Research on Forest Certification, Enterprise Reputation and Enterprise Value

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Abstract. Introduction According to the principles and standards of forest certification system, enterprise implementation was composed of execution of laws and regulations, establishment and implementation of sustainable management planning, environmental protection and the maintenance of social public interests, and the relationship model was built among forest certification, enterprise reputation and enterprise value. An empirical test was made by using SPSS13 and AMOS17.0 on the data from design questionnaire. The results show that establishment and implementation of sustainable management planning and maintenance of social public interests not only directly drive enterprise value, also indirectly drive enterprise value through enterprise reputation promotion and stakeholders recognition, meanwhile the execution of laws and regulations and environmental protection cannot directly drive enterprise value, but can indirectly drive enterprise value through the enterprise reputation promotion and stakeholders recognition, furthermore, enterprise reputation and stakeholders recognition significantly drive enterprise value, while enterprise reputation also promotes stakeholder recognition.

Keywords: forest certification, enterprise reputation, enterprise value.

1. Introduction
Forest certification originated in the 1990s has gradually developed at home and abroad as an effective marketing tool to promote forest sustainable management. China has started to actively carry out forest certification since 2003, and the Chinese forest certification system has been put into operation in 2012. As for Chinese practice, forest certification has a lot of positive effect, including enhancing the environmental protection awareness of forestry enterprises, improving the level of management, raising the visibility of enterprises, and obtaining certain market benefits. However, there are also some problems in the certification process, such as the lack of effective market contact, credibility of certification organizations, especially the high cost of forest certification, has become additional cost for enterprises. These problems lead to the lack of motivation for the certification of forestry enterprises and forest operational businesses, which slows the certification work down in China. It takes a long time for the positive effect visible of enterprise implement forest certification, which is a long-term effect, while the negative effect of forest certification, especially the inevitable certification cost, is a short-term effect, which will diminish the financial performance of enterprises in the short
term. It is of great significance to study the microscopic mechanism of whether forest certification can drive the improvement of enterprise value, by what channel drive enterprise value, and what factors affect the value creation process of forest certification.

2. Literature review
As to the researches on forest certification, domestic and foreign scholars mostly start from the comparison among many forest certification systems, the driving causes of forest certification and the impact of forest certification, etc. The research on the relationship between forest certification and enterprise value should be subject to the scope of forest certification impact. Xu Bin (2012) defined forest certification as a market mechanism to promote forest sustainable management, discussed the impact of forest certification on environment, society and economy, and believed that forest certification promoted substantial changes in forest operation. Jiang Qide (2010) stated that forestry enterprises should disclose forest certification information in the environmental responsibility part of social responsibility report, and define forest certification as a content of social responsibility of forest enterprises. Forest certification can promote certification enterprises to fulfill their environmental responsibilities, improve their public image and enterprise reputation, and help them gain market access, maintain market share and gain price premium (Stevens et al., 1998). Forest certification can promote trust building among stakeholders (Pappila M, 2013), reduce transaction costs (Mcdermott C L, 2012), and improve some social aspects of forest management, such as sanitary health and community environment et. al. (Hain H & Ahas R, 2007). Summary on the research conclusions of domestic and foreign scholars shows that forest certification has great economic effect, social effect and environmental effect by fulfilling environmental responsibility, improving enterprise reputation and gaining the stakeholders recognition.

3. Conceptual model and research assumptions

Conceptual model
At present, there are more than 30 forest certification systems in the world, among which the most influential are FSC and PEFC. Different forest certification systems contain different certification principles and standards, but they can be concluded to four principles with common attributes, including principle of regulations and policies, principle of sustainable management, principle of environmental impact and protection, and principle of social public rights and interests. The whole process of forest certification is a process for certification enterprises to improve themselves comprehensively and also a process for fulfilling special social responsibilities. Many literatures have shown that certain social responsibility undertaken by enterprises is positively correlated with their financial performance. In the short run, the more social responsibilities an enterprise bears, the lower its enterprise value will be. However, in the long run, based on the theory of key stakeholders and the theory of social capital, undertaking social responsibility will not reduce the enterprise value. Zhu Naiping (2014) added technical innovation investment to the impact analysis model of enterprise social responsibility on their financial performance, and concluded that enterprise undertaking social responsibility can directly promote enterprise long-term financial performance, but has no significant effect on short-term financial performance. Peng Xiaoying (2019) analyzed the process of enterprise value finding, formulation, transferring and realization in the forest certification process based on the signal transmission mechanism of forest certification, and concluded that the forest certification effectively improves the whole value of certification enterprise. As a special social responsibility, the implementation of forest certification will improve the enterprise image and reputation. With the information disclosure of certification enterprises, the stakeholders recognition will increase, which will help expand the market share, especially break through the green barrier, enter the international market and win the international competitive advantage.

The conceptual model of forest certification driving enterprise value is shown in Figure 1.
This model regarded the forest certification process as the process to promote the coordinated development of society, ecology and economy. The forest certification label has the function of signal transmission. Stakeholders obtain and spread the signal of fulfilling social responsibility, forming a comprehensive evaluation of the whole enterprise, namely the enterprise reputation. The promotion of enterprise reputation promotes stakeholders recognition to the enterprise, which is conducive to more social resources flowing into the enterprise, thus improving the competitiveness and value creation capability.

**Research hypotheses**

Enterprises, either applying for forest certification or awarded the certification certificate, shall operate and manage in accordance with the standards and principles of forest certification, shall carry out forest cultivation and management in accordance with the principles of sustainability, pay close attention to the rights of community residents and interests of the workers, execute environmental protection and environmental detection, which is in essence the process of fulfilling its social responsibility. With the improvement of citizens' awareness of environmental protection, environmental protection has gradually become a legal requirement in many countries and the minimum environmental responsibility that enterprises must fulfill. Enterprises fulfilling environmental protection obligations can change consumers' evaluation on enterprises and enhance consumers' willingness to buy products of enterprises (Mohr & Webb, 2005). Many researches have demonstrated that enterprises actively fulfilling the social responsibility, particularly environmental responsibility, and timely information disclosing could establish a positive enterprise image, enhance enterprise reputation, not only have a significant influence on the existing staff, increase their satisfaction and loyalty, also be able to attract a large number of highly qualified potential employees, so as to gain the competitive advantage in the aspect of talents (Davis, 1975; Fombrun & Shanley, 1990; Rynes, 1990). In general, the certification enterprise to obtain the forest certification must execute certification system requirements, when the information is disclosed that enterprise is awarded the certification, the social public will recognize the enterprise is responsible enterprise, which can improve enterprise image, enhance enterprise reputation, increase the recognition on enterprise, and then drive the enterprise value promotion. Based on this, this paper makes the following relational hypotheses:

- **H1:** The implementation of laws, regulations and policies positively affects enterprise value
- **H1a:** Enterprise reputation has a mediating effect on the positive affects on enterprise value of implementation of laws, regulations and policies
- **H1b:** Stakeholder recognition has an intermediary effect on the positive affects on enterprise value of implementation of laws, regulations and policies
- **H2:** The establishment and implementation of sustainable management planning positively affects enterprise value

![Figure 1. A conceptual model of forest certification driving enterprise value.](image-url)
H2a: Enterprise reputation has a mediating effect on the positive affects on enterprise value of the establishment and implementation of sustainable business planning
H2b: Stakeholder recognition has a mediating effect on the positive affects on enterprise value of the establishment and implementation of sustainable business planning
H3: The implementation of environmental protection measures positively affects enterprise value
H3a: Enterprise reputation has a mediating effect on the positive affects on enterprise value of the implementation of environmental protection measures
H3b: Stakeholder recognition has a mediating effect on the positive affects on enterprise value of the implementation of environmental protection measures
H4: The maintenance of social public rights and interests has a positive impact on enterprise value
H4a: Enterprise reputation has a mediating effect on the positive affects on enterprise value of the maintenance of social public rights and interests
H4b: Stakeholder recognition has a mediating effect on the positive affects on enterprise value of the maintenance of social public rights and interests

In essence, enterprise reputation is a special intangible asset, which plays a crucial role in enterprise management and is the main factor driving enterprise value. Stakeholders are the owners of resources, who depend on the enterprise reputation to determine the allocation direction of resources and ultimately affect the enterprise value (Rindova and Fombrun, 1999; Wartick, 1992). In the case of information asymmetry, enterprise reputation has a signal transmission effect, which reduces the cost of information collection and filtering for stakeholders, so that they can make decisions quickly. A good enterprise reputation not only increases the sense of personal honor and psychological value of internal employees and leaders, but also enables them to improve work efficiency and save operating costs. It can also attract favoring from investors and policies support by government. Based on the research conclusions of domestic and foreign scholars, this paper proposes the following three hypotheses:

H5: There is a positive correlation between enterprise reputation and stakeholder recognition
H6: There is a positive correlation between enterprise reputation and enterprise value
H7: Stakeholder recognition is positively correlated with enterprise value

4. Research methods and questionnaire design
This paper uses a structural equation model to make the hypothesis test and path analysis, according to the theoretical hypothesis, 7 latent variables are involved, including execution of laws and regulations (hereinafter referred to as laws and regulations), the establishment and implementation of sustainable management planning (hereinafter referred to as management planning), the implementation of environmental protection measures (hereinafter referred to as environmental impact) and the maintenance of social public rights and interests (hereinafter referred to as public rights and interests), enterprise reputation, stakeholder recognition and enterprise value, for each latent variable, the related measurement variables are design, up to a total of 27, and the structural equation model is built of forest certification driving enterprise value, as shown in Figure 2.
According to the latent variables and related measurement variables of the structural equation model, this paper designs the questionnaire contents. Each measurement variable corresponds to a question item, and the content of the question item should be able to express and describe the essential attributes of the measurement variable. Likert five-level scale is adopted to collect the data of interviewees. For each question, the respondents’ answers are divided into five grades, namely very satisfied, satisfied, average, dissatisfied and very dissatisfied, and the corresponding scores are 5, 4, 3, 2 and 1.

The questionnaire is aimed at comprehensive forestry enterprises that have passed the forest management (FM) certification. This paper expands the selection of samples to the scope of national forestry enterprises, so as to make the research results universal.

In order to ensure the reliability and authenticity of the data, as well as the scientificity of the final research results, the questionnaire was distributed in two stages. A total of 300 copies were distributed in the form of field distribution and E-mails respectively, and 278 copies were collected. After eliminating the invalid questionnaires, 227 copies of valid questionnaires were obtained, with a returning rate of 75.6%. After collecting the sample data, SPSS13.0 software was used to conduct descriptive statistics on the 27 variables of the model, as shown in Table 1.

Table 1. Descriptive statistics of measurement variables.

| standard deviation       | Sample number | maximum | minimum | mean  | Standard deviation |
|--------------------------|---------------|---------|---------|-------|-------------------|
| Lawful management A1     | 227           | 5.00    | 1.00    | 4.04  | 1.136             |
| Tax and fee payment A2   | 227           | 5.00    | 1.00    | 4.10  | 1.074             |
| Abiding by the forest certification | 227           | 5.00    | 1.00    | 4.10  | 1.136             |
| standards | A3      | 227 | 5.00 | 1.00 | 4.08 | 1.124 |
|----------|---------|-----|------|------|------|-------|
| Forest ownership | A4      | 227 | 5.00 | 1.00 | 3.70 | 1.154 |
| Management planning | A5       | 227 | 5.00 | 1.00 | 3.73 | 1.146 |
| Employee training | 6       | 227 | 5.00 | 1.00 | 3.68 | 1.196 |
| productivity input | A7     | 227 | 5.00 | 1.00 | 3.65 | 1.132 |
| Mode of operation | A8     | 227 | 5.00 | 1.00 | 3.89 | 1.096 |
| logging rate control | A9      | 227 | 5.00 | 1.00 | 3.90 | 1.122 |
| Environment protection | A10      | 227 | 5.00 | 1.00 | 3.93 | 1.088 |
| Biodiversity protection | A11    | 227 | 5.00 | 1.00 | 3.79 | 1.135 |
| Forest protection | A12     | 227 | 5.00 | 1.00 | 3.61 | 1.060 |
| Forest monitoring and assessment | A13   | 227 | 5.00 | 1.00 | 3.61 | 1.044 |
| rights of the original residents | A14     | 227 | 5.00 | 1.00 | 3.58 | 1.038 |
| community relations | A15     | 227 | 5.00 | 1.00 | 3.96 | 1.120 |
| laborers’ rights | A16     | 227 | 5.00 | 1.00 | 4.02 | 1.079 |
| Position in industry | A17     | 227 | 5.00 | 1.00 | 3.98 | 1.070 |
| Brand awareness | A18     | 227 | 5.00 | 1.00 | 3.97 | 1.136 |
| Attention | A19     | 227 | 5.00 | 1.00 | 3.73 | 1.153 |
| Emotional engagement | A20    | 227 | 5.00 | 1.00 | 3.74 | 1.178 |
| Consumer recognition | A21    | 227 | 5.00 | 1.00 | 3.76 | 1.177 |
| Employee recognition | A22    | 227 | 5.00 | 1.00 | 3.72 | 1.151 |
| Investor recognition | A23    | 227 | 5.00 | 1.00 | 4.19 | 1.055 |
| Social recognition | A24     | 227 | 5.00 | 1.00 | 4.15 | 1.025 |
| SA25 |          | 227 | 5.00 | 1.00 | 4.19 | 1.034 |
| Profit increase | A26     | 227 | 5.00 | 1.00 | 4.19 | 1.034 |
| Growth potential | A27     | 227 | 5.00 | 1.00 | 4.19 | 1.034 |

5. Data analysis

*Descriptive statistical analysis of measurement variables*

As to the statistical indicators of measured variables, all items are assigned a value within maximum of 5 and minimum of 1, and the average with the largest variable is sales growth and growth potential, which states that leaders and employees of the enterprise are satisfactory to the enterprise development, only 8 variables with the average more than 4 fall into the items complying with laws and regulations and enterprise value, which states that enterprises surveyed operate Data Analysis well according to state and local laws and regulations policy, and continue to abide by the forest certification standards after the certification awarding. The means of related variables of maintenance of public rights and interests are low. The means of the rights and interests of the original residents, community relations and laborers’ rights are 3.61, 3.61 and 3.58 respectively. This result is related to the fact that the respondents are more primary-level employees, but also reflects the current situation that the efforts concerning the rights and interests of employees and surrounding residents of Chinese forestry system are not enough. The variables with large standard deviations are productivity input, logging rate control, employee recognition and investor recognition, whose values are 1.196, 1.176, 1.178 and 1.177 respectively, while the variables with small standard values are sales growth,
enterprise profit and growth potential, indicating that the development prospects of forestry enterprises surveyed are good.

Reliability and validity analysis

5.1.1. Reliability analysis. Reliability represents the consistency and stability of the scale. Generally speaking, the reliability of the questionnaire not only changes with the sampling error, measurement error and deviation of the survey, but also changes due to the subjectivity of the respondents, resulting in significant differences in multiple measurements. Reliability can be divided into internal reliability and external reliability. There are many analysis methods for internal reliability, and Cronbach’s Alpha coefficient is often used to estimate internal reliability. American statistician Hair et al. considered that Cronbach’s Alpha greater than 0.7 is high reliability. In this paper, 227 samples were input into SPSS13.0, and the overall Cronbach’s Alpha of the scale was 0.914 through reliability analysis, indicating good reliability of the data samples. The reliability measurement results are shown in Table 2.

| Variable name          | Number of measurement items | Cronbach’s Alpha |
|------------------------|-----------------------------|------------------|
| Laws and regulations   | 4                           | 0.897            |
| Management planning    | 5                           | 0.923            |
| Environment impact     | 4                           | 0.908            |
| Public rights and interests | 3                       | 0.896            |
| Enterprise reputation  | 4                           | 0.936            |
| Stakeholders recognition | 4                         | 0.936            |
| Enterprise value       | 3                           | 0.901            |
| Total of questionnaire | 27                          | 0.914            |

5.1.2. Validity analysis. The commonly used validity analysis mainly includes content validity and structure validity.

The questionnaire items in this paper have good validity and can fully reflect the contents to be expressed in the measurement items. Construct validity is mainly tested by factor analysis. First, KMO and Bartlett sphere tests were performed on the sample data to verify the suitability of the sample data for factor analysis. In SPSS13, the maximum variance rotation was used for factor analysis, and the KMO coefficient was 0.888, while the Bartlett sphere test was significant (chi-square value was 4624.080, 351 of freedom degree, and the significant probability was 0.000). According to the criteria of factor analysis, a total of 7 factors with eigenvalues greater than 1 were extracted by the Varima rotation method, and the interpretation variance reached 80.936%. All the factor loads were greater than 0.841, indicating that the measured results were basically consistent with the theoretical model and the structure validity was good.

6. Model test

Model fitting degree test
To test the above hypothesis, this paper uses the structural equation tool AMOS17.0, and makes a series of hypothesis tests using structural equation model. In terms of evaluation overall model fitting standards, this paper uses the indicators of chi-square freedom ratio \( \frac{\chi^2}{df} \), adaptation index (GFI), gradual residual mean square and square root (RMSEA), and adjusted adaptation index (AGFI) to examine the overall model fitting situation. The statistical data were substituted into the structural
equation, and then AMOS17.0 was used to calculate the model fitting index by the mean of maximum likelihood estimation. The analysis results are shown in Table 3.

Table 3. Model fitting index test.

| Fitting indicator                          | Criteria                                      | Value in the model | Fitting degree |
|--------------------------------------------|-----------------------------------------------|--------------------|----------------|
| Absolute fitting indicator                 |                                               |                    |                |
| $x^2 / df$                                  | The smaller, the better,$<3$ accepted          | 1.090              | good           |
| GFI(adaptation index)                      | The closer to 1, the better,$>0.8$ accepted    | .900               | good           |
| RMSEA(gradient residual mean square and square root) | The closer to 0, the better,$<0.1$ accepted   | .020               | good           |
| Incremental fitting indicator              |                                               |                    |                |
| AGFI(adjusted adaptation index)            | The closer to 1, the better,$>0.8$ accepted    | .880               | Nearly good    |
| NFI(normal fit index)                      | The closer to 1, the better,$>0.8$ accepted    | .926               | good           |
| CFI(comparative fit index)                 | The closer to 1, the better,$>0.8$ accepted    | .993               | good           |
|IFI(incremental fit index)                  | The closer to 1, the better,$>0.8$ accepted    | .993               | good           |
| TLI(Tucker-Lewis Index)                    | The closer to 1, the better,$>0.8$ accepted    | .993               | good           |

As shown in Table 3, the $x^2 / df$ value is less than 3, RMSEA is less than 0.1, GFI, AGFI, NFI, CFI, IFI and TLI are all greater than 0.8, and the model fitting degree is good, which can relatively truly explain the internal logical relationship between different concepts. This logic relationship can be observed from the path coefficients and significance test results of structural equations, as shown in Table 4.

Table 4. Analysis of model path coefficient and significance results.

| Preconditions and Hypothesis | Path  | Standard errors | Critical value | P value | Conclusion |
|------------------------------|-------|-----------------|----------------|---------|------------|
| AE  --- AA                   | .226  | .070            | 3.213          | .001    | Support    |
| AE  --- AB                   | .170  | .070            | 2.447          | .014    | Support    |
| AE  --- AC                   | .230  | .070            | 3.260          | .001    | Support    |
| AE  --- AD                   | .201  | .073            | 2.756          | .006    | Support    |
| AF  --- AA                   | .221  | .074            | 2.990          | .003    | Support    |
| AF  --- AB                   | .181  | .072            | 2.504          | .012    | Support    |
| AF  --- AC                   | .117  | .053            | 2.207          | .025    | Support    |
| AF  --- AD                   | .260  | .077            | 3.393          | ***     | Support    |
| AF  --- AF                   | .163  | .075            | 2.155          | .031    | Support    |
| AG  --- AF                   | .164  | .066            | 2.489          | .013    | Support    |
| AG  --- AE                   | .165  | .068            | 2.436          | .015    | Support    |
| AG  --- AA                   | -.023 | .067            | -.347          | .729    | Not support|
As shown in Table 4, laws and regulations and environment do not have a significant enough impact on enterprise value and fail the test. Hypothesis H1 and H3 are not valid, and all other hypotheses have passed the test. The establishment and implementation of sustainable management planning has a significant impact on the enterprise value with path coefficient of 0.224 at the level of p<0.05, Hypothesis H2 is valid. The path coefficient of maintaining social public rights and interests on enterprise value is 0.155, which has a significant impact at the level of p<0.05, Hypothesis H4 is valid. The positive correlations among stakeholder recognition and enterprise reputation and enterprise value have passed the test, Hypothesis H6 and H7 are also valid. The path coefficient of enterprise reputation to stakeholders is 0.165, and the p value is 0.031, Hypothesis H5 has also passed the test.

Intermediate effect test

The mediating effect of variables can be divided into “non-significant mediation”, “significant mediation” and “complete mediation” according to the variance variation degree. The degree of explanation increases successively. The Sobel test proposed by Wen Zhonglin is generally used to test the mediating effect. This paper uses hypothesis H1a to illustrate the testing process. The first step is to sum the corresponding data items of independent variables (laws and regulations X), intermediary variables (enterprise reputation M) and dependent variables (enterprise value Y), and then subtract the respective average values to get the centralized data. The second step is to test the effect of independent variables on dependent variables and whether the c is significant in the equation y=cx+e1. The results show that the regression is significant of equation y= 0.111X+0.002, t=2.313, sig=0.022, and c is significant. The third step is to test whether a and b are significant in the equation M=aX+e2, Y=c1X+bM=e3. The results show that the regression effect of equation M=0.272X-0.001 is significant, the t value of a was 4.094, sig=0.000, a is significant, the equation Y= 0.048x +0.230+0.002 is significant, and the t value of b is 5.026, sig=0.000. In the fourth step, since both a and b are significant, the coefficient c1 is further tested. In the third step, it is found that the t of c1 is 1.025, sig=0.306, and c’ is not significant, so it could be considered a complete mediating effect.

Table 5. Mediation effect test results.

| Hypothesis | Regression coefficient c | Regression coefficient a | Regression coefficient b | Regression coefficient c’ | Sobel test | mediating effect |
|------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|-----------------|
| H1a        | significant              | significant              | significant              | Not significant          | ——         | complete mediation |
| H1b        | significant              | significant              | significant              | Not significant          | ——         | complete mediation |
| H2a        | significant              | significant              | significant              | significant              | ——         | significant mediation |
| H2b        | significant              | significant              | significant              | significant              | ——         | significant mediation |
| H3a        | significant              | significant              | significant              | significant              | ——         | significant mediation |
| H3b        | significant              | significant              | significant              | significant              | ——         | significant mediation |
Table 5 reflects the mediating effect of enterprise reputation and stakeholder recognition. The execution of laws and regulations and implementation of environmental protection measures cannot directly increase enterprise value, but can indirectly drive enterprise value through the transmission of these two intermediary variables. Enterprise reputation and stakeholder recognition have a completely mediating effect on the path of laws and regulations affecting enterprise value, indicating that through abiding by laws and paying attention to integrity and establishing a good image, stakeholders will recognize enterprise, thus driving the improvement of enterprise value. Enterprise reputation and stakeholder recognition also play a significant mediating role in the other three factors influencing enterprise value.

7. Research conclusion
The research results show that the implementation of forest certification can drive the improvement of enterprise value, including: (1) the establishment and implementation of management planning has a direct impact on enterprise value, and the impact is very significant. This is because the management planning of the forest certification is aiming at sustainable management, adapting to the scale and intensity of forest management, to ensure the forest management to realize the stable income, but also consider the environmental and social costs, control forest logging rate, the establishment and implementation of the planning content will improve the management level of enterprises and the development ability, enterprises with good internal management level will have a strong market competitiveness, directly improve enterprise value. (2) Safeguarding the public rights and interests has a direct and significant impact on enterprise value. Forest certification requires that forest management should not infringe upon the rights and interests of the original residents, and should respect the culture and customs of the counterparts. Certified enterprise should provide employment opportunities for the surrounding residents, respect the rights and interests of the employees of the working unit and so on. These measures will directly win the praise of the community and workers, let them take the enterprise as their home from their heart, put all their energy and wisdom into work, form a good enterprise culture and spirit, promote the economic interests of the enterprise and enterprise value increasing. (3) Compliance with laws, regulations and policies cannot directly drive enterprise value, but can indirectly drive enterprise value. In order to control the behaviors of certified enterprises, the forest certification system requires certified enterprises to comply with national and local government policies and laws, including laws and regulations in the aspects of economic, environmental and social related to forest management and government regulations. Because forest certification is a voluntary system, i.e. a soft policy. To achieve sustainable forest management, various policies, regulations and incentives established by the government should be mutually supplemented. The establishment of correct laws, regulations and policies, and then through technology and capacity building, can achieve the sustainable forest management that society expects. However, laws and regulations are still a constraint tool for enterprises, which restrict some operation activities of enterprises, leading to the increase of environmental benefits of forest management and the decline of short-term business interests. Therefore, compliance with laws and regulations cannot directly drive the improvement of enterprise value. However, a law-abiding enterprise will have a strong influence in the industry and gain the support and trust of stakeholders, thus driving the enterprise value. (4) Environmental protection measures cannot directly drive enterprise value, but can indirectly drive enterprise value. The implementation of environmental protection measures will increase investment in environmental protection, which will lead to the increase of enterprise costs and affect operating income, thus leading to the decrease of enterprise value. However, the disclosure of environmental protection information
can help build a positive image of the enterprise, improve the enterprise reputation, and gain stakeholders recognition and support, thus driving the improvement of enterprise value.

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