

An Empirical Study on Consumers' Resistance to Mobile Shopping Service: The Case of Shopping on WeChat Friends' Circle

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Abstract

Objectives: This study identifies and analyzes the important factors influencing consumers' resistance to mobile shopping on WeChat Friends' Circle, and to understand the relationships between consumers' resistance and intention to innovation.

Methods/Statistical Analysis: According to the measurement items of the constructs that are adopted and modified from the previous studies, a questionnaire has been shared and a theoretical model has been proposed from the hypothesis.

The collected data is analyzed by structural equation modeling method using SPSS and AMOS and using a sample of 346 respondents from WeChat users in China. **Findings:** These tests highlighted that the proposed factors of both innovation characteristics and consumer characteristics do significantly impact on consumers' postponement, rejection, and opposition resistance at some extent respectively. Surprisingly, as been known that high value of relative advantage is found that it did not negatively affect consumers' resistance, and the fake good risk is highly influencing consumers' resistance. However, in this present study, the empirical data supported that relative advantage positively influenced consumers' postponement resistance as a significant level (H1a: 0.200**); and the fake goods risk has no significant influences on three forms of consumers' resistance at all. Interestingly, it's found that only postponement positively influences consumers' intention to purchase on Friends' Circle. The new findings highlight the difference from our research to the existing research, and lead the new thinking in researching consumers' resistance to the innovation. **Improvements/Applications:** This study considered six factors influencing consumers' resistance, and highlighted that both relative advantage and motivation positively influence consumers' postponement resistance at significant levels.

Keywords: Circle, Intention to Purchase, Resistance to Innovation, WeChat Friends

1. Introduction

WeChat is the mobile phone chatting software promoted by Tencent Company which features functions of Public Platform, Moments (the Chinese translation is "Friends' Circle"). As increasing users on WeChat, many users put some advertisements of products in WeChat Friends' Circle to attract their own friends on WeChat to purchasing their products. However, not all users are going to purchase, and what some users may do is to shield their friends' Friends' Circle who sell products there. Due to the consumers' natural resistance towards innovative

products, the failure rates for marketing new products are high. In¹ proposes that consumers' innovation resistance is a natural process before their adoption. In order to facilitate the innovation diffusion and adoption, it's necessary to research consumers' resistance to innovation because it could inhibit, suppress and delay the diffusion of an innovation². In addition, we consider the innovation resistance as a mediating factor influencing consumers' intention to purchase. We undertook this study to the consumers' resistance to innovation theory; describe a novel solution for the mobile services providers and the sellers on mobile shopping platform.

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2. Background and Literature Review

An innovation is the newness of an idea, product, practice or object as perceived by the consumer because the change(s) occurs¹. In¹ mentioned that innovation resistance was not counterproductive for consumers to adopt innovations. Resistance to innovation is just consumers' normal response; and when the factors impacting consumers' resistance to innovation are receded and eliminated, the consumer would adopt the innovations. In³ defined "the resistance manifested by consumers to an innovation, either because it poses potential changes from a satisfactory status quo or because it conflicts with their belief structure". Correspondingly, the resistance to innovation is divided into three categories: rejection, postponement and opposition⁴.

Postponement: Although consumers consider some innovation is acceptable and they have the willing to adopt or pursue it, they won't do that at soon. They are waiting for a suitable circumstance and time.

Rejection: consumers reject to adopt innovations; it doesn't mean the consumers are lack of awareness or ignorance about the new products, the innovation. Rejection implied consumers are lack of interests on innovations after evaluating the innovations⁵.

Opposition: when consumers consider the innovation is unacceptable, they will resist adopting it uncompromisingly. And when consumers are convinced that a new product is inappropriate or improper, they would pass on negative word-of-mouth or use other malicious methods to prevent the spreading of this new product.

Based on¹ studies, we describe the relative advantage, peer usage and perceived fake goods risk as the factors of innovation characteristics; tradition orientation, **motivation** and attitude towards existing services as the factors of consumers' characteristics.

3. Hypothesis and Research Design

3.1 Research Hypothesis

Relative advantage is captured as one of the important factors to explore the extent to which consumers' resist the innovation⁵ and it can be interpreted as the intensity of reward by resisting technology, innovation or service.

Moreover, relative advantage owns several sub-factors, such as economic gains, accessibility, and availability⁶. Economic gains capture the low price; accessibility captures the ability to purchase products without location limitation, and the availability captures the ability to buy products without time limitation.

Hypothesis 1a: Relative Advantage has a significantly negative influence on postponement.

Hypothesis 1b: Relative Advantage has a significantly negative influence on rejection.

Hypothesis 1c: Relative Advantage has a significantly negative influence on opposition.

Peer usage owns a negative impact on consumers' resistance to innovation⁷ and they propose that if peers or bosses give the suggestion to an individual about some products, then the individual will buy the product without hesitation. Meanwhile, peers usage in the group positively impacts consumers' acceptance to the innovation product⁸. And peer usage does influence consumers' resistance to innovation to some extent. If consumers' friends have a strong extent to shopping from WeChat Friends' Circle, consumers would purchase products from there as well.

Hypothesis 2a: Peer's usage has a significantly negative influence on postponement.

Hypothesis 2b: Peer's usage has a significantly negative influence on rejection.

Hypothesis 2c: Peer's usage has a significantly negative influence on opposition.

For respecting the case of consumer shopping from WeChat Friends' Circle, fake goods risk has been found as the important facet of consumer online shopping perceived risks. Innovation is always involved with some extent of risks, because of innovation's uncertainty³. Risks consumers perceived are always influencing them on resistance to innovation^{9,10}.

Hypothesis 3a: Fake goods risk positively influences the postponement.

Hypothesis 3b: Fake goods risk positively influences the rejection.

Hypothesis 3c: Fake goods risk positively influences the opposition.

In⁷ hypothesize that consumers' own traditions orientations have a positive relationship with innovation resistance. In¹¹ also proves that traditions and norms positively influence consumers' innovation resistance. If certain behavior which are contrary to individuals' norms or social and family values barrier or resistance will occur¹².

Hypothesis 4a: The tradition orientation positively influences the postponement.

Hypothesis 4b: The tradition orientation positively influences the rejection.

Hypothesis 4c: The tradition orientation positively influences the opposition.

Motivation leads consumers' needs and intentions to adopt innovation. In² empirically proved that consumers' motivation to adopt innovation negatively influence their resistance behavior.

Hypothesis 5a: Consumers' motivation negatively influences the postponement.

Hypothesis 5b: Consumers' motivation negatively influences the rejection.

Hypothesis 5c: Consumers' motivation negatively influences the opposition.

Consumers with such a favorable attitude will be unwilling to change the old and what they get used to using to adopt the new products or services¹³. On the contrary, consumers' attitude toward existing products or service would be positively related to their resistance to the new products or services. Meanwhile², explored that attitude towards existing products did have positive effect on consumers' resistance towards innovation.

Hypothesis 6a: Attitude towards existing services has a positive influence on postponement.

Hypothesis 6b: Attitude towards existing services has a positive influence on rejection.

Hypothesis 6c: Attitude towards existing services has a positive influence on opposition.

Consumers' innovation resistance and acceptance strongly connect with each other, and they both are constantly changing during the innovation diffusion process¹⁴; but the resistance to innovation decreases the intention to use¹⁵ and⁷ empirically proved that consumers' objection resistance have significant relationship with the intention to use smart phones.

Hypothesis 7a: Postponement negatively influences consumers' intention to purchase.

Hypothesis 7b: Rejection negatively influences consumers' intention to purchase.

Hypothesis 7c: Opposition negatively influences consumers' intention to purchase.

3.2 Research Design

The online questionnaires are designed based on the previous studies. Likert's five scale, from 1 (Strongly Disagree)

to 5 (Strongly Agree) is used to measure the question items. The questionnaires are sent to respondents through WeChat. The duration of data collection lasts from April 16th to May 14th, 2016. More 247 responses have been collected. And to add the 126 responses, we have 373 responses. And after deleting 27 invalid data, a total of 346 responses we adopt to do the test.

4. Analysis

4.1 Model Fit and Hypothesis Test

In this present study, AMOS 23.0 is adopted to test a number of criteria for a reasonable fit to the model, which concludes Chi square/degrees of freedom, Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), Root Mean Square Residual (RMR), and Root Mean Square of Approximation (RMSEA). Table 1 shows the results of the model fit.

Table 2 and Figure 1 show the results of path coefficients and hypotheses test of the empirical data set. Eight hypotheses out of all 21 hypotheses are rejected. In accordance with the result, relative advantage owns significant impact only on postponement resistance (H1a: 0.200**) as being hypothesized in the model. The peer usage has no significant influence on consumers' postponement resistance (H2a), but it does significant influence on both rejection (H2b: -0.312***) and opposition resistance (H2c: -0.118*). Surprisingly, the fake goods risk does not have any significant influences on three forms of consumers' resistance, such as postponement (H3a), rejection (H3b) and opposition (H3c) at a very significant level.

5. Conclusion

5.1 Concluding Remarks

According to the result of our research model, consumers' postponement (H7a: 0.336***), rejection (H7b: -0.529***) and opposition (H7c: -0.241***) have direct and significant influences on intention to purchase respectively, and they are proposed as the predictors of intention to purchase as hypothesized. For the factors of innovation characteristics, relative advantage significantly influences postponement (H1a: 0.200**). Hence, postponement

Table 1. Model fit indices.

	x2/df	GFI	AGFI	NFI	CFI	RMR	RMSEA
Model Value	2.096	0.848	0.813	0.862	0.922	0.048	0.056
Recommended Value	≥1, ≤3	≥0.9	≥0.8	≥0.9	≥0.9	≤0.05	≤0.08

Table 2. Path coefficients and hypothesis test result.

Hypothesis				Std. Est.	S.E.	C.R.	P	Result
H1a	RA	→	PO	0.200	0.069	3.155	0.002	N/A
H1b	RA	→	RE	-0.032	0.086	-0.607	0.544	Rejected
H1c	RA	→	OP	-0.112	0.100	-1.845	0.065	Rejected
H2a	PG	→	PO	0.105	0.043	1.823	0.068	Rejected
H2b	PG	→	RE	-0.312	0.061	-5.825	***	Accepted
H2c	PG	→	OP	-0.118	0.065	-2.043	0.041	Accepted
H3a	FR	→	PO	0.014	0.041	0.244	0.807	Rejected
H3b	FR	→	RE	0.059	0.054	1.179	0.238	Rejected
H3c	FR	→	OP	0.101	0.063	1.734	0.083	Rejected
H4a	TO	→	PO	-0.077	0.039	-1.300	0.194	Rejected
H4b	TO	→	RE	0.115	0.052	2.227	0.026	Accepted
H4c	TO	→	OP	0.361	0.064	5.643	***	Accepted
H5a	MO	→	PO	0.141	0.042	2.445	0.014	N/A
H5b	MO	→	RE	-0.538	0.063	-9.358	***	Accepted
H5c	MO	→	OP	-0.029	0.062	-0.520	0.603	Rejected
H6a	AE	→	PO	0.395	0.051	6.118	***	Accepted
H6b	AE	→	RE	0.172	0.062	3.352	***	Accepted
H6c	AE	→	OP	0.140	0.070	2,380	0.017	Accepted
H7a	PO	→	IN	0.336	0.058	6.021	***	N/A
H7b	RE	→	IN	-0.529	0.040	-9.041	***	Accepted
H7c	OP	→	IN	-0.241	0.036	-4.690	***	Accepted

N/A: Not Applicable. *p<0.05; **p<0.01; ***p<0.001

resistance can be seen as the mediating role for relative advantage in explaining the intention to purchase. For peer usage, it significantly influences on both rejection (H2b: -0.312^{***}) and opposition (H2c: -0.118^{*}), but it doesn't significantly impact on the postponement; so H2a is rejected. About the factors of consumers' characteristics, consumers' tradition orientation significantly influences both rejection (H4b: 0.115^{*}) and opposition (H4c: 0.361^{***}). So, H4a is to be rejected because this factor doesn't significant influence postponement; and it can be proposed that only rejection and opposition play mediating roles for tradition orientation in explaining intention to purchase. Moreover, consumers' motivation significantly impacts on postponement (H5a: 0.141^{*}) and rejection (H5b: -0.538^{***}) in

results. Consumers' attitude towards existing service significantly affects postponement (H6a: 0.395^{***}), rejection (0.172^{***}) and opposition (0.140^{*}).

5.2 Implications and Further Study

This present study successfully shows different factors of innovation and consumer characteristics work differently on influencing consumers' three types respectively. This finding highlights that both relative advantage and motivation positively influence consumers' postponement resistance at significant levels. And the finding as well reinforces the positive impact consumers' postponement has on their intention to purchase. This study

empirically studied the shopping service for consumers as the research object, which could be a guideline for future research. In order to decrease consumers' resistance and to increase their intention to purchase, sellers must ensure what they sell are the authenticity and salable products. What's more, consumers' tradition orientation, motivation and attitude towards existing service as well significantly influence consumers' resistance, which sellers should bring to the attention.

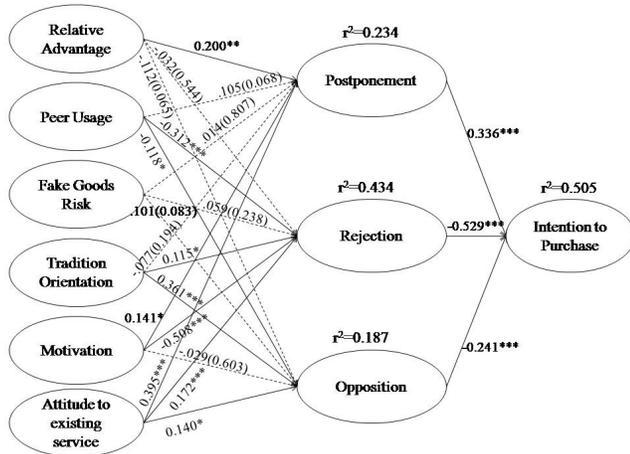


Figure 1. Analysis result.

This study considered six factors influencing consumers' resistance, which is not representative enough to analyze factors influencing resistance. Future researchers are encouraged to expand the research domain to compute more variables concerning resistance to innovation to specific products or services.

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