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Impact of platform differences in online word-of-mouth on consumer purchase intention

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Abstract: This study investigates how relationship strength and self-disclosure enhance electronic word-of-mouth (eWOM) credibility on social media and e-commerce platforms, thereby reducing decision uncertainty and strengthening purchase intentions. Additionally, it explores the moderating role of platform type. Grounded in the Information Adoption Model and trust transfer theory, the study employs computational intelligence methods, including structural equation modeling (SEM) and multi-group analysis. Data were collected through 400 valid questionnaires from four major Chinese cities. The analysis reveals that strong interpersonal relationships and high self-disclosure significantly improve eWOM credibility. eWOM credibility partially mediates the enhancement of purchase intentions. Platform type moderates these effects differently: relationship strength is more influential on social media platforms, while self-disclosure has a greater impact on e-commerce platforms. The study advances the Information Adoption Model by uncovering the interaction between relational and informational mechanisms in eWOM dissemination through computational intelligence. Businesses can optimize user interactions and content authenticity using intelligent algorithms, tailoring strategies to platform-specific dynamics to effectively influence consumer behavior.

Keywords: *Computational intelligence, Electronic word-of-mouth, Intelligent algorithms, Platform type.*

1. Introduction

1.1. Background and Motivation

Electronic word-of-mouth (eWOM) has become a crucial determinant of consumer purchase decisions in the digital era. Unlike traditional marketing approaches, eWOM is driven by user-generated content, which consumers perceive as more authentic and trustworthy. However, the effectiveness of eWOM varies significantly across digital platforms—particularly between social media and online shopping platforms—due to differences in user engagement, content structuring, and trust mechanisms. These variations necessitate a deeper investigation into how platform-specific factors shape the credibility and influence of eWOM.

Existing research has extensively examined the role of eWOM credibility in shaping consumer behavior, yet relatively little attention has been paid to how platform characteristics moderate this effect. Furthermore, the impact of relationship strength and self-disclosure—two critical determinants of eWOM credibility—remains underexplored, particularly in a comparative platform context. The increasing reliance on Computational Intelligence techniques, such as data-driven modeling and intelligent analytics, offers new opportunities to systematically analyze these interactions and uncover underlying behavioral patterns that traditional approaches may overlook.

To address these gaps, this study integrates Computational Intelligence-driven data analysis with structural equation modeling (SEM) to examine the interplay between relationship strength, self-disclosure, eWOM credibility, and purchase intentions across social media and online shopping

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platforms. By identifying platform-specific dynamics and their implications for consumer decision-making, this research advances theoretical understanding while providing actionable insights for businesses seeking to optimize eWOM strategies in a data-driven digital economy.

1.2. Research Objectives and Questions

The primary objective of this study is to investigate the mechanisms by which electronic word-of-mouth (eWOM) influences consumer purchase intentions, with a particular emphasis on platform-specific dynamics. By examining the roles of relationship strength, self-disclosure, and eWOM credibility—and integrating computational intelligence techniques for robust data analysis—this study aims to reveal how these factors collectively shape consumer behavior across digital environments, specifically comparing social media and online shopping platforms.

Based on this objective, the study seeks to answer the following research questions:

1.How do relationship strength and self-disclosure affect eWOM credibility on different platforms?

2.What role does eWOM credibility play as a mediator in the relationship between these factors and consumer purchase intentions?

3.How do platform characteristics, such as social interaction and content structure, moderate the effectiveness of eWOM?

By addressing these questions, the study aspires to enhance the theoretical understanding of eWOM mechanisms while providing actionable, data-driven insights for developing effective digital marketing strategies in diverse platform environments.

2. Literature Review and Hypotheses

2.1. Theoretical Framework

Electronic word-of-mouth (eWOM) has emerged as a pivotal factor in influencing consumer decision-making in the digital age. Defined as user-generated content shared online, eWOM is often perceived as more trustworthy than traditional marketing communication due to its authenticity and relatability. Existing theoretical frameworks, such as the information adoption model [1] and trust transfer theory [2] suggest that the effectiveness of eWOM largely depends on its credibility and relevance to the consumer. However, limited research has delved into how platform-specific characteristics interact with relational and informational factors to shape eWOM's impact on purchase intentions. This study builds upon these theories to explore the dynamic interplay between relationship strength, self-disclosure, eWOM credibility, and platform type.

2.2. Key Variables and Relationships

2.2.1. Relationship Strength and eWOM Credibility

Relationship strength refers to the closeness and frequency of interactions between users [3]. Prior studies indicate that stronger relationships lead to higher trust in shared information [4]. When the sender is a close connection, the receiver perceives the information as more credible, thus increasing its influence on decision-making. However, variations in platform design may amplify or diminish this effect. For instance, social media platforms emphasize relational connections, which may enhance the credibility derived from strong ties compared to online shopping platforms.

2.2.2. Self-Disclosure and eWOM Credibility

Self-disclosure, or the extent to which individuals share personal information, has been identified as a critical factor in establishing trust [5]. High levels of self-disclosure can enhance the perceived authenticity and reliability of eWOM, as consumers are more likely to trust content that appears genuine and personal. This effect is particularly pronounced on platforms that encourage detailed reviews and emotional narratives, such as social media, compared to platforms focusing on product functionality.

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2.2.3. Platform Type

Platform type significantly moderates the relationship between eWOM factors and purchase intentions. Social media platforms prioritize social interactions and user engagement, fostering environments where relationship strength and self-disclosure play a dominant role. Conversely, online shopping platforms focus on transactional efficiency and structured information, which may shift the emphasis to eWOM credibility as a standalone factor. Understanding these moderating effects is essential for tailoring eWOM strategies to specific platforms.

2.2.4. eWOM Credibility and Purchase Intentions

eWOM credibility serves as a mediating variable that bridges relational and informational factors with purchase intentions. Highly credible eWOM reduces consumer uncertainty and enhances decision confidence, leading to stronger purchase intentions. This mediating role underscores the need to examine how relationship strength, self-disclosure, and platform type collectively influence credibility.

2.3. Hypotheses Development

Based on the above review, the following hypotheses are proposed:

(1) The strength of user relationships on electronic word-of-mouth publishing platforms has a positive impact on the perceived credibility of electronic word-of-mouth.(H1)

(2) The degree of self disclosure by electronic word-of-mouth publishers has a positive impact on the perceived credibility of electronic word-of-mouth.(H2)

(3) Platforms have a positive moderating effect on consumers' perceived credibility of electronic word-of-mouth(H3)

(4) Compared to e-commerce platforms, consumers have higher relationship strength on social media platforms.(H4a).The positive impact of the strength of user relationships on the perceived credibility of electronic word-of-mouth on social media platforms is more significant than on e-commerce platforms.(H4b)

(5) Compared to e-commerce platforms, consumers have a higher degree of self disclosure on social media platforms.(H5a)The positive impact of self disclosure on the perceived credibility of electronic word-of-mouth on social media platforms is more significant than on e-commerce platforms.(H5b)

(6) The perceived credibility of consumers' electronic word-of-mouth has a positive impact on their purchase intention.(H6)The perceived credibility of electronic word-of-mouth has a mediating effect between relationship strength and purchase intention.(H6a)The perceived credibility of electronic word-of-mouth has a mediating effect between the degree of self disclosure and purchase intention.(H6b)

By integrating these hypotheses, this study aims to provide a comprehensive understanding of the mechanisms through which eWOM influences consumer behavior across different platform types, thereby contributing to both theoretical and practical advancements in digital marketing.

3. Methodology

3.1. Research Design

The theoretical model in this study integrates key variables to analyze the mechanisms through which electronic word-of-mouth (eWOM) influences consumer purchase intentions, emphasizing platform-specific dynamics [6]. The model builds upon established theories, such as the Information Adoption Model (IAM) and trust transfer theory, to examine the roles of relationship strength, self-disclosure, and eWOM credibility within different platform contexts.

3.1.1. Core Variables

Tie Strength: Refers to the closeness and frequency of interactions between eWOM users, hypothesized to enhance credibility by fostering trust [7]. Self-Disclosure: Represents the degree of personal and emotional information shared by users, which can increase perceived authenticity and

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reliability of eWOM.Platform Type: Differentiates between social media platforms, which prioritize relational connections, and online shopping platforms, which emphasize structured and transactional interactions. Platform type is posited as a moderator in the model.eWOM Credibility: Acts as a mediator linking relational and informational factors to consumer purchase intentions.

3.1.2. Model Structure

As shown in Figure 1, The theoretical framework posits that relationship strength and self-disclosure positively influence eWOM credibility. In turn, higher eWOM credibility is expected to increase consumer purchase intentions. Platform type moderates these relationships, with stronger effects hypothesized for social media platforms due to their relational nature.

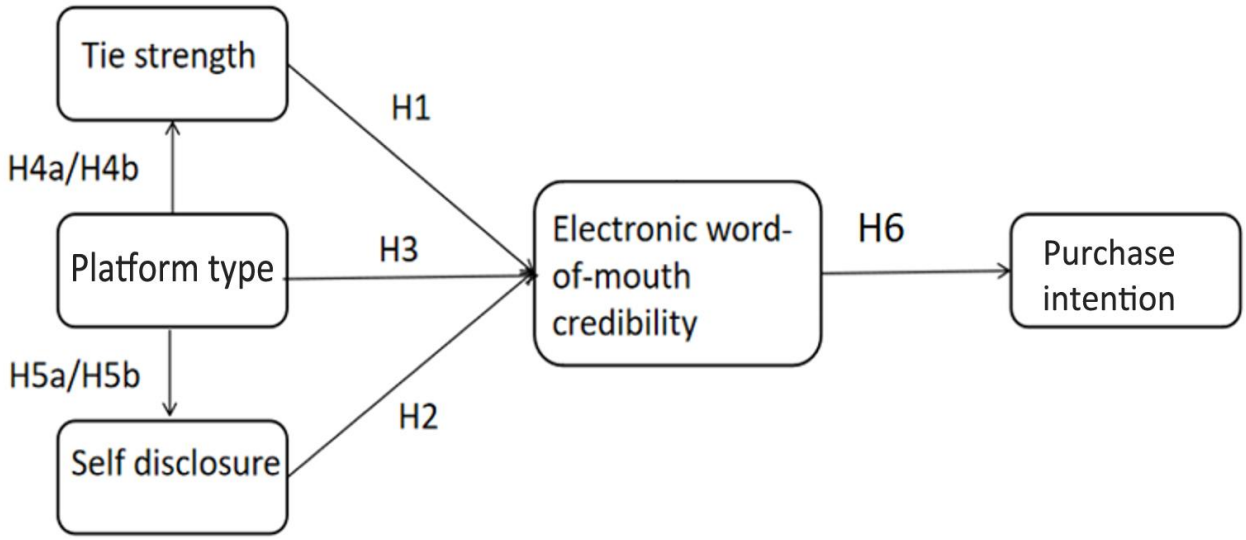

Figure 1.
Model Structure.

3.2. Data Collection

This study collected data through a questionnaire survey method to explore the effects of relationship strength, self disclosure, electronic word-of-mouth (eWOM) credibility, and their impact on consumer purchase intention. The data collection covers four major cities in China, targeting consumers who actively use social media and online shopping platforms to ensure sample diversity and representativeness [8]. Finally, 400 valid questionnaires were obtained, including a balanced distribution of basic demographic characteristics such as gender, age, and education level.

3.3. Data Analysis Techniques

In order to test the hypothesis and theoretical model of this study, a variety of statistical analysis methods were used, including descriptive statistics, reliability and validity analysis, structural equation model (SEM), grouping analysis and mediation effect test. All analyses were performed by Amos and SPSS software

4. Results

4.1. Descriptive Statistics

As shown in Table 1, the survey sample was more evenly distributed in terms of gender, age, and income. Most of the respondents have the habit of shopping online, and pay more attention to the electronic word-of-mouth information. This reflects that in the current consumer environment, online

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shopping has become a common phenomenon, and consumers often refer to others comments and feedback when making purchasing decisions. For enterprises, this means that they need to pay more attention to product quality and customer experience, but also pay attention to the management of network reputation.

Table 1.
Descriptive statistics.

Frequency analysis results				
Name	**Option**	**Frequency**	**Percentage (%)**	**Accumulative Perception (%)**
Questionnaire	Social media platform	200	50.00	50.00
	online platform	200	50.00	100.00
Gender	man	186	46.52	46.52
	woman	214	53.48	100.00
Age	Under the age of 18	94	23.63	23.63
	19-29	77	19.15	42.79
	30-39	159	39.80	82.34
	40-59	69	17.41	99.99
	Over 60 years old	1	0.001	100.00
Monthly Income	Below RMB 3,000 yuan	108	26.87	26.87
	3001-5000	95	23.63	50.50
	5001-7000	91	22.64	73.13
	Above the 7,001 yuan	108	26.87	100.00
Online Shopping	often	252	38.31	38.31
	once in a while	132	33.08	71.39
	never	14	28.61	100.00
When online shopping, pay attention to electronic word of mouth information	Very concerned about	103	25.87	25.87
	be concerned with	108	27.11	52.99
	Dont care too much	103	25.62	78.61
	be indifferent to	86	21.39	100.00
Amount to		400	100.0	100.0

Table 2 presents the descriptive statistics of the key variables in this study, including Tie Strength, degree of self-disclosure, eWOM credibility, and willingness to buy. Each variable is based on a sample size of 400 respondents, ensuring sufficient data for robust analysis.The mean values of all variables are close to the scale midpoint, indicating a balanced distribution of responses. Specifically, relationship intensity (M = 3.020, SD = 1.064) and degree of self-disclosure (M = 3.044, SD = 1.059) exhibit moderate levels, suggesting that participants perceive an average degree of interpersonal connection and personal sharing within eWOM interactions. Similarly, eWOM credibility (M = 2.949, SD = 1.100) and willingness to buy (M = 2.994, SD = 1.015) reflect an overall moderate perception of trustworthiness and purchase intention.

The range of values for each variable also highlights the diversity of participant responses. For instance, the minimum and maximum values for relationship intensity and degree of self-disclosure are identical (1.222 to 4.889), indicating consistency in the observed scale usage. The slight variation in eWOM credibility (1.111 to 4.778) and willingness to buy (1.111 to 5.000) suggests broader dispersion in participants' trust and purchase-related decisions.

Overall, the descriptive statistics demonstrate an even distribution of responses across the variables, providing a strong foundation for subsequent inferential analyses, including reliability and structural equation modeling.

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Table 2.
Descriptive statistics of variables.

Name	Sample Capacity	Least Value	Crest Value	Average Value	Standard Deviation	Median
Tie Strength	400	1.222	4.889	3.020	1.064	3.000
Degree of self-disclosure	400	1.222	4.889	3.044	1.059	3.000
Electronic word-of-mouth credibility	400	1.111	4.778	2.949	1.100	2.889
Purchase Intentions	400	1.111	5.000	2.994	1.015	3.000

4.2. Measurement Model Validation

Table 3.
Reliability Analysis.

	Total correlation (CITC)	Item deleted α coefficient	Cronbach α Coefficient
Tie Strength	0.780	0.878	0.901
Degree of self-disclosure	0.775	0.869	0.896
The credibility within the electronic word of mouth	0.829	0.870	0.900
Purchase Intentions	0.832	0.822	0.896

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Table 4.
Validity Analysis.

	PI	PV	ER	AC	TS	TT	IF	EA	SD	DC	DD	DI	EW	SC	CQ	CI
PI	1															
PV	0.755**	1														
ER	0.772**	0.362**	1													
AC	0.794**	0.409**	0.470**	1												
TS	0.733**	0.550**	0.630**	0.564**	1											
TT	0.539**	0.407**	0.462**	0.417**	0.810**	1										
IF	0.627**	0.450**	0.544**	0.493**	0.821**	0.534**	1									
EA	0.595**	0.465**	0.507**	0.444**	0.774**	0.420**	0.436**	1								
SD	0.702**	0.557**	0.559**	0.558**	0.730**	0.579**	0.605**	0.572**	1							
DC	0.530**	0.426**	0.437**	0.399**	0.582**	0.473**	0.501**	0.425**	0.791**	1						
DD	0.573**	0.457**	0.413**	0.501**	0.573**	0.432**	0.481**	0.463**	0.796**	0.451**	1					
DI	0.561**	0.436**	0.473**	0.424**	0.574**	0.464**	0.450**	0.466**	0.781**	0.410**	0.442**	1				
EW	0.549**	0.419**	0.439**	0.455**	0.589**	0.494**	0.416**	0.508**	0.621**	0.471**	0.557**	0.444**	1			
SC	0.436**	0.314**	0.341**	0.391**	0.465**	0.385**	0.310**	0.422**	0.519**	0.389**	0.443**	0.397**	0.811**	1		
CQ	0.488**	0.369**	0.405**	0.382**	0.520**	0.435**	0.369**	0.447**	0.503**	0.393**	0.495**	0.305**	0.844**	0.523**	1	
CI	0.441**	0.358**	0.344**	0.357**	0.479**	0.406**	0.354**	0.393**	0.520**	0.387**	0.445**	0.401**	0.828**	0.486**	0.575**	1

Note: * $p<0.05$ ** $p<0.01$.

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The table presents the pairwise Pearson correlation coefficients among 16 key variables, with significance levels marked at p<0.05p<0.05p<0.05 and p<0.01p<0.01p<0.01. Overall, the correlation coefficients range from 0.31 to 0.84, indicating moderate to strong relationships between variables. No excessively high correlations (e.g., >0.90) are observed, suggesting that multicollinearity is not a concern and the variables exhibit good discriminant validity. This provides a solid foundation for further analysis using structural equation modeling (SEM).

4.3. Structural Model and Hypothesis Testing

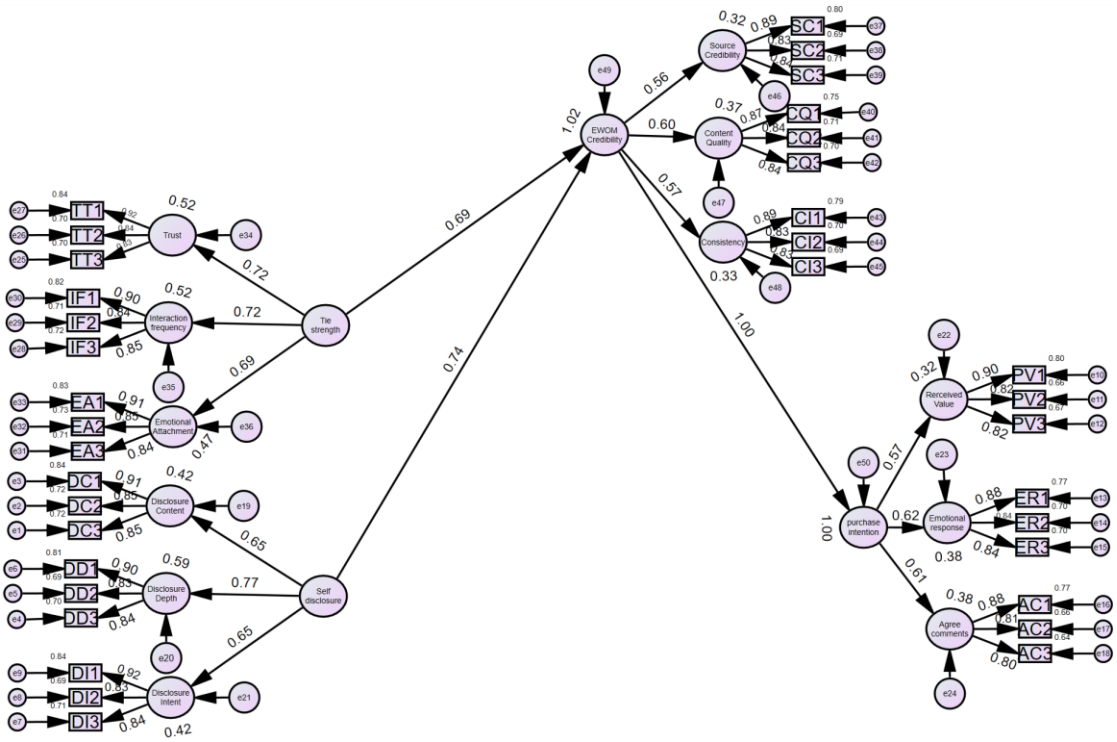

Figure 2.
Structural Model Diagram.

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Table 5.
Intermediary effect test (Relationship strength).

Mediation role test

Item	Symbol	Meaning	Effect	95% Ci		Se	*T Price*	*P Price*	Conclusion
				Lower Limit	Superior Limit				
Tie Strength => electronic word-of-mouth credibility => purchase intention	a*b	indigo effect	0.101	0.053	0.166	0.029	3.493	0.000	Part of the intermediary
Tie Strength => electronic word of mouth credibility	a	X=>M	0.609	0.527	0.691	0.042	14.595	0.000	
Electronic word of mouth credibility => purchase intention	b	M=>Y	0.166	0.092	0.241	0.038	4.369	0.000	
Tie Strength => purchase intention	c	direct effect	0.598	0.521	0.675	0.039	15.223	0.000	
Tie Strength => purchase intention	c	gross effect	0.699	0.636	0.763	0.032	21.551	0.000	

Table 6.
Intermediary effect test (Degree of self-disclosure).

Mediation role test

Item	Symbol	Meaning	Effect	95% CI		SE	*T Price*	*P Price*	Conclusion
				Lower Limit	Superior Limit				
Degree of self-disclosure => electronic word-of-mouth credibility => purchase intention	a*b	Indigo effect	0.110	0.057	0.183	0.033	3.373	0.001	Part of the intermediary
Degree of self-disclosure => E-word-of-mouth credibility	a	X=>M	0.645	0.565	0.725	0.041	15.845	0.000	
Electronic word of mouth credibility => purchase intention	b	M=>Y	0.170	0.090	0.251	0.041	4.143	0.000	
Degree of self-disclosure => purchase intention	c	direct effect	0.563	0.480	0.647	0.043	13.208	0.000	
Degree of self-disclosure => purchase intention	c	gross effect	0.673	0.606	0.740	0.034	19.738	0.000	

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The mediation analysis examined the role of eWOM credibility in the relationship between Tie Strength and purchase intention. The results, based on a bootstrap method with 5000 resamples, indicate that Tie Strength has both direct and indirect effects on purchase intention. The indirect effect, mediated through eWOM credibility, was significant with an effect size of 0.101 (95% CI = [0.053, 0.166], $p < 0.001$), suggesting that stronger relationships enhance eWOM credibility, which in turn positively influences purchase intention. The direct effect of relationship strength on purchase intention remained significant, with an effect size of 0.598 (95% CI = [0.521, 0.675], $p < 0.001$), indicating that relationship strength independently contributes to purchase intention beyond the mediating role of eWOM credibility. The total effect of relationship strength on purchase intention was also significant, with an effect size of 0.699 (95% CI = [0.636, 0.763], $p < 0.001$), reinforcing the critical role of strong relational ties in shaping consumer decisions. These findings confirm that eWOM credibility serves as a partial mediator, highlighting its importance in the mechanism by which relationship strength impacts purchase intention. The mediation analysis explored the role of eWOM credibility in the relationship between the degree of self-disclosure and purchase intention. The results, derived using a bootstrap method with 5000 resamples, indicate that self-disclosure significantly impacts purchase intention both directly and indirectly. The indirect effect, mediated through eWOM credibility, was significant with an effect size of 0.110 (95% CI = [0.057, 0.183], $p = 0.001$), demonstrating that higher self-disclosure enhances eWOM credibility, which subsequently positively influences purchase intention. The direct effect of self-disclosure on purchase intention also remained significant, with an effect size of 0.563 (95% CI = [0.480, 0.647], $p < 0.001$), indicating that self-disclosure independently drives purchase intention. The total effect of self-disclosure on purchase intention was 0.673 (95% CI = [0.606, 0.740], $p < 0.001$), highlighting the substantial impact of self-disclosure on consumer decisions. These results confirm that eWOM credibility acts as a partial mediator in the relationship between self-disclosure and purchase intention, emphasizing its role as a key mechanism in the influence of self-disclosure on consumer behavior.

4.4. Moderation Effects by Platform Type

The moderation analysis examined the effects of platform type (social media vs. online shopping platforms) on the relationships among relationship intensity, degree of self-disclosure, eWOM credibility, and purchase intention. The results reveal platform-specific differences in the strength of these relationships.

Table 7.
Path testing between online platforms and social media platforms research models.

Terrace	X	→	Y	Non-standardized coefficients	SE	C.R.	P	Standardization coefficient
Social media platform	Tie Strength	→	Electronic word-of-mouth credibility	0 .522	0 .099	5.280	***	0.736
	Degree of self-disclosure	→	Electronic word-of-mouth credibility	0 .443	0 .090	4.951	***	0.625
	Electronic word-of-mouth credibility	→	purchase intention	1.063	0 .203	5.249	***	1.035
online platform	Tie Strength	→	Electronic word-of-mouth credibility	0 .438	0 .089	4.940	***	0 .685
	Degree of self-disclosure	→	Electronic word-of-mouth credibility	0 .761	0 .149	5.121	***	0 .749

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	Electronic word-of-mouth credibility	→	purchase intention	0 .985	0 .189	5.198	***	1.045

On social media platforms,Tie Strength had a strong positive effect on eWOM credibility (standardized coefficient = 0.736, $p < 0.001$), indicating that closer interpersonal connections significantly enhance the perceived trustworthiness of eWOM. Similarly, self-disclosure also positively influenced eWOM credibility (standardized coefficient = 0.625, $p < 0.001$), underscoring the role of personal and emotional information in fostering credibility. Furthermore, eWOM credibility strongly impacted purchase intention (standardized coefficient = 1.035, $p < 0.001$), highlighting its critical role in consumer decision-making on social platforms.

On online shopping platforms, Tie Strength also positively affected eWOM credibility, but the effect size was slightly lower (standardized coefficient = 0.685, $p < 0.001$). In contrast, self-disclosure showed a stronger effect on eWOM credibility (standardized coefficient = 0.749, $p < 0.001$) compared to social media platforms, suggesting that detailed and structured self-disclosure is particularly impactful in transactional environments. Similarly, eWOM credibility remained a strong predictor of purchase intention (standardized coefficient = 1.045, $p < 0.001$), consistent with its central role across both platforms.

These findings highlight the nuanced interplay between platform type and the mechanisms driving eWOM effectiveness, emphasizing the importance of tailoring strategies to platform-specific characteristics.

Table 8.
Summary of Hypothesis Test Results.

Hypothesis		Verification Result
H1	Tie strength of user relationships on electronic word-of-mouth publishing platforms has a positive impact on the perceived credibility of electronic word-of-mouth.	Accept
H2	The degree of self disclosure by electronic word-of-mouth publishers has a positive impact on the perceived redibility of electronic word-of-mouth.	Accept
H3	Platforms have a positive moderating effect on consumers perceived credibility of electronic word-of-mouth	Accept
H4a	Compared to e-commerce platforms, consumers have higher relationship strength on social media platforms.	Accept
H4b	The positive impact of the strength of user relationships on the perceived credibility of electronic word-of-mouth on social media platforms is more significant than on e-commerce platforms.	Accept
H5a	Compared to e-commerce platforms, consumers have a higher degree of self disclosure on social media platforms	Refuse
H5b	The positive impact of self disclosure on the perceived credibility of electronic word-of-mouth on social media platforms is more significant than on e-commerce platforms.	Refuse
H6	The perceived credibility of consumers electronic word-of-mouth has a positive impact on their purchase intention.	Accept
H6a	The perceived credibility of electronic word-of-mouth has a mediating effect between relationship strength and purchase intention.	Accept
H6b	The perceived credibility of electronic word-of-mouth has a mediating effect between the degree of self disclosure and purchase intention.	Accept

5. Discussion

5.1. Key Findings

This study provides robust empirical evidence on how electronic word-of-mouth (eWOM) credibility influences consumer purchase intentions by examining the interplay among relationship strength, self-disclosure, and platform type—with an added emphasis on Computational Intelligence techniques for data analysis. The key findings are summarized as follows:

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1.Tie Strength Enhances eWOM Credibility:The results confirm that stronger interpersonal connections significantly enhance the perceived credibility of eWOM. Consumers are more inclined to trust and act upon eWOM information when it is shared by individuals with whom they share close ties. Notably, this effect is more pronounced on social media platforms (standardized coefficient = 0.736) compared to online shopping platforms (standardized coefficient = 0.685), suggesting that relational trust plays a more critical role in shaping eWOM credibility within social contexts. This finding is consistent with prior research emphasizing the role of social relationships in trust formation [9].

2.Self-Disclosure Strengthens eWOM Credibility:Our analysis reveals that higher levels of self-disclosure substantially contribute to eWOM credibility, as consumers tend to perceive highly personal and emotionally expressive messages as more authentic and trustworthy. Interestingly, this effect is stronger on online shopping platforms (standardized coefficient = 0.749) than on social media platforms (standardized coefficient = 0.625). This suggests that in transactional environments where detailed product-related information is sought, self-disclosure plays a more pivotal role in enhancing credibility [5]. These results corroborate previous studies indicating that detailed and structured disclosures improve perceived trustworthiness in e-commerce settings [10].

3.eWOM Credibility as a Mediator in Purchase Intentions:The findings confirm that eWOM credibility serves as a partial mediator between both relationship strength/self-disclosure and purchase intentions [11]. By reducing consumer uncertainty and enhancing decision confidence, increased eWOM credibility directly contributes to a higher likelihood of purchase. This mediation effect underscores the importance of fostering credibility in eWOM communications to effectively influence consumer behavior [9].

4.Platform Type Moderates the eWOM Mechanism:The study reveals significant differences in how eWOM functions across digital platforms. On social media platforms, relationship strength predominantly shapes eWOM credibility, reinforcing the notion that consumers heavily rely on social trust when evaluating recommendations. In contrast, on online shopping platforms, self-disclosure exerts a greater influence on eWOM credibility, indicating that consumers prioritize detailed, product-specific narratives in these settings. These differences highlight the necessity of tailoring eWOM strategies to the unique trust-building mechanisms of each platform [12].

In summary, this study underscores the critical role of eWOM credibility in bridging relational and informational factors with consumer purchase intentions. By leveraging Computational Intelligence methods—such as advanced data-driven modeling and intelligent analytics—this research offers actionable insights for businesses and marketers to refine their eWOM strategies based on platform dynamics, ultimately maximizing their impact on consumer behavior [13].

5.2. Theoretical Contributions

The theoretical contributions of this study are reflected in three primary aspects:

First, the study integrates the constructs of relationship strength and self-disclosure into the electronic word-of-mouth (eWOM) research framework and empirically confirms their positive effects on eWOM credibility. This integration not only enriches the Information Adoption Model and trust transfer theory but also provides a novel perspective on the interplay between emotional and informational factors in consumer decision-making. Additionally, the incorporation of computational intelligence techniques in data analysis offers a modern approach to understanding these dynamics.

Second, by systematically comparing the effects on social media versus online shopping platforms, this research elucidates the critical moderating role of platform type on the influence of relationship strength and self-disclosure on eWOM credibility. This finding addresses a notable gap in the existing literature regarding platform-specific variations and lays a theoretical foundation for the development of tailored digital marketing strategies.

Lastly, employing structural equation modeling, the study constructs an integrated model of eWOM influence that confirms the partial mediating role of eWOM credibility between relationship strength, self-disclosure, and purchase intention. This empirical validation not only refines the current

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understanding of the eWOM influence mechanism but also establishes a new theoretical framework that can guide future research in this area.

Overall, the study advances theoretical knowledge by combining traditional consumer behavior theories with modern computational intelligence approaches, thereby offering a comprehensive framework that captures the complexity of eWOM dynamics across diverse digital platforms.

5.3. Practical Implications

The findings of this study offer actionable insights for businesses and platform operators seeking to optimize eWOM strategies in digital environments. First, the results highlight the importance of strengthening interpersonal relationships and encouraging authentic self-disclosure to enhance eWOM credibility. Companies should foster user engagement on social media through community-driven interactions and interactive marketing initiatives, while e-commerce platforms should focus on incentivizing consumers to provide detailed, emotionally expressive product reviews to improve information transparency and reliability.

Second, given the moderating role of platform type in eWOM effectiveness, businesses must tailor their digital marketing strategies accordingly. On social media platforms, leveraging social networks to enhance brand trust is essential, whereas e-commerce platforms should prioritize data-driven insights and intelligent algorithms to analyze user-generated reviews, optimize product recommendations, and refine rating systems to better attract target consumers.

Lastly, the integration of Computational Intelligence techniques into eWOM analysis not only enhances the empirical robustness of traditional marketing theories but also provides businesses with advanced tools for real-time monitoring and evaluation of marketing effectiveness. Intelligent data analytics enables firms to dynamically adjust their strategies, optimize eWOM dissemination, and ultimately drive higher purchase intentions.

Overall, this study provides a data-driven framework for optimizing cross-platform eWOM strategies, equipping businesses with the tools to implement precision marketing and enhance competitive advantage in the evolving digital marketplace.

6. Conclusion

This study aimed to examine the impact of electronic word-of-mouth (eWOM) on consumer purchase intentions by analyzing the roles of relationship strength and self-disclosure, as well as the moderating effect of platform type (social media vs. online shopping platforms). Leveraging Computational Intelligence techniques, this research employs a questionnaire survey and applies data-driven Structural Equation Modeling (SEM) to analyze empirical data from 402 valid responses.

The results reveal that strong interpersonal relationships and high levels of self-disclosure significantly enhance eWOM credibility, which in turn serves as a key partial mediator in reducing consumer decision uncertainty and increasing purchase intentions. Furthermore, platform type plays a significant moderating role: on social media platforms, relationship strength has a stronger positive impact on eWOM credibility, whereas on online shopping platforms, self-disclosure exerts a greater influence.

Theoretically, this study integrates relational and informational factors, enriching the Information Adoption Model and trust transfer theory while offering a novel framework for understanding eWOM dynamics. Additionally, by incorporating Computational Intelligence-driven analytics, this research enhances traditional eWOM modeling by leveraging intelligent data processing methods to uncover complex behavioral patterns.

Practically, the findings provide valuable insights for businesses in developing data-driven and platform-specific eWOM strategies. The study underscores the importance of fostering user engagement, encouraging authentic self-disclosure, and optimizing review systems through intelligent algorithms to enhance consumer trust and maximize eWOM effectiveness.

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Despite its meaningful contributions, this study has certain limitations, including the restricted sample scope and the cross-sectional nature of the data. Future research should expand the sample size and adopt advanced Computational Intelligence methodologies, such as machine learning and predictive analytics, to further validate causal relationships and refine eWOM strategies. Overall, this study provides a robust theoretical and empirical foundation for understanding consumer behavior in digital environments and offers AI-enhanced practical implications for businesses seeking to optimize their marketing strategies in an increasingly competitive landscape.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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