

A STUDY ON THE INFLUENCING FACTORS OF CUSTOMER SATISFACTION OF ALIPAY PLATFORM COMMERCIAL INSURANCE*

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Abstract

This paper aimed to explore the factors affecting consumer satisfaction in China's Internet insurance industry, the commercial insurance of Alipay platform is mainly used, and the influencing factors produced by the characteristics of this platform are investigated to analyze the influence on customer satisfaction. This research mainly focuses on the Enjoy the e-Life insurance product, 722 valid data were collected from 756 respondents, and the tool is an online questionnaire. The collected data were analyzed by means of descriptive statistical analysis, correlation analysis, structural equation model analysis, etc, and find out the main problems of Alipay commercial insurance, and at the same time, with the help of the analysis of the key factors affecting customer satisfaction, to find specific methods and measures to improve and enhance customer satisfaction.

This result revealed that the main factors affecting customer satisfaction were customer perceived quality, customer perceived value, customer expectation, and customer perceived service. In terms of perceived quality, the strengthening of high-quality cooperation and launch diversified products and the development of customized personalized new products were necessary. For perceived value, improve cost performance and reduce deductibles; In terms of customer expectation, the research recommended the accuracy of publicity and reasonably guide expectations to be improved; In terms of perceived service, it was necessary to optimize the interface settings and strengthen data analysis.

Keywords: Alipay platform; Internet business insurance; Customer satisfaction

Introduction

1. Research background

Along with the rapid growth of Internet technology and the continuous popularization of intelligent devices, the Internet industry has been promoted at an unprecedented speed in China. As a result, the notion of "internet plus" has been put forward and widely appreciated, and a brand-new development field of "internet finance industry" has been emerged. The cross-industry and brand-new insurance model of "internet insurance" has been pushed to the historical stage. Internet insurance first originated in China around 2013 and has made tremendous progress since then. The focus of sales transitioned from offline to online as mainstream insurance companies established sales networks through official websites, third-party platforms, APPs, and other channels. Internet sales channels have become the primary source of growth for insurance companies. The premium income of China's insurance industry was 4,525.7 billion yuan in 2020, according to data from China iResearch. China's Internet insurance industry got a much better operating system over time, and Internet insurance products were formally introduced as the industry's penetration grew. In 2020, the Internet

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industry will have 37 financing practices, with a total financing of 12.313 billion yuan, implying a relatively fast growth rate.

Internet technology in recent years has progressively become more broadly used in the insurance industry, and as more insurance companies have realized that the function of Internet technology should not be constrained to sales, and that it can generate a brand-new platform for insurance companies to interact with clients. The online platform has been steadily established with the assistance of cloud platform, cloud computing analysis, and Internet technology. However, given the short start time, technology, manpower, capital, and other related facilities have yet to be put in place, so this model is still in its initial phases of development. Currently, most insurance companies merely package offline insurance products and services through the Internet platform, and only the two fundamental functions of insurance and payment are completed online. Other major links, such as signing, preservation and claim settlement, must be carried out through on-site service, which is not conducive to the enhancement of consumer experience.

It has already become an extremely vital problem for China's insurance industry and insurance companies to explore the factors that affect consumers' experience and satisfaction of commercial insurance on the Internet platform, and to put forward corresponding improvement and optimization measures.

2. Research purposes

The term "customer" is inextricably linked to the development of Alipay platform commercial insurance. Only by establishing a "customer-centered" value concept, taking "customer" as an important factor for its future life, taking this value concept as an important mission for future development, and implanting it into the entire process of insurance industry business can Alipay platform commercial insurance boost its core competitiveness. On the Alipay platform, "customer" is a critical factor in the development of commercial insurance. In the prospective growth of commercial insurance on the Alipay platform, how to befriend customers' demand and enhance their satisfaction has become a pivotal issue that should be addressed. The above time, we'll combine the characteristics of commercial insurance on Alipay platform to draw corresponding conclusions, and then proffer corresponding countermeasures and suggestions based on the relevant conclusions, in order to contribute to the healthy development of commercial insurance on Alipay platform and China's internet insurance industry.

Literature review.

1. Concept definition

According to the general view of Chinese law and academic circles, the exact meaning of commercial insurance is "the applicant shall pay the relevant fees to the insurance company according to the insurance contract signed with the insurance company"; as for the insurance company, according to the provisions of the contract, the insurance company should have the insurance responsibility of compensation for property loss, death, and injury. Alipay platform commercial insurance refers to Alipay platform's independent research and development of insurance products and commercial insurance products that collaborate with third parties on its

own platform, as well as its provision of commercial insurance services to consumers to meet their demand for commercial insurance products.

The Explanation of "Internet Insurance"—There are several varied views and theories about what exactly defines "Internet Insurance." All insurance acquired offline will be acknowledged as Internet insurance at the onset of the Internet insurance era. This article develops a conceptual framework of Internet insurance based on statistics from relevant information and literatures, which enables businesses to use Internet as a platform to facilitate customers to complete the services provided by the entire insurance, such as consultation, quotation, payment, and claim settlement, and that enterprises as well as the industry can further proceed of communication and cooperation through channels.

Customer satisfaction—as times change, so does the meaning of this word. This notion is now being interpreted in two ways. The first was proposed by Howard and Sheth in 1969, who stated that "customer satisfaction is an evaluation of psychological state, primarily the evaluation of consumers' own efforts and gains"; the second was proposed by Kotler, who asserts that "customers will set goals for the expected goods when they consume, and will have an intuitive feeling by comparing the goals with the actual situation." In light of these two explanations, the academic community continues to support Kotler's theory of customer satisfaction

2. Previous research

The related research of Alipay commercial insurance-Alipay insurance platform was built at the end of 2015. There is little detailed discussion and research on it, and the research field is mainly focused on its third-party payment platform. Wang Jian (2014) addressed the probable hidden hazards and growth direction in the reform and innovation of Alipay, starting with the reform and innovation of Internet finance. Qin Risheng et al. (2018) concentrated on Ant Financial's study, identified its inherent value during the development process, and provided realistic comments and proposals on its development from the perspectives of value discovery and value growth. Using the questionnaire method, Wu Yushun (2019) did an empirical investigation on the reasons why customers select Alipay. Customers said Alipay was straightforward and efficient, with a high level of security, and they postulated upgrading actions for Alipay from their perspective.

As per the Anargiridou (2007), who undertook a related Internet study, Internet insurance has distinct advantages and downsides. Taking Greece as an example, it is thought that the delayed development of the Internet has had an impact on commercial bank networking. Tiag(2019) looked into Internet-based business insurance as well. It was anticipated that the Internet provided a customised insurance platform for commercial insurance, which may strengthen the competitiveness of commercial insurance products, starting with cost reduction. Liu Yuanxiang (2015) conducted an empirical examination of 14 commercial insurance businesses as research subjects. He anticipated that Internet insurance will deliver substantial profits to the expansion of commercial insurance companies, allowing them to take market share faster and increase their operating efficiency.

Customer satisfaction study, as well as research into the factors that influence customer satisfaction. Based on the SERUQUAL scale, scholar Khurana (2013) investigated the components that influence customer satisfaction and had in-depth discussions on reliability, ability, security, and other features. Scholars Kukuh and Dyah(2018) carried out the study on the elements that influence consumer satisfaction in the insurance industry, finding that the services given by businesses, their own image, financial status, and technology all have a significant impact on customer satisfaction. According to Huang et al. (2015)'s empirical analysis, Internet insurance may solve traditional insurance claims and experience service problems, boost experience service, and enhance consumer satisfaction with commercial insurance purchases. Additionally, it can boost client loyalty through the sharing of ideas.

Research assumptions and methods

1. Model construction

If the customer satisfaction model is applied to Alipay platform commercial insurance, a customer satisfaction model for Internet commercial insurance products that is in line with the Chinese insurance market must be created based on the characteristics of Internet commercial insurance products in the Chinese insurance market. The applicability of the customer satisfaction model can only be increased by thoroughly comprehending the peculiarities of insurance in the platform. Insurance products aren't visible, and they can't demonstrate their worth through tangible items. As a result, when selecting such products, clients primarily evaluate the following questions: The first is the platform and reputation of the items; the other is how the outside world views it, and certain expectations are established in the marketplace as a result of the examination of both variables. Expectations, in addition to product quality, are a crucial aspect. If a product requires consultation prior to purchase, or if an accident occurs in the safe after purchase, whether Alipay's insurance platform and the insurance company's services are in line with the customer's expected value, the above factors will have varying degrees of impact on customer satisfaction. This study incorporates the image variable into customer expectation and proposes the customer satisfaction model of Alipay platform commercial insurance, based on the characteristics of the insurance market and China's better satisfaction model. Specific as follows:

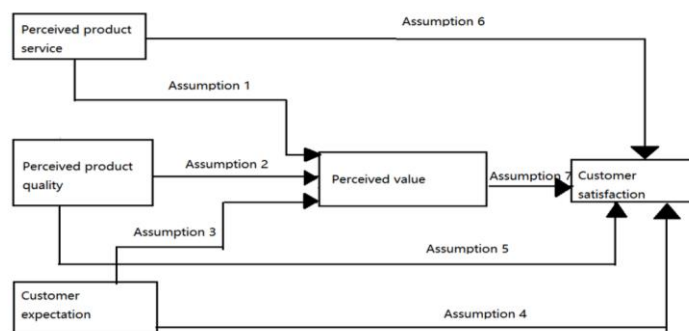


Figure 1 Customer Satisfaction Model of Alipay Commercial Insurance

2. Propose assumptions

Based on the above model and analysis of previous related research, this paper puts forward the following assumptions:

Table 1 Hypothesis table

Assumption	Specific content	Significant or not
1	Service perception has a positive impact on its value.	Yes
2	The perception of quality has a positive impact on its value.	Yes
3	Expected perception has a positive impact on value.	Yes
4	Perceived expectations have a positive impact on satisfaction.	Yes
5	Perceived quality has a positive impact on satisfaction.	Yes
6	Service perception has a positive impact on satisfaction.	Yes
7	Perceived value has a positive impact on satisfaction.	Yes

3. Research Methods and Questionnaire Distribution

This research assessed customers who purchase commercial insurance products on the Alipay platform, primarily through online questionnaires, sorting the questionnaires collected, and performing descriptive statistical analysis on four factors: gender, age, education level, and income, in order to determine the feasibility of the questionnaires. Check the questionnaire's reliability and validity to evaluate if the items are sensible. The confirmatory factor model is used to assess the reliability and validity of each variable, after which the structural equation model is used to assess the link between the variables and the hypothesis is confirmed.

As the marketing channels for commercial insurance on the Alipay platform are primarily online, and the Internet is the primary sales medium, implementing a questionnaire survey on customer satisfaction for commercial insurance on the Alipay platform is tough. In this study, 756 questionnaires were gathered, 722 of which were legitimate, with a 95.50 percent effective rate.

Results and discussion

1. Descriptive statistical analysis

By means of questionnaire survey, the collected questionnaires are sorted out, and descriptive statistics are made to get a general understanding of the collected relevant data. Therefore, the analysis is mainly based on gender, age, education level and income.

Table 2 Descriptive statistical analysis

Name	Option	Frequency	Percent (%)
Gender	Male	353	48.89
	Female	369	51.11
Age	Under 25 years old	32	4.43
	25 -36 years old	236	32.69
	37 -45 years old	255	35.32
	46 -60 years old	199	27.56
Education level	Junior high school and below	41	5.68
	senior high school	121	16.76
	universities and colleges	193	26.73
	undergraduate course	326	45.15
	master or above	41	5.68
Monthly income average	2,000 yuan and below	34	4.71
	2 thousand -3 thousand	82	11.36
	3 -5 thousand	200	27.7
	5 -8 thousand	210	29.09
	8 thousand-12 thousand	103	14.27
	12 thousand-20 thousand	72	9.97
	20 thousand and above	21	2.91
Total		722	

Women make up 51.11 percent of the overall number of buyers, according to relevant gender statistics. As a result, women are the primary focus of Alipay's commercial insurance, and new types can be developed to appeal to male customers. According to age statistics, those between the ages of 37 and 45 years old are the most likely to purchase insurance products, accounting for 35.32 percent of all insured people. Young and middle-aged persons have a high ability to adopt new things and acquire routines quickly. According to an analysis of relevant data acquired from the education level, Alipay platform commercial insurance is predominantly purchased by people with a higher education level, with all of them having a college degree or higher, accounting for 77.56 percent of the total number. People that buy business insurance are mostly in the middle class in terms of personal income. People earning 5001-8000 yuan make up a rather large proportion of them, accounting for 29.09 percent. Second, with 27.7% of the total, the income category of 3001-5000 yuan ranked second.

2. Statistical analysis of each index

In view of the influence of various variables on customer satisfaction, the weighted average method is used to calculate customer satisfaction index.

Table 3 Index Analysis Table

Customer expected score table						
	1	2	3	4	5	Score
Meet one's own needs	78	64	115	184	281	3.72
Pay attention to the reputation of insurance companies	60	58	92	224	288	3.86
excellent public reputation	66	63	119	273	201	3.66
Perceived quality score table						
	1	2	3	4	5	Score
The scope of protection meets the demand	57	63	114	208	280	3.82
The terms are reasonable	66	70	127	266	193	3.62
Meet diversified needs	66	59	125	203	269	3.76
Perceived service score table						
	1	2	3	4	5	Score
Be very satisfied with the attitude of the service staff	65	69	103	208	277	3.78
Very satisfied with the professional level of service personnel	81	61	117	211	252	3.68
Perceived value score table						
	1	2	3	4	5	Score
Product quality at the same price	61	56	111	348	146	3.64
Product price under the same quality	68	64	108	271	211	3.68
Customer satisfaction score table						
	1	2	3	4	5	Score
Experience in purchasing insurance products	63	50	123	239	247	3.77
The quality is better than expected	63	79	116	208	256	3.71
Service is better than expected.	77	73	74	273	225	3.69
Recommend to others	70	74	113	195	270	3.72

It can be concluded that the commercial insurance of Alipay platform is in a state of about 3 points in terms of customer satisfaction, which means the average score is 3.7. However, this score is not good, that is, the customer satisfaction of Alipay platform is not good. Therefore, the commercial insurance of Alipay platform needs to show its own characteristics to improve customer satisfaction, so as to achieve the market share of Alipay platform's commercial insurance business.

3. Reliability analysis

Table 4 Reliability test of influencing factors of customer satisfaction

Influencing factors	Project	CITC	Delete this item's Cronbach's Alpha	Cronbach's Alpha
Customer expectation	Meet one's own needs	0.573	0.616	0.762
	Pay attention to the reputation of insurance companies	0.586	0.732	
	Excellent public reputation	0.559	0.714	
Perceived quality	The scope of protection meets the demand	0.663	0.732	0.805
	The terms are reasonable	0.701	0.667	
	Meet diversified needs	0.643	0.733	
Perception service	Very satisfied with the attitude of the service staff	0.696		0.827
	Very satisfied with the professional level of service personnel.	0.656		
Perceived value	Product quality at the same price	0.762		0.878
	Product price under the same quality	0.723		

Cronbach's Alpha values obtained from the data are all around 0.8, indicating that it has excellent validity, as can be seen in the table. Furthermore, the data dependability of perceived value has the highest value of 0.878, indicating that the data provided by consumers on perceived value is the most reliable and may accurately reflect the genuine ideas of samples. At the same time, the CITI value of the revised data is greater than 0.5, indicating that there is no situation where the reliability of variables is reduced due to the correlation between mutual variables, according to the comparative analysis of deleting Cronbach's Alpha value and Cronbach's Alpha value. Therefore, there is no need to further eliminate data items, which can be used to directly complete the analysis.

Table 5 Reliability Test of Factors Affecting Customer Satisfaction

Specific factors	Project	CITC	Delete this item's Cronbach's Alpha	Cronbach's Alpha
Customer expectation	Experience in purchasing insurance products	0.795	0.774	0.845
	The quality is better than expected	0.662	0.762	
	Service is better than expected	0.644	0.814	
	Recommend to others	0.627	0.833	

The problem item's Cronbach's Alpha value is 0.845, which is more than 0.8, as seen in the table. As a result, it can be determined that the reliability of its satisfaction data is good at first, and then it can be determined that its maximum value of 0.833 is less than Cronbach's Alpha value of 0.845, which can be explained by the fact that the revised CIIT value is greater than 0.5 by deleting Cronbach's Alpha value. Although the satisfaction data is connected, the reliability results are unaffected. As a result, its customer satisfaction data is highly reliable, and it can be used for analysis without the need to offer and manage its components.

4. Analysis of confirmatory factors

This section uses Amos23. 0 to construct a first-order confirmatory factor model with skew among multiple factors in order to better analyze the relationship between variables, and then performs confirmatory analysis for variables again to ensure that the data are consistent with the analysis requirements. The data fitting degree is assessed, as well as the value of RMSEA, GFI, AGFI, NFI, and CFI, according to the constructed model analysis. The table shows that the measured values largely meet the analysis requirements, indicating that the data is well-fitting and that the next analysis can proceed. The specific results are as follows:

Table 6 Test of adaptability (confirmatory factor analysis model)

Fitting index	CMIN	DF	CMIN/DF	GFI	AGFI	RMSEA	NFI	IFI	TLI	CFI
Measured value	187.231	142	1.319	0.872	0.966	0.014	0.967	0.946	0.988	0.989
Suitability	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The analysis of consistency, introversion, discrimination, factor reliability and validity, among which CR and CRonbach's alpha values are employed for analysis, may be seen from the analysis and test of the fitting result. When the CR is larger than 0.7, the latent variable's reliability is good, and when the AVE is greater than 0.5, the introversion validity is good. When using the Cr and AVE formulas to calculate the data, it can be seen that both values are above the standard, with the minimum CR value becoming 0.758 and the minimum AVE value being 0.553, and the other values all being higher than the standard value, denoting that the data introverted validity is decent.

Table 6 CR and AVE values (confirmatory analysis model)

Potential variable	Project	Factor load	CR	AVE
Risk cognition	A1	0.813	0.758	0.568
	A2	0.714		
	A3	0.658		
Guarantee degree	B1	0.735	0.824	0.729
	B2	0.826		
	B3	0.773		
Risk attitude	C1	0.863	0.827	0.702
	C2	0.758		
Economic conditions	D1	0.903	0.865	0.714
	D2	0.863		
Purchase intention	F1	0.854	0.835	0.555
	F2	0.792		
	F3	0.688		
	F4	0.892		

The AVE mean square root is used for calculation and comparison in the discrimination validity test. The discrimination validity is better when the square root data of AVE is larger than the correlation coefficient. When the data is entered into the AVE calculation formula, the finding implies that it fulfills the predefined need, indicating that the data have a noticeable difference in validity.

Table 7 Test results of discrimination validity

	Satisfaction degree	Perceived value	Customer's expectation	Perception service	Perceived quality
Satisfaction degree	0.745				
Perceived value	0.578	0.845			
Customer's expectation	0.148	-0.082	0.754		
Perception service	0.573	0.411	-0.055	0.838	
Perceived quality	0.676	0.403	-0.042	0.364	0.854

5. Inspection of structural equation model

The data has good reliability and validity, according to the exploratory and confirmatory factor analyses, and can be utilized to test the equation model. As a result, the model for analysis in this work is built using the Amos23.0 program. The regression coefficient of the maximum likelihood technique is investigated to use a structural equation model.

Table 7 Path coefficient of structural equation model

			Non-standardization	Standardization(β)	S.E.	C.R.	P
Perceived value		Perception service	0.234	0.254	0.036	5.629	***
Perceived value		Perceived quality	0.313	0.375	0.039	7.317	***
Perceived value		Customer expectation	-0.017	-0.033	0.027	-0.523	0.557
Satisfaction		Customer expectation	0.165	0.242	0.037	6.846	***
Satisfaction		Perceived quality	0.386	0.443	0.034	10.554	***
Satisfaction		Perception service	0.148	0.216	0.028	5.133	***
Satisfaction		Perceived value	0.233	0.263	0.021	6.876	***

Note: * * * means $p < 0.001$.

As can be seen from the table, perceived value has great influence on customer's expectation, quality and service, among which perceived product service has significant influence on perceived value ($\beta = 0.254$, $P < 0.001$). Assuming that H1 holds, perception of product quality has positive influence on its value ($\beta = 0.375$, $P < 0.001$), assuming H2 holds; The impact of customer expectations on perceived value ($\beta = -0.033$, $P > 0.05$) is not significant, if H3 is not established. The customer's expectation has a significant influence on the satisfaction degree ($\beta = 0.242$, $P < 0.001$), if H4 holds; The perception of product quality has a positive effect on satisfaction ($\beta = 0.443$, $P < 0.001$), if H5 is established; Service perception has a positive effect on satisfaction ($\beta = 0.216$, $P < 0.001$), if H6 is established; Value perception has a positive effect on satisfaction ($\beta = 0.263$, $P < 0.001$), if H7 holds. Detailed data are shown in table.

Table 8 hypothetical results table

Assumption	Specific content	Whether the result is valid?
1	Perceived service has a positive impact on its value.	Yes
2	Perceived quality has a positive impact on its value.	Yes
3	Perceived expectation has a positive impact on its value.	No
4	Perception has a positive effect on satisfaction.	No
5	Perceived quality has both positive and negative effects on satisfaction.	Yes
6	Perceived service has a positive impact on satisfaction.	Yes
7	Perceived value has a positive impact on satisfaction.	Yes

Conclusions and suggestions

1. Conclusion

(1) According to the above data, Alipay platform commercial insurance customers' perceived product quality has a considerable positive impact on perceived value, and perceived product service has a positive impact on perceived value, while customer expectation has a negative impact. Customers' perceptions of the value of commercial insurance products on the Alipay platform are primarily influenced by their quality, followed by the products' actual service. The consequence of consumer expectations on perceived value, on the other hand, is negative, which contradicts the assumption made in advance. It's conceivable that before purchasing insurance on the platform, buyers have unrealistic expectations about the platform's products in terms of cost performance, resulting in a significant gap between the actual purchase process and the anticipation, lowering perceived value.

Upon further examination of the influencing elements, it was shown that perceived quality has the greatest impact on satisfaction, followed by perceived value and satisfaction, customer expectation, and perceived service. It can be observed from the analysis of four types of characteristics that there is minimal difference between Alipay platform commercial insurance and traditional insurance firms' goods, and that Alipay platform commercial insurance will provide higher satisfaction with good quality and affordable pricing. The reasons are investigated. First, customers who buy commercial insurance pay more attention to the platform's convenience in terms of service, such as whether the page can make people happy and whether it is convenient during the purchase process. Furthermore, insurance has its own features, and the quality can only be judged after the covered events have occurred. As a result, customers' expectations will have a beneficial impact on their contentment.

The customer satisfaction of commercial insurance on Alipay platform is influenced by perceived value, perceived quality, perceived service, and customer expectation, as shown by the analysis of the above survey results, with perceived quality having the greatest impact on customer satisfaction of commercial insurance on Alipay platform. As a result, the Alipay platform must consider the influence of this issue and provide commercial insurance products and services of higher quality and value.

2. Suggestions

The quality of customers' perceived products or services, as well as the expected quality and perceived value, drive customer satisfaction with business insurance on the Alipay platform. As a result, in order to enhance consumer satisfaction with business insurance on the Alipay platform, these elements with a high degree of influence must be addressed first. With the use of Alipay platform data analysis advantages, it is vital to improve interface settings, strengthen data analysis, and deliver targeted product push for perceived services. To demonstrate the benefits of perceived quality, it is necessary to strengthen high-quality cooperation, launch diverse products, and develop customized and personalized new products. As for perceived value, it is imperative to improve the cost performance and reduce the franchise rate. It is inevitable to promote the accuracy of publicity, reasonably guide expectations, and better enhance satisfaction in order to improve perceived expectations.

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