

Consumers' Variety Seeking: From an Information Perspective

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Abstract

Variety seeking is one of the most common psychological heuristics when consumers make decisions. The literature posits that understanding the mechanism of variety seeking is critical to explain consumers' decision-making process. Yet little is known about the effects of information, which also significantly influences consumers' choice behavior. Drawing on established theories of psychology and economics, the author develops a synergetic framework investigating the impact of information adequacy on degree of variety seeking. Results from three studies show that information scarcity significantly stimulates the degree of variety seeking (Study 1). In addition, consumers' preference stability, which represents consumers' inherent information, also inhibits the degree of variety seeking (Study 2). Finally, consumers' expertise level, which represents information acquired by learning and experience, shows a moderating effect on variety seeking-information link. Specifically, novice consumers are more likely to prefer variety than expert consumers when information is limited (Study 3).

Keywords: consumer behavior, consumer expertise, information adequacy, preference stability, variety seeking

1. Introduction

Imagine you are standing in front of a shelf full of yogurts at a grocery store and you are going to buy five yogurts for next week. The other situation is similar except that you buy one yogurt each day consecutively in next week. What difference does it make? You might choose more flavors of yogurts and might also try some new brands of yogurts for the first scenario. However, for the second scenario you will find your choices are narrowed to your favorite flavors and familiar brands at the end of the week. This phenomenon is widely realized as variety seeking by both psychological and marketing scholars.

Now you are looking at the packaging of the yogurts. Grocery A only provides basic information of each yogurt while grocery B offers abundant information of each yogurt. Which situation do you prefer to seek variety and what kind of information is most influential when you make that decision? The current research aims to answer this question.

As one of the most prevalent psychological phenomena, variety seeking has been frequently discussed in marketing research fields such as consumers' decision making (Barret, Feldman, & Salovey, 2002; Connolly & Ordóñez, 2003). Greater variety seeking is attributed to forces operating in the simultaneous choices as opposed to sequential consumption strategy, including uncertainty about future preferences and a desire to simplify the decision. In the case of simultaneous choice, people take into account real or imagined preference and desire for variety (e.g., Simonson, 1990). The literature posits that variety seeking is closely related to psychological theories in the following aspects: (1) people prefer to choose a more diverse consumption bundle can be explained from diversification heuristic and exaggerating anticipated satiation in psychology (Fox, Ratner, & Lieb, 2005; Colin & George, 2004). (2) Variety seeking displays greater risk seeking and freedom seeking (Levav & Zhu, 2009). Since aggregate risk of the portfolio will be less than its components separately, people prefer variety seeking to hedge the potential risk. (3) Variety seeking means people pay more attention to the impact of choices on their future tasks. Psychological explanation to this future tendency is that people have greater visibility of consequences when they are combined (Kahneman & Lovallo, 1993). (4) Myopic discounting and immediacy effect in psychology can explain consumers' tendency to put more weight on the delayed consequences (e.g., Kirby & Herrnstein, 1995).

There are also three types of information that influence consumers' decision-making process. The first type is the adequacy of information, representing information sufficiency pertaining to the product or alternative choices

(e.g., functionality, design, maintenance, etc.). The second type is consumers' preference toward certain products or brands, which represents consumers' inherent information when they make decisions. This type of information is individual-based and insusceptible to external influences. The last type of information is expertise toward certain products or brands, which can be acquired by learning and experience. These three types of information constitute consumers information resource by which they heavily rely on to make decisions on the point of purchase. Besides the categories of information, the information asymmetry between consumers and sellers also influences consumer decisions significantly. On the one hand, sellers possess full information of their products but release partial information to consumers in order to increase sales and profits. In response to this asymmetry, consumers tend to lower their expectation to the quality/functionality of the whole market and hence reduce willingness to pay for the products. Hence, information asymmetry puts a downward pressure on price and market size. In summary, the nature, quality, and adequacy of information play an important role in almost every aspect of consumers' decision making.

While the marketing literature has long highlighted the importance of variety seeking in understanding decision-making process (e.g., Newell, Lagnado, & Shanks, 2007; Simonson, 1993), this issue has received little attention from the perspective of information adequacy. In this paper, the author provides new insights into the variety-information gap in consumer behavior by examining the choice of variety seeking under different information conditions. The author proposes that information scarcity will stimulate the tendency of variety seeking; secondly, established preference would inhibit the degree of variety seeking. At last, the author proposes that consumer expertise acts as a moderator on variety seeking – information relationship. More specifically, novice consumers are more likely to prefer variety than expert consumers when information is limited.

The author begins by describing the theoretical background of variety seeking and linking this research stream with information literature. Next, the author develops research hypotheses. The author then describes three studies to test the hypothesized relationships and present the results. Finally, the author discusses the findings and their implications, consider limitations of the current study, and identify areas for future research.

2. Literature Review and Hypotheses Development

The author organizes literature review and develops hypotheses accordingly in the following three parts. The first part concerns the effect of variety seeking, which include diversification heuristic and the underlying mechanism of variety seeking. The second part focuses on information theory that rooted in market communication literature. The last part reviews the researches pertaining to consumers' expertise level and its consequences on variety seeking.

Variety seeking is hardly a new concept in marketing researches, especially to consumer behavior researches (McAlister & Pessemier, 1982). Simonson (1990) defines the effect of variety seeking as the tendency to choose more diversity during simultaneous than during sequential choice. Because people take into account real or imagined preference interactions between goods when choose simultaneously. Meanwhile there is a prevailing tendency that people prefer to take "one bite on every product", thus overall desire for variety is sort of human nature. Although firms can benefit from occupying more market segments by providing various products, variety may still backfire because consumers tend to give up studying the overload information (Gourville & Soman, 2005; Chernev, 2003). Extensive researches also show that variety seeking closely relates to other domains of consumer behavior such as impulse buying, ethical behavior, cultural studies (Punj 2011; Van Trijp, Hoyer, & Inman, 1996; Kim & Drolet, 2003). The understanding of variety seeking is also deepened from extending the research contexts into emerging markets (e.g., Grønhaugen, Dant, & Zhu, 2012) and various purchasing situations (Choi, Kim, & Yi, 2006). One representative example is that people will prefer more equal mixes of virtues and vices when making simultaneous, as opposed to sequential, choices (Read, Loewenstein, & Kalyanaraman, 1998). In this case, the combination of vices and virtue can be interpreted as a more various bundles compared to an isolation choice. Researches also connect variety seeking with business strategies such as positioning and pricing (Sajeesh & Raju, 2010).

The literature explains the mechanism of variety seeking from both psychological and behavioral perspectives. First, consumers prefer a more diverse consumption bundle because of exaggerated anticipated satiation and diversification heuristic. As Read and Loewenstein (1995) suggest, the tendency to choose more diverse sequences of consumption in simultaneous choice results in part from a tendency to exaggerate anticipated satiation, and in part from a diversification heuristic that is evoked when a decision is framed as a portfolio choice. Secondly, variety seeking is also a result of greater risk seeking. A diverse consumption bundle consists of new products or brands that consumers have not chosen before. Therefore, consumers are more likely to seek variety if they are aware of the potential risks. The third explanation about variety seeking concerns the idea that

aggregate risk of the portfolio will be less than its components. Kahneman and Lovallo (1993) find that the increased risk-taking observed in simultaneous choice occurs because people recognize that each risky choice will be combined with others, and that the aggregate risk of the portfolio will be less than that of its components. Meanwhile, on simultaneous condition, consumers tend to pay more attention to the impact of choices on their own future tasks, which cause relatively greater visibility of consequences when choices are combined.

In paper “The Market for Lemons” Akerlof discusses mainly on the uncertainty caused by asymmetric information. The author claims that in many product categories, buyers and sellers typically have asymmetric information. Sellers have private product information that buyers may not share, and vice versa. Such information asymmetry may lead to market failure. Further literatures articulate this information structure from a game theory perspective. As a matter of fact, the asymmetry of information is two-sided. On the one hand, consumers cannot obtain the real information about product attributes like quality, legality, performance and so on. On the other hand, sellers always are trying to know consumers’ characteristics and preferences to better fit their consumption situation. Therefore from the information perspective, the transactions between consumers and sellers can be concluded as dynamic games with incomplete and imperfect information.

Existing studies mainly focus on the characteristics of information and two-sided interaction between sellers and consumers (e.g., Alba & Hutchinson, 2000). However, the adequacy of information that consumer perceived and its consequences on consumption still have great potential to explore. The author predicts that the adequacy of information plays an important role on consumers’ decision on variety seeking. People who receive less information are more sensitive to uncertainty and potential risk. Consequently they will choose high variety consumption bundles. Compared to external information, consumers’ preferences stability toward products/brands are inherent and persistent (Hsee, 1996). Under the influence of loyalty and inertia, preference stability reflects consumers’ internal and unsusceptible information (Bettman, Luce, & Payne, 2008). Therefore, the author chooses established preference stability to represent internal information and proposes that stable preferences inhibit consumers to pursue variety. Based on the variety seeking effect and information influence, the author hypothesizes that:

H1: Information scarcity will stimulate the tendency of variety seeking; consumers get low information will show a higher tendency to pursue variety than high information group.

H2: Preference stability will inhibit the degree of variety seeking. Consumers who show high stability of preferences will display a lower degree of variety seeking compared to low stability consumers.

The other kind of consumers’ internal information is reflected in expertise level. Different from preference stability, expertise level can be acquired through learning and experience. Therefore, expertise level is internal but susceptible information that influence consumers’ decision-making process. Market communication studies indicate that consumer-generated review is the one of the most influential types of independent information (Chen & Xie, 2008). The new trend of consumer-generated review extends its effects by combining online and offline communication (e.g., Smith & Zook, 2011). A growing number of researches also investigate information adequacy from the perspective of social network and relationship communication (e.g., Finne & Grönroos, 2009). Compared to traditional offline word-of-mouth effect, online consumer reviews obtain greater power and faster spread speed (Zhang, Ye, Law, & Li, 2010). The other type of information generated by market communication comes from producer side. How firms use different marketing strategies to communicate product information to consumers is an important research streams regarding information disclosure strategies (Shapiro & Varian, 2013).

Consumer expertise is another critical factor by which consumers making purchase decisions, negotiating prices, and evaluating potential risks (Maheswaran, 1994). Alba & Hutchinson (1987) find that experts are more able than novices to infer intended product benefits from technical information and to infer likely technical causes of claimed benefits. At the same time, experts are better at correctly understanding product attributes based on the available information offered by the seller. Combining the market communication theories, Bickart and Schindler (2001) suggests that seller-created product information is more useful to more sophisticated consumers (i.e., experts) while consumer-created product information can help less-sophisticated consumers (i.e., novices) in finding their best-matched products. Thus, a main difference between experts and novices consumers is the way they use obtainable information from market communication process, even the information content stays the same. Based on the above discussion, the author proposes that:

H3: Expertise level of consumers will display a moderating effect on variety seeking when information is limited. Thus, novice consumers are more likely to prefer variety as oppose to expert consumers.

3. Experimental Studies

3.1 Study 1: Variety Seeking and Information Level

Study 1 aims to test H1 and H2. H1 claims that information scarcity will stimulate the tendency of variety seeking; consumers get low information will show a higher tendency to pursue variety than high information group. In addition, H2 proposes that preference stability will inhibit the degree of variety seeking. Consumers who possess high stability of preferences will display a lower degree of variety seeking compared to low stability consumers.

3.1.1 Method

Participants: 100 Tsinghua University students were asked to complete a one-page questionnaire. 93 completed all questions, and only these respondents' data are reported below.

Procedure: Respondents received a one-page questionnaire with questions measuring information and preferences. They were told that school's training center would provide one functional beverage to each consumer every day. The beverages are free and each member of this training center could get one drink out of seven types of functional beverages. There are two version of questionnaire: high-information version and low information version. They are organized as follows:

Table 1. Comparison of information adequacy between two groups

Attributes	FULL INFO	PARTIAL INFO
1. Flavor	✓	✓
2. Origin	✓	✓
3. Ingredient	✓	✓
4. Freshness	✓	✓
5. Function	✓	
6. Nutrition	✓	
7. Brand	✓	
8. Promotion	✓	
9. Popularity	✓	

Half of the participants got the simultaneous condition in which they were asked to choose three beverages at the same time for the next three days of training. The other group of participants was asked to choose one beverage each day and choose three times sequentially. All of the respondents were asked to evaluate the perceived sufficiency of information (1=*definitely not enough* to 9=*definitely yes*) and the preference to seven kinds of functional beverages (1=*definitely dislike* 9=*definitely like*). 100 students were randomly get one of the two versions of questionnaire. For each of the two items, participants responded on a nine-point scale ranging from 1=*definitely not* to 9=*definitely yes*.

3.1.2 Results

- Manipulation check

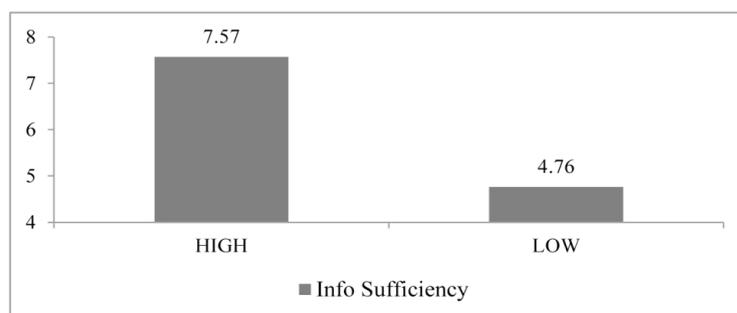


Figure 1. Perceived information adequacy evaluated by research participants

The mean of perceived information sufficiency of high information group is 7.57 and the mean of low information group is 4.76. Result of the independent t -test indicates that the perceived information sufficiency of high-info group is significantly higher than low-info group ($t = 11.61, p < 0.001$). The manipulation of different information size is successful.

● Main Effects

The author classifies the degree of variety seeking according to the number of different beverages each participant chose. Specifically, participant who chose three types of beverages are classified as high variety seeking ($H=3$). Participants chose two different beverages among three choices are classified as middle variety seeking ($M=2$) and participants made identical choices among three times are classified as low variety seeking ($L=1$). The average level of variety seeking for the low information group (2.72) is significantly greater than high information group (2.44). Thus people who get scarce information tend to choose more diversely than sufficient group. Therefore, the main effect ($H1$) is supported.

● Graphic Description

Figure 2 provides detailed information about the level of variety seeking on each condition. SIM stands for choosing three beverages simultaneously while SEQ stands for choosing sequentially. Blue group receives high information while red group receives limited information. Table 2 shows that (1) low-information group (blue) shows higher variety seeking compared to high information group (red), and (2) variety seeking of simultaneous choices (SIM) conditions are greater than making sequential decisions (SEQ).

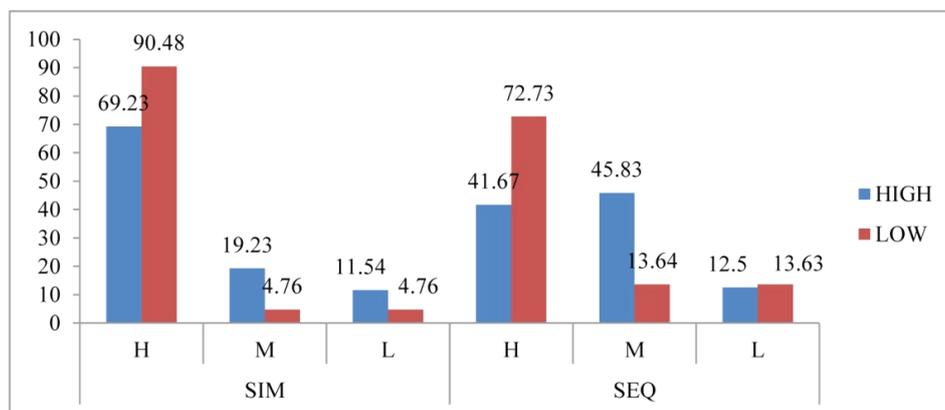


Figure 2. Variety seeking by high/low information adequacy (in percentage)

In PASW software the author uses chi-square statistic to analyze the data. Consistent with $H1$, subjects in the high-information condition were significantly less likely to select different items than those in the low-information condition. The chi-square comparing these two conditions (High vs. Low) is 7.90 ($df = 2$), which is statistically significant ($p = 0.02$). Similarly, in all information conditions subjects who made choices sequentially were less likely to select variety than subjects who simultaneously made multiple choices for sequential consumption. The chi-square of variety seeking compared SIM/SEQ condition is 5.51 ($df = 2$), which is also highly statistically significant ($p < 0.01$).

3.2 Study 2: Variety Seeking and Preference Stability

$H1$, which claims that information scarcity stimulates variety-seeking effect, is supported in study 1. In Study 2, consumers' inherent information, preference stability, is taken into consideration. The author predicts that the preference stability will play an important role in information adequacy and variety seeking such that:

- i. Consistent with Hypothesis 1, information scarcity stimulates the tendency of variety seeking; consumers get low information show a higher tendency to pursue variety than high information group (support $H1$).
- ii. Preference stability inhibits consumers seeking variety. Consumers who show high stability of preferences display a lower degree of variety seeking compared to low stability consumers (support $H2$).

3.2.1 Study 2A. Experimental Perspective

The author uses the same data from Study 1 to conduct the ensuing empirical analysis. All participants are required to evaluate their preferences towards all of the seven beverages in three consecutive days. Participants show consistent preferences (changes below the median) are classified into high stability group while participants show different preferences in three days are classified into low stability group (changes above the median). The variables are organized as follows:

Table 2. Variables in study 2

Variables	Condition I	Condition II
Information	High (abundant info.)	Low (scarce info.)
Preference stability	High (blue)	Low (red)
Variety Seeking	High (H=3)	Middle (M=2); Low (L=1)

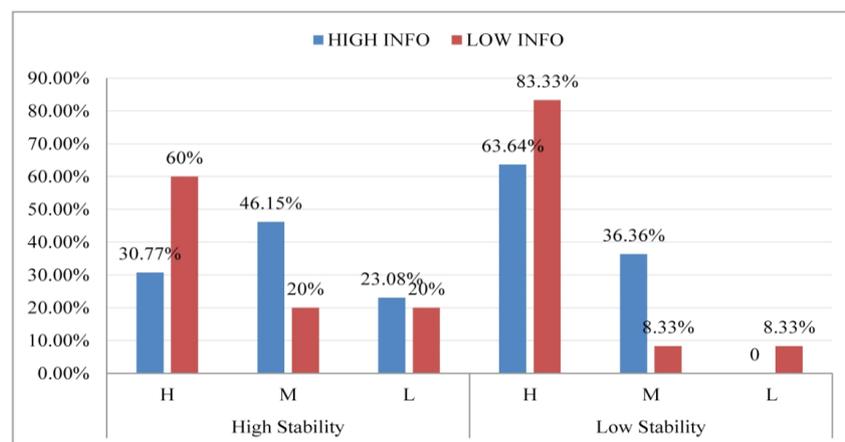


Figure 3. Variety seeking by established preference stability (in percentage)

Figure 3 indicates the impact of preference stability on the information-variety seeking link. Consistent with Study 1, the percentage of high variety seeking level in low-information group is greater than high-information group for both high-stability (blue) and low-stability (red) groups. The second hypothesis is supported that the consumer tends to choose more diverse consumption bundle when information is limited. Also, people who have high stability of preferences show a lower tendency to prefer variety opposed to low-stability consumers, in support of H2.

In PASW software the author used chi-square to analyze the data of study 2. In information condition (High vs. Low), statistics show a significant high propensity on variety seeking in low-info group compared to high-info group ($\chi^2 = 4.82, p < 0.01$). Meanwhile, in preference stability condition (High vs. Low), comparison of the effect of variety seeking is also significant ($\chi^2 = 5.45, p = 0.07$).

3.2.2 Study 2B. Robustness Check: A Modeling Perspective

In this section the author adopts a choice model to evaluate the numerical coefficient that information level, choice mode (SIM vs. SEQ) and preference influences on variety seeking level. Since the degree of variety seeking is measured as the different types of beverages that participants chose, dependent variable only have three results: low variety seeking (L=1), middle variety seeking (M=2), and high variety seeking (H=3). Thus, the degree of variety seeking should be considered as a discrete variable. Hence, a choice model is appropriate for the following analysis.

The dependent variable in the choice model: variety-seeking level is considered as discrete data. Therefore high-variety, middle-variety and low-variety are no longer considered being specific numbers but discrete choices. Consistent with H1 and H2, the coefficient of information is significantly negative (-0.5395, $p = 0.02$) and the choice mode became significant as well (-1.9736, $p = 0.07$). This result confirms the main effect that information scarcity significantly stimulate variety seeking.

3.3 Study 3: Expertise Level and Variety Seeking

Results of Study 1 and study 2 have shown that information scarcity would stimulate variety seeking and low information group is more likely to choose high-variety level as opposed to high-information group (hypothesis 1). In addition, people who have high preference stability prefer to choose low-variety bundle (hypothesis 2). Study 3 aims to test the third hypothesis that the expertise level could also influence consumers' decision on variety seeking. The author predicts that in study 3,

- i. Consistent with Hypothesis 1, consumers receiving scarce information will show a higher tendency to pursue variety than high information group.
- ii. Expertise level of consumers will display a moderating effect on variety seeking when information is limited. Thus, novice consumers are more likely to prefer variety as oppose to expert consumers. (H3)

3.3.1 Method

Participants: 100 Peking University students were asked to complete a one-page questionnaire. 96 participants completed all questions, and only these respondents' data are reported below.

Procedure: Respondents received a one-page questionnaire with questions measuring information, preference and expertise level. Similar to Study 1, they were told that a training center would provide one functional beverage to each consumer every day. The beverages are free and each member of this training center could get one drink out of 7 types of functional beverages. The questionnaires contain to types: high-information version and low information version.

Table 3. Variables in study 3

Variables	Condition I	Condition II
Information	High	Low
Preference	High	Low
Expertise Level	High (above median)	Low (below median)
Variety Seeking	High (2)	Middle (2) Low (1)

Half of the participants get the simultaneous condition in which they were asked to choose 3 beverages at the same time for the next three days of training. The other group of participants was asked to choose one beverage each day and choose three days sequentially. All of the respondents were asked to evaluate the perceived sufficiency of information (1=*definitely not enough* to 9=*definitely yes*) and the preference to seven kinds of functional beverages (1=*definitely dislike* 9=*definitely like*). Then they were asked to evaluate their seriousness about their choices (1=*definitely random*; 9=*definitely serious*) and the expertise level about functional beverages (1=*completely unfamiliar*; 9=*definitely expertise*). 100 students were randomly get one of the four versions of questionnaire. For each of the two items, participants were asked to ranging on a 9-point from 1=*definitely not* to 9=*definitely yes*.

3.3.2 Results

- Manipulation Check

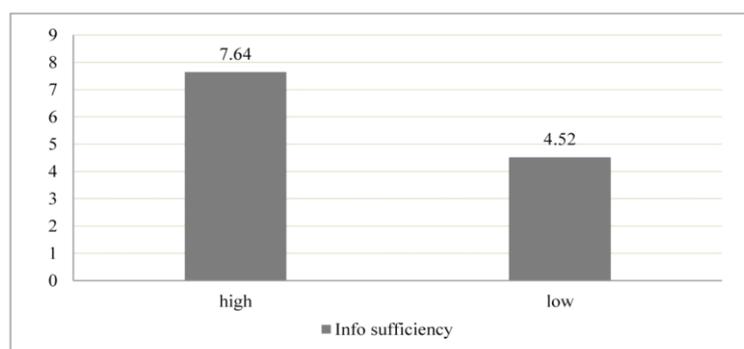


Figure 4. Perceived information adequacy evaluated by participants in study 3

The mean of perceived information sufficiency of high information group is 7.64; while the mean of low information group is 4.52. The result of independent t -test indicates that the perceived information sufficiency of high-info group is significantly higher than low-info group ($t=14.44$, $p < 0.001$). The manipulation of different information sizes is successful.

- Main Effect

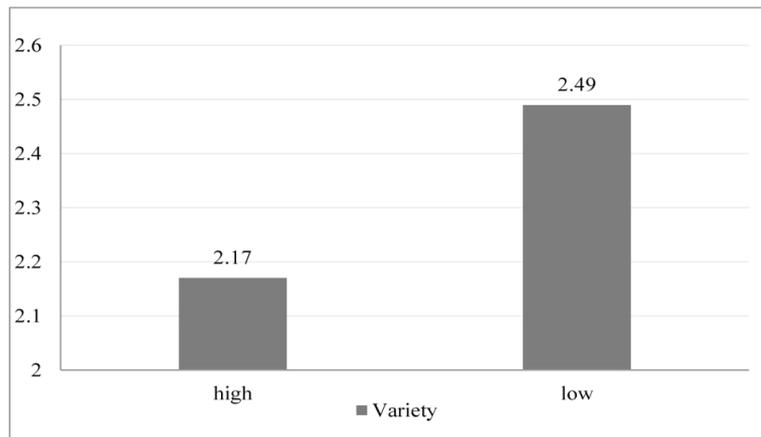


Figure 5. Variety seeking and information adequacy in study 3 (main effect)

Hypothesis 1 is supported in Study 3 again, that the variety seeking could be stimulated by limited information. In this case, the difference on variety level increased from 2.17 (high information) to 2.49 (low information) significantly. ($t = 3.211$, $p = 0.04$).

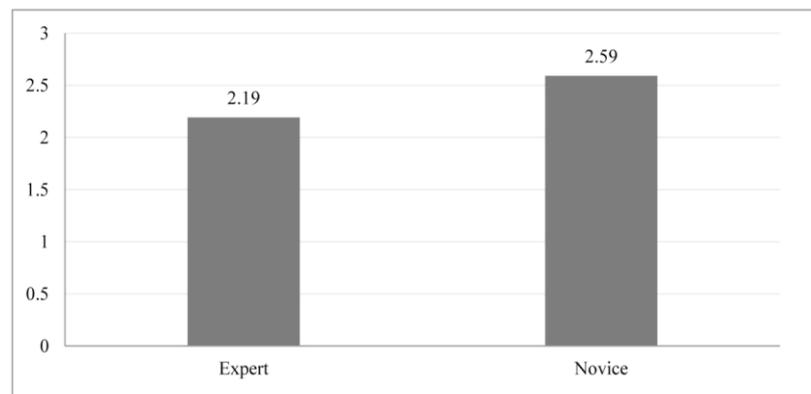


Figure 6. Variety seeking and consumers' expertise level (H3)

Figure 6 shows that the difference of variety seeking between high-expertise level and low-expertise level is significant. High-expertise level consumers are more confident about their choices and consequently show a low degree of variety seeking, relative to low expertise-level consumers ($t = 2.27$, $p = 0.01$)

3.3 Alternative Explanation: Serious or Random Choice?

One critical question regarding this experimental design is that consumers prefer variety whether out of serious consideration or from random thoughts. If they all treat their choices (in this case, beverages) casually, then the high variety level has nothing to do with expertise nor information. In order to check this possibility, the participants were asked to identify the certainty of their choices (1= *completely random*, 9 = *completely serious*). Figure below shows the different level of seriousness between high/low expertise groups.

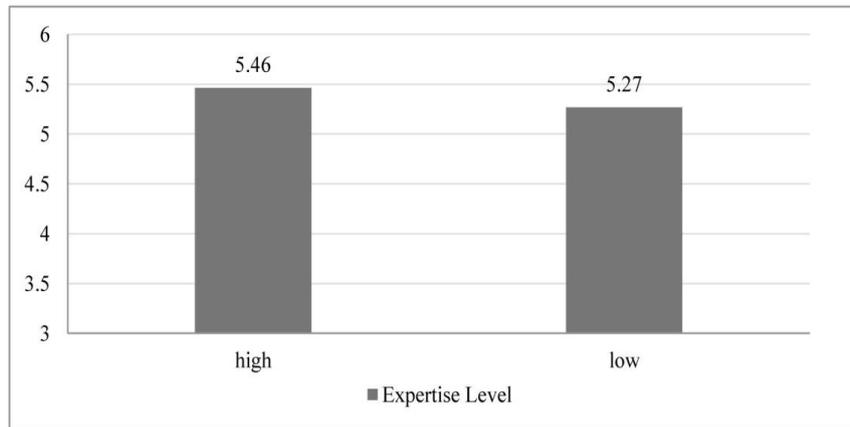


Figure 7. Seriousness of choice in high/low expertise level

The level of seriousness between high expertise level (5.46) and low expertise level (5.27) groups are close to each other ($p = 0.57$). Therefore, the alternative explanation about choice seriousness can be excluded.

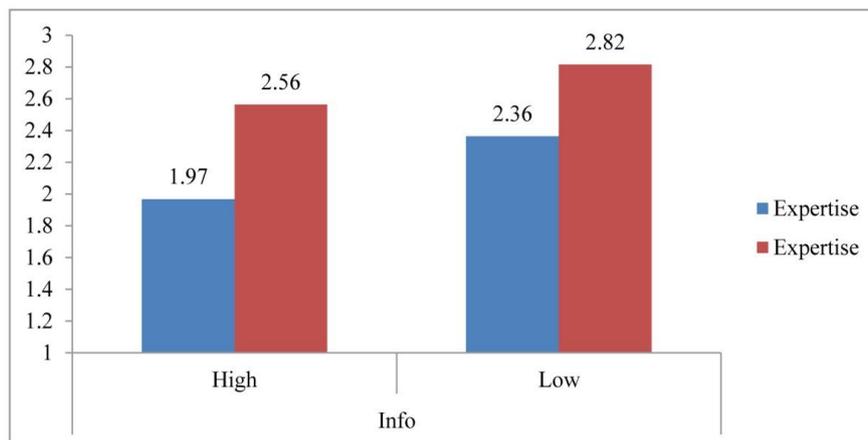


Figure 8. Interaction of expertise level, information adequacy, and variety seeking

Figure 8 comprehensively shows the interaction effects of information adequacy, expertise level and variety seeking. Consistent with study 1, under low-information condition, variety seeking is significantly higher in both expertise levels ($p = 0.02$). Meanwhile, low-expertise consumers are more likely to choose a diverse bundle than high-expertise consumers ($p = 0.04$).

4. Discussions and Implications

Both marketing researchers and practitioners realize the prevalence of variety seeking and aims to explore its potential on influencing and predicting consumer behavior. However, this famous psychological phenomenon receives little attention from an information perspective. As a matter of fact, the information, from both external environment (provided by producers) and consumers' internal characteristics (e.g., preference stability and expertise level) are high influential to the degree of variety seeking. Therefore, it is necessary and highly valuable to study this research gap by examining the impact of information on variety seeking. Based on experimental results from three studies, this paper theoretically develops and empirically examines the significant impacts of information adequacy on variety seeking. Study 1 indicates that information scarcity stimulates the tendency of variety seeking, in support of H1. Study 2 confirms that consumers' preference stability would inhibit the degree of variety seeking. In addition, study 3 shows that the expertise level act as a moderating effect on variety seeking when information is limited. More specifically, novice consumers are more likely to prefer variety than expert consumers when information is limited. All of three hypotheses were supported by experimental studies.

4.1 Theoretical Contributions

This paper contributes to the marketing and psychological literature in three ways. First, the author identifies three distinct aspects of marketing information that influential to consumers' decision-making process. While the literature has long highlighted the importance of firms' marketing communication strategy in influencing consumers' choices, this issue has received little attention from consumers' perspective. This paper offers a new conceptualization of consumers' information that is grounded in marketing communication literature (e.g., Shapiro & Varian, 2013; Chen & Xie, 2008). Specifically, both external and internal information influences consumers' degree of variety seeking at the point of purchase. External information is provided by producers or markets, including product quality/functionality, brand features, and third party reviews, etc. Internal information that influences variety seeking are consumers' preference stability (inherent) and expertise level (learned). The author posits that the adequacy of external information, the stability of consumers' preferences, and the expertise level actively influence the degree of variety seeking. Second, this paper provides some of the first experimental evidence supporting the widely held but previously untested link between marketing information strategy and variety seeking. The experimental results indicate that information scarcity, preference instability and low expertise level all stimulate higher degree of variety seeking. Thus, the investigation of linkages between marketing communication and variety seeking is of great theoretical importance to the researches regarding the interaction between psychological theories and marketing implementations. Third, the results of experimental studies deepen the understanding of the variety seeking. Prior research has identified the extensive existence of variety seeking across multiple disciplines. However, little study has focused on the mechanism of variety seeking and its antecedent factors. By examining this issue from an information perspective, the author identifies the underlying information mechanism of variety seeking and explores the potential moderators for this mechanism.

4.2 Managerial Implications

This study also has useful implications for managers. First, experimental results highlight the importance of information scarcity on variety seeking. Firms have to take effective information disclosure strategy in response to increasing expectation and fierce competition. Since abundant information would inhibit the effect of variety seeking, firms have to identify their product categories and then fit them into appropriate information disclosure strategies. When within-category product category in which variety seeking could benefit both sides of the market, firms need to pay attention to control the adequacy of information; while in brand-level competition where variety seeking sometimes backfires, providing sufficient information could maintain brand's credibility and enhance customer loyalty as well (e.g., Herrmann & Hetimann, 2006). Second, the comprehensive framework of information and its significant impact on variety seeking indicate that information is also a two-way communication. On the one hand, firms should be cautious about information disclosure to consumers, as previous implication suggest. On the other hand, firms are advised to collect information from consumers' preferences, expertise levels and feedbacks to better planning and executing information strategy, and hence achieve higher performance. Third, experimental results suggest consumers to actively collect and use information to control for the risks accompanied by variety seeking. Both collecting external information (provide by produces and market communication) and making full use of own knowledge/experience can effectively reduce the risks of wrong choices and impulsive consumption.

5. Limitations and Future Research

This paper still has potential to explore. First, three studies were conducted through questionnaire. The data from real purchase activities could better reveal the linkage between information and variety seeking. For instance, this paper begins with an example of yogurt. The result will be more convincing and closer to consumer behavior if the data was collected by a field experiment from a real local grocery store. Second, future research can take the product characteristics into consideration. The current research investigated consumers' choice on beverages, which have low switching costs. However, examining the variety seeking on expensive and durable products would result in interesting comparisons to the current paper. Finally, future study should take participants age into consideration. The current study chose university students as participants. However, studies show that the tendency of variety seeking is negatively associated with age (e.g., Novak & Mather, 2007). Therefore, it is desirable to investigate the information-variety seeking link across various ages of consumers in the future.

References

- Akerlof, G. A. (1970). The market for "lemons": Quality uncertainty and the market mechanism. *The Quarterly Journal of Economics*, 84(3), 488-500. <http://dx.doi.org/10.2307/1879431>
- Alba, J. W., & Hutchinson, J. W. (1987). Dimensions of consumer expertise. *Journal of Consumer Research*,

- 411-454. <http://dx.doi.org/10.1086/209080>
- Alba, J. W., & Hutchinson, J. W. (2000). Knowledge calibration: What consumers know and what they think they know. *Journal of Consumer Research*, 27(2), 123-156. <http://dx.doi.org/10.1086/314317>
- Barrett, L. F., & Salovey, P. (Eds.). (2002). *The wisdom in feeling: Psychological processes in emotional intelligence*. Guilford Press.
- Bettman, J. R., Luce, M. F., & Payne, J. W. (2008). Preference construction and preference stability: Putting the pillow to rest. *Journal of Consumer Psychology*, 18(3), 170-174. <http://dx.doi.org/10.1016/j.jcps.2008.04.003>
- Bickart, B., & Schindler, R. M. (2001). Internet forums as influential sources of consumer information. *Journal of Interactive Marketing*, 15(3), 31-40. <http://dx.doi.org/10.1002/dir.1014>
- Chen, Y., & Xie, J. (2008). Online consumer review: Word-of-mouth as a new element of marketing communication mix. *Management Science*, 54(3), 477-491. <http://dx.doi.org/10.1287/mnsc.1070.0810>
- Chernev, A. (2003). When more is less and less is more: The role of ideal point availability and assortment in consumer choice. *Journal of Consumer Research*, 30(2), 170-183.
- Choi, J., Kim, B. K., Choi, I., & Yi, Y. (2006). Variety seeking tendency in choice for others: Interpersonal and intrapersonal causes. *Journal of Consumer Research*, 32(4), 590-595. <http://dx.doi.org/10.1086/500490>
- Colin, C., & George, L. (2004). *Behavioral economics: Past, present, future*. Princeton: Princeton University Press.
- Connolly, T., & Ordóñez, L. (2003). *Judgment and decision making*. John Wiley & Sons, Inc.
- Finne, Å., & Grönroos, C. (2009). Rethinking marketing communication: From integrated marketing communication to relationship communication. *Journal of Marketing Communications*, 15(2-3), 179-195. <http://dx.doi.org/10.1080/13527260902757654>
- Fox, C. R., Ratner, R. K., & Lieb, D. S. (2005). How subjective grouping of options influences choice and allocation: Diversification bias and the phenomenon of partition dependence. *Journal of Experimental Psychology: General*, 134(4), 538. <http://dx.doi.org/10.1037/0096-3445.134.4.538>
- Gourville, J. T., & Soman, D. (2005). Overchoice and assortment type: When and why variety backfires. *Marketing Science*, 24(3), 382-395. <http://dx.doi.org/10.1287/mksc.1040.0109>
- Grünhagen, M., Dant, R. P., & Zhu, M. (2012). Emerging consumer perspectives on american franchise offerings: Variety seeking behavior in China. *Journal of Small Business Management*, 50(4), 596-620. <http://dx.doi.org/10.1111/j.1540-627X.2012.00368.x>
- Herrmann, A., & Heitmann, M. (2006). Providing more or providing less? Accounting for cultural differences in consumers' preference for variety. *International Marketing Review*, 23(1), 7-24. <http://dx.doi.org/10.1108/02651330610646278>
- Hsee, C. K. (1996). The evaluability hypothesis: An explanation for preference reversals between joint and separate evaluations of alternatives. *Organizational Behavior and Human Decision Processes*, 67(3), 247-257. <http://dx.doi.org/10.1006/obhd.1996.0077>
- Kahneman, D., & Lovallo, D. (1993). Timid choices and bold forecasts: A cognitive perspective on risk taking. *Management Science*, 39(1), 17-31. <http://dx.doi.org/10.1287/mnsc.39.1.17>
- Kim, H. S., & Drolet, A. (2003). Choice and self-expression: a cultural analysis of variety-seeking. *Journal of Personality and Social Psychology*, 85(2), 373. <http://dx.doi.org/10.1037/0022-3514.85.2.373>
- Kirby, K. N., & Herrnstein, R. J. (1995). Preference reversals due to myopic discounting of delayed reward. *Psychological Science*, 6(2), 83-89. <http://dx.doi.org/10.1111/j.1467-9280.1995.tb00311.x>
- Levav, J., & Zhu, R. J. (2009). Seeking freedom through variety. *Journal of Consumer Research*, 36(4), 600-610. <http://dx.doi.org/10.1086/599556>
- Maheswaran, D. (1994). Country of origin as a stereotype: Effects of consumer expertise and attribute strength on product evaluations. *Journal of Consumer Research*, 354-365. <http://dx.doi.org/10.1086/209403>
- McAlister, L., & Pessemier, E. (1982). Variety seeking behavior: An interdisciplinary review. *Journal of Consumer Research*, 311-322. <http://dx.doi.org/10.1086/208926>
- Newell, B. R., Lagnado, D. A., & Shanks, D. R. (2007). *Straight choices: The psychology of decision making*.

Psychology Press.

- Novak, D. L., & Mather, M. (2007). Aging and variety seeking. *Psychology and Aging*, 22(4), 728. <http://dx.doi.org/10.1037/0882-7974.22.4.728>
- Punj, G. (2011). Impulse buying and variety seeking: Similarities and differences. *Journal of Business Research*, 64(7), 745-748. <http://dx.doi.org/10.1016/j.jbusres.2010.07.007>
- Read, D., Loewenstein, G., & Kalyanaraman, S. (1999). Mixing virtue and vice: Combining the immediacy effect and the diversification heuristic. *Journal of Behavioral Decision Making*, 12(4), 257-273. [http://dx.doi.org/10.1002/\(SICI\)1099-0771\(199912\)12:4%3C257::AID-BDM327%3E3.0.CO;2-6](http://dx.doi.org/10.1002/(SICI)1099-0771(199912)12:4%3C257::AID-BDM327%3E3.0.CO;2-6)
- Sajeesh, S., & Raju, J. S. (2010). Positioning and pricing in a variety seeking market. *Management Science*, 56(6), 949-961. <http://dx.doi.org/10.1287/mnsc.1100.1158>
- Shapiro, C., & Varian, H. R. (2013). *Information rules: A strategic guide to the network economy*. Harvard Business Press.
- Simonson, I. (1990). The effect of purchase quantity and timing on variety-seeking behavior. *Journal of Marketing Research*, 150-162. <http://dx.doi.org/10.2307/3172842>
- Simonson, I. (1993). Get closer to your customers by understanding how they make choices. *California Management Review*, 35(4), 68-84. <http://dx.doi.org/10.2307/41166755>
- Smith, P. R., & Zook, Z. (2011). *Marketing communications: Integrating offline and online with social media*. Kogan Page Ltd.
- Zhang, Z., Ye, Q., Law, R., & Li, Y. (2010). The impact of e-word-of-mouth on the online popularity of restaurants: A comparison of consumer reviews and editor reviews. *International Journal of Hospitality Management*, 29(4), 694-700. <http://dx.doi.org/10.1016/j.ijhm.2010.02.002>

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