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Enhancing Corporate Social Responsibility through Microblog Platform:
A Consumer Behavior Information Analysis Approach

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Abstract

Understanding how users behave significantly impacts their purchasing decisions, making the study of corporate social responsibility's influence on consumer behavior a recent focal point in the information field. However, challenges arise during the analysis of user behavior information, such as decision-making rationality and the limited availability of behavioral data.

To address these issues, this paper presents a method for analyzing consumer behavior information based on the microblog platform. This approach aims to track both consumer user behavior and purchase decisions. Initially, the microblogging platform is utilized to gather information on corporate social responsibility from consumers. Subsequently, consumer user behavior data is summarized through the microblog platform, and purchase decisions are categorized based on this behavioral information.

The next step involves transmitting purchase decision information through the microblogging platform, aligning with social responsibility standards. This process encourages the integration of behavioral information and purchase decisions across microblogging platforms. The outcomes of the analysis indicate that, supported by social responsibility standards, the microblog platform can collect more comprehensive behavioral data, enhancing the rationality of consumer purchase decisions. Additionally, the microblogging platform plays a role in promoting corporate social responsibility, aligning with the requirements of informed purchase decisions.

Keywords

Corporate social responsibility, Purchasing decisions information, Weibo, Microblogging platform, Consumer behavior

INTRODUCTION

The term "microblogging platform" refers to the convergence of big information technology [1], multimedia technology, and network communication technology [2]. This convergence enhances the speed of file and email transmission, improves the security of remote login [3], and aligns with the needs of network news and e-commerce development. A crucial component is the social responsibility standard, a communication technology protocol for information transmission, audio, and television images [4]. It boasts robust signal transmission capabilities [5], ensuring stable network transmission speed, enabling high-speed processing of massive information [6], and providing crucial support for analyzing consumer user behavior information [7].

Despite these advantages, the analysis of consumer purchase decisions often encounters challenges involving complex information and frequent interference, impacting decision-making rationality [8]. To address these issues, this paper explores the analysis of social responsibility user behavior information across microblogging platforms and microblogging platforms, aiming to identify more reasonable purchase decisions [9]. The existing literature has extensively studied the relationship between microblogging platforms and corporate social responsibility consumers, as depicted in Figure 1.
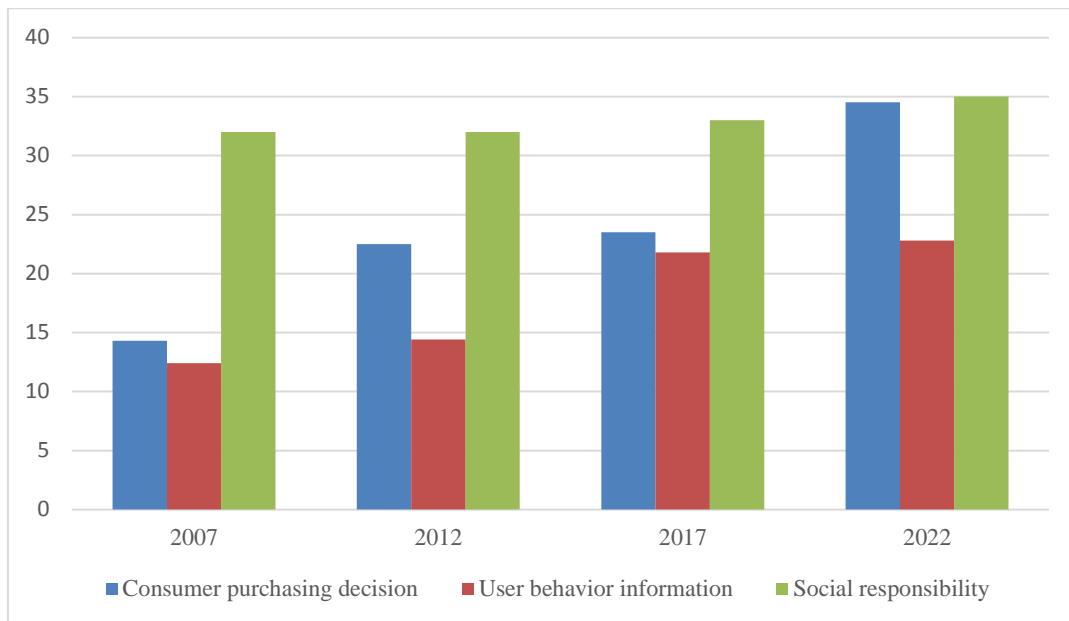
Figure 1 Literature on CSR consumers and microblogging platform
(*Source*: Literature, survey report on corporate social responsibility)

It is evident from Figure 1 that the investigation into microblogging platforms and socially responsible consumers is on the rise [10]. Consequently, this research forms a comprehensive and interdisciplinary technology that integrates computer technology [11], network technology, communication technology, and various technological achievements in the field of information science [12]. This integration caters to the multi-platform communication needs for information transmission, reducing the transmission loss rate [13], facilitating the efficient utilization of information resources, and ensuring the stability of information transmission [14]. Thus, microblogging platforms establish the essential groundwork for analyzing user behavior information related to corporate social responsibility across diverse regions, as illustrated by the improvement rate in microblogging platform communication presented in Table 1.

Table 1 Literature results of microblogging platform and socially responsible consumers (unit: %)

Index	User behavior information collection	Purchase decision judgment
Rationality of decisions	99.46	82.09
Behavior information	98.97	81.93
Corporate Social Responsibility	97.27	81.88
Information Transmission capability	96.72	0.96

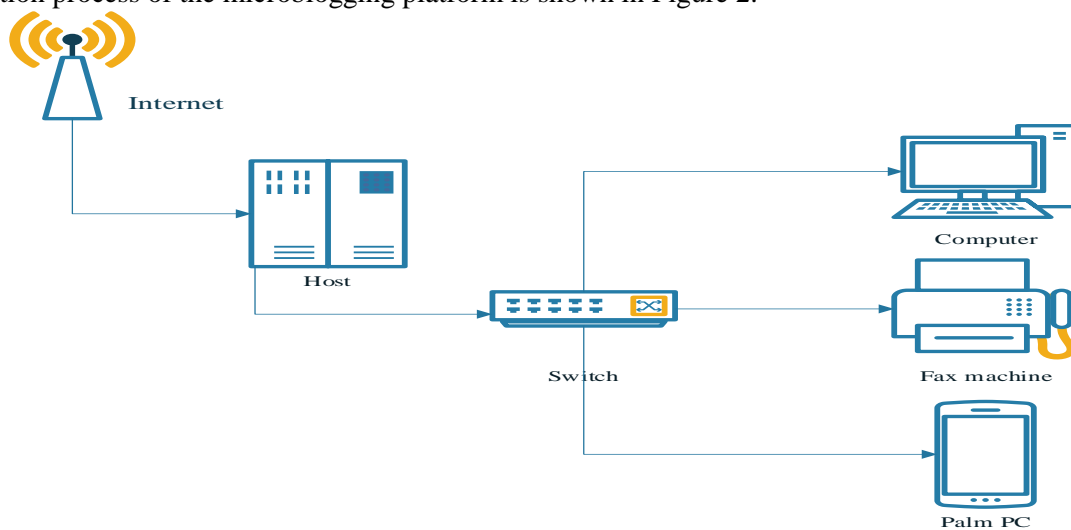The communication process of the microblogging platform is shown in Figure 2.

Figure 2 Cross-microblog platform process of consumer purchase decision information under microblogging platform

The microblogging platform boasts a high platform utilization rate and extensive quantifiability, enabling the realization of corporate social responsibility content consumption. Collaborating with the microblog platform simplifies the integration of consumer information, facilitating the effective utilization of user behavior information. Simultaneously, the cultural significance and analysis of user behavior information related to corporate social responsibility are examined to validate the impact and information integrity of the microblogging platform.

Experiments confirm that the microblog platform enhances the inclusion rate of user behavior information, streamlining platform points, and reducing the complexity of wireless transmission. By employing both the microblogging platform and microblog platform in the analysis of social responsibility consumer behavior, one can compare the similarities and differences in corporate social responsibility. During the analysis of user behavior information, emphasis is placed on the transmission effectiveness and information rationality, necessitating the filtration of information on the microblog platform to achieve optimal transmission efficiency. The process of collecting user behavior information through the microblogging platform is detailed in Table 2.

Table 2 Information collection points of multimedia technology and Weibo platform

Information content	Information source	Number of Weibo platforms
Voice	3	5
image	4, 5	3
Video	6	2

Table 2 highlights that the microblogging platform has the capability to gather information from diverse servers and relay points, with the Weibo platform playing a role in filtering user information. While the microblogging platform can compute consumer purchase decisions, it lacks the capacity for analyzing and categorizing consumer user behavior information. This limitation impacts the precision of decision-making concerning responsible consumer user behavior information. Therefore, utilizing the microblog platform becomes essential for enhancing this analytical process.

RELATED CONCEPTS

The analysis of consumer user behavior information primarily begins by examining user behavior details, demand characteristics, purchase motivation, and purchase decisions. The Weibo platform plays a crucial role in mining user behavior information and assessing social responsibility. This involves streamlining consumer user behavior analysis indicators, integrating relevant behavior information into the analysis collection, and incorporating impact and development values.

By integrating consumer user behavior information analysis with the microblogging platform, a substantial volume of consumer behavior information can be efficiently transmitted, reducing the network transmission load. The microblog platform aligns the frequency band, platform features, and transmission volume with social responsibility and consumer user behavior information. The specific transmission process unfolds as follows.

Consumer information collected by the Weibo platform: consumer purchase decision information is b_i, content user behavior information analysis is $gm(x_i)$, structural user behavior information analysis is c_i, decision-making user behavior information analysis calculation function is w_i, and the importance of user behavior information analysis is d_i, Consumer information collection is shown in Equation (1).

$$gm(x_i) = \sum b_i + c_i + d_i \Leftrightarrow \lim_{\delta x \to 0} \quad (1)$$

Decision ranking of consumer user behavior information: decision ranking function is $lin(x)$, user behavior information analysis impact degree calculation function is $t(x)$, consumer user behavior information analysis index cross-microblog platform degree ranking is $a(x)$, microblog platform sorting result is k, The ranking of consumer user behavior information analysis indicators is shown in Equation (2).

$$k = \frac{\int a(x) \cdot b(x)}{lin(x)} \quad (2)$$

Consumer user behavior information and purchase decision: The information of the Weibo platform is top_i, the behavior information judgment function is, the decision judgment function is $lip(x)$, and the consumer user behavior information is $tel(x)$, and processing process is shown in Equation (3).

$$lip(x) = tel(x) \times \overrightarrow{top_i} \quad (3)$$

CONSUMER PURCHASE DECISION-MAKING PROCESS BASED ON MICROBLOGGING PLATFORM
Network multimedia transmission processing of user behavior information

Corporate Social Responsibility (CSR) disseminates information highlighting the dynamic interplay in consumer purchasing decisions. Therefore, encrypting consumer behavior information is essential to discern key content and its relevance. Additionally, the efficiency of transmitting consumer purchase decision information is affected by the occupancy of the transmitting platform and relay delays. Consequently, it becomes crucial to eliminate irrelevant communication content, simplifying the processing of communication information. For a more rational analysis of user behavior information, opting for the nearest microblog platform is necessary. The processing results are detailed in Table 3.

Table 3 purchase rate of CSR microblog platforms

The type of information / Transfer Content	Number of Weibo platforms	Purchase rate	Disseminate rate	Publish rate	Decision rate
Social responsibility information	3	93.88	97.11	93.27	96.94
	36	98.36	95.78	98.70	94.32
	34	95.90	95.72	98.58	97.36
	24	97.36	96.32	94.21	98.31
	6	97.03	99.46	95.53	94.68
Consumer User behavior information	39	95.43	98.97	96.36	96.90
	9	97.36	97.27	95.30	96.59
	21	97.34	96.72	96.65	96.89
	18	96.34	99.03	97.15	96.75
	29	96.99	96.21	93.09	95.79
Purchase decision information	38	95.37	96.48	98.07	99.60
	11	98.79	96.45	97.12	94.54
	12	98.28	98.68	95.43	93.90
	17	95.74	97.77	96.34	97.05

Examining the incorporation of paper-cutting consumer behavior information analysis in Table 2 reveals the robust transmission integrity of social responsibility information, consumer user behavior information, and purchase decision information. This suggests that the information collection process on the microblog platform is functioning effectively.

Matrix processing of consumer user behavior information
The information in Table 2 is dynamically traced and the matrix values of each tracking class are shown in Table 4.

Table 4 Analysis results of microblogging platform of consumer user behavior information

Weibo platform number / Information content	Products	Social responsibility	Decision-making	Platform information
3，3	78.59	56.59	31.34	9.35
36,12	47.37	37.55	29.09	7.71
34,17	70.68	1	54.62	4.64
24,18	55.83	65.06	33.72	6.57
6,1,1	48.69	43.59	36.81	8.50
39,8	47.79	60.19	100	5.11
9,1	53.57	27.28	69.87	4.09
21,5	100	65.40	70.04	5.18
18,10	53.97	62.77	33.37	7.37
29,11	66.87	55.21	29.66	5.54
38,9	45.95	47.97	47.41	8.38
11,13	59.44	67.99	53.94	5.23
12,9	78.59	56.59	31.34	9.35
17,13	47.37	37.55	29.09	7.71

The data presented in Table 2 indicates a high level of user behavior information on the microblog platform, suggesting optimal values for decision-making within the information matrix. Simultaneously, it highlights that the information collected by the microblog platform supports its functionality, demonstrating rationality in consumer user behavior information. There is a lack of sudden or fabricated values in user behavior information analysis, aligning with the transmission requirements of the microblogging platform.

While there are slight variations in consumer user behavior information analysis, wireless information transmission surpasses 4G/s. This suggests the complexity of consumer user behavior information and a significant proportion of multimedia recognition. Preliminary information simplification is achieved. Moreover, the microblog platform exhibits a user behavior information processing capacity exceeding 80%, whereas the consumer behavior information decision-making rate is only 25%. This underscores the need for further simplification of consumer user behavior information.

CONSUMER PURCHASE DECISION CASES BASED ON WEIBO PLATFORM
Conditions for the implementation of microblogging platform
Based on microblogging platform and combined with corporate social responsibility, this paper analyzes user behavior information, from the aspects of microblog platform, purchase decision, user behavior information, etc., and the specific conditions are shown in Table 5.

Table 5 Conditions for the implementation of microblogging platform

Parameter	content	Transmission side
Weibo platform	23 sites	46 pcs
Purchase decisions	Temporary, long-term, personal	23 pcs
User behavior information	Consumption, complaints, tracking	3 pcs
Social responsibility	National standards, national policies	4 pcs

The sampling results after microblogging platform processing are shown in Figure 3
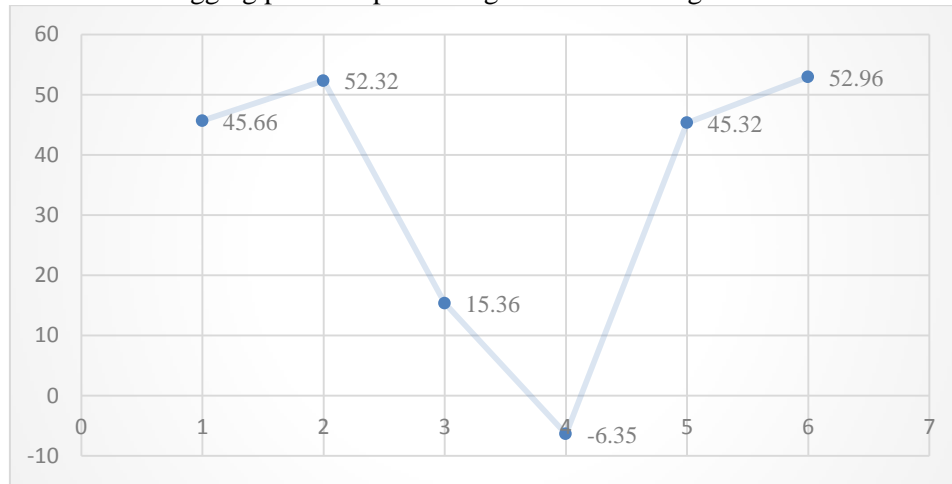

Figure 3 Sample results of CSR

Figure 3 illustrates the foundation and actual display impact of corporate social responsibility. The foundational information, serving as the framework for corporate social responsibility, primarily involves the analysis of consumer user behavior information, which, in turn, comprises both content and form. The comparative results presented in Figure 5 indicate that the microblogging platform enhances the effectiveness of social responsibility consumer behavior information analysis. It adeptly showcases the content of social responsibility and more precisely achieves the cross-microblog platform integration of consumer user behavior information. This suggests that the user behavior information analysis and the analytical impact of the microblogging platform are commendable. A detailed overview of the specific information is provided in Table 6.

Table 6 Overview of user behavior information analysis of CSR

Decision content	Research directions	The number of user behavior information analytics metrics	User behavior information recognition rate
Weibo user behavior	Personal consumption	3	73.98
information analysis	Corporate consumption	9	66.73
Offline user behavior	Guided consumption	8	74.31
information analysis	Promote consumption	9	75.82
	Profile consumption	8	84.09
CSR user behavior	environment	7	76.27
information analysis	resource	9	73.59

Decision process of corporate social responsibility in user behavior information
Corporate social responsibility is the main content of influencing user behavior information, and it can deeply analyze the purchase decision of user behavior information, as well as the specific purchase situation, and the specific inclusion results are shown in Table 7.

Table 7 CSR consumers' purchasing decisions

Incorporation methodology	User behavior information metrics	The degree of purchase by user behavior information	Lift rate
	Corporate behavior information	30.82	27.36
	products	59.66	75.08
	generality	60.15	72.36
	personality	31.69	39.08
	consumer	48.90	26.83
CSR user behavior information analysis	Analysis of user behavior information of private enterprises	70.11	61.65
	Analysis of user behavior information in state-owned enterprises	38.08	45.26

	Joint venture user behavior information analysis	32.94	55.85
Weibo user behavior information analysis	symbol	35.99	74.13
	dimension	26.16	56.67
	Corporate image	60.78	56.09
	Times user behavior information analysis	45.79	65.26
	Traditionality	30.66	31.32
Number of businesses	14		
Decision rate	45.63		

Analyzing consumers' purchase decisions from Table 7 reveals that the degree of user behavior information influencing purchases is nearly 80%, with a promotion rate exceeding 40%. This indicates that the microblogging platform is effective in tracking and analyzing user behavior information, extracting pertinent data from the microblog platform, thereby enhancing analysis accuracy. The dynamic evolution of CSR consumers' purchasing decisions is depicted in Figure 4.
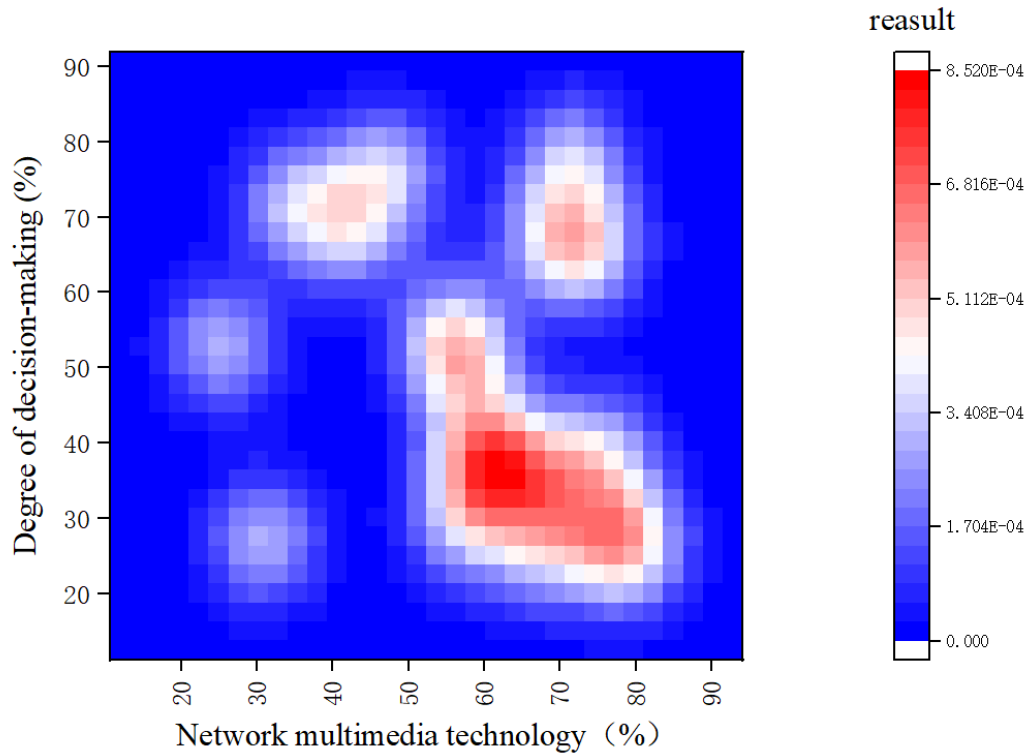

Figure 4 The purchase decision process of consumer user behavior information

Figure 4 illustrates that the method presented in this paper significantly influences CSR on purchasing decisions. Throughout the CSR analysis process, the degree of impact on purchasing decisions through the analysis of user behavior information surpasses 70%, and this influence continues to grow. The primary factor contributing to these outcomes is the microblog platform's ability to acquire user behavior information and streamline transmission volume in multimedia technology. Consequently, the microblogging platform enhances information transmission speed, decreases server occupancy, and fulfills the analysis needs of consumer purchase decisions.

Social Responsibility User behavior information Analysis Rate
CSR changes will have an impact on purchasing decisions, information transmission, port compatibility, wireless transmission rates, and frequency band usage, so reduce the frequency of changes, as shown in Table 8.

Table 8 User behavior information analysis rates for social responsibility

Index	Content	Disseminate	Compatible information	Key content	Transfer point	Key
Analysis of common user behavior information	Weibo	85.08	85.10	94.91	74.87	84.96
	tradition	85.05	84.81	95.35	74.90	85.12
Consumer user behavior information analysis	Weibo	84.80	85.02	94.92	74.74	84.99
	tradition	85.04	86.14	95.19	74.98	85.02

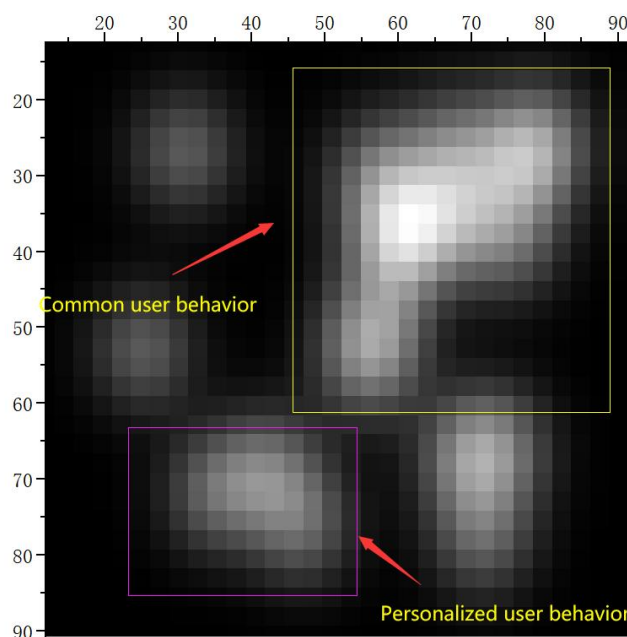The changes in consumer behavior information analysis in Table 8 are shown in Figure 5.

Figure 5 Changes in user behavior information analysis of CSR

Figure 5 reveals that, across different levels of user behavior information analysis, there is minimal variation in the analysis of common user behavior information and consumer user behavior information regarding CSR impact. This suggests that changes in CSR have a limited impact on the displayed content. Furthermore, the alterations in the analysis of common user behavior information represent a foundational shift that does not significantly impact social responsibility. This underscores that the Weibo platform can effectively implement consumer purchase decisions.

The microblog platform's ability to reduce the error rate of transmission through information simplification is a key factor. This process shortens the analysis time for consumer purchase decision information and enhances the volume of single information transmission, fully meeting the requirements of consumer user behavior information analysis.

Selection effect of microblogging platform microblogging platform
The selection effect is the basis of CSR user behavior information analysis and analysis, and it is necessary to sample and include user behavior information analysis points on multiple microblog platforms, record the actual display results, and compare them, the specific results are shown in Figure 8.
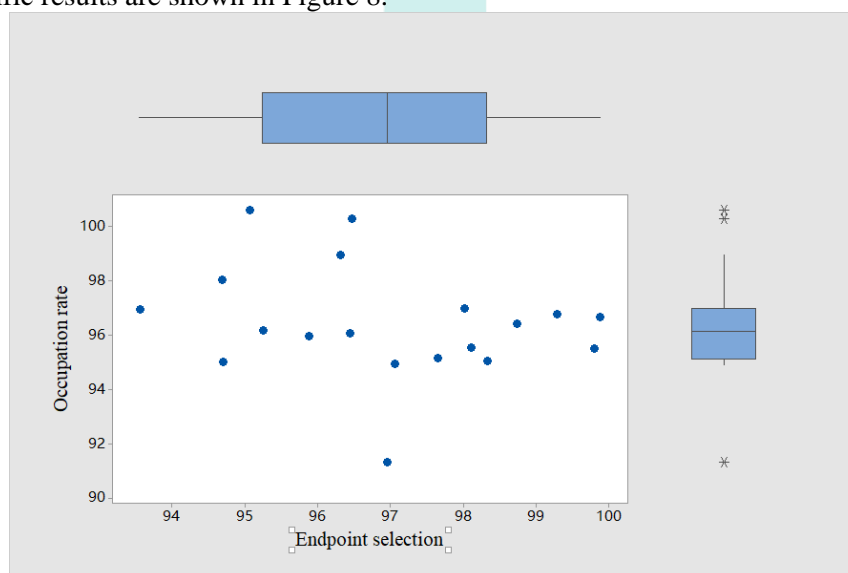

Figure 6 The selection effect of microblog platform for CSR user behavior information analysis\

From Figure 6, it is evident that the relay microblog platform is dispersed, with the selection effect information concentrated from both sides toward the middle. This outcome indicates a substantial difference between the quantity of relay points and user behavior information analysis, affirming that the relay microblog platform can effectively meet actual transmission requirements.

Throughout the transmission process, the information presentation is scattered on both sides. This dispersion occurs because changes in user behavior information are analyzed into two sets of information in different directions. The information iteratively evolves along its respective direction, achieving more effective iterative calculation.

This information collectively demonstrates that the microblog platform adeptly tracks the content of corporate social responsibility and enhances the capabilities of network multimedia communication. Summarizing the findings from Figure 6, the calculation results are detailed in Table 9.

Table 9 Selection effect of microblog platform for corporate social responsibility

Weibo platform	Parameter	Weibo platform utilization	Cross-microblogging platform effects	Cross-microblogging platform metrics
Random microblogging platform	Weibo user behavior information analysis	47.10	36.33	7
	Cross-platform	25.38	28.92	7
	Big information user behavior information	77.22	72.06	10
Fixed network microblogging platform	Weibo user behavior information analysis	30.98	67.37	10
	Cross-platform	57.02	63.94	32
	Big information user behavior information	78.59	56.59	15

The analysis of results from the fixed network microblog platform and random microblog platform reveals that, across the entire sampling analysis, the cross-microblog platform indicators for content user behavior information analysis, cross-platform and big information user behavior information test information package exceeded 80%. The receiving selection effect was 90%, and the progressive probability surpassed 70%. These findings indicate that, in various sampling outcomes, the disparity between the purchase decisions of socially responsible consumers and the actual presentation result was minimal. Both the cross-microblog platform effect and indicators exceeded 80%, further affirming that the microblogging platform can achieve real-time transmission of consumer purchase decision information. It dynamically adapts to fluctuations in consumer user behavior information, providing wireless communication information support for the analysis of corporate social responsibility.

Accuracy of Consumer User behavior information Analysis
Social responsibility consumer purchase decisions and microblog platform user behavior information analysis need to verify the accuracy of the analysis results, and the specific results of consumer user behavior information are shown in Figure 7.
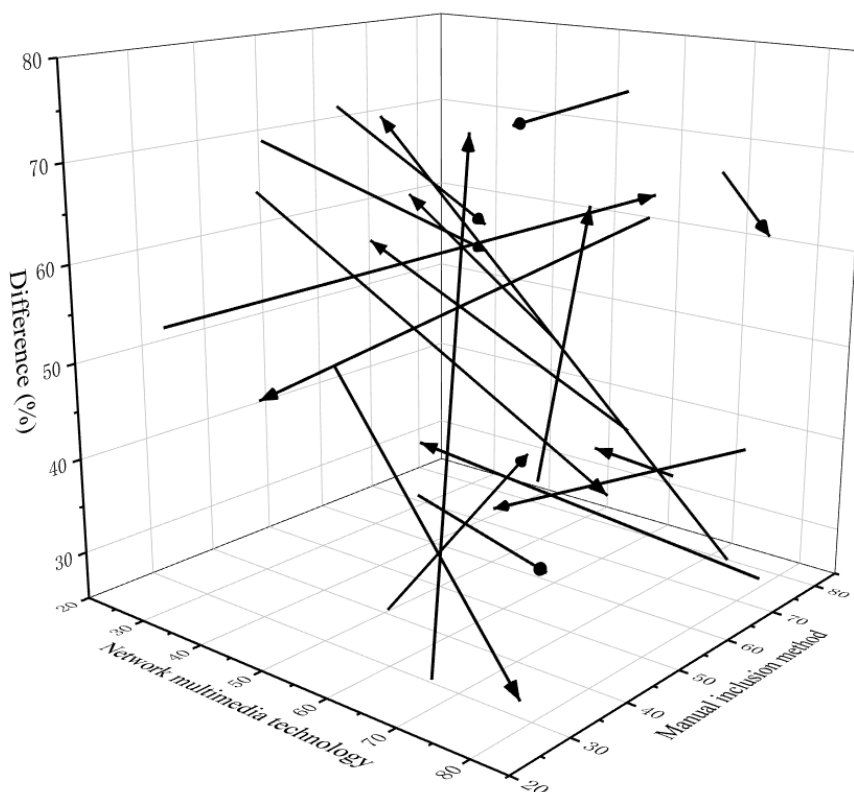

Figure 7 Accuracy of CSR consumer behavior information analysis

Figure 7 demonstrates that the transmission accuracy of the microblogging platform surpasses that of the manual inclusion method. The transmission results for each CSR exhibit less divergence from the actual presentation, underscoring the microblogging platform's capability to precisely extract user behavior information for analysis and provide comprehensive support for CSR. Detailed results are presented in Table 10.

Table 10 Accuracy of CSR consumers' purchasing decisions

Weibo platform number	Microblogging platform decision analysis		Microblogging platform analysis	
	Subjective	Behavior information	Subjective	Behavior information
No. 1, No. 2	55.89	26.29	54.54	77.96
No. 4, No. 3	59.85	75.25	38.36	31.78
No. 2, No. 7	75.33	78.29	38.53	39.73
No. 5, No. 8	67.67	74.05	35.04	59.95
No. 8, No. 6	57.40	32.56	29.37	49.66
No. 4, No. 5	79.29	76.34	25.46	41.46
No. 3, No. 1	61.21	54.78	37.74	64.15
No. 2, No. 5	35.00	36.35	71.79	35.31
No. 4, No. 3	69.21	80.14	67.05	78.47

The analysis of Figure 9 reveals that CSR consumers exhibit a relatively high subjective willingness to make purchasing decisions, while the decisions based on behavioral information are relatively low. Notably, both the subjective willingness and behavioral information decision-making of the microblogging platform surpass 80%. This is primarily attributed to the microblog platform's ability to succinctly summarize consumer user behavior information, reducing its complexity. This further underscores that the transmission capabilities of the microblogging platform align with actual requirements. Additionally, within the Weibo platform process, the complexity of information does not escalate with an increase in the platform. This indicates that the accuracy of evaluating consumer purchase decisions for corporate social responsibility is ideal.

CONCLUSION

In addressing corporate social responsibility, this paper introduces a method for analyzing and extracting consumer behavior information using the microblogging platform, achieving a transmission rate of 10Gpits. Test results indicate that the microblogging platform's transmission accuracy exceeds 90%, and it adeptly selects relay points while achieving a transmission compliance rate exceeding 80%. This capability meets the requirements for the analysis and extraction of consumer user behavior information. Thus, the collaboration between the microblog platform and communication technology facilitates the analysis and extraction of consumer user behavior information, thereby fostering the advancement of corporate social responsibility.

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