Research on the Psychological Contract between Real Estate Agents and Clients from the Perspective of Customer Relationship Lifecycle

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ABSTRACT: *As an intermediary in housing transactions, the realization of a real estate agent's transaction depends largely on the long-term and sustainable relationship between the broker and the customer. Based on communication interviews and literature analysis, this study designed a scale of customer psychological contracts in the context of relationships between the broker and the client. By analyzing reliability and validity, confirmatory factors, and exploratory factors, the feasibility of the scale is verified, and the average value of the data was analyzed to explore the differences in the structure of psychological contracts during the relationship life cycle. The research finds that the psychological contract between customers and real estate agents includes three dimensions; "relationship development, transaction norms, and service fairness"; The customer psychological contract gradually strengthens in the relationship cycle; Among all stages, the responsibility for relationship development is the highest perceived by customers, followed by a stronger perception of service fairness during the exploration and maturity stages, and a stronger perception of transaction norms during the formation stage.*

Keywords: Customer relationship lifecycle; Customer psychological contract; Real estate agent

INTRODUCTION

The real estate industry has a great influence on economic growth in China, with the output value proportion of 6.8% of nominal GDP, driving GDP by about 0.7 percentage points per year (Pang, 2023). With the economic recovery in the post pandemic era, the real estate market has rebounded, customer enthusiasm for viewing houses has increased, and the popularity of the real estate industry has also continued to rise. With the structural adjustment of the industry, the real estate market has entered the stock era from the "incremental era", and real estate intermediary platforms have become the main driving force for stock housing transactions.

The real estate brokerage industry is characterized by high housing prices and high trust requirements, but the entry threshold for practitioners is low, their professional abilities are uneven, and most lack professional training and qualification certification, which leads to some consumers having a lack of trust in the business capabilities of brokers. In recent years, with the emergence of some "black intermediaries" and the chaos in the real estate market, some consumers have deviated from their understanding of brokers, developed a mentality of resistance or suspicion, and experienced phenomena such as consumers jumping orders (Li, 2022).

As a trading intermediary, managing the long-term relationship between clients and brokers will affect the sustainable development of the market. The aim of this study is to:
(1) Explore the differences in psychological contract structures between brokers and clients during different relationship periods;
(2) Explore the changing characteristics of customer psychological contracts;
(3) Discuss management and marketing insights to enhance the relationship between both parties in the transaction.

LITERATURE REVIEW

2.1 Customer Psychological Contract
Dimension of Customer Psychological Contract: The psychological contract was first proposed by Argyris (1960), then expanded by Ronsseau (1996) to explore the field of enterprise employees, and then Roehling (1997) proposed to extend the psychological contract to the study of the relationship between enterprises and customers. In a broad sense, psychological contract refers to the expectation or belief that one party has towards the other party's efforts and gains without formal written agreement between the two parties (Wang., Wan.,&Cheng. 2019), while in this research scenario, it refers to the subjective perception and belief of the reciprocal obligation between customers and real estate agents.

Research on psychological contracts focuses on the fields of organization and marketing, and explores their structural dimensions through the development of scales, mainly involving two-dimensional, three-dimensional, and four-dimensional structures. Shen and Nie (2007) pointed out that in e-commerce marketing, psychological contracts refer to customers' perception, cognition, and inherent tendency towards the responsibilities promised by e-commerce service providers. They can be divided into two types of contracts which are transactional and relational. Transactional psychological contracts are short-term, tangible, and economically beneficial interactive relationships, while relational psychological contracts are long-term, intangible, and emotionally communicative interactive relationships. Wang, Wan, and Cheng (2007) proposed that customer psychological contracts consist of three responsibilities, which are transaction norms, relationship development, and service fairness. Wan, Yue, Jiang (2011) proposed that customer psychological contracts include four dimensions, which are service fairness, service norms, symbiotic development, and interpersonal communication.

Based on the theoretical research above, combined with the research of Wang, Wan, and Cheng (2017), this study divides customer psychological contracts in the context of real estate transactions into three dimensions: relationship development, transaction norms, and service fairness. The development of relationships belongs to the dimension of "relationships". To reflect the nature of transactions and services in the brokerage industry, the dimension of "transactions" is divided into two aspects: transaction norms and service fairness.

Formation of Customer Psychological Contract: In marketing, the formation of psychological contracts is a perceptual process of individual "information decoding contract", which develops accordingly based on responsibility commitments and interactive activities until the relationship changes tend to stabilize (Ronsseau, 1989). The development of psychological contracts is influenced by internal and external information between individuals and the environment, consumer attitudes and preferences, and corporate responsibility. From a changing perspective, psychological contracts have developmental characteristics of establishment, adjustment, and stability (Wang., Wan.,&Cheng, 2019). The formation of psychological contracts is a constantly changing process, adjusted as the exchange and service relationship between the two parties develops. Based on the study of static psychological contracts, scholars propose to study customer psychological contracts from the perspective of customer relationship lifecycle by dividing dynamic time cycles in marketing contexts.

2.2 Customer Relationship Lifecycle

In marketing, the customer relationship lifecycle is also known as the customer lifecycle. Early scholars found that customer relationships have cyclical characteristics, and the relationship between buyers and sellers shows a dynamic change from weak to strong and then to weak, and there is an increasing exploration and application of the customer relationship lifecycle. Ford (1980) first explored this and divided the process of establishing transactional relationships into five stages: pre relationship stage, early stage, development stage, long-term stage, and ultimate stage. Dwyer, Schurr and Oh (1987) proposed that customer relationship development goes through five stages: awareness, exploration, development, commitment, and disintegration. Cheng Jia (2009) demonstrated through experiments that the relationship between service providers and customers can be divided into exploration period, formation period, maturity period, and decline period.

Based on the research of domestic and foreign scholars, this study refers to Cheng Jia's (2009) research and divides the development of the relationship between real estate agents and clients into four stages: exploration, formation, maturity, and decline, in order to explore psychological contract issues in the context of the relationship between real estate agents and clients.

MATERIALS AND METHODS

3.1 Research Object

This study mainly focuses on consumers who engage in transactions with real estate agents through platforms such as Beike Find House, including tenants, first-time homebuyers, buyers of idle properties, and renters of shops. Nowadays, real estate brokerage companies mainly adopt traditional and 020 business models, with Lianjia and Beike finding houses becoming the choices for consumers to purchase houses. Their businesses involve new house sales, second-hand house buying and selling, and house leasing.

3.2 Questionnaire Survey

The development of scales for customer psychological contracts in the field of marketing is mainly based on the content of psychological contracts, and there are differences in the content of customer psychological contracts among different

objects and situations. This study referred to She, Xu and Xu The Psychological Contract Scale developed in 2022, Wang, Wan and Cheng (2017), Shen and Nie The survey questionnaire used in (2007) was developed in conjunction with the theme of this study.

Questionnaire Variable Settings:
(1)Customer relationship lifecycle measurement: Materials and methods Based on literature research, this study divides the customer relationship lifecycle into exploration period, formation period, maturity period, and decline period, and describes different characteristics of the four relationship periods. Respondents choose the option that best fits the current relationship with the broker. According to Chen's (2002) research, the following descriptive options were developed.

Exploration period: I am trying to form a service relationship with my agent, testing his ability and sincerity to meet his needs. Formation period: I have gained more and more housing information, have a certain level of trust in the agent, and am willing to maintain a service relationship with him. Maturity period: I maintain long-term contact with a real estate agent, obtain high satisfaction, and am willing to cooperate again, recommending him to friends. Decline period: I became dissatisfied with the agent's service and tried to terminate the service relationship.

(2) Measurement of customer psychological contract dimensions: This study measures customer psychological contracts using a three-dimensional structure in the context of the relationship between real estate agents and clients, with the transaction norm dimension referring to She, Xu and Xu The research conducted by (2022) et al. sets four questions, and the dimension of service fairness refers to Wang, Wang& Cheng et al. (2017) set 5 questions, and the dimension of relationship development was based on the results of Shen and Nie et al. (2007). Based on the different choices of customers, study whether there are differences in the psychological contract structure under different relationship cycles. If there are differences, study their characteristics and discuss marketing measures in combination with demand analysis.

Survey questionnaire design: A scale for measuring the psychological contract of the relationship between real estate agents and customers in the field of marketing has not yet been developed. This study designed a set of scales suitable for this scenario based on the research of Wang, Wan, and Cheng (2017). Firstly, based on literature research, select appropriate structural dimensions and set several measurement items for each dimension. Secondly, based on interview surveys and feedback from five scholars, simplify and modify relevant questions to obtain the initial questionnaire. Finally, based on the simulation survey analysis of the questionnaire, modify it to form a formal questionnaire (Three dimension:(1) Relationship development；Sub item A1~A5, (2) Trading norms；Sub item B1~B4, (3)Service fairness；Sub item C1~C5). The item code detailed seeTable1.
In terms of question type setting, both the basic information and customer needs sections are multiple-choice questions. The psychological contract scale adopts the Likert 5-level evaluation method, which is divided according to the degree of agreement. The range of 1 to 5 is sequentially represented as "strongly disagree" to "strongly agree". After answering the basic information question, the interviewee selects the current relationship period, and based on this, measures the psychological contract scale before making a demand selection.

Table1 Questionnaire Dimension

Dimension	Code	Sub item
Relationship development	A1	Will respect my needs
	A2	We will provide services that are suitable for me according to my situation
	A3	Protects my personal information and privacy
	A4	Provide me with listing information to save time and cost
	A5	Honesty and trustworthiness, reassuring and satisfying
Trading norms	B1	Tell the property honestly and don't exaggerate the hype
	B2	Present the property in a comprehensive way, without avoiding the flaws of the house
	B3	Can get me real and valid discounts and offers
	B4	Be able to inform the purchase risk of the house

Table1 Questionnaire Dimension(Continued)

Dimension	Code	Sub item
	C1	Ability to ensure fair and compliant delivery procedures and processes
	C2	Be able to explain in good faith when there are doubts about the terms of the contract, the delivery process, the results, etc.
Service fairness	C3	When there is a conflict with the landlord, I can consider my interests and deal with it fairly
	C4	The property rights of the house will be clarified in advance to avoid disputes at the time of delivery
	C5	Able to provide third-party guarantee and after-sales service guarantee

RESULTS

4.1 Analysis of Pre-test Questionnaire

The questionnaire adopts a sampling survey, and the survey subjects are customers who have received services from real estate brokers. Select 26 customers for pre survey before conducting the survey, and obtain Cronbach's through pre analysis α The coefficient is 0.913, with good reliability. Based on the analysis results and feedback, the pre survey questionnaire will be used as the official questionnaire.

Reliability Analysis: Reliability is the degree to which a scale measures the stability of the studied variable. When the reliability is high, it reflects that multiple tests on the same variable can maintain highly similar results, usually using Cronbach's α Coefficient determination (Yang., Wu., & She, 2020), a coefficient above 0.8 indicates good reliability. The judgment coefficient of the entire scale is 0.911, with three dimensional coefficients of 0.81, 0.806, and 0.835, all greater than the standard of 0.8. Deleting a certain item will reduce the reliability of the entire scale or a certain original dimension to varying degrees, reflecting the good consistency and reliability of the scale.

Validity Analysis: Validity refers to the degree to which the results of a scale can reflect the research content. When the KMO value is greater than 0.9 and Bartlett's P value is less than 0.05, it indicates that factor analysis is suitable. As shown in Table 2, the KMO value is 0.928, the P-value is 0.000 ***, and there is a correlation between variables, which meets the requirements of factor analysis.

Table 2Validity Analysis Result

KMO		0.928
	chi square	2133.523
Bartlett sphericity test	df	91
	P	0.000***

Note: * * *, * * *, * * * Represent significance levels of 1%, 5%, and 10%, respectively

Exploratory Factor Analysis: Exploratory factor analysis can reflect the intrinsic structure between research variables and aggregate multiple variables into a few common factors. By analyzing 141 of the data, the results are shown in Table 3.

Table3 Exploratory Factor Analysis Factor Load Factor

Variable	Trading norms	Relationship development	Service fairness
A1	0.052	0.803	0.304
A2	0.021	0.794	0.229
A3	0.451	0.702	0.029
A4	0.378	0.492	0.302
A5	0.318	0.722	0.069
B1	0.772	0.214	0.079
B2	0.770	0.133	0.276
B3	0.741	0.290	0.180
B4	0.580	-0.004	0.522
C1	0.226	0.471	0.582
C2	0.413	0.359	0.503
C3	0.486	0.085	0.653
C4	0.495	0.336	0.499
C5	0.042	0.229	0.827

The three factors cumulative variance interpretation rate reaches 64.373%. The changes in the gravel plot indicate that taking three factors is reasonable, and the corresponding load coefficients of variables are relatively large. Based on the above assumptions, the three factors are named "trading norms", "relationship development", and "service fairness".

Confirmatory Factor Analysis: Confirmatory factor analysis is a test of the consistency of the correspondence between factors and items. By testing another part of the 200 data (as shown in Table 4), the standard loading coefficients of the three factor questions are close to or greater than 0.6, and show significance. Each measurement item has sufficient variance explanatory power to perform on the same factor. According to the model fitting indicators, the root mean square error of the approximation is 0.084, and the root mean square residual is 0.039, both of which are less than 0.1; The comparison fitting index is 0.917, above 0.9, indicating a good fit of the scale model. Through convergence validity analysis, the combined reliability CR values of the three factors were 0.785, 0.803, and 0.841, respectively, above 0.7, indicating good extraction of internal measurement indicators for the factors.

Table 4 Confirmatory Factor Analysis Factor Load Factor

Factor	Variable	Standardized load factor	P
Relationship development	A1	0.595	-
	A2	0.606	0.000***
	A3	0.730	0.000***
	A4	0.726	0.000***
	A5	0.573	0.000***
Trading norms	B1	0.756	-
	B2	0.747	0.000***
	B3	0.704	0.000***
	B4	0.629	0.000***
Service fairness	C1	0.735	-
	C2	0.728	0.000***
	C3	0.672	0.000***
	C4	0.742	0.000***
	C5	0.708	0.000***
Note: * * *, * *, * * Represent significance levels of 1%, 5%, and 10%, respectively			

4.2 Analysis of Results

The formal survey was conducted through WeChat mini program and on-site distribution, with a total of 380 questionnaires distributed and 368 collected, with a response rate of 97.22%. Among them, 30 were distributed offline, 24 were collected, 350 were distributed online, and 344 were collected. Incomplete and conflicting questionnaires were deleted, and 341 valid questionnaires were collected, with an effective rate of 92.66%.

Background Information Analysis: This study analyzed the collected questionnaires and found that customer service needs were mainly focused on renting, accounting for 46%, with student customers accounting for 71.9%. The purchase of the first home follows, accounting for 36.7%, mainly composed of professional and technical personnel (teachers, doctors, etc.) with stable income and ordinary enterprise employees, accounting for 51%.

Among the consumer group, female customers are relatively more likely to rent orpurchase houses through real estate agents. The age group of customers is mainly concentrated in those aged 25 and below, accounting for 55.7%, of which 67.9% are renting, indicating that the majority of graduates or interns need to choose renting when going out to work. Next are those aged 26 to 35, accounting for 30.5%, with 55.8% purchasing their first home, indicating that they have accumulated some savings to purchase their first home under stable work conditions.

This study divides respondents into four stages based on the questions of customer relationship lifecycle, and conducts more detailed research on customers in each stage of the relationship. The number of respondents in the exploration, formation, and maturity stages accounted for 37.8%, 38.7%, and 18.5% of the total, respectively, indicating a sufficient sample size. The decline period accounts for 5%, and the sample size does not meet the requirements for data analysis. Therefore, this study mainly analyzes the first three stages.

Dimensional Differences in Customer Psychological Contracts Under Different Relationship Periods: The formation of psychological contracts is a process of change, and there may be differences in the value judgments of services based on changes in customer income, preferences, and needs at different stages (Wang, Wan., & Cheng. 2017, 2019) There may also be differences in the psychological contract structure of customers in the context of real estate transactions. As shown in Table 5, to analyze structural differences, the values of each dimension in this study are represented by the average of their corresponding items, while the values of the entire customer psychological contract are represented by the average of all items.

**Table 5 Average Customer Psychological Contracts**

Customer relationship period	Mean value			
	Relationship development	Trading norms	Service fairness	Psychological contract
Exploration period	3.59	3.24	3.52	3.45
Formation period	3.74	3.65	3.61	3.67
Mature period	3.80	3.57	3.71	3.69

During the exploration period, the mean value of relationship development is the highest and the mean value of transaction norms is the lowest, indicating that customers lack understanding of the broker's personality and work abilities when they first come into contact with them. Therefore, they pay more attention to perceptual development and maintaining relationships, and the housing transaction process involves less.

During the formation period, the average value of relationship development is the highest, while the average value of service fairness is the lowest. The dimension of transaction norms is higher than the dimension of service fairness, indicating an increase in information mastery and promoting the development of the relationship between the two parties. At the same time, it gradually enters the process of finding, viewing, and negotiating transactions, and at this time, more emphasis is placed on the standardization of the transaction process.

In the mature period, the mean value of relationship development is still the highest. At this time, the mean value of transaction norms is the lowest, and service fairness is higher than transaction norms, indicating that customers and brokers have a closer service relationship after long-term communication. In the later stage of transactions that are about to be realized or have already been reached, more complex services related to customer rights will be involved after signing contracts, so customers will perceive the fairness of services more.

Dynamic Changes in Customer Psychological Contracts During The Lifecycle Of Customer Relationships: In the field of marketing, customer psychological contracts and their structural dimensions are influenced by changes in demand and transaction experience, and exhibit dynamic changes and development throughout the customer relationship lifecycle. Draw a dynamic change chart based on the average value of customer psychological contracts, as shown in Figure 1.
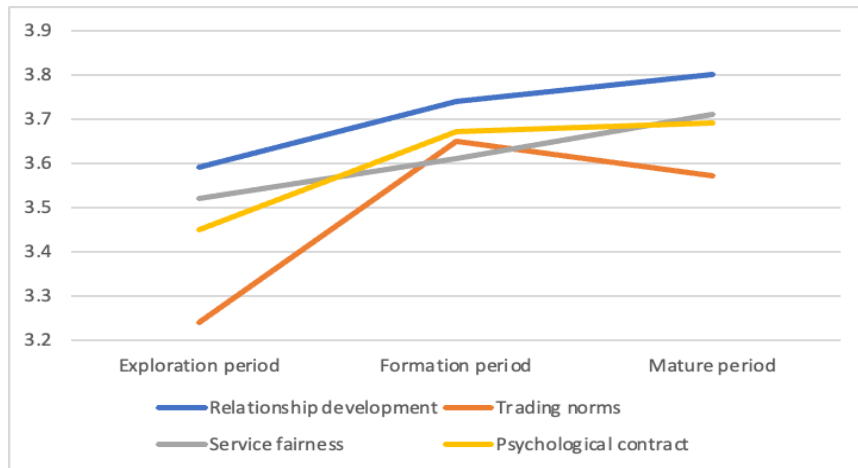
Figure 1 Dynamic Changes in the Customer's Psychological Contract

Through the analysis of the dimensions of relationship development, as shown in Figure 1, the responsibility for relationship development first showed a significant increase, and then showed a slow growth trend, with its mean consistently being the highest among the three dimensions. This indicates that customers have a great degree of understanding of the broker's ability after receiving multiple services during the exploration period, thus enhancing their trust and maintaining this relationship in the later stages of service.

Table 6 shows that the average "time saving cost" and "protecting information and privacy" during the exploration period are relatively low, but there is a significant improvement in the formation period, indicating that customers have not yet had the determination to look for a house or disclosed too much information during the initial understanding period. Therefore, customers have a low perception of the broker's time saving cost and have little concern about information security. When deciding to conduct a property transaction in the later stage, customers hope to use the intermediary role played by brokers to save time and cost of finding a property, protect information privacy, and thus significantly increase the responsibility for relationship development. From the formation stage to the maturity stage, the mean values of "providing suitable services" and "honesty and trustworthiness" have decreased, indicating that in long-term cooperation, customers and brokers have a deeper understanding of each other's situation. Therefore, customers pay relatively less attention to these two aspects in the later stage, resulting in a smaller increase in relationship development responsibilities.

Table6 Mean Value of Relationship Development Dimensions

Dimension	Question	Meanvalue		
		Exploration period	Formation period	Mature period
Relationship development	A1	3.68	3.69	3.92
	A2	3.76	3.78	3.76
	A3	3.41	3.61	3.67
	A4	3.34	3.75	3.83
	A5	3.75	3.86	3.81

The average of "providing suitable services" during the exploration period is the highest, indicating that customers choose brokers mainly to obtain personalized services. Therefore, in the early stage, they pay more attention to perceiving whether the broker's services can meet their domestic needs. The highest average of "honesty and trustworthiness" during the formation period indicates that in the process of house viewing and negotiation, agents are more willing to honestly introduce the property and quotation, reducing exaggeration and concealment. The average "respect for needs" is highest in the mature stage, and due to the many exceptions involved in the later stage, customers need more respect from the other party to meet their after-sales needs.

Through the analysis of the dimensions of transaction norms (Figure 1), it is shown that the responsibility for transaction norms first increases rapidly, and then shows a downward trend after reaching its peak during the formation period.

From Table 7, it can be seen that the mean values of various items during the exploration period are very low, but they have significantly increased during the formation period, indicating that customers did not have the determination to engage in transactions during the exploration period, and their perception of transactions was low, resulting in a low level of responsibility for transaction norms. But after understanding enough housing information, they began to have greater confidence in the transaction process such as house viewing and negotiation, and tended to gain benefits and feedback from the transaction, resulting in a significant increase in transaction regulatory responsibilities. From the formation stage to the maturity stage, the average of most items has decreased, indicating that contract signing and after-sales service are the main focus, and customers have reduced perception of this part of the transaction process, resulting in a relatively weakened responsibility for transaction standardization.

During the formation period, there is not much difference in the mean values of various items, with the highest mean value being "truthfully introducing housing sources", indicating that customers need brokers to start fulfilling their intermediary transaction responsibilities, take them to see the house according to their needs, and negotiate with the landlord. The most important thing is to introduce the housing sources truthfully. In the mature stage, the average risk of informing property rental (purchase) is the highest, indicating that customers are in the stage of deciding whether to rent (purchase) and hope to receive a risk assessment of the decision.

Table7 Mean Value of Trading Norms Dimensions

Dimension	Question	Meanvalue		
		Exploration period	Formation period	Mature period
Trading norms	B1	3.22	3.67	3.62
	B2	3.19	3.63	3.46
	B3	3.21	3.64	3.51
	B4	3.34	3.65	3.68

Through the analysis of the dimensions of service fairness (as shown in Figure 1), the responsibility for service fairness has been steadily increasing, reaching its peak in the mature stage, indicating that as the service relationship between both parties deepens, customers hope to receive fair services that are in line with their own rights and interests.

From the data in Table 8, it can be seen that from the exploration period to the maturity period, the mean of most items has been improved to a certain extent, indicating that customers will have a better understanding of issues such as property rights and contracts that affect their own rights and interests when receiving services. Therefore, fairness in services is increasingly valued, and the responsibility for service fairness continues to rise.

In the three relationship periods, the mean values of "ensuring fair and compliant procedures", "providing third-party guarantees", and "sincerely explaining doubts" are all high, indicating that customers need the help of brokers more in the delivery process due to a lack of professional knowledge and understanding of process operations. At the same time, there may also be issues such as transfer of ownership. Brokerage companies can act as third-party guarantees, provide more after-sales services, handle exceptions, and ensure fair and guaranteed delivery.

Table8 Mean Value of Service Fairness Dimensions

Dimension	Question	Meanvalue		
		Exploration period	formation period	Mature period
Service fairness	C1	3.57	3.75	3.79
	C2	3.60	3.67	3.71
	C3	3.26	3.50	3.52
	C4	3.53	3.52	3.68
	C5	3.66	3.63	3.86

From Figure 1, it can be seen that there are varying degrees of changes in each dimension of each stage, resulting in different characteristics of customer psychological contract structure. However, the overall psychological contract is in a continuous upward trend. Among them, there is a significant upward trend from the exploration period to the formation period, mainly due to the rapid growth of transaction regulatory responsibilities, which has increased the overall growth rate of psychological contracts. When developing from the formation stage to the maturity stage, due to a certain degree of decrease in transaction regulation responsibility, the increase in relationship development responsibility and service fairness responsibility is relatively small, so the overall growth of psychological contracts is relatively slow.

Customer Needs: Customer needs and their changes have a certain impact on the development of customer psychological contracts, reflecting their inherent demands. The questionnaire results show that the entire consumer group pays more attention to the platform's credit rating, transaction price, and service attitude when choosing a brokerage platform. For customer needs in different relationship periods, in the exploration and formation periods, customers need to understand market policies, obtain housing information and discount offers. In the mature period, customers need more complex services such as discounts, loans, and guaranteed after-sales service.

DISCUSSION

Real estate agents, as intermediaries, require a high degree of trust to maintain relationships in long-term cooperation and implement transactions based on certain psychological contracts. If there is a service error or customer perception is not satisfied in the transaction, the psychological contract will break and the enterprise will suffer losses (Kang.,&Ye, 2021).

5.1 Emphasize the Development of Customer Psychological Contracts
The development of customer psychological contracts has unique characteristics in the context of real estate transactions, and the overall and three dimensions of psychological contracts have different development trends. Brokers should follow

the development laws of psychological contracts to avoid breaking them. Firstly, brokers need to understand customer psychological contracts, strengthen emotional care, establish an image of integrity, establish information protection mechanisms, and enhance the relationship between both parties. Secondly, brokers should gradually advance trading, following the pattern of weak to strong and then strong to weak. In the early stage, they should guide customers to understand market policies, fulfill their intermediary responsibilities in the middle stage, and shift the focus to the service process in the later stage. Finally, brokers establish fair written service terms with customers during the service process, identify property rights and other matters, play the professional role of third parties, achieve transparency in tripartite negotiations, and ensure service fairness.

5.2 Choose Differentiated Service Strategies
The interaction between real estate agents and customers has a long-term characteristic, and the psychological contract structure of customers varies at each stage. Agents need to choose differentiated service strategies.

During the exploration period, customers have the strongest perception of relationship development, followed by a stronger sense of service fairness responsibility than transaction standardization responsibility. During this period, brokers should sincerely explain professional policies, use platform information technology, do a good job in customer information tracking and management, combine platform housing information to develop personalized services, improve service timeliness and matching, strengthen psychological constraints between customers and brokers, and enhance customers' perception of the reliability and trustworthiness of brokers.

During the formation period, customers' perception of relationship development increases, and their perception of transaction norms is stronger than service fairness. At this point, when entering the negotiation stage for property viewing, the agent should collect matching properties through platform resources, use big data to compare and analyze advantages, disadvantages, and cost-effectiveness, accurately match customer requirements, introduce the house to customers in a frank and detailed manner, use professional negotiation skills to negotiate discounts and improve customers' perception of obtaining economic benefits and fulfilling transaction responsibilities with the agent.

In the mature stage, customers have the highest perception of relationship development, and the responsibility for service fairness is once again stronger than the responsibility for transaction norms. At this point, as regular customers, brokers should handle the follow-up processes such as loans and transfers, improve the efficiency of platform integration services, improve the customer management system, follow up on after-sales information, play a good role in third-party guarantees, and handle subsequent exceptions. For customers who are willing to continue purchasing, suitable housing and discount information should be timely pushed through various platform channels to enhance customers' perception of fairness in rights protection.

5.3 Strengthen Credit Supervision on Intermediary Platforms
The lack of credit among brokers has a spillover effect, which not only damages psychological contracts but also leads to a credit collapse in the real estate brokerage industry. The real estate brokerage industry should increase credit supervision of intermediary platforms. The real estate brokerage industry should improve regulations on platform credit management, regulate the behavior of platforms and brokers through credit file management, establish credit scoring mechanisms, and blacklist systems, reduce the negative impact of dishonesty, enhance the trust of both parties in transactions, and avoid losses caused by "jumping orders".

CONCLUSION
This study found through investigation that customer psychological contracts in the context of real estate transactions include three dimensions: "relationship development, transaction norms, and service fairness." Customer psychological contracts are dynamically developing, and customers have the highest perception of responsibility for relationship development in all stages. Secondly, they have a higher perception of service fairness in the exploration and maturity stages, and a higher perception of transaction norms in the formation stage. Suggestions for improving service relationships based on research findings: Brokers should pay attention to the development of customer psychological contracts, adopt differentiated service strategies based on the differences in psychological contract structures during different relationship periods, strengthen credit supervision of brokerage platforms, and enhance trust between both parties.

The relationship between real estate agents and customers affects the realization of real estate transactions. Analyzing the dynamic changes in the psychological contract structure between agents and customers from the perspective of customer relationship lifecycle has important theoretical and practical significance. For the theoretical significance, providing new ideas for studying psychological contract issues in the context of real estate transactions, and enriching the field of psychological contract research. As for the practical significance, providing brokers with more appropriate customer management and marketing measures, and enhancing the cooperative relationship between trading parties.

REFERENCES

[1] Argyris, C. (1960). Understanding Organizational Behavior.London: Tavistock Publications.https://www.bl.uk/people/chris-argyris

[2] Chen, M. L. (2002). An Empirical Study on the Determinants of Customers' Repeat Purchase Intention at Different Stages ofthe Life Cycle. Journal of Management World, (11):93-100. DOI：CNKI:SUN:GLSJ.0.2002-11-012

[3] Cheng, J. (2009). Research on the Formation Mechanism of Customer Psychological Contract and the Differences between Different Relationship Periods. Unpublished Master's Thesis. School of Management, Xi'an Jiaotong University.

[4] Dwyer, R. F., Schurr,P. H.,&Oh, S. (1987). Developing Buyer--seller Relationship. Journal of Marketing,,55:11-27.

[5] Ford, D. (1980). The Development of Buyer—seller Relationships Industrial Markets. European Journal of Marketing,14:339-354.

[6] Kang, H. Y., & Ye, M. X. (2021). A review of the Connotation, Influencing Factors and Rupture Results of Customer Psychological Contract. China Market, 1072(09):117-120. DOI: 10.13939/j.cnki.zgsc.2021.09.117

[7] Li, M.S (2022). Documentary "Realtor" Creation Elaboration. Unpublished Master's Thesis, Kunming University of Science and Technology.

[8] Pang, M. (2023). New Era, New Policies, New Skills – Prospects for the Future of China's Real Estate Market. China Chief Economist Forum ,Retrieved on 2023-02-13.http: (baidu.com)
Roehling, M.V. (1997). The Origins and Early Development of the Psychological Contract Construct. Journal of Management History, 3(2): 204-217.

[9] Rousseau, D. M. (1989). Psychological and Implied Contracts in Organizations.Employee Responsibilities & Rights Journal, 2(2):121-139.

[10] Rousseau, D. M.,&Tijorimala, S. A. (1996). Perceived Legitimacy & Unilateral Contract Change: It Takes a Good Reason to Change a Psychological Contract.San Diago: Springer Berlin Heidelberg.

[11] She, S. X., Xu, H. R,.,& Xu, D. Y. (2022). The Study of Consumer Psychological Contract to Commercial Anchor in Live Streaming Marketing: Scale Development and Dynamic Evolution. Collected Essays on Finance and Economics, 286(6): 93-102.http://cjlc.zufe.edu.cn/CN/lexeme/showArticleByLexeme.do?articleID=1960

[12] Shen, X. W., & Nie, G. H. (2007). Psychological Contract in the EC Context and Measurement. Journal of Wuhan University of Technology Information Management Engineering, 29(1):145-149. DOI：
10.3963/j.issn.1007-144X.2007.01.039

[13] Wang, X-J.，Wan, Y-H., & Cheng, J. (2019). Research on the Formation Mechanism of Customer Psychological Contract Based on TAM Theory: An Empirical Study in B2C Scenarios. Operations Research and Management Science,28(11):116-124.https://www.youfabiao.com/ycygl/201911/

[14] Wang, X-J.，Wan, Y-H., & Cheng, J. (2017). On the Structure of Customer Psychological Contract and Differences in the Relationship Lifecycle Under the B2C Context. Journal of Northeastern University(Social Science), 19(3): 247-252. DOI: 10.15936/j.cnki.1008-3758.2017.03.005

[15] Wan. Y. H., Yue, Y. J., & Jiang, L. Q. (2011). New Perspective on Customer Implicit Demand under the Service Relationship：Based on Business Responsibility Dimensions in Customer Psychological Contract. Forecast, (5): 6-12.

[16] Yang, J. C., Wu, Y,. & She, S. X. (2020). Research on the Dynamic Evolution of the Psychological Contract of Ride-hailing Users. Soft Science, 34(9):6. 97-102. DOI:10.13956/j.ss.1001-8409.2020.09.15.