

The Relationship Between Belief In Luck of Stock Traders and Satisfaction and Loyalty of Stock Trading Services

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주식 투자자의 운에 대한 믿음과 주식 투자 서비스에 관한 만족도, 충성도 간의 관계에 관한 연구

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Abstract We investigate whether the belief in good luck of stock traders influences their satisfaction with and their loyalty to a stock trading service. In particular, we tested whether the online stock traders who have irrational beliefs in good luck (e.g., I am a lucky person) (1) are satisfied with their online stock trading service more strongly and (2) stay with it longer than the online stock traders who have rational beliefs in good luck (e.g., luck does not exist). We have tested satisfaction, loyalty, and belief in good luck among 412 online stock traders and tested our two hypotheses. Our findings contribute to the academic research on service satisfaction and loyalty as well as provide implications to online stock trading service providers.

요 약 본 연구는 주식 투자자의 운에 대한 믿음이 주식 투자 서비스에 관한 만족도와 충성도에 영향을 미치는지를 고찰하였다. 구체적으로 본 연구에서는 행운에 관한 비합리적인 믿음을 가진 주식 투자자들이 (예, 나는 운이 좋은 사람이다) 행운에 관한 합리적인 믿음을 가진 주식 투자자들에 비하여 (예, 운은 존재하지 않는다) (1) 온라인 주식 투자 서비스에 더욱 만족하며 (2) 온라인 주식 투자 서비스를 더 오래 이용하려 하는지를 검증하였다. 412명의 국내 온라인 주식 투자자들을 대상으로 한 설문조사 결과 본 연구의 두 가설이 지지되었다. 본 연구의 결과는, 기존 연구에서 다루어지지 않은 소비자의 심리적 요인이 서비스에 관한 만족도나 충성도를 결정하는 의미있는 요인임을 밝혀냈으며, 또한 주식 투자 서비스 운영자들에게도 실무적 시사점을 제공하였다는 데에 의의가 있다.

Key Words : Rationality, Belief in Good Luck, Satisfaction, Loyalty

1. Introduction

Online stock trading service providers once transformed the stock trading industry. As they are now facing an unprecedented competition, they adopt various strategies to satisfy their consumers. For instance, they provide a huge discount of the service fees or premium services to the online stock traders who use the service once. The fundamental assumption of these strategies is

that when consumers are satisfied with their services, consumers will be more likely to stay with their services. Although much research supports this assumption (Bearden and Teel 1983; Newman and Werbel 1973; Oliver 1999; Yi 1990), there exist evidence that merely satisfying consumers does not necessarily lead to loyalty (Deming 1986; Jones and Sasser 1995; Keaveney 1995; Kelley et al. 1993; Reichheld 1993; Stewart 1997).

In the present work, we investigate whether the

This work was supported by Kookmin University.

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Received May 2, 2012

Revised (1st June 8, 2012, 2nd July 4, 2012)

Accepted July 12, 2012

consumers' psychological disposition determines their loyalty to a given service. In particular, we borrow the psychological work on luck and examine whether consumers' irrational belief in luck increases their loyalty. We expect that our work will contribute to the academic discussion on satisfaction and loyalty by incorporating a new variable. It will also provide interesting implications to the online stock trading service providers that they should find the online stock traders who are more likely to retain their services before they make any investment and then pay attention to them exclusively.

The present work is organized as follows. First, we review the marketing literature on satisfaction and loyalty to conclude that the psychological disposition of consumers has been little discussed. Secondly, we review the psychological literature on belief in luck to develop a hypothesis that the consumers who have irrational beliefs in luck are more likely to be satisfied with and be loyal to a given service than the consumers who have rational beliefs in luck. Next, we test our hypothesis by collecting the data from over 400 online stock traders. Finally, we conclude with the general discussion about the contributions, the implications, and the limitations of the present work, as well as suggestions for future research.

2. Literature review

2.1 Satisfaction and loyalty

Historically, satisfaction has been viewed as the cognitive response to consumption experience (Howard and Sheth 1969), the emotional response to it (Westbrook and Reilly 1983), or the evaluative judgment about a chosen option (Day 1984). Although various approaches have been made to understand satisfaction, the most popular approach is the disconfirmation of expectation (Oliver 1980). According to this approach, consumers are satisfied with their consumption experience when the actual performance of a chosen option is greater than its expected performance. Later, some researchers incorporated service characteristics such as encounters and service quality to this approach, studying satisfaction in the service domain (Bitner 1990; Parasuraman, Zeithaml, and Berry 1988, 1994).

Researchers have long considered that satisfaction leads to loyalty. They have found that more than 30% of the consumers who experienced dissatisfaction about a brand did not intend to buy the same brand again (Newman and Werbel 1973). They have also found that satisfaction not merely predicts repurchase intention but also determines consumers' post-purchase attitudes toward the chosen product (Bearden and Teel 1983), consumers' intentions to maintain the relationship with the company of the chosen product (Boulding et al 1993; Rust and Zahorik 1993), and even the profit of the company (Anderson et al. 1997; Mano and Oliver 1993). Yi (1990) stated in a review paper that "CS (Customer Satisfaction) is likely to increase repeat purchase behavior and brand loyalty and to reduce brand switching" (p.104).

Although the positive relationship between satisfaction and loyalty has been strongly supported, some researchers doubt this relationship. They observed that some consumers do not defect even after they experience a dissatisfying encounter (Kelley et al. 1993), whereas other consumers defect without any significant reasons (Keaveney 1995). It has been reported that more than 65% of the consumers who expressed satisfaction actually defected (Reichheld 1993). According to Jones and Sasser (1995), not all satisfied consumers become loyal because consumers are free to choose alternatives. Deming (1986) and Stewart (1997) also supported that loyalty needs more than satisfaction.

As the relationship between satisfaction and loyalty became unclear, many attempts have been made to establish their relationship more clearly. For instance, some suggest that trust and commitment need to be considered in order to predict the relationship between consumers' satisfaction about a product and their purchase intention about the same product in the future (Garbarino and Johnson 1999). Others propose that different attributes are considered in judging satisfaction and loyalty when consumers are loyal (Mittal and Katrichis 2000) and when loyal consumers have different causes of their loyalty (Fournier 1998; Ganesh et al. 2000). Oliver (1999) stated in his review paper that "satisfaction does not transform into loyalty as much as it is a seed that requires the nurturance of sun, moisture, and soil nutrient ... Without these additional factors, satisfaction, similar to the seed, stays dormant. The consumer remains

satisfied but does not grow beyond that state” (p.42).

Although much work has investigated satisfaction and loyalty as well as other variables that affect them, it sheds little light on the possibility that different consumers are satisfied with and loyal to an identical service in the different levels. Instead of examining the effect of the psychological disposition of consumers on their level of satisfaction and loyalty, researchers have intentionally controlled this variable by collecting data from a highly similar group of subjects (Bryant and Cha 1996). Therefore, we investigate whether satisfaction and loyalty can be influenced by the consumers’ psychological disposition, in particular, their irrational beliefs in luck.

2.2 Belief in luck

Psychologists investigating people's attribution have long equated luck with chance. According to them, people generally attribute their success to their own internal factors (e.g., ability) and, when they believe some environmental factors determine their success, they sometimes attribute their success to chance or luck (Heider 1958). Therefore, psychologists have generally considered both chance and luck as opposed to ability. For them, luck is an external, unstable, and uncontrollable factor (Weiner 1985).

However, studies have shown that some gamblers interpret luck differently from what attribution psychologists have expected; instead, they have irrational beliefs in luck, considering luck as an internal personal trait and utilizing their own luck to control events. For instance, some blackjack gamblers reported that luck is one of the necessary skills to win the gambles, suggesting that luck is not as an external factor but an internal factor (Keren and Wagenaar 1985). Some crap shooters also talked to their dice to meet a desired number and some poker players moved seats or changed their tables with a hope to receive good cards, which suggests that they believe luck is a controllable factor (Hayano 1978; Henslin 1967). As Cohen (1960) mentioned, “the idea of luck is ubiquitous but by no means simple, in the sense that it means precisely the same to everyone, everywhere” (p.114).

Darke and Freedman (1997a) demonstrated that people have different beliefs in luck. They found that some people consider luck not as an environmental factor but as

a personal trait, developing irrational beliefs in luck. The authors stated that “rather than maintaining the rational view that luck is external and unstable, at least some people talk about good luck as though it were just the opposite – personal and stable. In this sense, they seem to maintain irrational or superstitious beliefs about luck” (p.488). They developed the BIGL (Belief In Good Luck) scale to measure the degree to which people's beliefs in luck is irrational. In a subsequent study, they demonstrated that the subjects who had irrational beliefs in luck were more confident about their decisions and took greater risks than the subjects who had rational beliefs in luck (Darke and Freedman 1997b).

We expect that the rationality of the belief in luck can determine satisfaction and loyalty. Imagine that consumers use an online stock trading service and their agents make profits. When consumers have rational beliefs in luck (e.g., luck does not exist), they will attribute the profits to their agents who work hard to make profits. In this case, consumers will be weakly satisfied with their services and their tendency to stay with the services will not be strong. However, when they have irrational beliefs in luck and believe that good luck is their personal and stable trait (e.g., I am a lucky person), they will attribute the profits not to the agents but to themselves. In this case, they will be strongly satisfied with the services and their tendency to stay with the services become strong. In sum, we expect that the online stock traders who have irrational beliefs in luck are more satisfied with and more loyal to a given service than the online stock traders who have rational beliefs in luck.

Hypothesis 1: When consumers have irrational beliefs in luck, they are more likely to be satisfied with a given service than when they have rational beliefs in luck.

Hypothesis 2: When consumers have irrational beliefs in luck, they are more likely to be loyal to a given service than when they have rational beliefs in luck.

3. Methods

3.1 Procedure

We test our hypotheses by conducting a survey of

online stock traders. We selected online trading services for our study context because, we expected, online stock traders can make different attributions about the same profits depending on their belief in luck. Note that the stock market is efficient and individual stock prices walk randomly (e.g., Lo 1997), which enables online stock traders to attribute their profits to either their agents or themselves.

3.2 Data collection

We launched an online survey website and invited 552 online stock traders who used an online stock service provider in Korea. We created 4-page website and asked (1) demographic information, (2) satisfaction, (3) loyalty, and (4) belief in luck in each page.

First, we measured satisfaction by administering two questions (Szymanski and Henard 2001). Respondents indicated the degree which they were satisfied with the online stock service provider in a 7 point Likert-scale. Next, we measured loyalty by asking respondents to indicate how many days they intended to stay with the online stock service provider in an open-ended question. Finally, we measured belief in luck by administering 12 BIGL items (Darke and Freedman 1997). Respondents answered them in a 7 point Likert-scale (see appendix).

4. Results

We collected 552 responses. We eliminated 121 responses made by the online stock traders who did not trade stocks but watched the market only and further dropped 19 incomplete responses, having in total 412 responses (75%). Our data have more male respondents (75%) than female respondents (25%), more highly-educated respondents (above college = 86%) than less-educated respondents (below college = 14%), and more married respondents (67%) than unmarried respondents (33%).

We followed Darke and Freedman (1997b) and divided the data set into two groups using the median score of BIGL. Data showed that the minimum of the sum of the 12 BIGL scores was 15 and its maximum was 71, with its average of 46.04 and its median of 47. Accordingly,

208 respondents who scored 47 or greater belonged to the high BIGL group (irrational beliefs in luck) and the remaining 204 respondents who scored smaller than 47 belonged to the low BIGL group (rational beliefs in luck). Note that the average BIGL scores between the two groups differed statistically, suggesting our median split was performed successful (high BIGL group = 52.72 vs. low BIGL group = 39.24, $F = 4.12$, $p < .05$).

We obtained further evidence that the two groups differed qualitatively. First, the high BIGL group (3.80) reported that they were more confident about selecting stocks better than others than the low BIGL group (3.41, $F = 13.56$, $p < .01$). The high BIGL group (4.46) also reported that they were more confident about making profits greater than bank interest than the low BIGL group (4.01, $F = 9.17$, $p < .01$). However, these two groups did not differ in terms of the degree to which they invested their effort in collecting information about stocks (high BIGL group = 2.86 vs. low BIGL group = 2.74, $F = 1.15$, $p > .50$). Our findings about the three questions suggest that the online stock traders who had irrational beliefs in luck did not invest more effort but were more confident about their decisions than the online stock traders who had rational beliefs in luck.

Most importantly, we obtained evidence that the two groups showed the different levels of satisfaction and loyalty. As expected, the high BIGL group (3.86) was more satisfied than the low BIGL group (3.62, $F = 5.64$, $p < .05$) for the first satisfaction question and the former group (3.90) scored greater than the latter group (3.57, $F = 10.95$, $p < .01$) for the second satisfaction question, supporting hypothesis 1. Additionally, the high BIGL group (224.46 days) intended to stay with the online stock service provider longer than the low BIGL group (161.57 days, $F = 5.07$, $p < .05$), supporting hypothesis 2. These findings support our hypotheses that irrational belief in luck plays a role in increasing satisfaction and loyalty.

[Table 1] Low BIGL vs. High BIGL

	Low BIGL	High BIGL
N	204	208
BIGL score **	39.24	52.72
Confidence about selecting stocks***	3.41	3.80

Confidence about making profits***	4.01	4.46
Satisfaction 1**	3.62	3.86
Satisfaction 2***	3.57	3.90
Intention to stay with the service provider (days) **	161.57	224.46
Effort with collecting information about stocks	2.74	2.86

** p < .05, *** p < .01

5. General discussion

We obtained evidence that when consumers have irrational beliefs and consider luck as their stable personal traits, they are more satisfied with their services and intend to stay with their services longer than when they have rational beliefs in luck. In particular, our data demonstrated that the intended duration of their retention with the identical service provider differed 63 days (224 vs. 162), which are about 2 months.

Our findings primarily contribute to the academic discussion on satisfaction and loyalty. Note that prior literature on the topics of satisfaction and loyalty emphasizes the roles of trust (Garbarino and Johnson 1999), consumer type (Mittal and Katrichis 2000) and the type of loyalty source (Fournier 1998; Ganesh et al. 2000). We go beyond the given list of variables to demonstrate that psychological disposition can play a critical role in determining satisfaction and loyalty. Put differently, our data suggest that some consumers are, by nature, more satisfied with and more likely to stay with a given service than others. Therefore, the present work extends the previous research on satisfaction and loyalty by relaxing an implicit assumption that consumers will obtain the identical level of satisfaction and loyalty from the identical service.

Note that our findings provide practical implications to online stock service providers as well. They utilize a wide variety of tactics in order to maximize consumer satisfaction based on an assumption that satisfaction leads to loyalty. The present work provides a fresh perspective that some consumers are, by nature, more satisfied with and more likely to be loyal to their services. In particular, our findings enable online stock service

providers to classify two different groups of consumers so that they can concentrate on "profitable" consumers. We recommend them to survey their online stock traders about the belief in luck and then pay attention to those who have irrational beliefs in luck. Spotting who have irrational beliefs in luck are not expensive, but doing so will benefit them significantly.

The present research has several limitations. First, we did not take into account the performance of each individual's investment mainly because we were unable to locate the data. In the future, the relationship between psychological variables such as Belief in Good Luck and behavioral variables such as satisfaction and loyalty needs to be tested more rigorously considering financial variables such as the amount and the performance of investment. Secondly, we failed to find the relationship between satisfaction and loyalty. Although much work on satisfaction has shown that satisfied consumers tend to be loyal to a product or service (e.g., Bearden and Teel 1983; Boulding et al 1993; Newman and Werbel 1973; Rust and Zahorik 1993), some recent work on loyalty also suggests that satisfaction does not necessarily leads to loyal behavior. In the future, the relationship between satisfaction and loyalty needs to be tested more rigorously, in particular, in the financial market. Finally, we did not consider the effect of belief in bad luck on satisfaction and loyalty. Although no psychologists have either conceptualized or measured people's belief in bad luck, let alone its impact on financial behavior. In the future, not only psychologists but also the researchers in marketing and finance need to identify whether people believe the negative side of luck and, if so, how doing so affects their behavior.

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Appendix

Items of Belief In Good Luck
(Darke and Freedman 1997)

- ① 나는 내가 운이 좋은 사람이라고 생각한다.
- ② 얼마나 운이 좋은지에 따라서 의사 결정을 하는 것은 잘못된 것이다. (Reverse)
- ③ 나는 종종 내게 운 좋은 날이 있다는 생각이 든다.
- ④ 나는 계속 행운이 따른다.
- ⑤ 운은 단지 우연일 뿐이다. (Reverse)
- ⑥ 운은 내 편이다.
- ⑦ 운은 모든 사람의 인생에서 중요한 부분이다.
- ⑧ 어떤 사람은 계속 행운이 따르고, 어떤 사람은 계속 불운이 따른다.
- ⑨ 나는 운이 존재한다고 믿는다.
- ⑩ 나는 운이 좋기 때문에, 실수로 무언가를 두고 자리를 떠나도 걱정하지 않는다.
- ⑪ 어떤 사람은 잘 되고, 어떤 사람은 잘 되지 않는, 운 같은 것이 세상에는 있다.
- ⑫ 나는 운이 좋기 때문에, 내가 조절할 수 없는 일들도 원하는 방향으로 되는 것 같다.

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