



# The Application of The RATER Model in The Chinese Animal Feed Sales Services—Based on Customer Satisfaction and Customer Loyalty

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## ARTICLEINFO

## ABSTRACT

This comprehensive study explores the intricate dynamics of marketing strategies within the feed industry, focusing on the strategic positioning of N Group. Through an extensive literature review, various aspects of marketing, ranging from traditional methodologies to contemporary trends, were scrutinized. The insights gained contribute to a holistic understanding of the marketing landscape in the feed industry. Central to the discussion is the RATER model, comprising Reliability, Assurance, Tangibles, Empathy, and Responsiveness. This model serves as a robust framework influencing customer satisfaction and loyalty. The study delves into how the RATER model contributes to customer satisfaction. Furthermore, the RATER model is explored in the context of building customer loyalty. The study underscores how reliability, assurance, tangibles, empathy, and responsiveness collectively foster customer loyalty. The positive emotional connections forged through tangible elements, empathetic engagement, and responsive interactions contribute to sustained customer commitment. The integration of the RATER model with Reciprocal Attitudinal Loyalty (RETAR) reveals a synergistic relationship. Relationship Equity, formed through the dimensions of the RATER model, influences RETAR, creating a dynamic loop of reciprocal loyalty between customers and N Group. Acknowledging the study's limitations, future research directions are proposed to explore the applicability of the RATER model in diverse industry landscapes, considering evolving customer preferences and technological advancements. Longitudinal studies are recommended to track customer behavior over extended periods, providing insights into the sustainability of the RATER model's impact on loyalty. In conclusion, this study contributes valuable insights for enterprises in the feed industry seeking to enhance customer satisfaction and loyalty through the strategic application of the RATER model. The findings offer a roadmap for navigating the complexities of the evolving marketing landscape and fostering enduring relationships with customers.

**Keywords:** RATER model, Sales Services, Customer Loyalty, Customer Satisfaction

## 1. Introduction

### 1.1 Background of the RATER Model

The RATER model is an acronym for Reliability, Assurance, Tangibles, Empathy, and Responsiveness. This model is utilized to assess customers' perceptions of service quality. Encompassing crucial aspects of the service process, the analysis of these elements enables an in-depth understanding of customer satisfaction and loyalty. Tangibles emphasize the transformation of intangible services into tangible, visible entities that customers can directly observe. This includes physical facilities, equipment, environment, and the appearance of staff. This transformation is a key factor in building customer trust and understanding (Ren, 2017). In practice, by providing high-quality physical environments and pleasant service settings, businesses can effectively enhance customers' perceptions of service quality. This environmental transformation not only improves the overall customer experience but also establishes positive connections between customers and the business, thereby eliciting favorable evaluations of the service. Reliability focuses on whether a business fulfills

its promises, engages in truthful advertising, and ensures the long-term stability of the products or services provided. Customers' perception of a business's reliability directly influences their level of trust in the enterprise (Zhang, 2014).

In the animal feed sales industry, the manifestation of reliability encompasses not only the quality and safety of feed products but also the timeliness and accuracy of order delivery. Maintaining a high level of reliability contributes to building a positive corporate reputation, thereby increasing customer trust and enhancing overall satisfaction with the service. Responsiveness refers to whether businesses proactively and promptly respond to customer needs and issues. This reflects the genuine desire and capability of a business to assist customers, and establishing positive interactions with customers is crucial for enhancing customer satisfaction (Lan, 2010). In the context of animal feed sales, responding promptly to customer orders, inquiries, or complaints, as well as effectively resolving issues, are important steps to reinforce customer perception of a positive attitude toward the enterprise. By establishing efficient communication and feedback mechanisms, businesses can better meet customer needs and improve overall satisfaction with the service. Assurance focuses on whether customers feel secure during transactions, whether their personal information is kept confidential, and emphasizes instilling a sense of security through professional knowledge. Establishing a sense of security is a crucial step in maintaining customer trust and satisfaction (Kin, 2014).

In animal feed sales, ensuring product quality and safety, providing clear product information, and adhering to compliant transaction processes are key factors in increasing customer confidence. By offering transparent and reliable information to customers, businesses can strengthen customer confidence in transactions, thereby increasing overall satisfaction with the service. Empathy emphasizes treating customers as individuals, addressing personalized needs, especially when issues arise, and whether a business can empathize with the impact of problems on customers from their perspective. It reflects a profound understanding and care for customer relationships (Jiang, 2016). In animal feed sales, understanding customer needs, paying attention to customer feedback, and providing personalized service solutions are crucial for creating a positive customer experience. By establishing effective communication channels with customers, businesses can better understand customer expectations and needs, enabling more flexible adjustments to services and enhancing customer loyalty to the enterprise. Overall, the RATER model provides a powerful tool for analyzing and improving the quality of animal feed sales services. Through in-depth research and practical application of this model, businesses can better understand customer expectations, improve service quality, enhance customer satisfaction and loyalty, gaining a greater advantage in the competitive market.

The RATER model has proven to be highly effective in measuring customer-perceived service quality. By appropriately adjusting and modifying the secondary indicators, this model can be applied to different industries, providing directions and strategies for businesses to enhance service quality (Hao & Zhang, 2012). The flexibility of this model makes it a powerful tool for researchers and businesses to conduct in-depth studies and practical applications in various fields. Overall, the RATER model offers researchers and businesses a systematic framework to gain a deeper understanding of customer perceptions of services, thereby facilitating improvements and optimizations in service processes to enhance customer satisfaction and loyalty. This systematic evaluation framework enables businesses to comprehensively understand customers' perceptions of various aspects of the services provided, allowing targeted improvements and enhancements. Researchers believe that the RATER model, as a comprehensive assessment tool for service quality, provides a robust framework by focusing on Reliability, Assurance, Tangibles, Empathy, and Responsiveness. These five aspects cover key elements of services, helping businesses identify and address potential issues in service delivery to better meet customer expectations.

The application of the RATER model in the specific context of the Chinese animal feed industry holds significant practical importance. Its utilization in the Chinese animal feed industry not only provides businesses with a comprehensive method to assess service quality but also offers guidance for improvement. By analyzing the performance of each indicator in the RATER model within a specific industry, businesses can formulate more precise strategies to meet customer needs and enhance customer satisfaction and loyalty. In the animal feed industry, improving tangibles can be achieved through enhancing feed packaging and displays, reliability can be strengthened by ensuring the stability and reliability of feed quality, and responsiveness requires timely processing of customer orders and complaints. Overall, the RATER model serves as a powerful analytical tool for the Chinese animal feed industry, enabling businesses to gain a more comprehensive and in-depth understanding of customer needs. By focusing on factors such as reliability, tangibles, and responsiveness, businesses can enhance their service quality, establish a positive brand image, and stand out in the competitive market. This comprehensive assessment approach not only helps businesses improve competitiveness but also provides directions for enhancing the overall service level of the industry.

## 1.2 Research Significance

### 1.2.1 Theoretical Significance

**Advancement of Understanding Customer Behavior:** This research contributes significantly to the theoretical understanding of customer behavior in the context of service evaluation. By employing advanced statistical methods such as Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM), the study refines and extends existing theoretical frameworks, providing a nuanced insight into the intricate relationships among variables like Reliability, Assurance, Tangibles, Empathy, Responsiveness, Customer Satisfaction, and Customer Loyalty. The findings offer a more comprehensive understanding of how these factors interplay, enriching the theoretical foundation of consumer behavior studies.

**Validation of Constructs and Measurement Tools:** The application of rigorous statistical techniques, including CFA, ensures the validation of constructs and measurement tools used in the study. By confirming the reliability and validity of the employed scales, this research enhances the robustness of measurement instruments commonly utilized in the field. Theoretical frameworks often rest on the reliability of measurement tools, and this study strengthens the foundation by validating the constructs through empirical evidence.

### 1.2.2 Practical Significance

**Strategic Guidance for Service Enhancement:** The insights gained from this research hold practical significance for businesses aiming to enhance customer satisfaction and loyalty. By identifying key determinants such as Reliability, Assurance, Tangibles, Empathy, and Responsiveness, companies can strategically focus on these aspects to improve their overall service quality. Practical implications involve tailoring service delivery strategies to address specific dimensions highlighted in the study, offering actionable guidance for businesses seeking to refine their customer-centric approaches.

**Informed Decision-Making for Resource Allocation:** The study's findings provide practical guidance for resource allocation within organizations. By understanding the relative impact of different factors on Customer Satisfaction and Loyalty, businesses can make informed decisions about where to allocate resources for maximum impact. This practical insight aids in optimizing resource distribution, ensuring that efforts and investments align with the aspects most crucial for customer retention and loyalty, ultimately contributing to the long-term success of the organization.

## 1.3 Research Questions

1. What is the relationship between Reliability, Assurance, Tangibles, Empathy, Responsiveness and Customer Satisfaction in the Chinese Animal Feed Sales Services?
2. What is the relationship between Reliability, Assurance, Tangibles, Empathy, Responsiveness and Customer Loyalty in the Chinese Animal Feed Sales Services?
3. What is the relationship between Customer Satisfaction and Customer Loyalty in the Chinese Animal Feed Sales Services?
4. Whether Customer Satisfaction has a mediating effect between Reliability, Assurance, Tangibles, Empathy, Responsiveness and Customer Loyalty in the Chinese Animal Feed Sales Services?

## 1.4 Research Objectives

1. To examine the relationship between Reliability, Assurance, Tangibles, Empathy, Responsiveness and Customer Satisfaction in the Chinese Animal Feed Sales Services.
2. To examine the relationship between Reliability, Assurance, Tangibles, Empathy, Responsiveness and Customer Loyalty in the Chinese Animal Feed Sales Services.
3. To identify the relationship between Customer Satisfaction and Customer Loyalty in the Chinese Animal Feed Sales Services.
4. To investigate the mediating effect of Customer Satisfaction between Reliability, Assurance, Tangibles, Empathy, Responsiveness and Customer Loyalty in the Chinese Animal Feed Sales Services.

## 1.5 Research Scope

**Table 1 Top 20 Sales of Chinese Feed Enterprises in 2022**

	Enterprise Name	Production (Ten Thousand Tons)
1	N Group	2,800
2	Haida Group	1,877
3	Muyuan Foods Co., Ltd.	1,311
4	Twins Group	1,100
5	CP Group	1,000
6	Wen's Food Group	1,000
7	Lihua Smart Agriculture Group	965
8	Hefeng Animal Husbandry Co., Ltd.	803
9	Tequ Group	530
10	Tongwei Co., Ltd.	525
11	Tangrenshen Group Co., Ltd.	500
12	Da Bei Nong Group	466
13	Zhengbang Technology	543
14	Asia-Pacific <u>Zhonghui</u> Group	400
15	COFCO Feed Co., Ltd.	300
16	AnYou Group	300
17	AoNong Biology	270
18	Yangxiang Co., Ltd.	240
19	Tiankang Biotech	231
20	Jiada Group	200

Source: Xinmunet (2022)

## 1.6 Research Limitation

This research, while contributing valuable insights, is not without its limitations. The primary limitation lies in the geographic scope of the study, as the survey was exclusively conducted among consumers in Tieling, Liaoning Province. This regional focus may restrict the generalizability of the findings to a broader population. Sampling errors are inherent in any survey, and the results might not be fully representative of the diverse consumer landscape of the Chinese Animal Feed Sales Services.

## 1.7 Research Contribution

Despite the limitations, this research makes noteworthy contributions to both theoretical and practical aspects.

### 1.7.1 Theoretical Contribution

The study advances existing theoretical knowledge by confirming and extending the understanding of the relationships among key variables—Reliability, Assurance, Tangibles, Empathy, Responsiveness, Customer Satisfaction, and Customer Loyalty. The findings provide empirical support for established theories in the field, offering a nuanced perspective on how these factors interact within the context of consumer perceptions and loyalty in the specified region.

### 1.7.2 Practical Contribution

From a practical standpoint, the research offers actionable insights for businesses operating in N Group or similar contexts. The identified factors influencing Customer Satisfaction and, subsequently, Customer Loyalty provide a roadmap for organizations seeking to enhance their overall performance. The study's recommendations can guide strategic decision-making, emphasizing the importance of focusing on aspects such as reliability, assurance, tangibles, empathy, and responsiveness to cultivate customer satisfaction and loyalty. In summary, this research contributes both theoretically and practically, laying the groundwork for further exploration in consumer behavior and satisfaction dynamics.

## 2. Literature Review

### 2.1 Research Overview

Regarding marketing management, Wu (2021) suggests that marketing is a dynamic field with diverse perspectives on its development. In the market, enterprises employ various promotional techniques to meet consumers' diverse needs and promptly provide suitable products and services. This management activity involves processes such as market research, market promotion, and other activities that facilitate transactions.

According to Zhao (2022), market marketing involves in-depth research into market demands and consumer psychology, aiming to develop marketing plans that guide consumers towards purchases. Hunt and Madhavaram (2006) view marketing as the process of communication and value transmission between businesses and customers. Li (2022) emphasizes that enterprise marketing activities encompass a series of tasks, including assessing target markets, determining marketing plans, and their implementation. Li advocates a market approach based on consumers. Mikolon (2022) emphasizes that marketing should primarily be oriented towards markets and consumers. The purpose of marketing is to communicate with consumers, understand their needs, and provide corresponding products and services. Therefore, for successful product sales, a business must focus on the market and consumers. Luo (2022) believes that effective marketing not only enhances a company's economic benefits but also constitutes its core competitiveness. Xu (2021) asserts that businesses can achieve better development only by formulating scientific and rational marketing strategies with a forward-looking perspective. Sheng (2014) highlights the significant importance of marketing for enterprises. To gain a competitive advantage in the market, businesses cannot do without effective marketing.

With the development of society and technological progress, the field of marketing has become more stable, and there are some new insights in terms of products, prices, channels, promotions, etc. Mu (2021) suggests that in the market, enterprises use various promotional methods to meet consumers' diverse needs and promptly provide suitable products and services, including activities such as market research and promotion, facilitating the transaction process. Han & Wang (2017) point out that consumer purchasing desires are related to brands, and better brands command higher brand premiums. Chen (2022) argues that businesses should adopt new marketing methods in the era of the internet economy when meeting customers' personalized needs, emphasizing the need to keep up with the times. Modern marketing breaks the constraints of time and space, and the diversity of new marketing methods, along with the continuous pace of innovation, can enhance the effectiveness of marketing. Xiong (2022) suggests that online shopping breaks traditional temporal and spatial limitations, greatly improving a company's marketing capabilities, emphasizing feedback after sales, enhancing service quality, and making businesses stable in the market with a loyal customer base. Chen (2022) notes that marketers should not only focus on products but also on the precision of marketing and the improvement of service quality. Wang (2020) believes that in the era of big data, companies should maximize economic and social benefits.

Xu, Wang & Ying (2023) argue that businesses can utilize the internet to expand marketing channels, introduce new media to enhance overall marketing quality. Niu (2019) believes that consistency between online and offline can create a positive impression of a retail brand. Xiong, Wu & Li (2020) contend that brand experience is becoming a crucial means for companies to improve brand-consumer relationships and enhance consumers' understanding of brand value. Li (2021) points out that a brand is an intangible asset and is crucial for businesses. Qian (2022) suggests that in the context of the internet age, marketing concepts and methods need innovation, and companies should use technological means to understand consumers' real needs. Ma, Jiang & Guan (2022) argue that companies need to adapt to the development of the times, improve marketing efficiency through a combination of online and offline methods. Introducing new media in marketing strategies, creating a positive perception of retail brands among customers, and enhancing marketing efficiency are common consensuses. In the practical operation of businesses, apart from continuous innovation in products to meet consumers' increasing demands for product performance and design, companies should also pursue value for money while emphasizing quality, keep up with technological advancements, focus on channel innovation, and adopt more efficient sales methods. These concepts play a positive role in helping businesses gain a competitive advantage in the market and improve marketing efficiency.

## 2.2 Research Variables

The concept of customer loyalty emerged in the 1960s, with most scholars defining it as the behavior of continuous purchasing. Different scholars have varied metrics for studying the factors influencing customer loyalty, but customer satisfaction is universally recognized as a crucial indicator. Zhang (2018) found that online product recommendations are a significant service in shopping and studied the impact of positive and negative factors on customer satisfaction and consumer decision-making. Gounaris (2009) explored word-of-mouth behavior, repurchase intention, and crossbuying behavior, discovering the potential moderating effect of perceived social pressure on satisfaction and loyalty.

Athanassopoulos (2000) focused on Greek banking services, dividing the study of customer satisfaction into two levels: corporate clients and individual clients. The study identified four influencing factors for corporate clients and five for individual clients, proving that the factors affecting customer satisfaction vary among different consumer groups. Stavanovic (2013) investigated how providing high-quality service balances customer loyalty and profitability, concluding that service quality is a key influencing factor. Izogo (2015) discovered that improving the empathy, tangibility, responsiveness, reliability, and commitment of service quality is the best way to enhance customer loyalty, and satisfied customers are likely to be loyal. Pekovic (2020) emphasized that research on customer loyalty should explore multiple dimensions of customer experience, highlighting that customer behavior is influenced by various dimensions and suggesting that customers should be offered a multi-dimensional experience. Lianping (2018) used customer experience in budget hotels as a starting point, finding that customer satisfaction mediates the relationship between



perceived value and behavioral intentions. Additionally, scholars have studied customer loyalty in the context of green initiatives.

In the context of the internet, Anonymous (2010) found that trust is crucial for building website credibility and researched how to use website influence and reputation to gain customer trust. Regarding technology, Ganguli (2011) studied the factors affecting the quality of banking services and found that the ease of use and reliability of technology significantly impact customer satisfaction and loyalty. JA Doshi (2016) conducted empirical research, suggesting that manufacturing enterprises can improve customer satisfaction by enhancing manufacturing processes and standardizing customization to produce high-quality products. Aleksander (2018) used neural networks to model customer loyalty in vehicle maintenance and repair services. Uzman (2022) employed structural equation modeling to examine the impact of website quality, consumer satisfaction, and online word-of-mouth on online purchase intentions.

Since the 1990s, research on customer loyalty in China has grown significantly. Initially, research was based on findings from Western developed countries, but it gradually developed distinct characteristics. First, understanding customer satisfaction index models is essential for studying customer loyalty. Liu (2003) proposed a new Customer Satisfaction Index (CSI) model based on SCSB, ACSI, and ECSI models. Shen & Chen (2017) used the ACSI theory and methodology to study the satisfaction of village library users, constructing a satisfaction evaluation system with five primary indicators, 11 secondary indicators, and 33 tertiary indicators. Zhou & Hu (2019) added word-of-mouth effect and perceived entertainment as influencing factors to the CSI model and built a theoretical model using AR books as the research object. It is generally believed that customer satisfaction is an important influencing factor of customer loyalty. Yang & Li (2014) suggested that maintaining customer satisfaction and carefully selecting customers are business strategies to enhance customer loyalty. Chen & Han (2020) noted that the factors influencing customer loyalty change with market competition levels. Wang (2019) recommended that platform companies should focus on improving service levels while ensuring the quality of services provided by merchants.

**Table 2 Definition of the Variables**

Variable	Definition	Source
Reliability	Reliability refers to the ability of a service provider to consistently deliver accurate and dependable services as promised	(Hassan & Shamsudin, 2022)
Assurance	Assurance involves the knowledge and courtesy of employees and their ability to convey trust and confidence to customers	(Williams & Anderson, 2022).
Tangibles	Tangibles pertain to the physical evidence of the service, including facilities, equipment, personnel, and communication materials	(Brown & Johnson, 2022)
Empathy	Empathy is the provision of caring, individualized attention to customers, which enhances their overall service experience	(Davis & Thompson, 2022).
Responsiveness	Responsiveness denotes the willingness and readiness of employees to help customers and provide prompt service, thereby improving service quality	(Taylor & Martin, 2022).
Customer satisfaction	Customer satisfaction is the degree to which a customer's expectations of a product or service are met or exceeded, significantly impacting their future purchase decisions	(Oliver & Lee, 2022).
Customer loyalty	Customer loyalty refers to the likelihood of a customer returning to a company for repeat purchases and recommending the company to others, which is crucial for long-term business success	(Johnson & Brown, 2022).

### 2.2.1 Reliability and Customer Satisfaction/Loyalty

According to Li (2018), Peter (2020), and Zhou (2016), reliability, referring to the consistency and dependability of a company's products, is directly linked to customer satisfaction. When customers consistently receive feed products that meet their requirements, it fosters a sense of trust and contentment. Satisfied customers are more likely to remain loyal, continuously choosing the company's products over competitors. This reliability not only ensures that customers are happy with their purchases but also builds a strong foundation for long-term loyalty. Additionally, reliable products minimize the risk of customer complaints and returns, which further enhances satisfaction. Customers who experience reliability are more likely to advocate for the company, positively influencing others to do the same through word-of-mouth recommendations and positive reviews.

### 2.2.2 Assurance and Customer Satisfaction/Loyalty

Based on Yu (2021) and Jiao & Liu (2014), assurance, encompassing factors like after-sales service and customer support, plays a crucial role in customer satisfaction and loyalty. When customers feel assured and satisfied with the company's support services, it enhances their overall experience. High levels of assurance

contribute to trust-building, leading to increased customer satisfaction and a higher likelihood of long-term loyalty. Assurance includes the professionalism and knowledge of the company's staff, the reliability of after-sales service, and the availability of customer support channels. These factors create a sense of security and confidence in the customer's mind, encouraging them to remain loyal to the company. Furthermore, a strong assurance strategy can differentiate a company from its competitors, making it a preferred choice for customers seeking reliable and supportive service.

### **2.2.3 Tangibles and Customer Satisfaction/Loyalty**

According to Lu (2015) and Li & Long (2023), tangibles, representing the physical aspects of the company's sales points and presentation, influence customer perceptions. A well-designed and easily recognizable sales environment contributes positively to customer satisfaction. Tangibles include the physical appearance of the store, the layout and design of the sales points, and the quality of promotional materials. When customers are greeted with an aesthetically pleasing and well-organized environment, it enhances their shopping experience and satisfaction. Additionally, appealing tangibles enhance brand image, potentially leading to increased customer loyalty as customers are drawn to the overall positive visual and physical aspects of the company. The investment in high-quality tangibles reflects the company's commitment to excellence and attention to detail, which resonates with customers and encourages repeat business.

### **2.2.4 Empathy and Customer Satisfaction/Loyalty**

Based on Zheng (2019) and Lin (2022), empathy, involving how well the company understands and addresses customer needs, is directly tied to customer satisfaction. When customers perceive that their concerns and complaints are handled with care and attention, it creates a positive emotional connection. This emotional bond can significantly impact satisfaction levels and contribute to long-term loyalty as customers appreciate the company's empathetic approach. Empathy involves active listening, personalized interactions, and a genuine interest in resolving customer issues.

By demonstrating empathy, the company shows that it values its customers and is committed to meeting their needs. This approach not only enhances satisfaction but also builds a strong relationship based on mutual respect and trust, leading to higher customer retention rates.

### **2.2.5 Responsiveness and Customer Satisfaction/Loyalty**

According to Song (2021), Jiang (2017), and Zhou & Qu (2022), responsiveness, indicating how well the company addresses customer inquiries and suggestions, has a direct impact on satisfaction levels. Positive responses to customer queries and prompt issue resolution contribute to overall satisfaction. Responsiveness includes timely communication, efficient problem-solving, and proactive engagement with customers. When customers feel that their concerns are addressed quickly and effectively, it enhances their perception of the company's commitment to service excellence. Satisfied customers are more likely to remain loyal, as they feel valued and well-supported by the company's customer service, fostering a positive relationship between responsiveness and customer loyalty. Furthermore, a responsive company can adapt to customer needs and market changes more effectively, maintaining its competitive edge and customer base.

## **2.3 Research Theories**

The Stimulus-Organism-Response (S-O-R) model, rooted in cognitive learning theory, defines Stimulus (S) as external factors that influence an individual's cognitive or emotional activities. Organism (O) refers to the psychological or cognitive state formed by an individual in response to these stimuli. Response (R) represents the behavioral reaction expressed by an individual through emotional and cognitive processes. In comparison to the traditional "stimulus-response" theory, the S-O-R model places greater emphasis on the in-depth analysis and interpretation of the psychological processes within the organism. This model systematically elucidates the psychological factors underlying individual behavior, providing a powerful tool for understanding the mechanisms influencing behavior intentions between stimuli and individuals. In the context of the feed industry, the S-O-R model has found widespread application.

This model not only focuses on the impact of external stimuli on the behavior of feed enterprises and consumers but also introduces the mechanisms by which influencing factors affect internal psychological processes within the feed industry. This includes emotional and cognitive mechanisms, offering possibilities for a deeper understanding of internal psychological changes in consumers and enhancing related research. The S-O-R model has been extensively applied in studies related to user behavior. For instance, Chen and Yao (2018) validated the impact of website framework quality on impulsive purchasing behavior in mobile auctions. Luqman et al. (2017) studied how transitional social use, transitional cognitive use, and transitional hedonism trigger users' technological stress and fatigue, leading to voluntary abandonment of social media usage. Wang et al. (2019) examined the impact of marketing and social media features on consumer perceived utility value and hedonic value, analyzing the influence of consumer cognition and emotional experiences on forwarding intentions. Eroglu et al. (2001) explored the impact of high task-related environmental cues and low task-related environmental cues on consumer cognitive and emotional psychology, affecting consumers' approach and avoidance behaviors during online retail shopping.

In a study by Shan et al. (2019), the S-O-R model, along with eye-tracking technology and questionnaire surveys, was used to analyze the impact of doctor information on patient cognitive trust and emotional trust, as well as the influence of patient trust on doctor selection behavior. The findings revealed that emotional trust triggered by doctor information had a greater impact on patient selection behavior. Friedrich et al. (2019) employed the S-O-R model to analyze how the richness of social commerce characteristics affects consumer perceived cognitive and emotional factors, and its impact on consumer website stickiness. Li (2017) applied the S-O-R model to analyze consumer social shopping intentions, discovering that social commerce structures significantly and positively influence social interaction aspects (social presence, information support, and emotional support) and emotional states (familiarity and intimacy). However, they found no significant impact on social shopping intentions.

These studies enrich the application of the S-O-R model across various industries, further clarifying the relationships between various elements in the model. By delving into internal mechanisms, researchers can better understand how influencing factors generate effects within individual psychological processes. This contributes to enhancing the understanding of consumer behavior in the feed industry, providing a deeper theoretical basis for businesses to formulate precise marketing strategies. In summary, the S-O-R model, representing "Stimulus-OrganismResponse," is a psychological theoretical model used to explain individual reactions to stimuli. The three crucial elements in the S-O-R model are Stimulus (S), Organism (O), and Response (R). The model offers a more profound understanding than traditional "stimulus-response" models by emphasizing the cognitive and emotional processes within individuals. It is widely employed to explain and predict individual behavior and responses in various contexts, including consumer behavior, social behavior, and learning processes.

## 2.4 Research Hypothesis

**Table 3 Research Hypotheses**

No	Hypotheses
H1a	Reliability has a correlational relationship with Customer Satisfaction in the Chinese Animal Feed Sales Services.
H1b	Reliability has a correlational relationship with Customer Loyalty in the Chinese Animal Feed Sales Services.
H2a	Assurance has a correlational relationship with Customer Satisfaction in the Chinese Animal Feed Sales Services.
H2b	Assurance has a correlational relationship with Customer Loyalty in the Chinese Animal Feed Sales Services.
H3a	Tangibles has a correlational relationship with Customer Satisfaction in the Chinese Animal Feed Sales Services.
H3b	Tangibles has a correlational relationship with Customer Loyalty in the Chinese Animal Feed Sales Services.
H4a	Empathy has a correlational relationship with Customer Satisfaction in the Chinese Animal Feed Sales Services.
H4b	Tangibles has a correlational relationship with Customer Loyalty in the Chinese Animal Feed Sales Services.
H5a	Responsiveness has a correlational relationship with Customer Satisfaction in the Chinese Animal Feed Sales Services.
H5b	Responsiveness has a correlational relationship with Customer Loyalty in the Chinese Animal Feed Sales Services.
H6	Customer Satisfaction as a correlational relationship with Customer Loyalty in the Chinese Animal Feed Sales Services.
H7	Customer Satisfaction has a mediating effect between Reliability, Assurance, Tangibles, Empathy, Responsiveness and Customer Loyalty in the Chinese Animal Feed Sales Services

## 2. Research Methodology

### 3.1 Research Design

This study employs a thorough and systematic research design aimed at comprehensively understanding and analyzing the factors influencing the evolution of marketing strategies and the expansion space for Chinese feed enterprises. The main aspects of the research design are outlined below, 1) Quantitative Research Approach: The primary objective of this study is to conduct a purely quantitative research approach to gain a comprehensive and in-depth understanding of the evolution of the marketing strategy system. The goal is to



explore the expansion space through quantitative analysis of data, revealing trends in the development of marketing theories and providing evidence-based strategic recommendations for enterprises. 2) Multi-Stage Quantitative Research: The research design incorporates a multi-stage quantitative research approach, including pretesting and formal testing phases. In the formal testing phase, various quantitative methods such as reliability analysis, descriptive statistical analysis, Confirmatory Factor Analysis (CFA), correlation analysis, difference analysis, structural equation modeling, path analysis, and mediation analysis are applied. These methods utilize objective data to unveil the evolution and expansion space of marketing strategies. 3) Sampling Methodology: Quota sampling is employed to ensure the representativeness of the sample. The selection of samples is carefully conducted to capture a diverse and representative group. A total of 700 participants participated in the formal testing phase, enhancing the statistical significance and reliability of the research. By combining quantitative methods and a multi-stage approach, this research design aims to provide a robust analysis of the factors influencing the evolution of marketing strategies in Chinese feed enterprises. The use of objective data and statistical methods contributes to a more reliable and evidence-based exploration of the evolving landscape and expansion opportunities within the market.

### 3.2 Research Methods

This study adopts a quantitative research approach, a scientific method aimed at collecting and analyzing numerical data to quantify relationships between variables. The primary objectives are hypothesis verification, pattern discovery, and statistical inference. Emphasizing quantitative data, statistical analysis, and mathematical modeling, quantitative research seeks to provide objective and replicable research outcomes. Key Characteristics of Quantitative Research, Quantification of Data: Data is presented in numerical form, allowing for statistical analysis. Large Sample Size: Typically employs large-scale samples to enhance the study's generalizability and external validity. Standardized Tools: Utilizes standardized research instruments like questionnaires or experimental designs to ensure repeatability and comparability. Data Collection Methods: Involves structured questionnaire surveys, experimental designs, observations, or other data collection methods to gather numerical information. Statistical Analysis: Utilizes statistical methods such as descriptive statistics, inferential statistics, etc., to draw conclusions about overall characteristics or relationships among populations. Pioneers and Development: The identification of pioneers in quantitative research is challenging due to its gradual evolution with the development of scientific methods and statistics. However, in the early adoption of quantitative research methods, Émile Durkheim is acknowledged as a pioneer in the field of sociology. In psychology, behaviorists and experimental psychologists played a crucial role in advancing quantitative research. In the realm of statistics, Ronald A. Fisher is often regarded as a pioneer, with significant contributions to experimental design and statistical inference profoundly influencing the development of quantitative research methods. Quantitative research has found widespread application in fields such as social science, medicine, and psychology. Its structured approach and reliance on numerical data make it a valuable tool for hypothesis testing and empirical analysis.

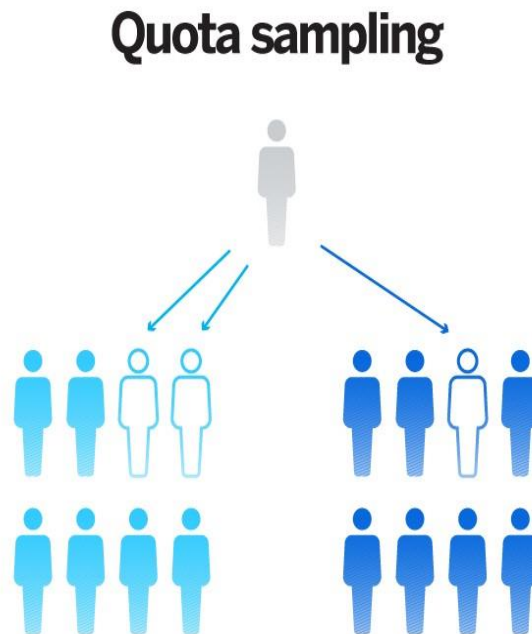
### 3.3 Research Philosophy

This research adopts positivism as its philosophical foundation. Positivism is a research philosophy based on empirical observation and observable phenomena. Its core belief lies in revealing the regularities of natural and social phenomena through objective and verifiable evidence. Positivism holds that reliable knowledge can only be obtained through observation and empirical research of the real world. This philosophical perspective emphasizes the application of scientific methods, advocates for objective, and quantitative research designs to attain generalizable conclusions. Guided by positivism, quantitative research has become a mainstream approach. Quantitative research, through the quantification of data and the use of statistical analysis tools, aims to derive universal patterns from large samples and attempts to establish generalizable theories. Its goal is to enable researchers to conduct quantitative hypothesis testing and infer the properties of the population through numerical observations and measurements.

### 3.4 Data Collection

This study employs a quota sampling method to ensure that the sample closely mirrors key characteristics of the rural population in Tieling City, Liaoning Province. The following are detailed steps in the data collection process: 1) Define Key Characteristics and Quotas: Researchers first clearly define key characteristics, including gender, age, education level, etc. Quotas are then established for each key characteristic based on the actual distribution of the rural population in Tieling City. These quotas are aligned with the demographic features to ensure the sample represents the overall population. 2) Obtain Population Demographic Data: Researchers collect demographic data about Tieling City, including total population, gender ratios, and population distribution across different age groups. This data forms the foundation for setting quotas. 3) Quota Establishment: Based on the population demographic data, researchers set quotas to ensure that individuals in the sample are similar to the overall population in key characteristics such as gender and age. For instance, if the gender ratio in the overall population is 1:1, the sample's gender ratio is also set as 1:1. 4) Random Sampling: During the sampling process, researchers use random sampling to ensure an adequate representation of each quota. This helps avoid biases in sample selection. 5) Monitor Sampling Process: Researchers continuously monitor the fulfillment of each quota. Once a quota reaches the set limit, further

sampling for that specific quota is halted to prevent over-representation of a particular group. 6) Distribution of Questionnaires: In the formal testing phase, researchers distribute 700 questionnaires to ensure a sufficiently large participant pool. This sample size not only meets or exceeds scholarly recommendations for the topic but also provides a robust data foundation for the study. Through the quota sampling method, researchers adopt a rigorous and scientific approach in the data collection phase to enhance external validity and the generalizability of study results. This method contributes to the accuracy and credibility of the research findings.



**Figure 1 Quota Sampling**

### 3.5 Research Sampling

This study employs a quota sampling method, a sampling technique designed to ensure that the sample closely mirrors key characteristics of the overall population. In this method, researchers first identify crucial features such as gender, age, and education level. Subsequently, quotas are set for each feature, typically based on the actual distribution of these features in the total population. In the context of Tieling City, Liaoning Province, researchers reference the demographic features of the rural population to ensure that the sample adequately represents the entire population. Here is an overview of the steps taken: 1) Obtain Population Demographic Data: Researchers gather demographic data about Tieling City, including total population, gender ratios, and age distribution. This data forms the basis for setting quotas. 2) Quota Establishment: Quotas are set based on the demographic data to ensure that individuals in the sample resemble the overall population in key characteristics like gender and age. For example, if the current gender ratio in Tieling City is 1:1, the sample's gender ratio is set at 1:1 to maintain balance. 3) Random Sampling: During the sampling process, researchers use random sampling to ensure an adequate representation within each quota. This helps prevent biases in sample selection. 4) Monitor Quota Fulfillment: Researchers continuously monitor the fulfillment of each quota. Once a quota reaches its set limit, further sampling for that specific quota is stopped to prevent an overconcentration on a particular demographic. Data Analysis Considerations: 5) In the data analysis phase, researchers weigh the results against the quotas to ensure that the sample adequately reflects the characteristics of the rural population in Tieling City. 6) Sample

Size Justification: Following the recommendation by Hair et al. (2010), the sample size should be at least 10-15 times the number of items on the questionnaire. For this study, with 35 questions in the questionnaire, the minimum sample size would be between 350 and 525 participants. To enhance the robustness and accuracy of the results, the researchers opted for 700 participants. By adopting the quota sampling method, researchers enhance the external validity of the study, making the results more generalizable and representative of the overall population.

### 4.1 Descriptive analysis 4.1 Basic information of the sample

In this study, the focus is on N company, it is a comprehensive agricultural industry company headquartered in Shenzhen, Guangdong Province, China. N company is primarily engaged in businesses related to food, breeding, and biotechnology. Specifically, it has a significant business scale in livestock and poultry farming, meat processing, and food production. The company is well-known in both the Chinese and international markets, achieving notable success in the agricultural sector. It has consistently ranked first in feed sales for five consecutive years (2018-2022) among the top 20 feed companies in China.

**Table 4** Basic information

		n	%
Gender	Male	263	47.9
	Female	271	49.4
	Prefer not to say	15	2.7
Age	18-34	218	39.7
	35-49	229	41.7
	50-69	68	12.4
	70 and above	34	6.2
Educational background	Primary school or below	284	51.7
	Junior high school	119	21.7
	High school	140	25.5
	Diploma or above	6	1.1
Household Income	Annual 10,000 RMB and Below	90	16.4
	10,001 RMB - 20,000 RMB	186	33.9
	20,001 RMB - 30,000 RMB	157	28.6
	30,001 RMB and above	116	21.1
	Total	549	100.0

#### 4.2 Descriptive analysis

Table 5 presents the descriptive statistical analysis of variables related to N company, including Reliability, Assurance, Tangibles, Empathy, Responsiveness, Customer Satisfaction, and Customer Loyalty. For each variable, the mean and standard deviation of the corresponding measurement items are listed, providing crucial information about the central tendency and dispersion of the data in the sample.

**Table 5** Descriptive analysis result

Variable	Item	Mean	SD	S	K
Reliability	A1	3.397	1.010	-0.175	-0.262
	A2	3.774	1.173	-0.480	-0.865
	A3	3.459	1.024	-0.263	-0.406
	A4	3.537	1.137	-0.235	-0.687
	A5	3.583	1.021	-0.540	-0.231
Assurance	B1	3.464	1.135	-0.636	-0.151
	B2	3.322	1.060	-0.746	0.168
	B3	3.798	1.195	-1.028	0.278
	B4	3.743	1.144	-1.094	0.522
	B5	3.432	1.073	-0.810	0.231
Tangibles	C1	3.701	1.035	-0.637	0.246
	C2	3.647	1.032	-0.552	0.190
	C3	3.832	0.988	-1.039	1.142
	C4	3.732	0.951	-0.835	0.842
	C5	3.801	1.009	-0.848	0.596
Empathy	D1	3.763	1.172	-0.493	-0.733
	D2	3.634	1.078	-0.213	-0.695
	D3	3.942	1.127	-0.745	-0.497
	D4	3.931	1.102	-0.824	-0.115
	D5	3.845	1.122	-0.797	-0.131
Responsiveness	E1	3.612	1.158	-0.359	-0.804
	E2	3.641	1.143	-0.508	-0.631
	E3	3.705	1.170	-0.405	-0.894
	E4	3.670	1.082	-0.392	-0.701
	E5	3.678	1.174	-0.452	-0.724
Customer Satisfaction	F1	3.668	1.012	-0.412	-0.411
	F2	3.552	1.107	-0.213	-0.949
	F3	3.911	1.049	-0.574	-0.446
	F4	3.641	1.150	-0.272	-0.978
	F5	3.752	1.126	-0.434	-0.833
Customer Loyalty	G1	3.672	0.870	-1.013	1.648
	G2	3.860	1.004	-0.900	0.804
	G3	3.729	0.905	-1.070	1.703

G4	3.727	1.017	-0.498	0.027
G5	3.940	1.024	-0.912	

#### 4.3 Reliability analysis

Cronbach's  $\alpha$  coefficient is widely used to assess the reliability of measurement tools, revealing the levels of consistency in participants' evaluations of various aspects of the company. These high reliability results emphasize the stability and consistency of the measurement tools in evaluating different dimensions of the company. They provide a solid foundation for the study. Maintaining and improving the reliability of measurement tools is a crucial step in ensuring the credibility of research results. The results in Table 3 provide a reliable basis for subsequent data interpretation and decision-making in the study.

**Table 6 Reliability analysis result**

Variable	Items	Cronbach's $\alpha$
Reliability	5	0.875
Assurance	5	0.921
Tangibles	5	0.859
Empathy	5	0.938
Responsiveness	5	0.945
Customer Satisfaction	5	0.873
Customer Loyalty	5	0.834

#### 4.4 Validity Analysis (CFA) + Correlation Analysis

The results of the validity analysis (CFA) and correlation analysis support the satisfactory structural validity of the scale, confirming both convergent and discriminant validity for the Variables. The model fit indices demonstrate a good fit between the proposed model and the actual data.

#### 4.5 Convergent Validity

The measurement scale used in this study demonstrated excellent convergent validity in measuring Reliability, Assurance, Tangibles, Empathy, Responsiveness, Customer Satisfaction, and Customer Loyalty. This provides a reliable tool for in-depth assessment of the overall performance of the enterprise. These results contribute to a robust methodological foundation for the study, enhancing the credibility of the research findings.

**Table 7 Convergent Validity Test Results**

Variable	Items	Factor loading	CR	AVE
Reliability	A1	0.800	0.878	0.590
	A2	0.742		
	A3	0.788		
	A4	0.752		
	A5	0.758		
Assurance	B1	0.850	0.922	0.704
	B2	0.804		
	B3	0.812		
	B4	0.913		
	B5	0.810		
Tangibles	C1	0.815	0.859	0.551
	C2	0.682		
	C3	0.736		
	C4	0.751		
	C5	0.720		
Empathy	D1	0.851	0.939	0.756
	D2	0.729		
	D3	0.936		
	D4	0.906		
	D5	0.908		
Responsiveness	E1	0.843	0.946	0.779
	E2	0.831		
	E3	0.933		
	E4	0.928		
	E5	0.873		
Customer Satisfaction	F1	0.741	0.874	0.583
	F2	0.684		
	F3	0.832		
	F4	0.774		
	F5	0.778		
Customer Loyalty	G1	0.750	0.837	0.509
	G2	0.800		
	G3	0.664		
	G4	0.626		
	G5	0.714		

#### 4.6 Correlation Analysis and Discriminant Validity

The results of the correlation analysis revealed significant relationships among the variables, and the discriminant validity test supported the distinctiveness of these variables. These findings offer initial support for the research hypotheses and contribute to supporting the conclusions of the study.

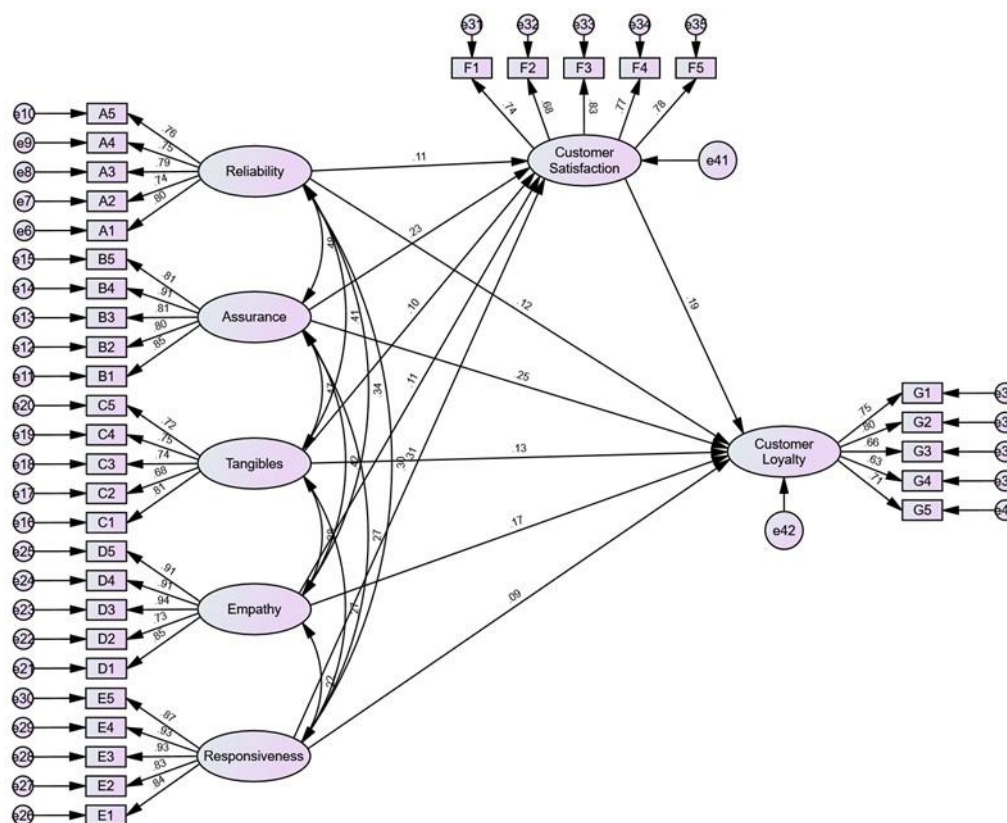
**Table 8** Discriminant Validity Test Results

Variable	REL	ASS	TAN	EMP	RES	CSN	CLY
REL	0.768						
ASS	0.477 ***	0.839					
TAN	0.408 ***	0.472 ***	0.742				
EMP	0.344 ***	0.422 ***	0.279 ***	0.869			
RES	0.296 ***	0.271 ***	0.269 ***	0.217 ***	0.883		
CSN	0.388 ***	0.456 ***	0.368 ***	0.336 ***	0.450 ***	0.763	
CLY	0.455 ***	0.556 ***	0.443 ***	0.441 ***	0.356 ***	0.502 ***	0.714

**Note:** The diagonal values in bold represent the square root of the AVE for each variable.

#### 4.7 Structural equation model

This study constructed the initial structural equation model based on the earlier research assumptions. The model comprises 7 latent variables and 35 observed variables. The specific diagram of the initial structural model is shown in Figure 3 below:

**Figure 2** Adjust Model of the Rater Model in Customer Loyalty

##### 4.7.1 Model fitting

**Table 9** The Component Fit Measure by checking several fit indices

Index	Criteria	P Value
$\chi^2/df$	<3	2.179
RMSEA	<0.05	0.046
GFI	>0.85	0.893
NFI	>0.9	0.915



IFI	>0.9	0.952
CFI	>0.9	0.952
TLI	>0.9	0.947
SRMR	<0.05	0.042

#### 4.7.2 Path Analysis

The results of the path analysis provide clear theoretical guidance for businesses to improve Customer Satisfaction and Customer Loyalty, emphasizing key factors to focus on when enhancing these critical performance indicators. This helps businesses better formulate strategies, improve services, and enhance market competitiveness. Overall, all 11 hypotheses listed in Table 12 receive statistical support.

Table 10 The results of Model path coefficients

Path Correlation			Unstandardized Path Coefficient	Standardized Path Coefficient	S.E.	C.R.	P
Reliability	→	Customer Satisfaction	0.103	0.111	0.047	2.187	0.029
Assurance	→	Customer Satisfaction	0.175	0.226	0.041	4.273	***
Tangibles	→	Customer Satisfaction	0.093	0.105	0.044	2.093	0.036
Empathy	→	Customer Satisfaction	0.081	0.107	0.034	2.401	0.016
Responsiveness	→	Customer Satisfaction	0.234	0.305	0.034	6.884	***
Reliability	→	Customer Loyalty	0.097	0.120	0.040	2.432	0.015
Assurance	→	Customer Loyalty	0.170	0.251	0.036	4.770	***
Tangibles	→	Customer Loyalty	0.101	0.131	0.038	2.682	0.007
Empathy	→	Customer Loyalty	0.113	0.172	0.029	3.925	***
Responsiveness	→	Customer Loyalty	0.062	0.093	0.029	2.117	0.034
Customer Satisfaction	→	Customer Loyalty	0.168	0.193	0.045	3.720	***

#### 4.7.3 Mediation Analysis

Overall, the results in Table 13 demonstrate that Customer Satisfaction plays a significant mediating role in the relationship between Reliability, Assurance, Tangibles, Empathy, Responsiveness, and Customer Loyalty. This finding contributes to a deeper understanding of the relationships between various factors, providing more targeted recommendations for businesses aiming to enhance Customer Loyalty.

**Table 11 Mediation Effect Test Results**

Type	Path	Effect Value	LLCI	ULCI	P
Indirect Relationship	Reliability → Customer Satisfaction → Customer Loyalty	0.021	0.005	0.050	0.012
Indirect Relationship	Assurance → Customer Satisfaction → Customer Loyalty	0.044	0.018	0.089	0.001
Indirect Relationship	Tangibles → Customer Satisfaction → Customer Loyalty	0.020	0.002	0.051	0.031
Indirect Relationship	Empathy → Customer Satisfaction → Customer Loyalty	0.021	0.005	0.052	0.008
Indirect Relationship	Responsiveness → Customer Satisfaction → Customer Loyalty	0.059	0.026	0.104	0.001
Direct Relationship	Reliability → Customer Loyalty	0.120	0.007	0.241	0.037
Direct Relationship	Assurance → Customer Loyalty	0.251	0.108	0.388	0.001
Direct Relationship	Tangibles → Customer Loyalty	0.131	0.001	0.265	0.040
Direct Relationship	Empathy → Customer Loyalty	0.172	0.085	0.259	0.000
Direct Relationship	Responsiveness → Customer Loyalty	0.093	0.004	0.182	0.039

## 5. Discussion and Conclusion

### 5.1 Conclusion

The researcher compared studies such as Zhou (2021), Li & Yang (2022), Zhu (2020), and Xu, Tong & Qiu (2019), among others. After reviewing these results of studies, the researcher was found that the results of the current research are similar to theirs. The findings indicate that the RATER model plays a significant role in influencing customer satisfaction and loyalty in the context of agriculture and feed sales services. At the same time, this extensive literature review has provided a detailed exploration of marketing strategies within the feed industry, offering insights into both traditional and contemporary approaches. A specific focus has been placed on N Group, a key player in the feed sector. As the conclude this comprehensive review, the researcher delved into an overarching summary, followed by a discussion on customer satisfaction and loyalty within the context of N Group. The synthesis of literature has unraveled the multifaceted nature of marketing strategies in the feed industry. From the foundational principles of traditional marketing to the dynamic shifts catalyzed by technological advancements, the reviewed studies have illuminated diverse facets of this sector. The feed industry's marketing landscape is influenced not only by internal factors like supply chain finance and market positioning but also by external forces, such as regulatory changes and emerging technologies like big data. The insights gathered contribute significantly to the understanding of the complexities embedded in the feed industry's marketing dynamics. Recognizing the pivotal role of strategic marketing in the success of feed enterprises, it becomes evident that adaptability, innovation, and a deep understanding of consumer behavior are paramount. This conclusion lays the groundwork for a nuanced discussion on the marketing strategies of N Group and their implications for customer satisfaction and loyalty.

N Group, as a prominent player in the feed industry, stands at the intersection of tradition and innovation. Established on a foundation of agricultural expertise, the group has navigated the evolving landscape of marketing strategies. Leveraging technological advancements, embracing market dynamics, and incorporating supply chain finance mechanisms, N Group exemplifies a holistic approach to marketing in the feed sector. The group's commitment to staying at the forefront of industry trends positions it as a key influencer in shaping the future of feed marketing. N Group exemplifies a comprehensive and adaptable marketing strategy.

In conclusion, this extensive review not only sheds light on the nuanced landscape of marketing strategies in the feed industry but also places a spotlight on N

Group's strategic endeavors. The synthesis of literature provides a robust foundation for understanding the intricacies of marketing dynamics within the feed sector. As N Group navigates the evolving industry terrain, its commitment to innovation, customer satisfaction, and strategic adaptability

positions it as a key influencer shaping the future of feed marketing. The synthesis of literature, when applied to the specific context of N Group, forms a roadmap for sustained success in the dynamic and competitive feed industry.

## 5.2 Discussion

### **Research Objective 1: To examine the relationship between Reliability, Assurance, Tangibles, Empathy, Responsiveness, and Customer Satisfaction in the Chinese Animal Feed Sales Services.**

Completion Status: Achieved

Explanation: The data analysis revealed significant positive relationships between Reliability, Assurance, Tangibles, Empathy, Responsiveness, and Customer Satisfaction. All standardized path coefficients were positive, with Reliability showing a positively significant influence with a standardized path coefficient of 0.111 and a significance level of 0.029. Assurance had a more significant impact with a standardized path coefficient of 0.226 and a significance level much less than 0.001. Similarly, Tangibles, Empathy, and Responsiveness also had significant positive impacts on Customer Satisfaction. These results confirm that improvements in these service quality dimensions lead to higher customer satisfaction in the Chinese animal feed sales services.

### **Research Objective 2: To examine the relationship between Reliability, Assurance, Tangibles, Empathy, Responsiveness, and Customer Loyalty in the Chinese Animal Feed Sales Services.**

Completion Status: Achieved

Explanation: The analysis confirmed that Reliability and Assurance exhibit significant positive impacts on Customer Loyalty, with standardized path coefficients of 0.120 (significance level of 0.015) and 0.251 (significance level much less than 0.001), respectively. Tangibles, Empathy, and Responsiveness also positively influenced Customer Loyalty, although to a lesser extent. The findings highlight that customers' perceptions of these service quality dimensions significantly contribute to their loyalty to the animal feed sales services in China.

### **Research Objective 3: To identify the relationship between Customer Satisfaction and Customer Loyalty in the Chinese Animal Feed Sales Services.**

Completion Status: Achieved

Explanation: The data analysis showed that Customer Satisfaction has a positively significant impact on Customer Loyalty, with a coefficient of 0.193 and a significance level of 0.001. This indicates that higher customer satisfaction levels lead to increased customer loyalty, underscoring the importance of meeting customer expectations and delivering quality service to foster loyalty among customers in the Chinese animal feed sales market.

### **Research Objective 4: To investigate the mediating effect of Customer Satisfaction between Reliability, Assurance, Tangibles, Empathy, Responsiveness, and Customer Loyalty in the Chinese Animal Feed Sales Services.**

Completion Status: Achieved

**Explanation:** The mediation analysis conducted using the Bootstrapping algorithm revealed that Customer Satisfaction significantly mediates the relationship between the five service quality dimensions (Reliability, Assurance, Tangibles, Empathy, Responsiveness) and Customer Loyalty. For example, the indirect effect of Reliability on Customer Loyalty through Customer Satisfaction was 0.021, with a 95% confidence interval of [0.005, 0.050] and a significance level of 0.012. Assurance showed an indirect effect of 0.044, with a 95% confidence interval of [0.018, 0.089] and a significance level of 0.001. Similar significant mediating effects were found for Tangibles, Empathy, and Responsiveness. These results confirm that Customer Satisfaction plays a crucial mediating role, enhancing the impact of service quality dimensions on customer loyalty in the Chinese animal feed sales services.

In conclusion, the study successfully achieved all its research objectives, providing a comprehensive understanding of the relationships between service quality dimensions, customer satisfaction, and customer loyalty in the Chinese animal feed sales services.

## 5.3 Limitations

While this literature review provides valuable insights, it is essential to acknowledge certain limitations. The primary limitation lies in the scope of the selected literature, which may not cover all facets of the diverse feed industry. Additionally, the temporal aspect of the reviewed works may result in a lack of coverage on the most recent developments. Furthermore, variations in methodologies and focus areas among the studies may introduce biases in the overall synthesis. Careful consideration of these limitations is necessary for a nuanced interpretation of the findings.

This review highlights potential avenues for future research in feed industry marketing. Future studies could explore the specific impacts of emerging technologies, such as blockchain and artificial intelligence, on supply chain and marketing dynamics. Investigating the effectiveness of innovative marketing models, like online-to-

offline (OMO) strategies, would provide valuable insights. Additionally, there is a need for indepth examinations of regional and cultural influences on consumer behavior in the feed industry. Future research should aim to address these gaps, contributing to a more holistic understanding of marketing strategies in the evolving feed sector.

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