, but also opens up new market opportunities for the enterprise and further expands its market share. Green investment saves production costs, responds to environmental regulation, establishes a good corporate image, and enables enterprises to achieve healthy long-term development [8]. At the same time, the technology optimization and resource integration brought about by green M&A can help enterprises reduce production costs, effectively respond to increasingly stringent environmental regulatory requirements, reduce the risks and costs brought about by environmental violations, improve operational efficiency, and thus realize the enhancement of profitability. At the same time, by actively practicing green M&A strategies, companies

can establish a good social image and demonstrate their commitment to environmental protection and social responsibility. This positive corporate image and brand value not only helps to attract more consumer recognition and support, but also brings more market opportunities and partners for the enterprise. At the same time, green M&A can also help enterprises establish a good social image and enhance brand value, so as to obtain more consumer recognition and support. Mergers and acquisitions can enhance the operating efficiency of the main merged enterprise, thus increasing the market competitiveness of the enterprise [9]. Through mergers and acquisitions, enterprises can achieve complementarity and synergy in resources, technology, markets and other aspects, so as to optimize the allocation of resources and improve the overall operational efficiency.

5. Path Analysis of Green M&A Affecting Enterprise Performance

This part explores and analyzes the path of green M&A affecting enterprise performance, mainly from the three aspects of technological innovation, internal management optimization, and brand image and market expansion, to help enterprises better carry out the path of transformation (as is shown in Figure 2).

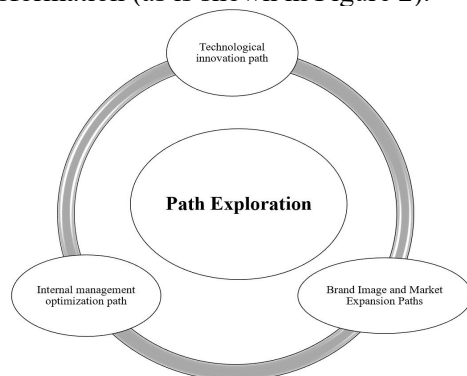


Figure 2. Exploring the Path of Green M&A Transformation of Enterprises

5.1 Technological Innovation Path

Green M&A provides an effective platform for enterprises to acquire and integrate technologies. When conducting green M&A, enterprises often value the advanced green technologies or unique environmental protection solutions owned by the target companies. Through M&A, enterprises can

directly access these technological resources, avoiding the long and expensive process of independent research and development. More critically, technology integration is not just about simply incorporating new technologies into existing systems, but also about realizing synergies and complementarities between technologies, thereby enhancing overall technological strength and innovation capabilities. Technological innovation can not only help enterprises develop more environmentally friendly, efficient and low-cost products and services, thus enhancing customer satisfaction and market share, but also improve their productivity and operational quality and reduce long-term operational costs. Green M&A has gradually become a means for heavily polluting enterprises to realize energy saving and emission reduction goals and embark on the road of green transformation. Heavily polluting enterprises obtain clean technologies and resources through green M&A, and green innovation exploration will be promoted after green M&A [10]. A large number of green M&A events can generate significant market responses and can greatly improve company performance.

5.2 Internal Management Optimization Path

In order to adapt to the new business and technologies brought about by green M&A, enterprises often need to adjust their organizational structure accordingly to ensure the effective implementation of green strategies. This may include the establishment of a specialized green business department responsible for the research and development, application and promotion of green technologies, the establishment of an environmental protection management department to oversee the enterprise's environmental compliance and to formulate and implement environmental protection policies; or the establishment of a sustainable development committee responsible for the overall planning and promotion of the enterprise's sustainable development strategy. Through these organizational restructuring, enterprises can better integrate the resources and capabilities brought by green M&A and promote the smooth progress of green transformation. In addition to organizational restructuring, enterprises also need to innovate

in production processes, supply chain management, and product development to ensure the effective application of green technologies and the improvement of the overall operational efficiency of the enterprise. In terms of production processes, enterprises need to optimize production processes, reduce energy consumption and emissions, and improve resource utilization efficiency. In terms of supply chain management, enterprises need to cooperate with suppliers to promote the construction of a green supply chain and ensure the environmental compliance of raw materials and components. In terms of product R&D, enterprises need to increase R&D investment in green technology, develop new products that meet environmental requirements, and meet market demand for green, low-carbon and sustainable products. Green M&A can not only help enterprises obtain green technology, but also improve their financing and investment capabilities and promote the optimization of internal management structure by improving their internal management ^[11]. Through green M&A, enterprises can introduce advanced environmental protection concepts and management experience to enhance their environmental image and brand value, thus attracting more investors and financing opportunities. At the same time, green M&A can also promote the optimal allocation of internal resources, improve the efficiency of resource utilization, reduce operating costs, and enhance the competitiveness of enterprises. In addition, once the enterprise has completed the internal capital accumulation, M&A can, to a certain extent, become an important way to expand the scale of the enterprise and improve the efficiency and competitiveness of resource allocation ^[12]. Through mergers and acquisitions, enterprises can quickly obtain the target enterprise's market share, technological resources, talent team, etc., to realize the rapid expansion of business and further penetration of the market. At the same time, M&A can also bring economies of scale and synergistic effects, reduce the operating costs of enterprises, and improve their profitability and market competitiveness. Therefore, green M&A is not only an important means for enterprises to realize green transformation and sustainable development, but also an important way for enterprises to expand their scale and

improve resource allocation efficiency.

5.3 Brand Image and Market Expansion Paths

In today's society, environmental protection has become a global consensus, and governments, enterprises and the public are increasingly recognizing the importance of protecting the environment and achieving sustainable development. As one of the important means for enterprises to realize environmental protection goals, green M&A plays a significant role in enhancing the environmental image of enterprises. Green M&A can not only help enterprises quickly acquire advanced green technology, but also significantly enhance their environmental image, so that they can establish a responsible brand image in the minds of the public and consumers. Green brand image, green satisfaction and green trust are positively correlated with green M&A, which to a certain extent influences the decision of enterprises to carry out green M&A ^[13]. Through green M&A, companies can demonstrate their commitment and actions in environmental protection, which can enhance consumers' green perception and satisfaction of their brands. When consumers perceive a company as environmentally friendly and sustainable, they are more likely to develop trust in that company and choose to purchase its products or services. This establishment of green trust is important for companies to stand out in a competitive market and attract more consumer attention and purchases. In addition, green mergers and acquisitions can also help companies to develop new market areas, especially in terms of environmentally friendly products and services. With the growing consumer demand for environmentally friendly products, the market demand for green, low-carbon and sustainable products and services is also increasing. Through green M&A, companies can quickly enter these emerging markets and take advantage of their green brand image and eco-friendly products to gain a head start in the market. Through market expansion, enterprises can cover a wider target customer base and increase their market share, thus enhancing their overall market competitiveness. Green M&A, as an important strategic choice for enterprises in the field of environmental protection, not only helps

enterprises to quickly acquire green technology and management experience, and enhance the image of environmental protection, but also helps enterprises to develop new market areas, increase market share, and enhance overall market competitiveness. Therefore, more and more enterprises have begun to take green M&A as one of their important means to realize green transformation and sustainable development.

6. Conclusion of the Study and Related Recommendations

6.1 Conclusion

This paper first analyzes and finds that the effect of green M&A on enterprise performance includes economic impact and social impact, and then finds that the motivation of influencing enterprises to carry out green M&A includes the implementation of national green development strategies and policies, the demand for green transformation and upgrading of the industry, and the enhancement of market competitiveness in these three aspects; and then analyzes the paths of green M&A affecting enterprise performance, which mainly include the path of technological innovation, the path of internal management optimization, and the path of brand image and market expansion. management optimization path and brand image and market expansion path. Finally, relevant suggestions are put forward from the enterprise level and the government level respectively, so as to better help enterprises carry out green M&A and improve enterprise performance.

6.2 Relevant Suggestions

6.2.1 Recommendations for Enterprises

When choosing M&A targets, enterprises should clarify their own green development strategies and focus on those enterprises with advanced green technologies and innovation capabilities. By merging and acquiring these enterprises, they can quickly obtain the required green technologies and resources, and enhance their environmental image and market competitiveness. Post-merger integration is the key to realizing the M&A objectives. Enterprises should focus on the integration of green technologies, resources and management experience to ensure that both sides of the

M&A can realize synergies. Through integration, the industrial structure can be optimized, production costs can be reduced, product quality and market share can be improved, thus enhancing corporate performance. Green M&A is not only about acquiring technology and resources, but also about expanding new business areas and market opportunities. Enterprises should actively develop new green products and services to meet the growing market demand for green consumption. By expanding new business areas, they can bring new growth points for enterprises and enhance their comprehensive competitiveness and market adaptability.

6.2.2 Suggestions to the Government

The government can formulate special green M&A support policies, clarify the definition, scope and standards of green M&A, and provide policy guidance and legal basis for green M&A. By providing economic incentives such as tax concessions and financial subsidies, it can reduce the costs and risks of green M&A and encourage more enterprises to participate in green M&A. Further strengthen environmental protection regulations and raise the cost of environmental violations, forcing high-pollution and high-energy-consumption enterprises to realize transformation and upgrading through green M&A in order to meet environmental protection requirements. Build a green M&A information exchange platform to gather green M&A project information, technical achievements, market demand and other resources, and provide enterprises with convenient information inquiry and docking services. Introduce professional consulting organizations to provide enterprises with one-stop services such as green M&A strategy planning, due diligence, legal and financial consultants, etc., so as to enhance the success rate of M&A. Encourage and support strong enterprises to carry out cross-border green M&A to acquire international advanced green technology and management experience. The government can build international cooperation bridges for enterprises through diplomatic channels, international exhibitions and other platforms.

References

[1] Zhao, X., Jia, M. Sincerity or hypocrisy:

- can green M&A achieve corporate environmental governance? *Environ Sci Pollut Res* 29, 27339–27351 (2022).
- [2] SaIvi A, Petruzzella F, Giakoumelou A. Green M&A Deals and Bidders Value Creation: The Role of Sustain ability in Post-Acquisition Performance. *International Business Research*, 2018, 11(7):96-100.
- [3] Han Z, Wang Y, Pang J. Does environmental regulation promote green merger and acquisition? Evidence from the implementation of China’s newly revised Environmental Protection Law. *Frontiers in Environmental Science*, 2022, 10: 1042260.
- [4] Jerzy N, Aleksandra S, Kamil B, et al. The Dominant Motives of Mergers and Acquisitions in the Energy Sector in Western Europe from the Perspective of Green Economy. *Energies*, 2022, 15(3):1065-1065.
- [5] Gomes, M.; Marsat, S. Does CSR impact premiums in M&A transactions? *Financ. Res. Lett.* 2018, 26, 71–80.
- [6] Choi, P.S.; Ana, E.A.; Félix, M.G. Environmental policy helping antitrust decisions: Socially excessive and insufficient merger approvals. *Resour. Energy Econ.* 2022, 67, 101267.
- [7] Yang Y, Chi Y. Path selection for enterprises’ green transition: Green innovation and green mergers and acquisitions. *Journal of Cleaner Production*, 2023, 412: 137397.
- [8] Maxwell W J, Decker S C .Voluntary Environmental Investment and Responsive Regulation. *Environmental & resource economics*, 2006, 33(4):425-439.
- [9] Weisbach M S, Kaplan S N. The Success of Acquisitions: Evidence from Divestitures. *The Journal of Finance*, 1992, 47(1):107-138.
- [10] Liang, X., Li, S., Luo, P. et al. Green mergers and acquisitions and green innovation: an empirical study on heavily polluting enterprises. *Environ Sci Pollut Res* 29, 48937–48952 (2022).
- [11] Lu J. Can the green merger and acquisition strategy improve the environmental protection investment of listed company? *Environmental Impact Assessment Review*, 2021, 86: 106470.
- [12] Zhou, L.L.; Li, W.Q.; Teo, B.S.X.; Yusoff, S.K.M. The Effect of Green Transformation on the Operating Efficiency of Green M&A Enterprises: Evidence from China. *J. Asian Financ. Econ. Bus.* 2022, 9, 299–310.
- [13] Chen Y. The Drivers of Green Brand Equity: Green Brand Image, Green Satisfaction, and Green Trust. *Journal of Business Ethics*, 2010, 93(2):307-319.