



The Influence of Fear of Negative Evaluation on Consumers' Preference for AI Services

—Measurement of Mediating Effect of SPSS Analysis Method

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ABSTRACT

In offline consumption, there will be sales staff to provide services for us, which also means that consumers need to communicate with sales staff. However, for some consumers who are nervous because they are afraid of others' negative evaluation of themselves in the social environment, they will be afraid to socialize with sales personnel, so they will prefer AI to provide services. Based on the consumer cognitive model, this paper explores the influence mechanism of negative evaluation fear on consumers' preference for AI services. The questionnaire data were collected online and offline, and SPSS was used to analyze the reliability and validity. A structural model was constructed to analyze the path and hierarchical regression to analyze the mediating effect. Finally, the conclusion was drawn that social anxiety would occur when consumers' fear of negative evaluation was high, Therefore, consumers will not think that they have a subjective preference for AI services. Enterprises should provide AI services for such consumers, so that they can get a better service experience.

Keywords: *Fear of Negative Evaluation, Social Anxiety, Preference for Ai Service*

1. INTRODUCTION

With the development of AI technology, more and more enterprises apply it to service scenarios. Enterprises believe that AI services can help users improve their work efficiency, but they find that users will have some negative emotions towards AI services. [6] Studies have shown that the reason for these negative attitudes is that people believe that AI lacks the ability to feel and empathize, so we reject the deep application of AI in emotional social situations. [8] At present, the research on AI service mainly discusses the main factors influencing consumers' attitude towards AI service, so as to enhance consumers' positive attitude towards AI service and improve their willingness to use AI. Some consumers have negative self cognition, They will worry too much about others' negative evaluation of themselves. This fear will lead them to social anxiety and avoid social behavior. [7] Therefore, this study will discuss the influence mechanism of fear of negative evaluation on consumers' preference for AI services.

2. LITERATURE REVIEW

2.1 Fear of negative evaluation

Watson and friend first put forward the concept of fear of negative evaluation in 1969, and defined it as fear of others' evaluation. They expect the negative evaluation that others may produce, and they will feel distressed by these negative evaluations. [2] People who are too afraid of negative evaluation have a negative perception of themselves, which not only makes the individual care too much about others' evaluation, It also evaluates the possibility of being negatively rated in a social context. Fear of negative evaluation will make individuals avoid looking, stand around the crowd and reduce social interaction. [3]

2.2 Social anxiety

Some scholars put forward that social anxiety refers to a kind of obvious and lasting irrational anxiety caused by negative evaluation due to being examined in the social communication situation. Social anxiety disorder

refers to an individual's obvious and persistent fear of being exposed to strangers or social occasions that may be watched by others. It is accompanied by autonomic pain and avoidance. [1] In the process of offline consumption, customers need to communicate with strange waiters, which will make consumers with social anxiety think that this consumption situation is a certain threat, because the service personnel may make subjective evaluation of themselves in mind. Therefore, in order to reduce the contact with people, people with social anxiety will choose not to let themselves into the occasions where they need to communicate with strangers.

2.3 Consumers' preference for AI services

People think that AI is a mechanical and lifeless machine. Studies have shown that in the field of customer service, consumers will think that AI can not meet their needs well, so they have a negative attitude towards AI service. [4] But for people with social anxiety, AI rather than real people is a better choice. Because they believe that AI will not evaluate themselves subjectively, and the interaction with AI can also alleviate the social anxiety caused by the need to communicate with people in social scenes.

3. HYPOTHESIS

3.1 Fear of negative evaluation and social anxiety

Previous studies have shown that individuals with higher fear of negative evaluation are more likely to have social anxiety.[5] The reason for social anxiety is that individuals pay attention to the evaluation of others, which mainly refers to the fear of negative evaluation, that is, the fear of potential and possible negative evaluation given to others in social situation.[9] Fear often leads to more subjective aversion and higher level of arousal, which makes individuals pay more attention to the uncertain or threatening environment. [7] Based on the cognitive model, this paper proposes that when consumers enter the social situation that may produce negative evaluation, they will have social anxiety. Therefore, the hypothesis 1 is proposed:

H1: negative evaluation fear is positively correlated with social anxiety.

3.2 Social anxiety and consumers' preference for AI services

In terms of behavior, social anxious people will produce many avoidance behaviors in order to avoid contact with others, such as avoiding eye contact with others and avoiding social activities. [3] Because AI is not emotional, social anxious people think that AI will not make subjective evaluation of themselves and will not make eye contact with AI. This can ease their negative emotions in social situations. When individuals with social anxiety want to consume, but they choose not to enter the consumption scene because of fear of communicating with service personnel, consumers may prefer AI to provide services for them. Therefore, hypothesis 2 is proposed:

H2: social anxiety is positively correlated with consumers' preference for AI services.

3.3 Mediating role of social anxiety

People will be excessively concerned about others' social information, and will be able to decode their negative information for their own anxiety. In social activities, individuals will use most of their attention to perceive others' evaluation of themselves. Once the situation indicates that they may be evaluated by others, they will pay more attention to the evaluation, Social anxiety individuals tend to make negative explanations for these cues, thus aggravating their anxiety symptoms. [3] In order to avoid negative emotions and uncomfortable physiological reactions, individuals will avoid appearing in this situation. [7] That is to say, people who are afraid of others' evaluation of themselves will not want to have more contact with people, Because it makes them nervous and uneasy. When they need to communicate with service personnel, they will prefer AI to provide services. Therefore, hypothesis 3 is proposed: H3: social anxiety mediates between fear of negative evaluation and consumers' preference for AI services. To sum up, the theoretical model of this paper is shown in Figure 1:

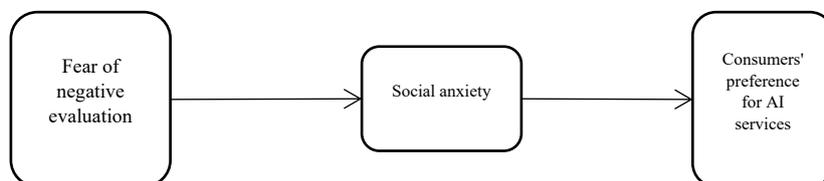


Figure 1: The Conceptual Model

4. RESEARCH METHODS AND DATA ANALYSIS

4.1 Variable measurement

The scales in this study are all from the mature scale, and the items are slightly modified according to the

research background to make the items more close to the social situation in the service scene, as shown in Table 1. The measurement items of all the scale variables were measured by liket 5-point scoring method. From 1 to 5, the respondents indicated that they were from very disagree to very agree. The respondents chose items from 1 to 5 according to their actual situation.

TABLE 1: VARIABLE MEASUREMENT

variable	Measurement items	Factor load
Fear of negative evaluation Cronbach α =0.878 C.R=0.8696 AVE=0.4896	FNE1: I'm worried about what people will think of me, even if I know it doesn't matter	0.694
	FNE2: I'm often afraid that others will notice my shortcomings	0.750
	FNE3: I'm afraid others will not recognize me	0.788
	FNE4: when I talk to someone, I worry about what they think of me	0.726
	NEF5: what do I usually worry about	0.625
	FNE6: sometimes I think I care too much about what other people think	0.679
	FNE7: I often worry about saying something wrong or doing something wrong	0.619
Social anxiety Cronbach α =0.923 C.R=0.8826 AVE=0.4875	SA1: I often worry about saying or doing something wrong	0.656
	SA2: if I meet someone I know on the street	0.782
	SA3: I don't feel comfortable socializing	0.782
	SA4: I get nervous when I'm alone with another person	0.667
	SA5: I find it difficult to talk to others	0.793
	SA6: I don't express myself with others. It will be embarrassing	0.673
	SA7: I'm not sure if I should say hello to someone I know on the way	0.621
Consumers' preference for AI services Cronbach α =0.858 C.R= 0.8658 AVE=0.6828	CP1: in social situations, I prefer AI to serve me	0.830
	CP2: I don't think AI has emotions. I prefer AI to serve me	0.796
	CP3: I don't think AI will evaluate me subjectively. I prefer AI to serve me	0.852

4.2 Reliability and validity

As shown in Table 1, the reliability and validity analysis using SPSS showed that the alpha of Cronbach was above 0.8, and the ombined reliability (CR) was above 0.8, indicating that the reliability of the scale was good. In the validity test, the factor load of each item was greater than 0.6, indicating that the scale has good convergence validity. The average variance extraction (AVE) value of negative evaluation fear and social anxiety was greater than 0.4 and the combination reliability (CR) was greater than 0.6, indicating that the discriminant validity of the variable was acceptable. The average variance extraction (AVE) value of consumers'

preference for AI services was greater than 0.5, indicating that the discriminant validity of the variable was good.

4.3 Path inspection

Structural equation path model (SEM) was used to fit the data. The fitting parameters were $Cmin / DF = 1.960 < 3$, $RMSEA = 0.065 < 0.10$, $GFI = 0.880 > 0.9$, $CFI = 0.924 > 0.9$, $NFI = 0.857 > 0.9$, $IFI = 0.914 > 0.9$. All indicators are within the range of standard values, indicating that the model fits well, and the path is significant at 95% confidence interval. As shown in Table 3, consumers' fear of negative evaluation positively affects social anxiety ($\beta = 0.644$, $P = 0.000$) and supports H1; Social anxiety positively affects

consumers' preference for AI ($\beta = 0.538$, $P = 0.000$), and supports H2.

4.4 Intermediary inspection

In this study, bootstrap confidence interval method was used to verify the mediating effect. Through the mediating effect analysis of spssau: bootstrap ml was set for the mediating hypothesis, 5000 times of repeated

sampling (> 1000), and the 95% confidence interval level of bias correction was adopted (the confidence interval of mediating effect should not include zero value). The analysis results are shown in Table 4, It shows that the mediating effect of social anxiety in negative evaluation fear and consumer AI service preference accounts for 65.969%. The mediating effect has been verified (the confidence interval does not include 0 and is significant), supporting H3.

TABLE 2: CORRELATION COEFFICIENT BETWEEN VARIABLE

Variables	FEN	SA	CP
FEN	0.715		
SA	0.630**	0.647	
CP	0.438**	0.509**	0.819

TABLE 3: SUMMARY OF REGRESSION COEFFICIENTS

X	→	Y	Coefficient of nonstandard path	SE	Z (CR value)	p	Standardized path coefficient
FNE	→	SA	0.807	0.111	7.298	0	0.644
SA	→	CP	0.545	0.080	6.767	0	0.538

TABLE 4 MEDIATING TEST OF SOCIAL ANXIETY

effect	C total effect	A * B mediating effect	C 'direct effect	95% confidence interval of deviation correction		P value	Test results
				upper limit	lower limit		
FNE=>SA=>CP	0.541	0.357	0.184	0.224	0.469	***	Some intermediaries

5. CONCLUSION

Firstly, this paper constructs a model of the relationship among fear of negative evaluation, social anxiety and consumers' preference for AI services, and collects data through questionnaire survey to confirm that consumers with high fear of negative evaluation will prefer AI service path. Secondly, in service marketing, personnel, physical display and experience process are very important factors, However, consumers with a high degree of fear of negative evaluation will have some social avoidance behaviors because they are worried about the employees' negative evaluation of themselves. This will make the enterprise lose part of the purchase intention, but they are not willing to go to the purchase scene that needs to be socialized because of social anxiety. AI doesn't evaluate people subjectively, For consumers with high fear of negative evaluation, AI service can alleviate the social anxiety caused by

consumers having to communicate with service providers, and increase the possibility of consumers to purchase. In this way, enterprises should be able to save labor costs, it also enables consumers with social anxiety due to fear evaluation to experience the service. Finally, this paper only considers one of the most important factors that affect social anxiety. Other factors may also affect consumers' preference for AI services.

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