Research Article

A Dynamic CGE Model for Consumer Trust Mechanism within an E-Commerce Market

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This study aims to use the computable general equilibrium (CGE) model to evaluate the economic consequences of foreign direct online purchases on the chain economy and to forecast the future development of e-commerce. We expected that international online direct shopping reduced transaction costs in two ways: duty equivalent were reduced, and direct import prices were reduced. The development of e-commerce markets for products, services, and information is important for consumer trust. Customers are becoming more interested in these industries because companies increased in number and users. Rules and regulations that are customized to the demands of both businesses and consumers are important for the industries’ continued growth. This study proposes a CGE model and analyzed the dynamic trust mechanisms of individual customers in the financial inclusion market to achieve the entire equilibrium state of the rural financial sector and maintain the stable development of the financial inclusion consumer market. Through the initiation of the era of big data, e-commerce has become a key part of the development of the new economy. In order to ensure the reliability, security, and service quality of e-commerce transactions in different transaction environments, how to accurately and quantitatively express and predict the trust relationship enhance the trust of both parties. This paper uses artificial intelligence to check relevant materials, then passes the problem to experts for processing, analyzes the security issues in e-commerce, summarizes the e-commerce security system framework centered on trust management, and describes the contextual trust management model. Experimental outcomes show that the proposed technique can accurately assess the trust of individual consumers and plan the e-commerce market based on the trust mechanism.

1. Introduction

The Internet and Web carry abundant information across time and space, providing a dynamic, open, and suitable environment for the development of society and commerce and providing business opportunities for new enterprises. It also provides opportunities for traditional enterprises to adopt new business norms and organizational forms [1]. However, while the Internet has created unimaginable communication patterns and dynamic organizational structures for human and business activities, challenges have followed. The most pressing of these is that we cannot rely on face-to-face or verbal cues to determine whether the other side of the business or social event on the Internet will live up to the services they promised. When we buy an item through the Internet, we have no physical, sensory contact with it, and we cannot confirm its authenticity through personal experience, but can only trust the commitment of the seller [2]. We are placed in an environment where we know nothing about many attributes of the items we buy, which makes it difficult to guarantee the buyer’s goods. We urgently need to judge the credibility of other participants in the environment and their ability to deliver services at a certain level of quality [3]. By adopting new trust technologies in the e-commerce environment, we can build a platform where consumers and businesses understand each other. Therefore, real business value, increase consumer information, guaranteed product, and service quality can become a reality in the virtual world. However, the development of the e-commerce industry is not primarily determined by the number of inter-
net users. The dominance of “cash is better” mindsets suggests that there may be confidence challenges with digital transactions in some communities. Money account for roughly all local in the chains, for instance. On the other hand, it also provides a more transparent market platform for businesses [4]. With the development of electronic commerce, transaction is becoming more and more complex, which makes the trust problem more prominent. A large number of network frauds occur, and the fundamental reason for investigating them is mainly the asymmetry of information between buyers and sellers in the electronic commerce environment, which leads to a “trust crisis” and increases the risk of transactions. Now the issue of trust has become more and more prominent, and it has become a key issue in the development of e-commerce.

This paper addresses the importance of e-commerce in poverty reduction and the efficiency of e-commerce in poverty reduction, as well as the following problems: The article analyzes how solid waste management in a city is still insufficient, which impedes the identity concept of e-commerce in terms of poverty reduction; then, the paper examines how the new leader method and policy and social of e-commerce are not perfect, and farm owners’ excitement and willingness to use e-commerce are limited; and finally, the paper examines how the management of solid waste in a city is still insufficient, which impedes the sustainable development of e-commerce in terms of poverty reduction [5]. Chen analyzes whether e-commerce trust can be transferred to social commerce, as well as the factors that impact trust and service in the marketplace trust performances because the variety of social business users is similar to the number of e-commerce users. For the internet purchasing experience, 449 persons were used as research subjects [6]. This paper proposed a weighted project recommendation system that achieves a perfect balance between recommendation accuracy and computational complexity. This technique produces recommendation and prediction algorithms using a newly defined distance to characterize the relationship between users and projects. [7].

The development of e-commerce is addressed with a major challenge: how to establish trust between the parties aspect of e-commerce transactions. In truth, the construction, maintenance, and promotion of e-commerce trust have always been the primary issue in the development of e-commerce, regardless of cultural background or stage of development [8]. In the United States, where the development of electronic commerce is more developed than in the United States, the academic and business circles have conducted in-depth research on the factors that affect the success of electronic commerce. All researchers suggest that a lack of trust mechanisms is a major impediment to the success of e-commerce. The consumer classification model based on the CGE model is shown in Figure 1.

The following are some of the current research work’s contributions:

(i) To study the proposed trust mechanism which is used to improve the number of people required for online shopping and optimize its e-commerce cost

(ii) This study proposes a CGE model and analyzes the dynamic trust mechanisms of individual customers in the financial inclusion market

(iii) The e-commerce model is used to analyze the number of customers to the e-commerce security system framework centered on trust management

(iv) Proposes a computational model for the study of Trust mechanism E-commerce prediction based on a clustering algorithm

(v) A decision tree algorithm is used to propose a trust mechanism e-commerce dispatch model. The proposed model improves other traditional models in terms of performance

The rest of this paper is organized in the following way. Section 2 summarizes the previous work, Section 3 describes the e-commerce personal trust mechanism, Section 4 introduces the CGE model, Section 5 describes a simulation experiment work and analysis using e-commerce data, and Section 6 concludes the paper with a summary and future study orders.

2. Relative Work

Several efforts were made to predict how online shopping and e-commerce will influence the financial architecture and characteristics of current traditional markets. To some extent, methodology and observation have validated some of these theoretical principles [9]. For instance, most of this research in this field has focused on price mechanisms and the influence that increased, and real-time cost availability, i.e., e-commerce diffusion, has had on competition in the industry. To analyze the effect of infrastructure investment on spatial economies, international data and econometric models, transportation network models, spatial pricing equilibrium models, endogenous price multisector models, and multiregional CGE models have all been established [10]. The simplifying of economic cooperation and formalities, the conformity of relevant laws and regulations, and the standardization and updating of infrastructures, i.e., the prevention and control of commerce concerns and the reduction of trade expenses, are all examples of trade facilitation. [11]. The World Trade Organization (WTO), the Asia-Pacific Economic Cooperation (APEC), and the World Bank have all developed separate statistic methods for assessing and measuring trade facilitation. Because the evaluation system for trade facilitation indicators is more complex, and the evaluation of its measurement is not standardized in academic circles, the authors believe that it is necessary to combine the research subjects and conduct a comprehensive evaluation of the trade facilitation assessment process before carrying out the study [12]. In this paper, we use small panel data from the United States Economic Survey from 1982 as global resources to evaluate a novel explanation of the labor share decrease based on the emergence of superstar enterprises. Product marketplace attention will increase if industries become increasingly dominated by megastar
businesses with high profitability and a low percentage of labor in firm value-added and sales as a result of globalization or technology advancements that benefit the most productive firms in each sector. The aggregate labor share will likely shrink as the prominence of superstar enterprises rises [13]. We also identified that reducing import costs has a higher impact on GDP increases than reducing tariffs. As a result, electronic commerce has a positive effect on the Korean economy, and we expect that e-commerce companies will expand and increase in the future [13].

3. Trust Mechanism of Individual Consumption in the Electronic Commerce Market

As factors of technological trust, we evaluated trust in online shopping as a commerce method, social commerce websites, including the Internet as an online store or platform. The trustor’s conviction in the trustworthiness of Information Technology (IT) to complete a task is referred to as technology trust. In recent years, as people have become more reliant on technology, trust in technology has increased in importance. Customers expect technological infrastructure to deliver proper parameters to assist with online tracking, online assistance, graphics, value, and specificity information when making an online purchase.

3.1. E-Commerce Market Analysis. Because of the rapid development of Internet Technology, the electronic market has broken out, thus changing the original market structure and marketing model. People’s consumption concept is also quietly changing; online shopping in this new way of shopping has begun to gradually penetrate people’s daily life and is being loved by more and more people [14]. E-commerce has become a new consumer market. E-commerce as the core of information has become the main trend of social and economic development and has been recognized by merchants and consumers.

The emergence of electronic payment has promoted the development of electronic commerce. At the same time, it has also resulted in many problems, particularly payment security, identity authentication, electronic document authentication, payment, as well as monetary and financial supervision, and so on. Although the establishment of security protocol and authentication system has solved some urgent problems for banks, the development of security technology is still covering behind the rapid development of electronic payment. Table 1 shows the classification of cost conversion.

The slow development of electronic commerce is not so much the lack of profit model as the lack of trust. Trust risk affects trading volume and transaction cost and then affects profit. Lack of trust has become an obstacle to the full realization of e-commerce potential. Trust risk is becoming more and more important in e-commerce. Dishonesty has become a key factor hindering consumers’ online shopping. Many unreliable services and malicious feedback behavior exist in the e-commerce network environment. To improve the performance of the network, it is necessary to consider the service behavior of the user’s main body and encourage the users to actively cooperate. This section introduces the feedback mechanism based on the incentive mechanism for the overall trust evaluation [15]. It can not only realize the adaptive allocation problem of feedback trust weight but also effectively enhance the willingness of active service between users and increase the probability of successful transactions.

\[
 z = \frac{1}{N} \sum_{i=1}^{N} (x_i - \bar{x}) (y_i - \bar{y})
\]

Network fraud has been puzzling the relevant stakeholders in the virtual market, high risk has been accompanied by the entire transaction process, and trust in the Internet has become crucial. Trust has been throughout the entire process of online trading. This puts forward new requirements to network operators and trading platform
In the initial phase, when the creditor-giver has the will to trust, they begin to test the credibility of the fiduciary party. If the trusted parties are credible, they will refer to experience. If the experience is positive, the crediting party begins to investigate the environment [17]. When the environment is satisfactory, the credit party begins to examine the transaction risk. Once the risk is not very high, the credit party will trust the trusted party and start trading. If the transaction is satisfactory, customer loyalty will increase, thus facilitating the next transaction.

### 3.2. Analysis of Personal Consumption Trust Mechanism.

In the environment of a point-to-point network, the model is based on global trust Eigen Trust. Eigen Trust can iterate between adjacent nodes to calculate the trust value of the node, but its disadvantage is that the computation is too large, and some nodes with high reputation value are required to be pretrusted nodes.

\[ \hat{t}^{k+1} = (1 - a)C^T \hat{t}^k + ap. \] (2)

where \( \hat{t}^k \) is the trust value vector calculated by \( k \) iterations, and there are some default trusted nodes in the network, and \( p \) is the global trust value of these nodes.

The consumer life cycle is the different stages of the relationship between consumers and merchants. In short, it is the whole process that consumers experience from making decisions and establishing relationships with merchants to nonoccurrence of purchasing behavior [18]. The division of the consumer life cycle stage is the basis of consumer life cycle research. Burnham’s research model is shown in Figure 2.

In the initial state, the global trust value of the node is distributed uniformly, if there are \( n \) nodes and \( m \) trusted nodes in the P2P network. If the node is trusted, then there is \( p_0 \). The direct trust relationship is a trust relationship formed by the requesting node according to the history of the direct transaction behavior of the requested node in the specific given context information. According to people’s psychological cognition habits, if the negative feedback evaluation is less in the past transaction history, the more reliable the object is, the smaller the risk is [19]. And the object to be evaluated should receive greater direct trust weight. We can give a calculation method for the confidence factor based on risk assessment [20].

\[ X = \begin{bmatrix} x_{12} & \cdots & x_{1p} \\ x_{21}x_{22} & \cdots & x_{2p} \\ \vdots & & \vdots \\ x_{n2} & \cdots & x_{np} \end{bmatrix}. \] (3)

The local reputation value and the global reputation value can be represented by a trust mechanism model, Peer Trust, which is represented by a confidence factor. The calculation of direct trust value considers five relevant factors, including the feedback evaluation between nodes, the number of transactions, the credibility of feedback evaluation, the transaction time and the trading amount, and the environmental factors of the transaction [21]. Proposed a multi-dimensional mechanism by introducing the weight system and evaluation system of the user transaction. It can well reflect the user’s personality preferences and risk perception of subjective factors on the calculation of trust value [22, 23].

\[ R = \begin{bmatrix} r_{11} & r_{12} & \cdots & r_{1p} \\ r_{21} & r_{22} & \cdots & r_{2p} \\ \vdots & \vdots & \ddots & \vdots \\ r_{p1} & r_{p2} & \cdots & r_{pp} \end{bmatrix}. \] (4)

The relationship between the two sides can enter this stage, indicating that the two sides are satisfied with each other during the investigation period, and establish a certain...
mutual trust and mutual dependence. At this stage, both parties receive increasing returns from the relationship and become increasingly dependent on each other in terms of the extent and depth of their interdependence [24], which gradually recognizes that each other can provide value to their satisfaction and fulfill their responsibilities in the relationship. Several classic understandings of trust are shown in Table 3.

\[
rij = \frac{\sum (s_{si} - \bar{x}_i)(s_{sj} - \bar{x}_j)}{\sqrt{\sum (s_{si} - \bar{x}_i)^2 \sqrt{\sum (s_{sj} - \bar{x}_j)^2}}}. \tag{5}
\]

JingDong has two kinds of product reviews: customer reviews and focused reviews. Customer reviews allow each JingDong registered user to comment on and rate products purchased from JingDong based on his own experience. Product quality semantics and rating scale are shown in Table 4. Customers can vote on the usefulness of the comments they find, and those with the largest number of votes are rated as "top commentators" [25]. In this way, the most referential comments are most easily understood. Finally, people can seek out top commentators for their opinions. Any JingDong trading partner and online user can browse comments or feedback and vote on the usefulness of comments [26]. All user comments are stored in JingDong’s core system. Users can see all comments or feedback and reviewers’ information published by all reviewers. JingDong’s critic rating is based on how much he spends within a year.

\[
\frac{\sum \lambda_i}{\sum \lambda_i}, i = 1, \cdots, p. \tag{6}
\]

Both parties implicitly or explicitly guarantee a long-term connection at this stage [27]. The following are the obvious characteristics of this phase: (1) both parties are extremely satisfied with the amount provided by the other; (2) both parties have made a large number of tangible and intangible inputs to maintain a stable relationship over time; and (3) a large number of transactions. Therefore, the amount of mutual dependency between the two sides achieved its maximum point in the whole relationship development process during this time, and the relationship between the two sides is in a relatively stable condition.

4. Dynamic CGE Model

Trust and trust technology in electronic commerce has attracted people’s attention. On the one hand, it enables online users to understand the product before they buy it or to advise or evaluate online users’ decisions. This has greatly boosted consumer confidence and made it easier to judge commercial reputations. In other words, because you can trust the reputation of the vendor and the quality of the product or service, consumers are more willing to pay
for the service or product, which also reduces the risk of commercial transactions. On the other hand, vendors or service providers can trust technology to understand users or consumers, thereby improving on-demand services to better meet customer needs [28]. Some trust technologies, such as reputation evaluation systems, rating systems, and recommendation systems, have emerged on the Web and are becoming more and more popular.

\[ J = \sum_{i=1}^{k} \sum_{p \in C_i} \|p - m_i\|^2. \]  

Although the CGE model is yet to be properly defined, it can be described as a numerical model for an economy. A CGE model is a set of equations that can be used to model supply, demand, and market relationships. The number of goods and factors of production are variable in this set of equations, as are all prices (including prices) and wages. By learning the constraints of some parameters (producer preferences, as are all prices (including prices) and wages. By adjusting the quantity and price of goods and elements, the economy achieves the supply and demand equilibrium determined by the general equilibrium theory. The purpose of establishing the CGE model is to transform the construction of general equilibrium from an abstract form into a mathematical model which can be calculated and processed as close as possible to the real economy. Scholars from all over the world have been increasingly using the CGE model to evaluate the economic effects of macroeconomic policy changes in specific countries in recent years [31].

\[ d(x, y) = \sqrt{(x_1 - y_1)^2 + (x_2 - y_2)^2 + \cdots + (x_p - y_p)^2}. \]  

It is also possible for competing sellers to hire associates to give malicious ratings to their competitors. The graph above shows a malicious assessment of the seller by a buyer who is suspected of having a dishonest transaction. In order to reduce the trust of competitors and make their profits, this is the common reason for collusion and malicious bad comments on e-commerce platforms [32]. In an e-commerce environment, the node being referenced is a node whose identity and trust are referenced by known nodes. The reference node is indirectly known to the requester, but there is no trust relationship between them. The reference node may provide views or recommendations for the first hand, the second hand, and the third hand. It is an indirect view or recommendation and is passed from a known node to a trustee [33]. The weighting of the reference node and its views is less than the known trusted recommendation node providing the first-hand view. The weighted consideration of the reference node and its perception reflects the level of trust of the known node concerning this node providing the first hand or second hand view [34].

\[ C_i = \frac{1}{N(\delta_i)} \sum_{x_i \cap \delta_i} x_i. \]  

To improve the accuracy and dynamic adaptability of trust evaluation, if the user transaction scale and transaction volume are more frequent, then the time window can be reduced accordingly. On the contrary, the time window can be extended accordingly. In general, the time window can be set according to certain rules. The reputation relationship is built around the third-party recommendation node [35]. The recommendation node gives the trustee a view under the following three relationships: the recommendation relationship, the reputation query relationship, and the recommendation or opinion of the trusted person in the third-party trust relationship. The requesting node gives a credibility evaluation of the third-party node based on the willingness or ability to provide the correct information or recommendation in a particular context or period [36, 37].

\[ DB(U) = \frac{1}{c} \sum_{i=1}^{c} \max_{X_j} \left\{ \frac{\Delta(X_i) + \Delta(X_j)}{\delta(X_i, X_j)} \right\}. \]  

We can set the time window according to certain rules because trust has domain relevance and users’ cognitive ability to goods in a given trading range is different, so for a
The trust evaluation given by users who are active in interaction for a long time should be more professional. Users A and B, for example, have the same level of trust, but user A trust is primarily built through transactions in the mother and child category, while user B transactions are primarily focused on the electronic products category. Burnham defines the connotation of conversion costs as shown in Table 5.

| Classification                  | Specific dimensions               | Concept                                                                 |
|--------------------------------|----------------------------------|------------------------------------------------------------------------|
| Process conversion costs       | Economic risk cost               | Negative results when consumers turn to other businesses              |
|                                | Evaluate the cost                | The time and effort paid by the consumer in the search and evaluation of information when deciding whether or not to convert |
|                                | Learning costs                   | The time and effort paid by consumers after learning the functions and methods of using the products and services provided by the new business |
|                                | Organize the cost of adjustment  | And the new business to build a relationship between the time and effort |
|                                | Cost of loss of profits          | After the conversion, the loss of the original business as the old customers has a variety of economic benefits |
| Economic conversion costs      | Money loss cost                  | Customers have already paid a variety of fees when they bought their products and services |
|                                | Loss of personal relationship    | The loss of interpersonal relationships that customers may cause when converting customers to other businesses |
| Relationship conversion costs  | Loss of brand relationship       | Customer replacement service and product suppliers, there is the risk of losing the association with the original corporate brand, resulting in social recognition and other aspects of the lack of |

In the process of trust accumulation, the time attenuation factor is added. According to the distance from the time window to the current time, the current trust value of each time window is attenuated, thus limiting the speed of user trust value enhancement. Trust modeling is one of the key issues in the study of trust mechanisms. Its mission is to design a scientific trust model that uses appropriate metrics to accurately describe and reflect the trust relationships in the system. However, through the analysis of the existing trust model, we find that the current trust model has many unreasonable points for the weight distribution of various context factors, mainly as follows: (1) the context of assessing trust is not comprehensive enough; researchers often choose to analyze the contextual factors and ignore other contextual factors that are equally influential; (2) more subjective components of trust value prediction; (3) poor model adaptability; and (4) computational accuracy in large-scale distributed environments lower. Factors influencing the economic development of electronic commerce are shown in Figure 3.

In the practical application of electronic commerce, there are often malicious users through large-scale small transactions to enhance trust and then fraud of large transactions. In the existing credit rating system, the impact of the transaction amount is not considered. The transaction amount has a great impact on the transaction risk. For large transactions, users usually carefully select reliable sellers. The weight of each transaction amount should be treated differently.

\[ h_j = -k \sum_i P(x_{ij}) \ln P(x_{ij}), j = 1, 2, \cdots, l. \]  

\[ w_j = \frac{h_j}{\sum_j h_j}, j = 1, 2, \cdots, l. \]  

Many models lack the organic combination with specific applications and lack analysis and grasp of the characteristics of the actual scene, so the practical guidance of the application is not strong. The network using the global trust mechanism needs to synthesize the information of all nodes in the network when calculating the trust value of the node. The number of nodes directly determines its calculation and storage overhead, which can be effective. The increase in the number of nodes to cope with tests the scalability of the trust model. The cost of the trust model in terms of cost, bandwidth cost, resource storage cost, load balancing, etc. should be as small as possible to ensure the smooth operation of a large-scale e-commerce network environment [38]. If the constant \( x \) is greater than 1, which is used to adjust the change of the weight of different transaction amounts, the following formula is used to synthesize the calculation of the accumulation of historical trust, and the improvement of the calculation of the accumulation of historical trust is obtained as follows:

\[ w_j = \frac{h_j}{\sum_j h_j}, j = 1, 2, \cdots, l. \]  

In which, \( h \) is the effect factor of the system to control the intensity of incentive and punishment, \( j \) is the threshold of
trust change allowed by the system, and $h_j$ is the predictive value of trust. For dishonest trust evaluation, the trust system will carry out negative incentives, that is, trust punishment. If the direct trust value and the forecast value of the user evaluation exceed the trust growth threshold set by the system, the trust evaluation will be considered dishonest. The predictive trust values are calculated as follows.

$$U = \sum_i 100p(x_{ij})w_j$$  \hspace{1cm} (13)

By sliding the historical transaction records according to different time steps, we divide the historical trust generated by the user exchange into short-term time window trust, medium-term time window trust, and long-term time window trust. Three different length time windows are trained to predict the user’s trading evaluation value according to the trend
of trust change. In an e-commerce environment, a known node means that he has a direct trust relationship with the trustee in a particular context and time, or has direct interaction or direct experience, and has a trustee assigned to its trust value. This node may be trusted, partially trusted, untrusted, and so on. And it is related to the background. If the known node provides a first-hand view and then evaluates the credibility of the recommendation, if the recommendation is very credible, then this view is considered to be more important than the other views. If the known node provides a first-hand view, but the evaluation of the recommended credibility shows that the credibility of the recommendation is very low or untrustworthy, even if this is a first-hand view, the weighting factor for this view will be reduced, and the confidence level of the third-party recommendation node reflects the weighted ratio. The data mining flow chart of consumer behavior is shown in Figure 4.

Intrinsic characteristics affect trust values and forecasts. These features cannot be captured directly. The willingness and ability of the nodes are mainly considered under internal factors. When predicting trust in a relationship, the factors that influence trust are those that cannot be explicitly obtained. For example, if someone's idea changes, no one can immediately know or capture it. Intrinsic factors lead to changes in trust relationships. However, the intrinsic factors cannot be directly obtained through observation. Therefore, the measurement and prediction of node credibility can only be an estimate or approximate value.

### 5. Experiments Work and Analysis

The simulation experiment takes the file download as an example, which provides 50 transaction users and 100 files randomly distributed in the 50 nodes to simulate 3500 transactions. Initially, both the feedback factor and the confidence factor were set at 0.5. The malicious nodes selected in the experiment are pure malicious nodes, and the true possibility of the service provided by them is 010100. The evaluation feedback provided is all unauthentic nodes. The feature vector matrix is given in Table 6, and vector correlations are shown in Figure 5.

When the requester issues a query, the recommendation system needs to generate the feature for the requesting node, then find the user associated with the feature for each feature, and finally generate the user recommendation list. Therefore, the core task of the recommendation system is broken down into two parts, one is how to give user-generated features, and the other is how to find the recommended user according to the characteristics. The trust management model requires normal operation in a malicious user-destroyed environment, so there must be a solution that defines malicious behavior and provides protection.

More common malicious behavior includes malicious attacks, conspiracy to commit fraud, and false feedback. How to identify false feedback well is still a problem, and there is no better solution in the current literature. Malicious attacks can attack users who make bad reviews of themselves, so the trust system should provide anonymous query services. The correlation of each variable is shown in Figures 6 and 7.

The trust computing overhead difference between the Eigen Trust model and the CGE model is very large, and the scalability of the Eigen Trust model is not good. With the increase in transaction times, the trust computing overhead increases rapidly. This model does not make the whole network iterate, so the computation cost is small, and the good performance is proved. Analysis of CGE results is shown in Table 7.
express and predict trust relationships to enhance the trust of both sides is urgent to be solved. In the face of the more and more severe security situation of electronic commerce, this paper analyzes the security problems existing in electronic commerce and summarizes the framework of electronic commerce security systems with trust management as the center. The key technologies in the context trust management model are described. To improve the accuracy and efficiency of trust assessment, we take context factors and information node selection in an e-commerce environment as the important research object and then construct the dynamic CGE model and evaluation method of the trust mechanism. Experimental results show that the proposed method can accurately evaluate the trust of individual consumers and plan the e-commerce market according to the trust mechanism.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The author declares that he has no conflict of interest.

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