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Research on Effects of Herd Behavior and Customer Commitment on Customer Behavioral Intention and Post-purchase Disorder: A Case Study of Multilevel Marketing

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Abstract: In daily life, many decisions are influenced by the opinions of others. This behavior is mainly due to the norms under social pressure, fearing that there would be bad consequences if we do not abide by them. In previous studies, herd behavior driven by peer groups has been discussed in terms of consumer behavior, but few scholars have considered that consumers' purchase behavior that is driven by "unfamiliar groups" research object. Thus, focusing on consumers' purchase decisions which are influenced by unfamiliar groups in social gatherings, the relationship between herd behavior and customer commitment was explored with the factors and effects of post-purchase disorders. A questionnaire survey was carried out with 199 valid returns. The research results showed that herd behavior positively affected customer commitment and customer behavior intention in participating in multi-level marketing activities, and customer commitment also positively affected customer behavior intention. However, customer behavior intention showed no correlation with cognitive dissonance. From the perspective of customers, it is necessary to avoid participating in gatherings similar to multi-level marketing which damages customers' rights and interests.

Keywords: Herd behavior, Customer commitment, Customer behavioral intention, Cognitive dissonance, Multi-level marketing

1. Introduction

For a long time, "conformity" has been a common phenomenon in society. Due to the mutual influence of group members, they often have similar ideas. The herd effect is easily found in real life. If a certain group of people leads the trend, others follow, which is the herd effect. In a group, the larger the number of the majority, the greater the power of the herd effect. The herd effect is an important factor for enterprises to determine successful marketing. Lee (2017) and Zeng (2017) pointed out that people following the crowd is nothing more than meeting the "correct" requirements. Without confidence in their judgment, it is easy to follow the crowd, so people are affected by others' purchasing behavior. Others' buying purposes are accepted simply as they are proposed by others. Such behavior of buying products under the influence of others is "herd" buying behavior.

When individuals have group pressure, their thinking or behavior is changed by the group. Therefore, in the decision-making process, if an individual follows herd behavior, the individual lacks confidence in decision-making or has pressure from others to evaluate the decision-making especially when the individual has insufficient information for decision-making. The individual tries to reduce the risk tendency to avoid greater risks (Xie, 2014). However, if the customer commitment relationship gradually disintegrates due to the wrong decision-making caused by conformity, which leads to subsequent post-purchase regret or post-purchase dissonance. Social psychologists used to think that women were weaker than men and showed more herd behavior. That is, women worried more about how to deal with others and felt more pressure to behave according to traditional gender roles. Men showed a high degree of independence and autonomy, while women played a more gentle and docile role (Hong et al., 2017).

Based on the previous study results, the factors and influences of consumers' initial behavioral intentions and post-purchase disorders (cognitive dissonance) were explored in the decision-making process under the influence of herd behavior and customer commitment. The following research purposes are achieved through this study:

- (1) Exploring the relationship between herd behavior and customer commitment;
- (2) Discussing the impact of herd behavior and customer commitment on customers' behavioral intentions;
- (3) Discussing the factors and influences of post-purchase dissonance generated by customers' behavioral intentions.

2. Literature Review

2.1. Herd Behavior

Conformity was used by social psychologist, Asch (1951), and he tossed the term, the majority effect which is similar to conformity. Even though the opinions of the majority are wrong, individuals still obey the opinions of the majority. At that time, Asch put forward a term that is similar to the concept of the herd, which is the majority effect, as herd behavior refers to people's behavior in a group. Because of the influence of the majority of people, people follow the majority's thoughts or behaviors which are known as the "band float effect" or "herd effect".

When individuals find that their behavior is inconsistent with the group, they feel abruptness and the pressure of the group. To be recognized by the group, they tend to be consistent with the behavior of the group, so they change their behavior (Fang and Zhan, 2012). Michelle (2018) defined the social impact of the tendency of a group into two categories as follows:

- (1) Informational influence includes all ways of learning by gathering information from others by observing the consequences of other people's choices and learning from their mistakes and successes;
- (2) Normative influence includes social norms and practices that define surrounding groups and communities. People copy the behavior of others because they feel an irresistible force from them to do the same which are social norms, peer pressure, and groupthink.

2.2. Customer Commitment

Customer commitment refers to the performance of customers for brands or companies beyond the purchase behavior. Since customer commitment is considered to accurately measure the value created by customers for the company, it has become an important issue (Zhang and Su, 2014). The customer's commitment to the company can be used as the basis for judging whether the company is successful in relationship marketing (Yang, 2009). Lin and Wu (2019) believe that customers must be satisfied to make commitments that are defined as the relationship of customers with the enterprise and valuable.

2.3. Customer Behavior Intention

Behavior intention (BI) is a cognitive activity that reflects an individual's willingness to perform a specific behavior. At present, it is mostly discussed with consumer behavior and is used to show an individual's possible action tendency and predict consumer behavior (Zeng, 2014). Behavioral intentions have been extensively discussed in psychology and the attitude theory of consumer behavior as attitudes are composed of three elements: cognition, emotion, and behavioral intentions (Chen et al., 2016).

Chen (2013) defined the three elements of behavioral intention as follows:

- (1) Cognition refers to consumers' perception of products or services, which come from consumers' thoughts and concepts;
- (2) Emotion determines consumers' overall evaluation of attitudes, resulting in different degrees of preference;
- (3) Intention refers to the possibility of a consumer taking a certain behavior based on his or her own beliefs, that is, behavioral intention.

2.4. Post-purchase Dissonance (Cognitive Dissonance)

Post-purchase dissonance was developed from Festinger's (1957) cognitive dissonance theory. When one's personality is easy to change, there is a state of imbalance due to the difference between the initial and final thoughts. At the same time, it is also based on individual characteristics that are not appropriate for collecting data and thinking rationally, which leads to the implementation of the behavior and the difference of thoughts at the beginning and for decision, resulting in a disordered situation (Lin, 2018). It may be difficult for a person to judge the pros and cons of each feasible option for decision-making. Once the decision is made, whether the item originally selected is good or not, the item that is not selected has more advantages. At this time, cognitive dissonance occurs (Xie, 2015). Tsiros and Mittal (2000) proposed a model of consumer regret after purchase, in which the variables of regret after purchase include satisfaction, repurchase intention, and complaint intention. These variables are related to post-purchase dissonance.

2.5. Multi-level Marketing

In 1971, the U.S. Trade Commission launched an investigation to understand the spread and development of the "rat society" and various related social problems. The Commission commented on hierarchical marketing and proposed precautions against the money-raising situation (Wikipedia). In so-called Pyramid marketing, participants and operators earn commissions from the

membership fees of new members to join layer by layer. Most multi-level marketing companies try to “rationalize, legitimize, and complicate” their deception model through the process of “business rhetoric, group pressure, herd behavior, and marketing packaging” in groups. Misleading with specious purposes, participants or consumers are misled to mistakenly believe that it seems to belong to legitimate “Multi-level marketing” programs.

2.6. Summary

- (1) Commitment to customers by herd behavior
Robert (1994) put forward the principle of commitment and consistency in which people have a sense of identity with their commitments, even though they know that the commitment is sometimes wrong but maintain the consistency of behavior. This is known as “herd behavior”. Under pressure, people take action to justify previous decisions. In real life, two techniques are often used by companies: the foot-in-the-door technique and the low-ball technique, which can be explained by the principle of commitment and consistency.
- (2) Conformity behavior to customer behavior intention
According to Xu (2014), when the price of herd behavior is low, and if it is recommended by relatives and friends, it is easy for people to have a higher degree of herd behavior. It is found that consumers of high-unit price products are less likely to be discussed or evaluated by the group, making them decide independently. However, they also have a series of pre-purchase evaluations or information collection before they purchase products and their purchasing decisions are affected by others, too.
- (3) Customer commitment to customer behavior intention
Zhang (2007) found that “commitment→behavioral intention” has a positive and significant impact. Enterprises must gradually obtain the trust and commitment of consumers to strengthen the relationship and long-term interests between enterprises and consumers, which is conducive to future relationships, and to develop and enhance consumers' purchase behavior intentions.
- (4) Customer Behavioral Intention vs. Post-Purchase Disorder(cognitive dissonance)
When the product is high-valued and the perceived brand difference is small, consumers' decision-making mainly focuses on reducing post-purchase dissonance (avoiding regret) (Li et al., 1997).

3. Materials and Methods

3.1. Research Framework

According to the research purpose and the literature review result, the relationship structure of consumers among the four variables (herd behavior, customer commitment, customer behavior intention, and post-purchase dissonance) is explored. For the exploration, a framework diagram is developed as shown in Fig. 1. Based on the literature review, it is assumed that consumers positively are affected by customer commitment (H1) because of herd behavior. At the same time, customer behavior intention (H2) also influences consumers' decisions. In addition, the higher the degree of customer commitment, the more positive impact on customer behavior Intention (H3). Finally, low customer behavior intention negatively affects post-purchase dissonance (H4).

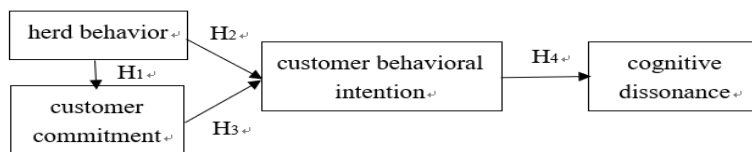


Fig. 1. Research Framework Diagram.

3.2. Research Hypothesis

The theoretical aspects to be defined in this study include four aspects: conformity behavior, customer commitment, customer behavior intention, and post-purchase dissonance. “Crowd behavior” refers to the influence of the majority on an individual to follow the thoughts or behaviors of the majority. “Customer commitment” refers to the customer's relationship with the product or brand and a psychological contract formed with brands, which is beyond the performance of purchasing behavior. “Customer behavior intention” refers to the expression of an individual's willingness to a specific behavior and the positive or negative behavior intention of consumers affecting the final behavior. “Post-purchase dissonance” refers to negative emotions such as doubts and regrets about the impulsive purchase behavior after the consumer conducts a post-purchase cognitive evaluation after purchase. The

research problem and research hypotheses of this study are summarized in Table 1. A Likert five-point scale from ‘1’ for completely disagree to ‘5’ for completely agree was used for each measure in this study.

Table 1. Research problem and research hypotheses.

Verification	Research Problem	Research Hypothesis
H1(+)	According to Robert (1994), when people face personal or external pressure, they tend to force their words and deeds to be consistent with it and have a sense of identity with their commitments, even though they know that the commitments are wrong. They tend to be consistent in behavior because the commitments shape their minds.	Herd behavior has a positive and significant impact on customer commitment.
H2(+)	Xu (2014) found that herd behavior becomes prominent when the price is low, and when it is recommended by relatives and friends.	Herd behavior has a positive and significant impact on customer behavior intention.
H3(+)	Zhang (2007) claimed that enterprises must gain the trust and commitment of consumers to strengthen their relationship with consumers and long-term interests for the development of future relationships and enhancing consumers' purchase behavior intentions.	Customer commitment has a positive and significant impact on customer behavior intention.
H4(-)	Chen (2002) suggested that consumers be highly emotionally involved in impulsive buying. Thus, they engage in post-purchase cognitive evaluation after purchase. Through self-assessment, when consumers find that the purchase decision without careful consideration hinders them from choosing the best choice, and have time-inconsistent preferences, there is a high likelihood of post-purchase dissonance.	Customer behavioral intention has a negative and significant impact on post-purchase dissonance.

3.3. Data Collection

The purpose of this study is to investigate the factors affecting consumer behavior intention and post-purchase disorder under herd behavior and customer commitment. Consumers who were influenced by unfamiliar groups in purchasing decisions at social gatherings were recruited for this study. They were divided into experienced and inexperienced groups, and the experienced group is chosen as the research objects.

A questionnaire survey was carried out from December 25, 2021, to March 4, 2022, for about 70 days. A total of 385 questionnaires were sent out. After deleting invalid responses and those who had no experience of being influenced by others in purchasing decisions at social gatherings, 199 valid questionnaires were obtained with a return rate of 52% (Table 2).

Table 2. Demographic analysis of objects (N = 199).

Category	Group	Number	Proportion
Gender	Male	59	29.6%
	Female	140	70.4%
Age	Under 20 years old	12	6.0%
	21 to 30 years old	63	31.7%
	31 to 40 years old	24	12.1%
	41 to 50 years old	66	33.2%
	51 to 60 years old	29	14.6%
	61 years old (inclusive)	5	2.5%
Education	Middle school	3	1.5%
	High school	30	15.1%
	University	117	58.8%
	Graduate school (or above)	49	24.6%
Monthly income	Less than 10,000 (inclusive)	46	23.1%
	10,001–20,000	17	8.5%
	20,001–30,000	29	14.6%
	30,001–40,000	39	19.6%
	40,001–50,000	25	12.6%
	50,001–60,000	14	7.0%
60,001 (inclusive) or more	29	14.6%	

4. Results and Discussion

4.1. Reliability Analysis

The reliability analysis results of each variable in this study are summarized as follows. The α value of herd behavior, customer commitment, customer behavior intention, and post-purchase cognitive dissonance was 0.748, 0.864, 0.870, and 0.895, respectively. According to Kerlinger (1986), when the item-to-total correlation coefficient is lower than 0.4, it must be eliminated. Therefore, no item was deleted from the data in this study. Overall, the reliability of each research variable in this study was higher than 0.7, indicating that the internal consistency of each dimension index is acceptable (Fornell and Larcker, 1981).

4.2. Effect of Demographic Variables

To understand whether the demographics of the objects affected the aspects of the objects, statistical analyses such as the T-test, one-way analysis of variance (ANOVA), and Scheffe post-hoc comparative analysis were performed. The results are shown in Table 3.

Table 3. Effects of demographic variables on each aspect.

	Gender (t)	Age (F)	Education (F)	Monthly Income (F)
Herd behavior	-0.412	4.105***	2.069	1.904
Customer commitment	-2.090*	2.047	0.342	1.615
Customer behavioral intention	-1.957	1.031	1.036	0.639
Cognitive dissonance	0.012	1.078	0.628	1.324

*: $p < 0.05$, **: $p < 0.01$, ***: $p < 0.001$

Education and monthly income did not show significant differences in the four aspects. However, gender and age had significant differences in customer commitment and herd behavior, respectively. The Scheffe post-hoc test result shows a significant difference in herd behavior by age (Table 4). Especially, the objects below 30 years old and 41–60 years old had significantly different herd behavior.

Table 4. Scheffe post-hoc test result of age for the four aspects.

	F-value	Significance	Scheffe
Herd behavior	4.105	0.001	<u>1245>36</u>
Customer commitment	2.047	0.074	-
Customer behavioral intention	1.031	0.400	-
Cognitive dissonance	1.078	0.374	-

4.3. Correlation Analysis

The degree of the relationship between the four aspects was investigated by Pearson correlation analysis. Table 5 shows the correlation matrix of the four aspects. Customer commitment and cognitive dissonance, and customer behavioral intention and cognitive dissonance did not have a significant relationship, while the rest aspects were correlated positively and significantly. This means that there were low to moderate correlations between the aspects, which coincides with the previous research result and the proposed hypotheses in this study.

Table 5. Pearson correlation coefficient between the four aspects.

	Herd Behavior	Customer Commitment	Customer Behavioral Intention
Herd behavior	1		
Customer commitment	0.417	1	
Customer behavioral intention	0.226	0.642	1
Cognitive dissonance	0.306	0.022	-0.065

4.4. Regression Analysis

The regression analysis result showed that the R-square had an explanatory power of 17.4% with the independent variable of herd behavior and the dependent variable of customer commitment. This result verified the hypothesis ‘H1: Consumers’ customer commitment is positively affected by herd behavior’. With the dependent variable of customer behavioral intention, the R-squared estimate had an explanatory power of 39.2%, which validated the hypothesis ‘H2: Consumers’ customer behavior intentions are positively affected by herd behavior.’ (Table 6).

Table 6. Regression analysis results between herd behavior (independent variable), customer commitment, and customer behavioral intention (dependent variables).

Dependent Variable	Customer Commitment	Customer Behavioral Intention
Constant	1.303	2.573
β-value	0.512	0.225
R squared	0.174	0.392
F-value	41.408	30.572
Durbin-Watson	1.905	1.797

With the dependent variable of customer behavioral intention and the independent variable of customer commitment, the R-square has an explanatory power of 41.3%. This result validated the hypothesis ‘H3: Consumers’ customer behavior intentions are affected by customer commitment.’ (Table 7)

Table 7. Regression analysis results between customer commitment (independent variable) and customer behavioral intention (dependent variables).

Dependent Variable	Customer Behavioral Intention
Constant	1.659
β-value	0.592
R squared	0.413
F-value	138.333
Durbin-Watson	1.859

With the dependent variable of post-purchase dissonance and the independent variable of customer behavioral intention, the R-square has an explanatory power of 0.4%. Thus, the hypothesis ‘H4: Consumers’ post-purchase dissonance are affected by customer behavior intentions.’ (Table 8) was not supported by the result.

Table 8. Regression analysis between customer behavioral intention and post-purchase dissonance.

Dependent Variable	Post-purchase Dissonance
Constant	3.518
β-value	-0.076
R squared	0.004
F-value	0.83
Durbin-Watson	1.936

5. Conclusions and Recommendations

Among the four aspects of consumer behavioral decisions, herd behavior had a positive and significant impact on customer commitment, and conformity behavior positively affected customer commitment. It was found that the higher the conformity behavior of consumers in multi-level marketing meetings, the higher their commitment to customers, reaching a significant impact, and the hypothesis is established. Herd behavior had a positive and significant impact on customer behavior intention (H2). Herd behavior positively affected customer behavior intention, too. The higher the conformity behavior of consumers in the multi-level marketing meeting, the higher the consumer behavior intention. Customer commitment had a positive and significant impact on customer behavior intention (H3). The higher the customer commitment of consumers in the multi-level marketing meeting, the

higher the customer behavior intention, reaching a significant impact. Customer behavioral intention has a negative and significant impact on post-purchase dissonance (H4). The level of consumer behavioral intention in multi-level marketing meetings did not have a significant impact on post-purchase dissonance. The results of this study showed that the conformity behavior of consumers in the multi-level marketing meeting caused their commitments to customers. The higher the conformity behavior, the higher their behavior intention to customers. Herd behavior, customer commitment, customer behavior intention, and post-purchase barriers were not affected by gender, education level, and monthly income, except for ages below 30 and from 41 to 60 years old.

Most consumers currently participate in multi-level marketing in which purchase decisions are affected by the opinions of others. Even if the influence group is unfamiliar, they tend to make consumers follow others. Therefore, customers need to avoid participating in gatherings similar to multi-level marketing, which harms their rights and interests. Consumers who participate in multi-level marketing do not pay much attention to the relationship with the industry, but consumers collect relevant opinions on the products to decide whether to buy. If the industry wants to continue to attract consumers, it needs to strengthen word-of-mouth marketing. In the multi-level marketing meeting, product commentators increase the value of the product by manipulating consumers to promote purchase behavior.

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