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Information effect on consumer adoption for a new beef brand in the Vietnamese market: prior knowledge, appealing the brand distinction, differentiation and similarity

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Abstract. *The purpose of this study is to evaluate the effects of information on consumer adoption when introducing a new beef brand to the Vietnamese markets. Three variables proxy the impacts of information are prior knowledge, usage experience, and price. This study developed three pieces of advertised information and combined them with three levels of price to indicate the relevant information to diffuse at the introduction of a new brand. Three kinds of information include: (1) distinction information, which defines a new brand to be distinct from existing competitive brands; (2) differentiation information, which identifies a new brand to be different from one existing brand; (3) similarity information, which defines a new brand to be similar to one existing brand. The survey was conducted via direct interviews with 480 customers at the food outlets in Ho Chi Minh City, Vietnam. The ordered logit model was applied to examine the influence of each kind of information on consumer preferences for a new beef brand. The results indicated that (1) the effect of information on consumer adoption for a new brand at early stage depends on how that information defines the new brand in consumers' perception; (2) the distinction information generates the highest economic added value; (3) the similarity information creates the information bias at introduction; (4) the usage experience can be diagnostic for the information bias.*

Keywords: information; prior knowledge; brand distinction; brand differentiation; brand similarity; introduction stage; Japanese Wagyu beef; Vietnam.

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Introduction

One major problem with a new brand/product introduction is information asymmetry due to the knowledge gap between marketing agencies and consumers (Rogers, 2003). Firms should launch the appropriate marketing communication program to shorten the knowledge gap and to enhance the learning process of consumers about the new brand or product.

The information processing is the major period in consumer buying model. Understanding this process provides marketing agencies with a lot of benefits, especially

the relevant information in diffusion to reduce the failure rate at the early stage. Nicosia (1966), the first scholar developed the consumer-buying model for a new product, expressed the importance of information in the adoption process. More specifically, Rogers (1983) clustered the market into four groups based on the knowledge of the innovation. The hierarchy of the cognition process indicated the focus on enhancing the consumer learning at the introduction stage. Inconsistency, Schiffman and Kanuk (2007) developed the multi-stage adoption process of consumers for a new brand/product. The combination of awareness and trials illustrated the importance of information in the adoption behavior. Although theories have stated the role of information at introduction stage, there is a lack of studies to quantify its impacts as well as to apply the theoretical models in a particular marketing situation.

To some extent, the importance of information in consumer behavior is examined via the impacts of advertising. Economists in the new industrial organization indicated the economic value of information based on the consumer theory (Stigler, 1961; Nelson, 1970; 1974; Becker and Murphy, 1993). Empirical studies in this direction investigated how generic advertising affect the aggregate demand through price elasticity (Banović *et al.*, 2009; Bredahl, 2004; Brester and Schroeder, 1995; Froehlich *et al.*, 2009; Erdem and Keane, 1996; Ackerberg, 2003) with the lack of consideration of advertising contents. Hence, there exists a call for not only further studies on the content of ads but also empirical evidence for consumers' direct responses to various advertising scenarios.

This study validated the previous conclusions about the role of information at the introduction stage through an empirical study on the consumers' direct responses. We quantified various impacts of information on consumer adoption for a new brand to answer following questions. (1) Whether or not firms can influence the consumer adoption through using the information to reduce the knowledge gap in the market. (2) Which kind of stimulus is stronger in the private adoption, external information versus usage experience?

To measure the impacts of information, we classified information into two groups, external stimuli and internal ones. For external stimuli, we constructed three kinds of information as three advertising scenarios, which defined the new brand in the market. Another external cue was price, which was measured by three levels. For the internal stimuli, we used the usage experience (trial or not) and the need recognition, which indicated the market potential for the new brand.

We investigated the case of Japanese Wagyu beef (JPW) in the Vietnamese market. After the official approval of importing into the Vietnamese market from April 1st, 2014, JPW became the last entrant brand of imported beef in the Vietnamese market. Exporting firms during the introduction period have struggled with a lot of difficulties since local consumers, and business partners failed to differentiate JPW from previous competitive brands, Australian Wagyu beef and Kobe beef. In such an asymmetric situation, the primary consideration of the marketers is to launch the effective promotion program to enhance the adoption of JPW.

We organized this paper into three parts. The first was a conceptual framework and hypothesis development. Second, we examined the hypotheses through the empirical models. Last, we discussed our results and concluded the study.

Literature reviews and hypothesis development

Brand information and consumers' evaluation of new brand at the introduction

The importance of information at the early stage of a product was measured by the impacts of consumer knowledge about such information on consumers' evaluation of a

new brand/product. We proposed that: (1) Information could make significant impacts on the consumers' evaluation of a new brand/product; (2) The magnitude of the effects varied with the content of information. Three potential explanations could be seen for the above statements.

First, since information reduces the uncertainty of a new brand/product and shortens the market knowledge gap (Rogers, 2003; Gatignon and Robertson, 1985; Abernethy and Franke, 1996; Alba and Hutchinson 2000; Wood and Lynch, 2002; Hansen et al., 2003; Berg, 2004; Lobb *et al.,* 2007; Bian and Moutinho, 2011), it can enhance the adoption behaviour. Particularly, consumers in emerging markets tend to avoid newness with high probability (Erevelles *et al.,* 2001), broad coverage of information could be considered as a leading factor for a new brand/product introduction. Second, information reduces the cost of searching and facilitates consumer learning process (Bettmann and Park, 1980; Park and Lessig, 1981; Johnson and Russo 1984; Brucks, 1985; Urbany *et al.,* 1989; Rao and Sieben, 1992; Radecki *et al.,* 1995, Schmidt and Spreng, 1996; Moreau *et al.,* 2001; Bauer *et al.,* 2005; Thøgersen, 2010). Last, information can affect the attitude, purchasing intention, and buying decision by providing consumers with specific knowledge of a new brand/ product. Lin and Chen (2006) found the significant positive impacts of prior knowledge on purchase intention and decision for insurance and catering services. Pieniak et al. (2010) indicated subjective knowledge was a key determinant of attitude and behavior toward organic vegetable consumption. A positive relation between nutrient knowledge and healthy food consumption could be seen in the study of Tepper *et al.* (1997). Hughner *et al.* (2007) expressed the lack of knowledge due to insufficient marketing as evidence of ineffective organic food promotion. Voon *et al.* (2011) also referred to the streams of information about organic products in Malaysia to increase the consumer knowledge and direct the attitude to these commodities. The role of information in new product development or an innovation introduction could be found in the studies of Meheswaran and Sternthal (1990); Saaksjarvi (2003); Van Kleef (2005); Zhou and Nakamoto (2007); Maenpaa *et al.* (2008); Zhu and Chang (2015).

Previous studies have classified the impacts of information on consumer behavior by the content of information (Ackerberg, 2001; 2003; Moreau *et al.,* 2001; Banovic´ *et al.,* 2012). In this study, we investigated the heterogeneity in the effects of information on consumer preference for innovation by using three kinds of information, which capture three identities of a new brand concerning the standing competitors. In following with literature, we predicted that each kind of information would affect the consumers'evaluation of a new brand differently.

Eating experience and consumers' evaluation of a new brand at introduction

The positive impact of usage experience on consumer preference is concluded from some previous studies when considering usage experience as a source of brand familiarity (Laroche *et al.*, 1996; Bredahl, 2004; Ha and Perks, 2005; Banović *et al.*, 2012; Grunert *et al.*, 2004; Ha and Jang, 2010) or a predictor of behavior (Thøgersen, 2002; 2010). Tran *et al.* (2017) indicated usage experience is the most crucial factor of consumer innovativeness toward beef brands in the Vietnamese context. The adoption behavior was moderated by the accumulated experience of a new product/brand. Hence, one could predict the usage experience significantly impacts on the consumer preference for a new product/brand.

However, usage experiences become ambiguous when being considered in the prior knowledge cluster (Raju *et al.*, 1995). Brakus *et al.* (2009) expressed that

consumption experience primarily provides consumers with a hedonic consequence. Therefore, usage experience of a particular product can subsequently create multi-dimensional behavior based on the dispersion between expected quality and experienced quality. In regards to JPW, the influence of user experience is less conspicuous than for industrial products or durable consumer goods since it strongly depends on personal taste, a highly invisible and abstract factor. Thus, there would be the impact of user experience on the evaluation of JPW, but no specific prediction about the sign could be pointed out.

The impact of brand information and usage experience in comparison

It could be relevant to consider that user experience might dominate subjective knowledge in explaining preference variation since actual consumption could be the most reliable source of information for individual decision-making (Smith and Swinyard, 1983; Mothersbaugh *et al.,* 1994). Thøgersen (2002) indicated that the effect of direct experience on individual behavior consists of the experience effect and the personal norm. The stronger impact of direct experience on behavior compared to attitude could be the result of personalization of direct experience and a defensive mechanism of individual cognition. One might expect that the brand information of a premium brand could result in the exploratory behavior of consumers. However, the discrepancy between expectation and actual experiences seems to be significantly reduced when consumers can rely on their own experiences instead of external information or other person's experiences. Moreover, for a premium brand such as JPW, self-experience seems the more beneficial stimuli for consumer decision-making than subjective knowledge considering the economic value of information (Nelson, 1974). Hence, the impact of eating experience might dominate prior knowledge in comparison.

Market potential and consumers' evaluation of a new brand in the introduction phase

Market potential of a new product was defined in the theory of diffusion advanced by Bass (1969) and Roger (1983) as initial purchases (m) made by "innovators" and "imitators." Alternatively, it reflected the potential total sales of a particular product after its introduction (Tseng and Hu, 2009). Studies on the success of new product development at the firm level have illustrated the role of market attractiveness. Myers and Marquis (1969) named this concept market pull with emphasis on need understanding. Cooper and Kleinschmidt (1987) indicated that market potential was one situational factor, and developed a measurement for this concept by combining market size, market growth, customer need, and the importance of the product. Brown and Eisenhardt (1995) considered three characteristics of the market in new product success including large, high growth, and low competition.

Following previous studies, we developed "market potential" for JPW with great attention to the characteristics of consumer preference for current competitors. It appeared that the satisfaction with a current brand or loyalty toward an existing brand creates a barrier to entry for the new brand entrance (Keller, 2009; Menictas *et al.,* 2012). That led to two strategies in positioning a new product compared to competitors, namely me-too and second-but-better (Frambach *et al.,* 2003). Scholars supporting differentiated strategies have indicated the high impact of becoming distinct in customers' perception when introducing a new product (Cooper, 1979; Cooper and Kleinschmidt, 1987). Food choice to some extent is considerably different from industrial or consumer durable goods since it is hard to standardize by systematic

criteria. Because most consumers are not food experts, they need informative cues as similar brands to evaluate and make the purchasing decision. Hence, the market potential for JPW could be extracted from the current beef-purchasing tendency. Alternatively, investigating the competitive brands from the consumer perspective is a source of need recognition and the market possibility for a new product/brand. Moreover, the essence of the attitude to existing brands could serve as personal involvement, which expresses the potential relevance of a new beef brand to individuals. Hence, it could be reasonable to predict the positive impact of market potential on evaluation for JPW at introduction. And the knowledge of brand information and eating experience could be hypothesized as the moderators of this relation.

Price as a cost cue and informative cues in consumers' evaluation of JPW

The role of price in consumer buying process is debated between a signal indicator and an economic determinant. In the case of new product/brand introduction, due to the information imperfection, consumers tend to strongly concern about the consistency of price and actual quality and the relevancy of price related to other reference prices. Hence, the negative impact of price on consumer preference could be predicted (Rogers, 2003). However, this relation is moderated by the knowledge about a new brand/product since such information can affect the way consumers utilize the information from the price. The findings from studies on perceived quality have indicated the difference in using price as an external cue of quality. Consumers with familiarity reduced the importance of price in the evaluation, while the novices tended to be heavily influenced (Bredahl, 2004; Banović *et al.*, 2012) by price. Moreover, the role of price in product category could be influenced by the price references to other items (Aertsens *et al.,* 2009). Angulo and Gil (2007) considered price from the perceived risk viewpoint and stated dual roles of the price after the beef crisis, namely a cost cue and a quality cue. The quality signal of price was found in some studies when consumers' WTP depended on the brand position in the entire market (Lange *et al.*, 1998; 2000).

Hypotheses

From the above considerations, the hypotheses of this study include:

H1: During the introduction phase of a brand/product, the information about a new brand/product made a significant impact on the consumer adoption for a new brand/ product, and the impact magnitude varied with the content of information.

H2: When introducing a new brand/product to a market, the usage experience would significantly influence the consumer adoption of the new brand/product.

H3: When introducing a new brand/product to a market, the individual usage experience could be stronger than external information in explaining consumer adoption.

H4a: When introducing a new brand/product to a market, the market potential of a new brand/product can positively impact consumer preference for the new brand/product.

H4b: The impact of market potential on consumer adoption is moderated via the knowledge of brand/product and usage experience.

H5: When introducing a new brand/product to a market, the knowledge of a new brand/product could positively moderate the impact of price on consumer preference toward a new brand/product.

In summary, Figure 1 can illustrate the conceptual framework of this study.

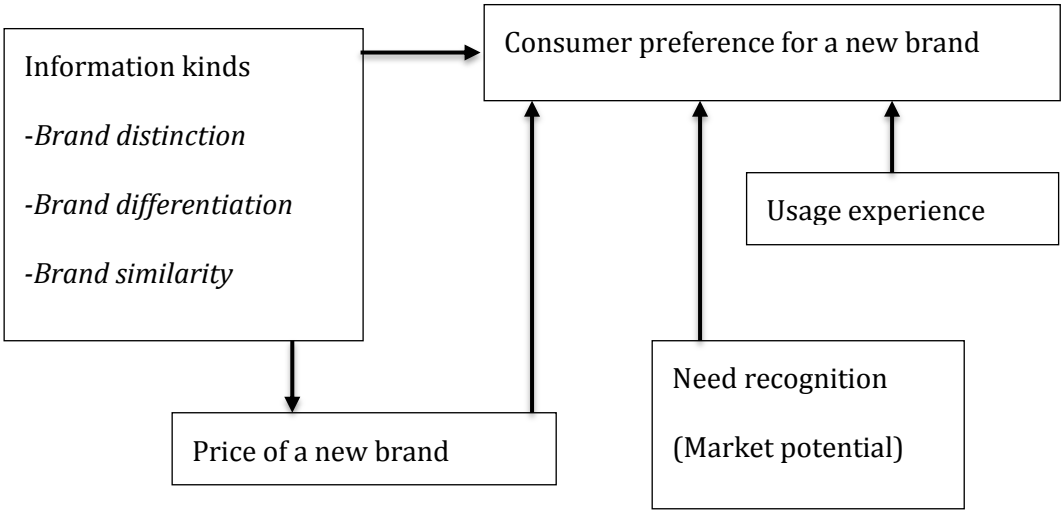

Figure 1. **The conceptual framework of the study**
Source: Authors' own representation.

Methodology

The study area and the selection of information about JPW

The study selected Ho Chi Minh City as the research area for consumer surveys due to the increasing demand for imported beef; especially select beef in food service venues as a result of the economic growth and cultural integration. The first survey, from January 7th to January 15th, 2015 by the Japanese Livestock Association, targeted the general situation of the beef market in HCMC. Australian beef and American beef are leading beef items in the mass market, while Kobe beef, the top-quality Japanese beef, is only served in high-end restaurants. With the official import of JPW from April 1st, 2014, the niche market for Wagyu beef is a competition between Australian Wagyu beef and JPW.

This survey also found that most of the partners in beef distribution systems in the HCMC market have misunderstandings about JPW. The main problems include an inaccurate explanation of the origin of Wagyu beef, the difference between Australian Wagyu beef and JPW, and the origin of Kobe beef. The pilot study in the retail market from April 23rd to May 18th, 2015 recognized a similar problem in the perception of consumers and managers in distribution channels1. Hence, this study used three kinds of information about JPW to measure the impacts of brand information on consumer preference at the early stage. Information 1, which explained that Wagyu is originally Japanese beef, acts as a brand distinction or non-comparative information. Information 2 indicating the significant difference between JPW and Australian Wagyu beef is named brand comparison or differentiated comparative information. The last information affirming Kobe beef as one type of JPW is the brand similarity or similar comparative information.

Table 1. *Three kinds of information applied in the study*

Information 1	Content	"**Wagyu** beef **("WA" means Japan and "GYU" means cow**) is original **Japanese** beef. *(Source: Ministry of Agricultural, Fishery, and Forestry, Japan*)
	Focus	Brand distinction

[1] The pilot study in May 2015 indicated an amazing result of Kobe beef knowledge at the customer level. Approximately 90% (in the network of 630 people) reported that they knew Kobe beef and around 30% have eaten this beef.

	Core value	Authentic Wagyu beef made in Japan
Information 2	Content	Due to the salient features of Japanese Wagyu beef, in mid-1990 Australia ***first imported*** full-blooded Wagyu bulls ***from Japan*** and Black Angus cow from the United States to begin ***their Wagyu crossbreeding program***. Hence, ***only Japan*** can provide markets with ***Wagyu beef of full-blooded Wagyu.*** *(Source: Australian Wagyu Association)*
	Focus	Brand differentiation
	Core value	Full-blood Wagyu beef only from Japan
Information 3	Content	**Kobe** beef is one kind ***of Wagyu*** beef from cattle raised in Hyogo Prefecture, Japan. *(Source: Ministry of Agricultural, Fishery, and Forestry, Japan)*
	Focus	Brand similarity
	Core value	Kobe beef is the beef from Japanese Wagyu pedigree

Source: Authors' own representation based on inline references in Table.

Purchasing situation and subject selection

Based on the first survey, this study focused on consumer behavior toward beef when dining out at intermediate restaurants or high-end restaurants. We attempted to keep the assumption that consumers would be highly involved in the purchasing situation in the screening procedure[2], which ensured that all respondents had a basic background in beef and of eating beef in restaurants. We selected the respondents in the central districts of HCMC, where most of the middle and high-end beef restaurants were located. 480 respondents recruited and directly interviewed.

Evaluation task

After selecting the respondents, we brought them to a table of a restaurant (sometimes, a nearby cafeteria) and interviewed them directly. First, a full menu with five beef items was introduced to the respondents. As indicated in the previous studies, consumers could have difficulties in revealing their actual behavior when facing information overloading in the evaluation task. Hence, for each alternative, only brand (country-of-origin and kind of beef) and price were provided. The price in this study was the retail market price in beef restaurants for a 100-gram tenderloin portion in HCMC. Three levels of price were applied randomly for Japanese Wagyu beef comprising 500,000 VND (n=161), 650,000 VND (n= 162), and 800,000 VND (n=157), while the price of other beef items was kept at constant: Australian beef at 200,000 VND; American beef at 300,000 VND; Australian Wagyu beef at 450,000 VND; and Kobe beef at 1,000,000 VND.

Next, the respondent was asked to rank each alternative based on their preference on a 5-point Likert scale (1= completely not preferred to 5= very preferred). After that, they reported their subjective knowledge of JPW through answering Yes/No questions about the three kinds of the information above.

[2] Respondents were asked to attend the study on beef purchased behavior at the beef restaurants freely with no monetary compensation and no information on experiments. The screening procedure includes three questions: (1) Have you ever been living in HCMC for a long time (at least five years)? (2) Do you eat beef?/Do you like eating beef? (3) Do you usually eat beef at Beef steakhouse or BBQ restaurants?

Analytic models

First, we explored the emerging need for high-grade beef in the HCMC market by applying factor analysis to the preferences for four beef alternatives except for JPW.

Second, this study constructed an ordered logit model based on the random utility maximization theory (Manski, 1977; Xie and Manski, 1989; Baltas and Doyle, 2001) to test the hypotheses as follows:

We describe the latent utility of Japanese Wagyu beef of each as the following equation:

$U_i^* = \boldsymbol{BX}_i + \varepsilon_i (-\infty < U_i^* < +\infty)$

Here:

U_i^* is the utility from Japanese Wagyu beef;

i indicates individual i;

$\boldsymbol{X}_i$ is the transposed vector of predictors;

$\boldsymbol{B}$ is the parameter vector expressing the influences of predictors on the outcome;

$B = (\beta_1, \beta_2, \dots, \beta_m)$, where m is the number of predictors in the model;

ε_i is the error term of individual i.

The utility from Japanese Wagyu beef for each respondent is that observed through the level of preference in the evaluation task. Hence, let R_i denote the rank for Japanese Wagyu beef based on the individual preference. The next equation points out the relation between the latent variable (utility) and the observed outcome (preference level):

$R_i = j \; if \; \mu_{j-1} < U_i^* \leq \mu_j$

Here:

j indicates the jth level of preference, $j = 1$ to 5;

μ_j is the utility threshold of preference level j $(-\infty \leq \mu_j \leq +\infty)$.

Therefore, the probability at which individual i selects preference rank j is expressed as:

$$p_{ij} = \Pr(R_i = j) = \Pr\left(\mu_{j-1} < U_i^* \leq \mu_j\right) = \Pr\left[\mu_{j-1} - (\boldsymbol{BX}_i) < \varepsilon_i \leq \mu_j - (\boldsymbol{BX}_i)\right]$$

$$= F\left[\mu_j - (\boldsymbol{BX}_i)\right] - \mathrm{F}\left[\mu_{j-1} - (\boldsymbol{BX}_i)\right]$$

When ε follows a logistics distribution, which has standard cumulative distribution function $F(\varepsilon) = \frac{e^{\varepsilon}}{1+e^{\varepsilon}}$, the odds ratio between preference level at j or higher and those at less than j is expressed as the following equation:

$$\frac{\Pr(R_i \geq j)}{1 - \Pr(R_i \geq j)} = e^{\boldsymbol{BX}_i - \mu_{j-1}}$$

Hence, the natural log of the odds can be expressed as a linear function of predictors, as in the following equation:

$$\ln\left(\frac{\Pr\,(R_i \geq j)}{1 - \Pr(R_i \geq j)}\right) = \boldsymbol{BX}_i - \mu_{j-1}$$

The marginal effect of an increase in a predictor X_r on the probability of selecting rank j is: $\frac{\partial p_{ij}}{\partial X_{ri}} = \{F'(\mu_{j-1} - \boldsymbol{BX_i}) - F'(\mu_j - \boldsymbol{BX_i})\}\beta_r \;\; with \; r = 1,2, \dots, m$

Alternatively, the impact of one predictor on the log odds of preference level, conditioned on other explanatory variables, is expressed by the magnitude of the corresponding element of $\boldsymbol{B}$. And the cumulative probability at preference rank j is calculated as $\Pr\,(R_i \geq j) = \frac{e^{\beta r}}{1+e^{\beta r}}$.

To investigate the moderated effect of an independent variable, based on the assumption that the unobserved variance was homogeneous in all groups, we constructed interaction terms and examined the coefficients of these components.

Moreover, following Mood (2010), we calculated the average marginal effect (AME) and average partial effect (APE) for the considered variables as the following equation:

$$AME(X_r) = \frac{1}{n}\sum_{i=1}^{n} \beta_r F'(\boldsymbol{BX_i}) = \frac{1}{n}\sum_{i=1}^{n} \frac{e^{\boldsymbol{BX_i}}}{(1+e^{\boldsymbol{BX_i}})^2}$$

And the partial effect of an independent variable on the outcome in a range of observation $n_1 \in n$: $APE(X_r/i \in n_1) = \sum_1^{n_1} \beta_r F'(\boldsymbol{BX_i})$

To understand the dominance of each explanatory variable, we followed the standardized coefficient alternative of Menard (2004):

$$\beta^*_{Mr} = (\beta_r)(s_r)(R_O)/s_{logit(\widehat{U^*})}$$

Here β_r is the unstandardized logistic coefficient of predictor r, s_r is the standard deviation of predictor r, R_O is the square root of the OLS coefficient of logistic regression[3], and $s_{logit\ (\widehat{U^*})}$ is the standard deviation of the predicted value of logistic regression.

Regarding $s_{logit\ (\widehat{U^*})}$, let $U^* = \begin{cases} 1\ if\ R_i \geq j \\ 0\ otherwise \end{cases}$.

Hence, $logit(\widehat{U^*}) = ln[\Pr(U^* = 1)/\Pr(U^* = 0)] = \boldsymbol{BX}_i - \mu_{j-1}$.

In this study, the latent variable, the utility of Japanese Wagyu beef, is expressed by the following equation:

$$\begin{aligned} U_i^* = {} & \beta_1 Price_i + \beta_2 LuxPrefer_i + \beta_3 Know1_i + \beta_4 Know2_i + \beta_5 Know3_i + \beta_6 Exper_i \\ & + \beta_7 Age1_i + \beta_8 Age2_i + \beta_9 Educ1_i + \beta_{10} Educ2_i + \beta_{11} Expend1_i \\ & + \beta_{12} Expend2_i + \beta_{13} Expend3_i + \beta_{14} Price_i * Know1_i \\ & + \beta_{15} Price_i * Know2_i + \beta_{16} Price_i * Know3_i + \beta_{17} LuxPrefer_i * Know1_i \\ & + \beta_{18} LuxPrerfer_i * Know2_i + \beta_{19} LuxPrefer_i * Know3_i + \varepsilon_i \quad (1) \end{aligned}$$

[3] The coefficient of determination for logistics regression (Tonidandel and LeBreton, 2010) is the OLS R-square statistic:

$R^2 = 1 - \frac{\sum(y-\widehat{y})^2}{\sum(y-\bar{y})^2}$. Here $\hat{y}$ is the predicted value from a logit link transformation; y is the observed variable; and $\bar{y}$ is the mean value of the dependent variable.

Table 2. The explanation of the main variables in the analytic models

Variable	Description	Measurement
Outcome		
R_i	Preference of Japanese Wagyu Beef before providing any information	1=Completely not prefer; 2=Not prefer; 3=Normal; 4=Prefer; 5=Very prefer
Predictors		
Know1	Whether or not a respondent knows the information 1	1=Know (1); 0 = don't know
Know2	Whether or not a respondent knows the information 2	1=Know (2); 0 = don't know
Know3	Whether or not a respondent knows the information 2	1=Know (3); 0 = don't know
Exper	Whether or not they ate Japanese Wagyu beef before	1= Have eaten; 0 = Never eaten
Price	The price of JPW which is centered from the mean value	Price $= \begin{cases} -1.4875 \; if \; JPW \; price = 500{,}000 \; VND \\ 0.0125 \; if \; JPW \; price = 650{,}000 VND \\ 1.5125 \; if \; JPW \; price = 800{,}000 \; VND \end{cases}$
LuxPrefer	Attitude to high-grade beef when dining out	Factor score from the study on the need
Age1	Age from 18 to 25 years old	=1 if age from18 ~25 years old; =0 otherwise
Age2	Age above 35 years old	=1 if age above 35 years old; =0 otherwise
Educ1	Bachelor degree	=1 if get bachelor degree; 0=otherwise
Educ2	Master/Doctorate	=1 if get M/D degree; 0=otherwise
Expend1	Monthly food expenditure of a household on average from 14~20 million VND	=1 for spending 14~20 million VND per month; =0 otherwise
Expend2	Monthly food expenditure of a household on average from 20~26 million VND	=1 for spending 20~26 million VND per month; =0 otherwise
Expend3	Monthly food expenditure of a household on average above 26 million VND	=1 for spending over 26 million VND per month; =0 otherwise

Note. LuxPrefer is the factor score for Factor named "high-grade beef preference" from the latent need exploratory study using Factor Analysis

Source: Authors' own representation.

Data analysis

The latent need exploration and market potential for JPW

This sub-study acts as the need recognition in the adoption process of consumers. The underlying hypothesis is about the existence of the emerging need for high-grade beef besides the current need for regular beef. To investigate this hypothesis, an exploratory factor analysis using a principal axis factoring extraction method and promax rotation was conducted.

Table 3. Correlation matrix of beef item preference[4]

	American Beef	Australian Wagyu Beef	Kobe Beef
Australian Beef	.577***	.233***	.070
American Beef		.383***	.182***
Australian Wagyu Beef			.410***

**** Correlation is significant at the 0.01 level (2-tailed).*

Source: Authors' own representation.

The Kaiser-Meyer-Olkin measure of sampling homogeneity was about 0.6, indicating that the data could be relevant to factor analysis. Besides, the significance of Bartlett's test of sphericity (*p-value < .01*) pointed out that the correlation between the variables was sufficient to apply factor analysis. Applying the Kaiser-Guttman retention criterion of eigenvalues greater than 1.0, a two-factor solution was derived. These two factors accounted for 51.8% of the total variance. Table 4 presented the pattern matrix with a promax rotation.

Table 4. Pattern matrix[5] and factor correlation for principal axis solution

	Factor loadings	
Australian Beef	**.771**	−.112
American Beef	**.772**	.088
Australian Wagyu Beef	.108	**.665**
Kobe Beef	−.120	**.643**

Source: Authors' own representation.

As a commonly used rule, factor interpretation is made based on variables with factor loadings greater than 0.4 (Ford, MacCallum, and Tait, 1986). Thus, the model with two factors may be seen as the most reasonable solution. **Factor 1, "**regular beef preference" (eigenvalue = 1.955), accounted for 37.8% of the variance and consisted of 2 items (Australian beef and American beef); **Factor 2**, "luxury beef preference" (eigenvalue = 1.092) accounted for 13.99% of the variance and included 2 items (Australian Wagyu beef and Kobe beef).

The results from the factor analysis seemed to be consistent with the conclusion of a transforming tendency in beef demand in new emerging markets, where the urban consumers with considerable increases in income afford a promising market for imported beef with high quality and food safety (Hubacek *et al.*, 2007; Gale and Huang, 2007; Gandhi and Zhou, 2014). The two factors in this model could be seen as a two-route attitude when eating beef in restaurants, namely "regular beef preference" or utilitarian need, and "high-grade beef preference" or expressive need. The moderate correlation between the two factors (Pearson coefficient = 0.454) could be a result of the integration of culinary culture in purchasing behavior of Asian consumers (Pingali, 2007).

[4] Factor analysis was applied for 4 variables, Australian beef preference (mean=3.66; std. =.815) , American beef preference (mean = 3.47; std.=.819), Australian Wagyu beef preference (mean = 2.99; std. =.791), and Kobe beef preference (mean = 3.03; std.=1.139).

[5] Extraction method: principal axis factoring. Rotation method: promax with Kaiser normalization.

The need exploration indicated that there was a latent need for premium beef brands in the Vietnamese market. Hence, the potential market segment for JPW could be identified by the increasing meat demand in food services in emerging markets. Next, we examined the impacts of prior brand knowledge, the usage experience, market potential, and price on preference for JPW.

Hypothesis testing

Table 5. The demographic variables of the studied sample

Characteristics	**Description**	
	Value	**Percentage**
Age	N=480	100%
18~25 years old	63	13.13%
25~35 years old	228	47.50%
Over 35 years old	189	39.37%
Education	N=480	100%
High-school degree	80	16.67%
Bachelor degree	331	68.96%
Master/Doctor degree	69	14.37%
Average food expenditure per month in a household	N=480	100%
8~14 million VND	105	21.88%
14~20 million VND	192	40%
20~26 million VND	98	20.41%
26 million VND~	85	17.71%

Source: Own market survey in HCM market from August 9th to September 26th, 2015.

From Table 5, the respondents with ages from 25 to 35 years old took the largest share of the sample at 47.5%, and about 69% of the sample had achieved a degree from a college or a university. Since JPW is mostly consumed at high-end restaurants, our study concentrated mainly on the respondents who could be potential adopters. Hence, our sample disproportionately captured the middle age group with high education and upper-middle food expenditure per month.

Table 6. Descriptive statistics of the main variables

	Variable	Description	
		Value	Percentage
R_i	Japanese Wagyu beef Preference	Mean = 2.79; Std. =0.87	
Know1	1=Know information 1	70	14.60%
	0=Don't know information 1	410	85.40%
Know2	1=Know information 2	38	7.90%
	0=Don't know information 2	442	92.10%
Know3	1=Know information 3	107	22.30%
	0=Don't know information 3	373	77.70%
Exper	1= Have eaten Japanese Wagyu beef	92	19.20%
	0=Never eaten Japanese Wagyu beef	338	80.80%

Source: Authors' own representation.

The influences of predictors (shown in Table 2) on the consumer preference toward JPW were investigated via the ordered logit model. The criteria of all models are reported in Table 7. Model (1.2) satisfied the assumption of a proportional odds ratio of the ordered logit regression with *the p-value* at .948. Hence, we based on model (1.2) when discussing the results of hypothesis testing.

Table 7. The summarized results of the ordered logit regression

Category	**(1.1)**	**(1.2)**
Threshold		
Cut point 1	−6.520	−6.681
Cut point 2	−4.137	−4.254
Cut point 3	−1.225	−1.282
Cut point 4	2.298	2.254
Predictors		
Know1	1.130***	1.099***
Know2	.440	.582
Know3	−.214	−.173
Exper	1.669***	1.754***
LuxPrefer	.577***	.683***
Price	−.669***	−.586***
Price*Know1		.015
Price*Know2		.382
Price*Know3		−.536***
LuxPrefer*Know1		.263
LuxPrefer*Know2		−.735
LuxPrefer*Know3		−.334
Age1	.087	−.076
Age2	.348*	.420**
Educ1	.465**	.503**
Educ2	.590*	.596*
Expend1	−.166	.214
Expend2	.299	.231

Expend3	−.494	−.573*
Model criteria		
Nagelkerke R^2	.407	.423
-2LL	952.798	940.813
Chi-Square	225.244	237.229
df	13	19
p- value	.006	.948

*Note. ***p < .01; **p <.05; *p <0.1*

Source: Authors' own representation.

Table 8. The standardized logistic coefficients of the model (1.2) applying Menard (2004)

Predictors	**Estimates**
Know1	.205
Know2	.083
Know3	−.038
Exper	.365
LuxPrefer	.289
Price	−.378
Price*Know1	.004
Price*Know2	.070
Price*Know3	−.165
LuxPrefer*Know1	.044
LuxPrefer*Know2	−.091
LuxPrefer*Know3	−.064
Age1	−.014
Age2	.108
Educ1	.123
Educ2	.110
Expend1	−.055
Expend2	.049
Expend3	−.115

Note. $R^2_{0(1.1)} = 0.36$*;* $R^2_{0(1.2)} = 0.38$

Source: Authors' own representation.

The results of the model (1.2) indicated the hypotheses of the prior brand knowledge (H1) and the usage experience (H2) were statistically consistent at *p-value* < .01. However, only information 1 made a significant impact on JPW preference ($\beta_3 = 1.099$ at *p-value < .01*). Moreover, the positive impact of eating experience ($\beta_6 = 1.754$ at *p-value < .01*) could be seen as an indicator of satisfaction after trying the real product. H3 was supported, as the standardized coefficient of usage experience was larger than the knowledge variables at *p-value < .01*. Furthermore, the AME and APE of usage experience were bigger than those of brand knowledge conditioned on the price at the mean value, as shown in Table 9. Alternatively, one might expect a stronger explanatory ability of usage experience since it generated a larger gap in the probability at high preference levels for JPW than the brand knowledge.

Table 9. The dominance of usage experience and brand knowledge using AME and APE

Model 1.2	AME	APE
Know1	.193	.125
Know2	.102	.077
Know3	−.030	−.025
Exper	.309	.208

Note. APE was calculated at value 1 for each variable

Source: Authors' own representation.

H4 was supported with $\beta_2 = .683$ at *p-value < .01*. Consumers position JPW in the high-grade beef cluster at introduction; alternatively, the image of JPW in consumer perception matched its core value. The insignificant impact of the interaction term between high-grade beef attitude and the prior knowledge indicated external information seemed to be not strong enough to moderate the effect of emerging need for private adoption.

The effect of price in the model (1.2) followed microeconomics theory, as $\beta_1 = -.586$ at *p-value < .01*. However, H5 was not supported since the interaction term with Know3 was negative at *p-value < .01*, and no significant impacts of other information kinds were observed. Consumers with information 3 seemed to be more sensitive to price than ones without this information. This finding highlighted the consideration of advertising claims and various price levels in the introducing strategy for JPW.

The economic value of information could be calculated in relation to price according to the cost-benefit approach. Price as a monetary cost could be compared to the benefit of brand information in decision-making before real purchasing, and the added value of brand information was expressed as $-\frac{(\beta_{Know}+\beta_{Price*Know}Price)}{\beta_{Price}}$

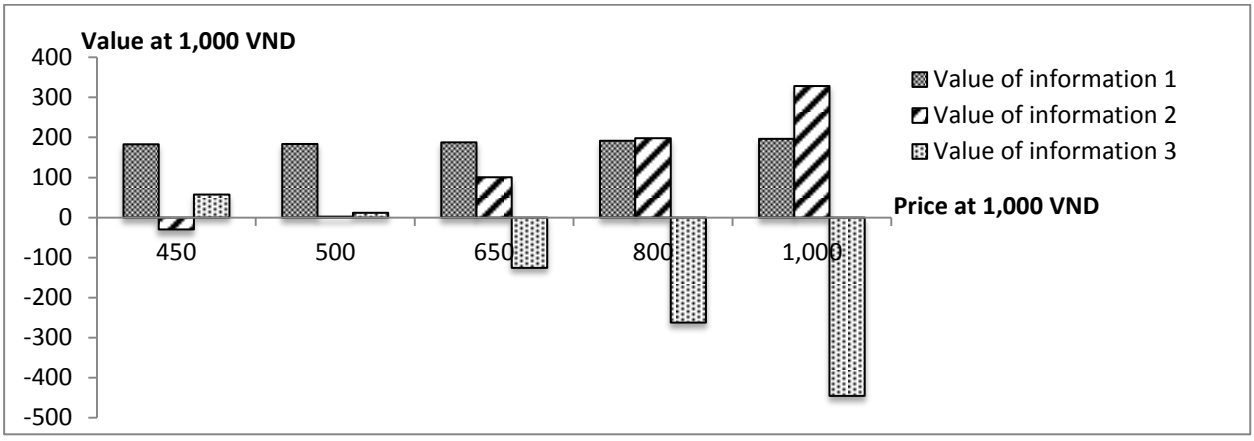

Figure 2. **The added value of the information**

Source: Authors' own representation.

Based on model (1.2), the consumers with clarified information are willing to pay an additional 190,000 VND on average than those without this information. Figure 2 also showed the high correlation of the value of information 3 with price, while a relatively stable value could be seen for information 1.

Discussion

The empirical results indicated the importance of brand information at the introduction stage since consumers with prior brand information tended to have the higher preference for JPW. Furthermore, the impacts of brand information on consumer adoption varied with the advertising contents. Among three alternatives to define JPW in the consumer perception by information in ads, the distinction information (information 1) showed the highest economic added value while the value reduction was seen for the similar information (information 3). Previous studies indicated the positive impacts of prior knowledge on the attitude, purchased intention and purchased behavior. However, the empirical results of three advertising scenarios showed the existence of negative impacts. Some kinds of information could generate the bias in perception and lead to a reduction in the price premium for a new brand/product.

The significant positive impact of information 1 indicated its efficacy in communication during the adoption process. This information differentiates JPW from the current competitors by focusing on two core values, the outstanding pedigree of the beef cattle (Wagyu) and the country-of-origin (made in Japan). It expressed the strength of this combination in positioning and diffusing this beef since kind of food and country-of-origin could be the essential cues in consumer's quality perception of a new beef (Verbeke and Ward, 2006; Alfnes, 2004; Bredahl, 2004; Schnettler *et al.*, 2008).

The negative impact of information 3 indicated consumers, who do not know information 3, tend to evaluate JPW at a higher level of preference. This outcome highlighted the concerns about the impact of information about related brands and the order-of-entry in the consumer cognitive sequence (Kardes and Kalyanaram, 1992; Carpenter and Nakamoto, 1989; 1990; Sujan and Bettman, 1989). Hypothetically, we believed that prior understanding of the similarity between the leading brand (Kobe beef) and JPW would bring higher preference for the late-entrant brand-JPW. However, consumers with information 3 seemed to resist JPW at the early stage. One possibility is the existence of Kobe beef in the Vietnamese market can generate consumers' concerns about uncertainties the following related brand - Japanese Wagyu beef. The behavior of the group with the information 3 could be seen as evidence of a risk-aversion attitude when they can perceive the uncertainties of the new product/brand using retrieval knowledge.

The significantly positive influence of experience indicated consumers' satisfaction after eating. Experience-based knowledge became an indicator of post-adopting purchase (Ajzen, 1991; Pieniak *et al.*, 2010; Bredahl, 2004) as well as a positive multiplier in the diffusion process (Rogers, 2003).

Conclusion

One of the greatest challenges for firms when introducing a new product or brand is how to enhance the market adoption. Previous studies have illustrated the importance of relevant communication with consumers in motivating the desire for satisfaction at the introduction. We argued that providing more brand information could significantly impact the preference for a new brand at the early stage. However, the effects varied by how the new brand/product was defined in the market. The positive outcome was found for being distinct from existing competitors while negative one was for being similar to the leader. Usage experience is the central factor in consumer adoption process since the post-trial satisfaction could be diagnostic for the bias from marketing communication. Hence, the need for consumer education to increase consumer familiarity with new products/brands should be considered. Future research would study on the variety of

consumer education programs, their impacts on business performance and communicating strategies

Despite intense efforts, our study still retains particular problems in need of future investigation as well as reexamination by other researchers. The first shortcoming of our study comes from the highly restricted requirements of the participants. Three screening questionnaires narrowed the population of the study; hence, the findings should be carefully considered when applying them in other marketing situations. Moreover, due to the specialization of a niche market for a premium beef brand, it seems necessary to be cautious in drawing implications for general marketing practices. Another limitation comes from the methodology to evaluate the prior brand knowledge of respondents. Even though this study tried to diversify the content of brand advertising, the prior knowledge was measured by a dichotomous variable. Hence, a demand exists for precise measurement in future studies instead of Yes/No questions as in this study.

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