



“First in first out” or “last in first out”: Presentation of information order on evaluation of utilitarian products



Matthew Tingchi Liu^a, Ian Phau^{b,*}, Min Teah^b

^a University of Macau, China

^b Curtin University, Australia

ARTICLE INFO

Keywords:

Information order effect
Assimilation effect
Contrast effect
Utilitarian product
Product evaluation

ABSTRACT

This study investigates how the presentation order of information may affect the evaluation of utilitarian products. Three experiments with different conditions (hedonic/utilitarian product; experience/search advertisement; unattractive/attractive packaging) were conducted with a total of 334 participants in Macau. This study tests both the affective and cognitive product evaluation. The findings indicate that assimilation effect occurs if the search advertisement of a utilitarian product is presented before and if the consumers have better cognitive evaluation. When an experience advertisement is presented before, contrast effect occurs and affective evaluation is reduced. However, when unattractive packaging is presented before, assimilation effect occurs, and cognitive evaluation is increased. When attractive packaging is presented before, the consumers demonstrate a positive cognitive and affective evaluation for the utilitarian product. These findings contribute to a better understanding of the role of presentation order on the consumers' evaluation of utilitarian products from theoretical and managerial perspectives.

1. Introduction

When consumers first view a product, its physical appearance may influence the consumers' perception based on their global beliefs and personal preference. This initial impression may be distinguished and influenced by additional details and information provided later. This direct emotional reaction could create either favorable or unfavorable feelings, but if this feeling is muddled with the information provided later, the product evaluation will be affected as well (Smith, 1993; Yeung and Wyer, 2004). Several studies have investigated whether additional product information shown before or after sampling can enhance the product evaluation (e.g. Biswas et al., 2010; Biswas et al., 2009; Wilcox et al., 2011). Interestingly, presenting undesirable information after sampling a hedonic product such as chocolate and wine, received better evaluation than presenting before sampling (Yeung and Wyer, 2004). By contrast, if the desirable information is presented, the results are inverted (Biswas et al., 2010). Bagchi and Davis (2012) demonstrate how presentation order influences package evaluations and decision under multiple levels of package size and unit price calculation difficulty. Theoretically, utilitarian products are very different from hedonic products (Babin et al., 1994). They are more cognitive in nature, and their judgment should be more based on information content, and if the information are the same, the evalua-

tion should be the same. The question then arises as to whether utilitarian product evaluation is influenced by information order in a similar way. Also, do the consumers evaluate the utilitarian products for different types of advertisements and packaging?

This study addresses the aforementioned research gap and contributes to the marketing literature in the following ways: (1) extant literature largely focuses on the hedonic products in the investigation of information order effect (Biswas et al., 2009, 2010; Wilcox et al., 2011). This study therefore expands on product category by testing utilitarian products. (2) Previous studies paid attention to the likelihood evaluation of the tested product (Biswas et al., 2009; Ge et al., 2012). This study includes both affective and cognitive product evaluation, which may generate more complete ideas to the product information order effect on utilitarian product. (3) This study includes two more conditions (search/experience advertisement and unattractive/attractive packaging), which is scarcely researched, but often occurs in real life and business practice.

2. Literature review and hypotheses development

2.1. Product information order effect

In seeking the effect of information order on product evaluation,

* Correspondence to: Curtin University, The School of Marketing, GPO Box U1987, Perth, Western Australia 6845, Australia.
E-mail address: ian.phau@cbs.curtin.edu.au (I. Phau).

several studies have examined the order effect with a set of multiple information. The belief adjustment theory explains the role of primary, recency, and no effect when consumers are presented with a series of information in a particular order. Studies find that when multi-product information is provided, primary effect will result in better recall of information that is received first; while recency effect will lead to the latest information to be better recalled (e.g. Smith, 1993; Shteingart et al., 2013; Gürhan-Canli, 2003). Buda and Zhang (2000) find that recency effect has a stronger impact than primacy effect on consumer product evaluation. Wilcox et al. (2011) introduce the assimilation and contrast effect. They show that the assimilation effect influences the consumer product evaluation better when information is desirable as compared to when it is undesirable. On the other hand, contrast effect influences the evaluation more negatively. Further, the elaboration likelihood model (ELM) suggests that a stimulus can influence the persuasion process in two major ways; either as the peripheral cues, which may serve as persuasive arguments or as the direction of message elaboration (Petty and Cacioppo, 1986). In our study, we are interested in examining how the information order might influence the extent to which the consumers evaluate the utilitarian products.

The message framing may vary across different conditions and context of product types (Woodside and Singer, 1994). Wilcox et al. (2011) conducted the experiment to examine the effects of (1) the nature of product information (good or bad) and (2) the timing of information provided (before sampling or after sampling) on the affective evaluation of food product quality. The result shows that desirable information presented before sampling can elicit an assimilation effect and encourages consumers to make a positive evaluation of the product. By contrast, desirable information presented after sampling may reduce consumer's favorable evaluations of the product.

2.2. Hedonic and utilitarian products

The evaluation of hedonic products is highly contingent on the consumer experience and the affective reactions from the experience (e.g. Dhar and Wertenbroch, 2000; Madzharov et al., 2016). Evaluations of utilitarian products tend to be based on functional cues like product information, whereby consumers utilize a more cognitive assessment process (Biswas et al., 2010). Hence, the cognitive structure is the key component in assessing the consumption of the utilitarian products. Although utilitarian products are more related to cognitive evaluation, some studies find that when search information is presented before sampling of the product (e.g. quality, duration, country of origin, etc.), there is added value in the affective evaluation of the product (Micu and Coulter, 2012). Considering the role of cognition in the utilitarian context and effect of presentation order, the following hypotheses are proposed:

H1. For hedonic products, providing information after presentation will positively influence affective evaluations; while for utilitarian products, it will negatively influence the affective evaluation.

H2. For utilitarian products, providing information after presentation will negatively influence cognitive evaluations; while providing information before will positively affect cognitive evaluations.

2.3. Product information presentation

For hedonic products, the focus is on affective evaluations, defined here as the direct feeling consumers get from the experience (Voss et al., 2003). Studies argue that cognitive evaluation occurs alongside affective evaluation for hedonic products, depending on the information provided to the consumer (Yeung and Wyer, 2004). Literature further suggests that the order in which information is provided will result in differing cognitive and affective evaluation interactions (Yeung and Wyer, 2004). Consumers often make a product judgment after they have acquired product information (Park, 1995). Previously, Peterson

et al. (1997) indicate that different product types need different information to promote. The first step is to classify products and services as being either search good or experience good. Features of a search good can be evaluated from externally provided information, whereas an experience good needs to be personally inspected or tried. If the features of a search good can be objectively assessed using readily available information, the Internet could serve significant transaction and communication functions, hence affect transaction channel and communication channel intermediaries involved with the good. Past studies also find that people who are presented with an advertisement containing utilitarian cues would judge from cognitive consideration without affective influence; while hedonic advertising cues would elicit emotional considerations (e.g. Yeung and Wyer, 2004). Hence, we expect emotional advertising cues should have a similar relationship with the experience attribute, and it should add no value to cognitive evaluations but to benefit affective evaluations. Thus, the following hypotheses are proposed:

H3. For utilitarian products, advertisements with experience attributes will positively influence affective evaluations after consumers are presented with the product; while there will be no significant difference when providing cognitive information, regardless of information order.

H4. For utilitarian products, advertisements with search attributes will positively influence cognitive evaluations before consumers are presented with the product; while there will be no significant difference when providing emotional information, regardless of information order.

2.4. Product first impression

Research suggests that consumers presented with any product would conduct an automatic appraisal and develop a first impression of the product through the experience (Nowlis and Shiv, 2005; Shteingart et al., 2013). Yeung and Wyer (2004) indicate that product picture and product attitude information could elicit emotional reactions from consumers for both hedonic and utilitarian products. They find that consumers' emotions have a strong positive effect on hedonic product evaluation, but has a slightly contrasting effect on utilitarian product evaluation. Drawing on these findings, this present study proposes that product packaging could elicit emotional reactions upon consumers' formation of first impressions. It is proposed that unattractive packaging may elicit negative impressions of the product. However, when presented with a utilitarian product, this negative impression may contradict the cognitive evaluation based on the product functionalities resulting in the existence of information order.

H5. For utilitarian products, providing information after presenting attractive packaging will positively influence consumers' affective evaluation of the product; while there will be no significant difference when presenting unattractive packaging, regardless of information order.

H6. For utilitarian products, providing information before presenting unattractive packaging will positively influence consumers' cognitive evaluation, while there will be no significant difference when presenting an attractive packaging, regardless of information order.

3. Experiment 1

3.1. Hedonic and utilitarian product selection and pretest

The first experiment aims to test the information order effect on hedonic and utilitarian products (H1 and H2). Firstly, we distinguished hedonic and utilitarian products. Based on two dimensional multi-item scales from Voss et al. (2003), a pretest with 77 white collar employees aged from 25 to 36, who did not participate in the main experiment,

were asked to rate four products (movie, magazine, alkaline battery, sports bottle). They rated each product against five hedonic dimensions (not fun/fun, dull/exciting, not delightful/delightful, not thrilling/thrilling, and unenjoyable/enjoyable; Cronbach's Alpha=0.960) and five utilitarian dimensions (ineffective/effective, unhelpful/helpful, not functional/functional, unnecessary/necessary, and impractical/practical; Cronbach's Alpha=.916) along a seven point scale. Results show the movie to be more hedonic oriented ($M_{\text{hed}}=5.12$ versus $M_{\text{uti}}=3.19$; $t=2.51$, $p < .01$), and alkaline battery is more utilitarian oriented ($M_{\text{hed}}=2.65$ versus $M_{\text{uti}}=4.90$; $t=2.33$, $p < .01$). Therefore, movie and alkaline battery were chosen as the stimulus in the experiment. The hedonic (M_{hed}) and utilitarian (M_{uti}) dimension points of four products: Movie ($M_{\text{hed}}=5.97$ and $M_{\text{uti}}=3.19$), magazine ($M_{\text{hed}}=5.10$ and $M_{\text{uti}}=5.21$), alkaline battery ($M_{\text{hed}}=2.65$ and $M_{\text{uti}}=4.90$), and sports bottle ($M_{\text{hed}}=3.64$ and $M_{\text{uti}}=4.70$).

3.2. Methodology

3.2.1. Samples

Participants comprised of 109 white collar employees working in Macau (53% female, age range: 21–40 years old). The experiment employed a 2 (information order: before and after) by 2 (product type: hedonic and utilitarian) between-subjects design. About 20–27 participants were randomly assigned to each cell.

3.2.2. Procedure

Participants were gathered for a corporate training while the experiment was conducted just before the class started. Participants were informed that a marketing research company would like them to evaluate an existing product. Two products were to be evaluated (movie and alkaline battery). First, participants were divided into two groups: “before-condition” and “after-condition”; depending on when product information was provided. Each group was divided into two cells and the participants in each cell could evaluate only one product. Participants were provided product information to read in text format in the “before-condition”. After three to four minutes, they were either shown the packaging of individual batteries or a four-minute movie trailer depending on which product type group participants belonged to (utilitarian or hedonic). Participants were then asked to fill in the evaluation form. The product photography or movie trailer was shown in the screen first in the “after-condition”. Thereafter, participants were provided product information to read in text format. After three to four minutes, participants were asked to fill in the evaluation form.

3.2.3. Measurement

This experiment tested both affective and cognitive product evaluation. Affective product evaluation was measured by rating purchase likelihood (adapted from Melnyk et al. (2012)) with a seven-point semantic differential scale (not at all likely=1; very likely=7). Cognitive product evaluation was measured by a two-item seven-point semantic differential scale (low quality vs. high quality; not at all reliable vs. highly reliable) with reference from Biswas et al. (2009). ANOVA was used to compare the results. Since it is not appropriate to test cognitive evaluations of hedonic products (movie), and the main focus for testing in this study, only affective evaluation is tested in the experiment.

3.2.4. Manipulation check

To test the original affective and cognitive evaluation, 29 white collar employees were invited to rate the products. Two products were shown to the participants without any information. For the affective evaluation, the mean rate of the hedonic product (movie) was 3.35 which was not significantly different in the ‘before or after the condition’ (both $P > .00$). While the mean rate of the utilitarian product (Alkaline battery) was 4.33 which is significantly smaller than the ‘before condition’, but not significantly higher than the ‘after condition’. For the cognitive evaluation, the mean rate of utilitarian product

(Alkaline battery) was 3.64, which is significantly smaller than the ‘before condition’ but not than the ‘after condition’.

3.3. Results

The univariate analysis shows that there is no main effect of product type on affective evaluation ($p > .05$), but information order does have effect ($F(2, 116)=5.065$, $p < .05$). The interaction effect between the product type and information order, and its influence on affective evaluation was significant ($F(2, 116)=21.381$, $p < .01$). As expected, for the hedonic product, the affective evaluation was significantly higher when information was provided after presenting the product ($M_{\text{before}}=3.84$, $M_{\text{after}}=4.96$, $p < .05$). On the other hand, for the utilitarian product, the affective evaluation was significantly lower when information was provided after presenting the product ($M_{\text{before}}=5.05$, $M_{\text{after}}=3.95$, $p < .05$). Therefore, H1 is supported. Similarly, as predicted, for cognitive evaluation of utilitarian products, the mean difference before and after presenting the product information was significantly different, providing information before presentation obtained higher evaluation ($M_{\text{before}}=5.57$, $M_{\text{after}}=4.27$, $p < .05$). Thus, H2 is supported.

3.4. Discussion

Consistent with Wilcox et al. (2011), the results of experiment 1 show that information order influences the affective evaluation for hedonic products. It indicates that when consumers first encounter a product, they create a first impression from its physical outlook based on global beliefs and personal preference. This spontaneous affective reaction directly affects their subsequent evaluation, and this feeling can be separated from any product information provided. For utilitarian products which are function-oriented, consumers will normally base judgement on cognitive considerations centered on contextual information more than the affective impression. This concurs with the current findings, where information order influences both affective and cognitive evaluation of utilitarian products. Product information presented before showing the product has a positive influence on consumer evaluations of the product. This may be because consumers normally use the information received later to support their beliefs (Chernev, 2001). In addition, search information (e.g. battery volume, country of origin) benefits the cognitive product evaluation. Hence, presenting product information before showing the product is identified as the best combination to encourage positive evaluations for utilitarian products. Therefore, different conditions might affect the results accordingly, so we test another two conditions on utilitarian product evaluation in the following experiments.

4. Experiment 2

4.1. Product and advertisement selection

To test information order effect on utilitarian products by providing either experience or search advertisement, the Alkaline battery was employed as the product. Because a brand with two types of advertisement (containing search and experience information respectively) was not found, two brands with different advertisement information types were chosen. Fourteen white collar employees were invited to rate the likelihood between several Alkaline battery brands by using a 7-point Likert scale (1=very dislike, 7=very like). Duracell (with search information advertisement, $M=5.36$) and Energizer (with experience information advertisement, $M=5.46$) were not found to be significantly different. Further tests were conducted on product information attribute of the two advertisement by referring Wright and Lynch's (1995) method and using a five-item seven-point semantic differential scale (bad/good, poor/great, low/excellent, low value/high value, bad/good quality). The means of Duracell ($M=5.57$) and Energizer ($M=5.73$)

were not significantly different as well. Thus, both the brands were employed in our experiment. To reconfirm that both products have the same evaluation from participants, 27 white-collar employees were invited to participate in the experiment. They were divided into two groups and each group evaluated one type of information only. The affective evaluation of experience ($M_{\text{experience}}=5.46$) and search advertisement ($M_{\text{search}}=5.35$) showed no significant difference ($p > .05$), and the cognitive evaluation showed no significant difference ($M_{\text{experience}}=5.96$, $M_{\text{search}}=5.67$, $p > .05$) either.

4.2. Methodology

4.2.1. Samples

Participants comprised of 122 white collar employees (60% female, age range: 25–45 years old) in this experiment which employed a 2 (information order: before and after) by 2 (advertisement type: experience and search) between-subjects design. About 20–27 participants were randomly assigned to each cell. Participants were gathered for a corporate training while the experiment was conducted just before the class started.

4.2.2. Procedure

Similar to the experiment one, participants were invited to evaluate an existing product. They were divided into two groups randomly: “before-condition” (product information provided before presenting the product), and “after-condition” (product information provided after presenting the product). Each group was divided into two cells and each cell evaluated one product only. For the product information, an Energizer advertisement containing experience attributes was presented (experience advertisement) which directly stated Energizer “like a superman with long lasting energy that can solve any problem” (which most consumers had experienced its long lasting power in daily life) and described “Energizer never say die” (exaggerated tagline). Another search advertisement was for Duracell, which directly mentioned its “Duralock technology”, which influenced the consumers search further on the battery’s long lasting feature.

4.2.3. Measurement

Similarly to experiment 1, affective product evaluation was measured by rating purchase likelihood with a seven-point semantic differential scale (not at all likely=1; very likely=7) (Melnyk et al., 2012). Cognitive product evaluation was measured by a two-item seven-point semantic differential scale (low quality vs. high quality; not at all reliable vs. highly reliable) (Biswas et al., 2009). ANOVA was employed to compare the results.

4.2.4. Manipulation check

We invited 27 university students to test whether the experience and search advertisement for the same evaluation from the participants. The participants were divided into two groups and each group evaluated one type of advertisement only. The affective evaluation of experience and search advertisement showed no significant difference ($M_{\text{experience}}=5.46$, $M_{\text{search}}=5.35$, $p > .05$) and the cognitive evaluation showed no significant difference either ($M_{\text{experience}}=5.96$, $M_{\text{search}}=5.67$, $p > .05$).

4.3. Results

For both affective and cognitive evaluation, the univariate analysis results shows that there is no main effect of information order ($p > .05$); while the effect of information type on affective evaluation ($F(1, 144)=18.009$, $p < .05$) and cognitive evaluation ($F(1, 144)=4.573$, $p < .05$) was significantly different. Meanwhile, the interaction effect between information type and information order on affective evaluation ($F(1, 144)=9.353$, $p < .05$) and cognitive evaluation ($F(1, 144)=6.359$, $p < .05$) were also significant different. Specifically, for affective

evaluation, providing the experience advertisement after presenting the product, resulted in a significantly higher evaluation compared with before presenting the product ($M_{\text{before}}=4.17$, $M_{\text{after}}=4.90$, $p < .05$). In contrast, there was no significant difference between providing search attribute information no matter before or after presenting product ($M_{\text{before}}=5.83$, $M_{\text{after}}=5.11$, $p > .05$). Thus, the H3 is supported. On the contrary, for cognitive evaluation, there was no significant difference between providing experience attribute information no matter before or after presenting product ($M_{\text{before}}=4.80$, $M_{\text{after}}=5.16$, $p > .05$). When providing search attribute information before presenting product, the evaluation was significantly higher than after presenting the product ($M_{\text{before}}=5.91$, $M_{\text{after}}=5.09$, $p < .05$). Therefore, H4 is supported.

4.4. Discussion

Affective evaluation is typically based on direct emotional reaction, which is related to personal belief and sensory experience, while cognitive evaluation is more based on utilitarian considerations. It is difficult for consumers to make an evaluation without enough product information. Similarly, consumers’ evaluation should only be based on the content of the information while they evaluate utilitarian products based on cognitive evaluation more than affective evaluation and the information order does not influence the evaluation results. However, different product information (e.g. picture, advertisement) can stimulate consumers to use different judgment criteria (Yeung and Wyer, 2004); different sensory cues (e.g., smell, taste, color, sound) can influence consumers’ product choice (Biswas et al., 2014). Based on the result of experiment 2, information order might also be one of the influential factors.

Information with experience attributes was used to stimulate participants to evaluate the product from an affective perspective, and use information with search attributes to stimulate participants’ evaluation from a cognitive perspective. The information order effect appears in the combination of “experience information with affective evaluation” and “search information with cognitive evaluation”, but has no effect on the combination of either. Maybe it is because when participants assessed the search information or made cognitive evaluation, combined with experience information or evaluation, it leads them to neutralize their emotions. One plausible explanation of this finding might be the absence of ‘high personal relevance’, because the presentation order impacts the positive cognitive responses only for the respondents who find high personal relevance with the provided information (Buda and Zhang, 2000). Furthermore, the respondents’ emotion might not have influenced evaluation anymore, and consequently the information order effect has disappeared (Yeung and Wyer, 2004). Therefore, consistent with experiment 1, in the combination of experience advertisement with affective evaluation; the study outlines that this combination urged participants to judge on the affective perspective same as judging a hedonic product. In the combination of search advertisement with cognitive evaluation, presenting search advertisement before showing the product received the highest evaluation of all combinations. It also reflected that search advertisement might also stimulate emotions and affect the placing of information order. In the next experiment, other conditions which might require positive or negative emotions from participants in utilitarian products are tested.

5. Experiment 3

5.1. Product selection

The main purpose of experiment 3 was to use an unattractive packaging in utilitarian products to stimulate negative emotional reaction, and examine whether information order effect will occur. Fourteen white collar employees were asked to rate several different packages of the same Alkaline battery brand (Energizer) by using a

seven-point scale (very ugly=1, very nice=7). The normal package ($M=5.50$) obtained the highest mean and another pure black packaging ($M=2.36$) received the lowest mean. Therefore, the two packages were used represent attractive and unattractive packaging in the experiment. Except for color (attractive: light yellow and orange flash versus unattractive: pure black), both packages contain same information (battery size: AAA8; product feature: “long lasting”; and tagline “Max”).

5.2. Methodology

5.2.1. Samples

Participants comprised of 103 white collar employees (44% female, age range: 25–32 years old) in this experiment, which employed a 2 (information order: before and after) by 2 (product packing: unattractive and attractive) between-subjects design. Each cell size has 24–28 randomly assigned participants.

5.2.2. Procedure

Similar to experiment 1, participants were divided into two condition groups (before or after) and were asked to evaluate the same product (Energizer battery) with two different packages: attractive (normal package) and unattractive (black package). Each group was divided into 2 cells, and each cell evaluated only one product packaging. Same product information was provided in text-format and the participants were given three to four minutes to read. Fig. 1.

5.2.3. Measurement

The same measurement scales adapted from Melnyk et al. (2012) and Biswas et al. (2009) were used to evaluate affective or cognitive product and ANOVA was employed afterwards. Product attitude was tested using a five-item 7-point semantic differential scale (bad and good; poor and excellent; inferior versus superior; poor value versus good value; low quality versus high quality) adapted from Peterson and Pitz (1988).

5.2.4. Manipulation check

We invited 50 college students to rate the products for ensuring that the two packages are significantly different. The participants were divided into two groups and each group evaluated only one type of packaging. The photo and packaging of the battery were shown without any information. The affective evaluation of normal packaging battery was significantly higher than that of the unattractive packaging ($M_{ugly}=5.41$, $M_{normal}=2.58$, $p < .05$) and the cognitive evaluation of the normal packaging was significantly higher than the unattractive packaging as well ($M_{normal}=5.96$, $M_{ugly}=2.5$, $p < .05$). The purchase intention of normal packaging was also higher ($M_{normal}=5.74$, $M_{ugly}=2.87$, $p < .05$). Fig. 2.

5.3. Results

The univariate analysis result shows that the interaction between

information order and product packaging on affective evaluation ($F(2, 130)=5.588$, $p < .05$), cognitive evaluation ($F(2, 130)=25.097$, $p < .05$) and product attitude ($F(2, 130)=21.916$, $p < .05$) were all significant. The individual effect of information order or packaging also had a significant effect on affective evaluation, cognitive evaluation and product attitude (both $p < .05$). In terms of the affective evaluation, the mean difference of providing information before and after presenting an unattractive packaging product was not significant ($M_{before}=4.71$, $M_{after}=3.96$, $p > .05$); while providing information before presenting an attractive packaging product, the evaluation was significantly higher as compared to after presenting the product ($M_{before}=6.15$, $M_{after}=5.33$, $p < .05$). Thus, H5 is supported. In terms of the cognitive evaluation, providing information before presenting an unattractive packaging product received higher evaluations than after presenting the product ($M_{before}=4.78$, $M_{after}=3.50$, $p < .05$), while the mean difference of providing information before and after presenting an attractive packaging product was not significant ($M_{before}=6.19$, $M_{after}=5.56$, $p > .05$). Thus, H6 is also supported. The findings are summarized in Fig. 3.

5.4. Discussion

Product appearance is a critical factor for evaluating the products. Consumers form initial impressions from the product appearance, and if it elicits affective reactions, their emotions will influence the evaluation result as well (Yeung and Wyer, 2004). The result showed information order effect has a significant influence on the combination of “attractive packaging with affective evaluation” and “unattractive packaging with cognitive evaluation”. It is believed that when judging utilitarian products with unattractive packaging, consumers will normally judge cognitively. Therefore, appearance effect does not yet appear when doing the affective evaluation as participants were still be judging based on product information. The analyses suggest that as the unattractive packaging elicits a negative impression of the product, participants became confused between the negative impression and the neutral product information. They thus judged the product based on first impressions, and this emotion influenced the evaluation process and information order effect.

However, for the attractive packaging product, since the packaging did not elicit a strong emotional reaction from the participants, the assessment is similar to experiment 1. It is found that providing product information before showing the product will elicit higher affective evaluation, even though attractive product packaging it is not significantly different between cognitive evaluation and providing information before or after showing the product. The mean rate of before showing the product is higher than after, which is similar to Experiment 1. Table 1 summarizes the results of the three experiments.

6. Implications

This study provides a number of theoretical and practical contribu-

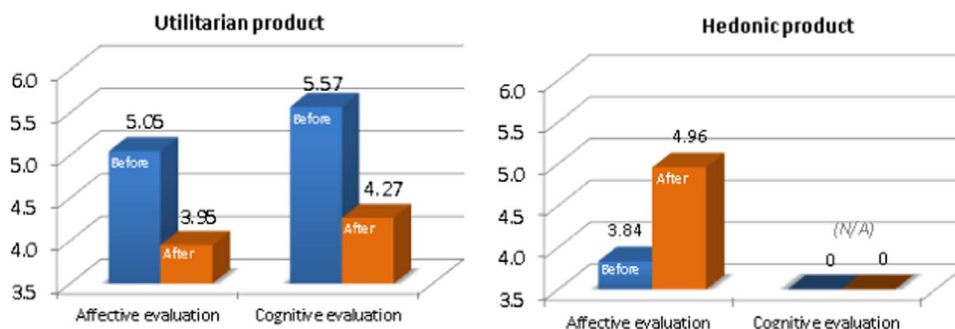


Fig. 1. The effect of information order on affective and cognitive evaluation.

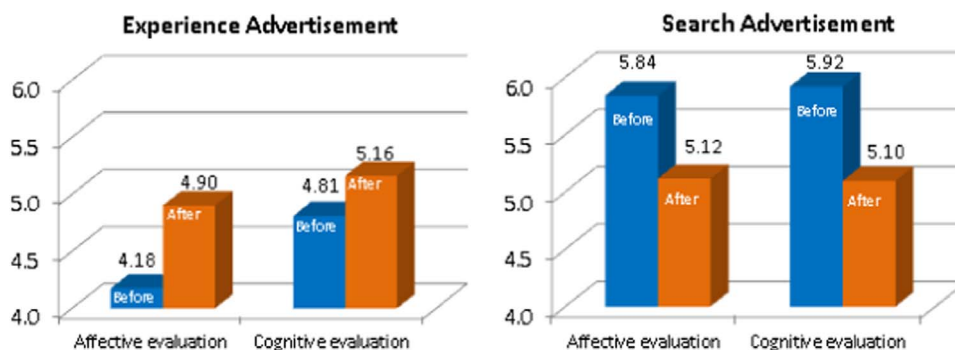


Fig. 2. The effect of information order on affective and cognitive evaluation toward utilitarian product with different information type.

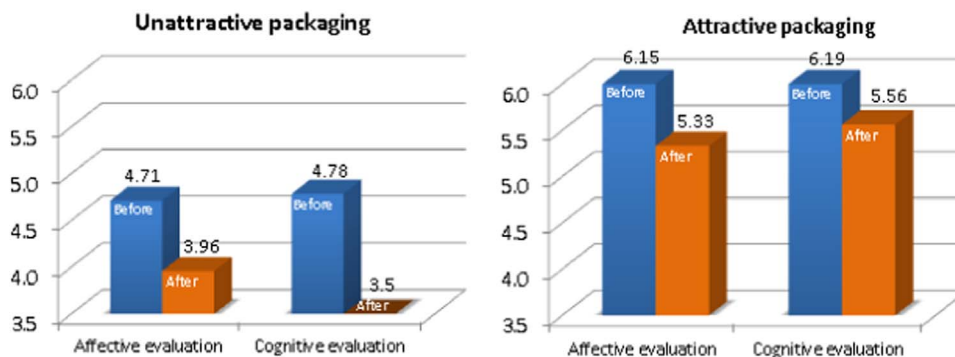


Fig. 3. The effect of information order on affective and cognitive evaluation toward utilitarian product with different packages.

Table 1
Research result of three experiments.

	Affective evaluation		Cognitive evaluation	
	Before	After	Before	After
<i>Experiment 1</i>				
Utilitarian product	5.05**	3.95**	5.57**	4.27**
Hedonic product	3.84**	4.96**	N/A	N/A
<i>Experiment 2</i>				
Experience attribute information	4.17**	4.90**	4.80	5.16
Search attribute information	5.83	5.11	5.91**	5.09**
<i>Experiment 3</i>				
Unattractive packaging	4.71	3.96	4.78**	3.50**
Attractive packaging	6.15**	5.33**	6.19	5.56

** p < .05

tions through the investigation of a relatively under-researched area in marketing. Past literature primarily emphasizes on the hedonic products in the investigation of the information order effect (e.g. Biswas et al., 2010; Wilcox et al., 2011). This study expands on product category by examining the impact from the utilitarian product context. Previous studies (e.g. Yeung and Wyer, 2004) argue that first impressions could influence the product evaluation. Although this kind of product appraisal is theoretically cognitive in nature, it can often elicit nonverbal affective reaction and is not limited to hedonic and utilitarian products. The experiment 1 in this study shows that product evaluation is not only based on the first impression, but is influenced by other factors as well. The evidence of confirmatory information processing identified that consumers prefer to use the information they receive later to confirm their initial impressions. However, sometime there is a contradiction between the first impression and information they receive later, and the time gap between could be the reason for information order that occurs (Kirmani and Rao, 2000).

Further, this study includes both affective and cognitive product evaluation with two more conditions (search/experience advertisement and unattractive/attractive packaging), which has not been examined before.

Practically, advertising managers can utilize the findings of this study in several ways. Existing literature argues that different product types need different information to promote (Peterson et al., 1997). Experiment 2 finds that the “experience advertisement” with “information order effect” influenced the product judgment. It explain why many digital products in the market should use experience advertisement as a major approach to enhance consumer purchase process. Moreover, advertising strategist can utilize experience advertisement to positively influence the consumers’ affective evaluation, while search advertisement can be used to influence the cognitive evaluation. The findings from the experiment 3 indicate that consumers care about the product appearance even if it is a utilitarian product, as the product outlook influences the consumer evaluation process aside from “information order effect”. Hence, the marketer can employ attractive packaging of utilitarian products to elicit high affective acceptance among consumers, while unattractive packaging for utilitarian products may only gain consumer cognitive acceptance. Overall, the marketers should employ cognitive advertisements for initial promotion which further add value to the utilitarian product evaluation. Also, managers can use the information order in different context to encourage and enhance consumer acceptance.









7. Limitations and future research

The experiment scale and control group scale are limited by sample size in this study. Also, the participants do not cover all variations in conditions and demographics. Therefore, there may be other exogenous factors that remain unaccounted for (e.g. different educational backgrounds on the evaluations of products). Also there might be many other independent factors that may influence the impact of presentation order and consumers’ cognitive and affective evaluation. Future research may consider any other independent variable (e.g. prior

experience) and also may try an experiment where information was introduced before AND after exposure in order to confirm order. Although utilitarian products should always provide a clear idea about their function and quality, people with different backgrounds might have different expectations, which could also affect the results (Liu and Brock, 2011). Future studies may consider comparing the results between male and female subjects, as research suggests that males

are more focused on function, and females are more focused on appearance (Brunel and Nelson, 2003). This may affect the results of the experiment. Third, the results between sampling and appraisal/evaluation of the product could be compared. Finally, future studies could experiment with additional varying conditions (e.g. positive and negative mood, favorite and not favorite branding, high and low price, etc).

Appendix 1. Information used in three experiments

Experiment 1	Information	
Utilitarian product		<p>Maxell alkaline battery, which is made from Japan, uses the exclusive Voltage leakage-resist technology that ensures the safety of consumers. With the expansion of battery void volume, it provides sufficient power supply. A pack with 5 batteries is priced at USD 2, while the special family pack with 24 batteries is priced only at USD 4.6. Available in all convenience stores and supermarkets.</p>
Hedonic product		<p>The foreign fascinating movie - "Vampire Academy", will be officially available in Macau Galaxy UA cinema by January, 2014. It is adapted from one of the New York Times best-selling series of novels and is directed by Mark Fairwhale Waters, the director of "Mr. Popper's Penguins". Ticket is priced at USD 12, buy two get one free. The story is based Lissa and her boyfriend, Christian Ozera (acted by Dominic Sherwood), were facing countless obstructions on their relationship. Will love ruin the two girls' lives?</p>
<p>Experiment 2 Utilitarian product with experience attributes information</p>		<p>Information</p> <div data-bbox="963 1085 1235 1255">  </div> <div data-bbox="957 1285 1241 1455">  </div> <p>Experience product attribute information is given through playing video. The advertisement directly demonstrated Energizer “like a superman with long lasting energy that can solve any problem” and described “Energizer never say die”. (Example: https://www.youtube.com/watch?v=wIOHa0DdAro).</p>
<p>Utilitarian product with search attributes information</p>		<div data-bbox="970 1596 1225 1761">  </div> <div data-bbox="963 1787 1235 1953">  </div> <p>Search product attribute information is given through playing video. The</p>

Experiment 3

Utilitarian product with attractive packaging



Utilitarian product with unattractive packaging



advertisement directly mentioned Duracell's "Duralock technology" (power reserve™ technology) which interested consumers need to further search detail information by themselves, to showcase its long lasting feature. (Example: <https://www.youtube.com/watch?v=gsQyC8ZZYOE>).

Information

The product that we are going to evaluate is a brand of alkaline battery. It is jointly invented by two companies from Singapore and the United States. Its power generated is 5 times stronger than other ordinary carbon-zinc battery. It is long lasting and durable, and a pack of 4 batteries is priced only at USD 1.2. Available in all convenience stores and supermarkets.

The product that we are going to evaluate is a brand of alkaline battery. It is jointly invented by two companies from Singapore and the United States. Its power generated is 5 times stronger than other ordinary carbon-zinc battery. It is long lasting and durable, and a pack of 4 batteries is priced only at USD 1.2. Available in all convenience stores and supermarkets.

References

- Babin, B.J., Darden, W.R., Griffin, M., 1994. Work and/or fun: measuring hedonic and utilitarian shopping value. *J. Consum. Res.* 20 (4), 644–656.
- Bagchi, R., Davis, D.F., 2012. \$29 for 70 items or 70 items for \$29? How presentation order affects package perceptions. *J. Consum. Res.* 39 (1), 62–73.
- Biswas, D., Biswas, A., Chatterjee, S., 2009. Making judgment in a two-sequence cue environment: the effects of differential cue strengths, order sequence, and distraction. *J. Consum. Psychol.* 19 (1), 88–97.
- Biswas, D., Grewal, D., Roggeveen, A., 2010. How the order of sampled experiential products affect choice. *J. Mark. Res.* 47 (3), 508–519.
- Biswas, D., Labrecque, L., Lehmann, D., Markos, E., 2014. Making choices while smelling, tasting, and listening: the role of sensory (dis)similarity when sequentially sampling products. *J. Mark.* 78 (1), 112–126.
- Brunel, F.F., Nelson, M.R., 2003. Message order effects and gender differences in advertising persuasion. *J. Advert. Res.* 43 (03), 330–341.
- Buda, R., Zhang, Y., 2000. Consumer product evaluation: the interactive effect of message framing, presentation order, and source credibility. *J. Prod. Brand Manag.* 9 (4), 229–242.
- Chernev, A., 2001. The impact of common features on consumer preferences: a case of confirmatory reasoning. *J. Consum. Res.* 27 (4), 475–488.
- Dhar, R., Wertenbroch, K., 2000. Consumer choice between hedonic and utilitarian goods. *J. Mark. Res.* 37 (1), 60–71.
- Ge, X., Häubl, G., Elrod, T., 2012. What to say when: influencing consumer choice by delaying the presentation of favorable information. *J. Consum. Res.* 38 (6), 1004–1021.
- Gürhan-Canli, Z., 2003. The effect of expected variability of product quality and attribute uniqueness on family brand evaluations. *J. Consum. Res.* 30 (1), 105–114.
- Kirmani, A., Rao, A., 2000. No pain, no gain: a critical review of the literature on signaling unobservable product quality. *J. Mark.* 64 (2), 66–79.
- Liu, M., Brock, J., 2011. Selecting a female athlete endorser in China: the effect of attractiveness, match-up, and consumer gender difference. *Eur. J. Mark.* 45 (7/8), 1214–1235.
- Madzharov, A.V., Ramanathan, S., Block, L.G., 2016. The halo effect of product color lightness on hedonic food consumption. *J. Assoc. Consum. Res.* 1 (4), 579–591.
- Melnyk, V., Klein, K., Völckner, F., 2012. The double-edged sword of foreign brand names for companies from emerging countries. *J. Mark.* 76 (6), 21–37.
- Micu, C.C., Coulter, R.A., 2012. The impact of pretrial advertising on posttrial product evaluations: Assessing the effects of attribute information for hedonic and utilitarian product. *J. Mark. Theory Pract.* 20 (2), 189–201.
- Nowlis, S.M., Shiv, B., 2005. The influence of consumer distractions on the effectiveness of food-sampling programs. *J. Mark. Res.* 42 (2), 157–168.
- Park, J., 1995. Memory-based product judgments: effects of presentation order and retrieval cues. In: Kardes, Frank R., Suajan, Mita (Eds.), *NA - Advances in Consumer Research 22*. Association for Consumer Research, Provo, UT, 159–164.
- Peterson, D.K., Pitz, G.F., 1988. Confidence, uncertainty, and the use of information. *J. Exp. Psychol. Learn. Mem. Cogn.* 14 (1), 85–92.
- Peterson, P.A., Balasubramanian, S., Bronnenberg, B.J., 1997. Exploring the implications of the internet for consumer marketing. *J. Acad. Mark. Sci.* 25 (4), 329–346.
- Petty, R.E., Cacioppo, J.T., 1986. *The elaboration likelihood model of persuasion*. In: *Communication and persuasion*, Springer, New York, pp. 1–24.
- Shteingart, H., Neiman, T., Loewenstein, Y., 2013. The role of first impression in operant learning. *J. Exp. Psychol. Gen.* 142 (2), 476–488.
- Smith, R.E., 1993. Integrating information from advertising and trial: Processes and effects on consumer response to product information. *J. Mark. Res.* 30 (2), 204–219.
- Voss, K.E., Spangenberg, E.R., Grohmann, B., 2003. Measuring the hedonic and utilitarian dimensions of consumer attitude. *J. Mark. Res.* 40 (3), 310–320.
- Wilcox, K., Roggeveen, A.L., Grewal, D., 2011. Shall I tell you now or later? Assimilation and contrast in the evaluation of experiential products. *J. Consum. Res.* 38 (4), 763–773.
- Woodside, A.G., Singer, A.E., 1994. Social interaction effects in the framing of buying decisions. *Psychol. Mark.* 11 (1), 27–34.
- Wright, A.A., Lynch, J.G., Jr., 1995. Communication effects of advertising versus direct experience when both search and experience attributes are present. *J. Consum. Res.* 21 (4), 708–718.
- Yeung, C.W.M., Wyer, R.S., 2004. Affect, appraisal, and consumer judgment. *J. Consum. Res.* 31 (1), 412–424.