Full Length Research Paper

A cross-cultural study on consumers' level of acceptance toward marketing innovativeness

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This research applied Hofstede's five culture dimensions to examine the cross-cultural consumer differences in acceptance of marketing innovativeness. The participants of this study are consumers from various countries; namely, Hong Kong, Malaysia, Macao, Vietnam, Indonesia, Myanmar, and Taiwan. This research was conducted to provide evidence on the relationship between national cultures and consumer's level of acceptance toward innovative marketing through 446 valid questionnaires. The results of logarithmic regression indicated that consumers from different national cultures varied in their marketing innovativeness. Consumers from the higher power distance and uncertainty avoidance cultures were weaker than lower ones on acceptance of innovative marketing. Marketing innovativeness was stronger in higher individualism, masculinity and long- term orientation than lower ones. Furthermore, this research employs neural network to demonstrate the relationship between national cultures and marketing innovativeness. The managerial implication of this study suggested several strategies that may be helpful to marketers aiming at different cultures. Further research could examine other countries and do a cross-culture investigation on consumer or other pertinent issues.

Key words: National culture, marketing innovativeness, innovativeness.

INTRODUCTION

Within the arena of global market, the issues that a business is encountering are getting more and more complicated and sophisticated. When a business decides to step foot in the global market, the very first challenge would be the cultural issue. Different countries have various cultures, which play a decisive role in consumer's behavior. The case of IKEA can be an ideal example to explain this concept. IKEA achieved a landslide wining in European market because no cultural barrier hindered their plan of expansion in European Continent; however, it was a totally different story when IKEA commenced their marketing strategy in the US. It took IKEA 22 years to break even in American market from their 20 branches.

Therefore, Maheswaran and Shavitt (2000) proposed that along with the growth of globalized business activities, it is imperative for all enterprises to understand a wide range of consuming behaviors in different cultures. Furthermore, Tellis et al. (2007) also argue that the global market urges the necessity of awareness to apprehend the similarities and differences of consuming behaviors in the context of different cultures.

For all businesses, there are two essentials for successful operation: marketing and innovation. Successful marketing activities rely on creativity; and innovation is the only way for a business to stay on the top of rigorous competition. In the context of globalization, innovative marketing is the best strategy that a business ought to adopt for everlasting success. Moreover, achieving success in global market depends on a company's marketing strategies based on consumer's various values derived from his/her cultural backgrounds.

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Apples Inc. pulls off marketing innovativeness through selling consumers "hope" and suchlike strategies help Apples' iPhone earn impressive market share worldwide.

The study conducted by Kim and Mauborgnes (1997) argue eloquently that successful companies are able to initiate thorough value innovativeness in products, service, and logistics. These three elements are parts of marketing; thus, what a business really needs is the innovation in marketing. The traditional fashion of marketing does not lay too much emphasis on individual difference of consumers; however, the innovative concept of marketing re-evaluates the market from individual consumer's perspective. In the past, the business dedicates impressively large amount of money and efforts on research and development of new products for consumers but most of these new products are not welcomed by consumers. Consequently, the marketing strategies should not be product-oriented; rather, the light shall be shed on the comprehensive process of the marketing. Lu et al. (1999) state that businesses of nowadays should develop marketing g plans on the basis of their understanding and interpretations towards different cultures. It is to the authors' knowledge that not so many pertinent literatures can be found on the influence of marketing process to consumers' level of acceptance toward innovation. Therefore, the present study aims to investigate how consumers' various cultural profiles associate with their level of acceptance to marketing innovativeness.

REVIEW OF LITERATURE

Cultural attributes

Hofstede (1991) depicts cultures in the computer language as mental programming, which refers to the programs that help people think, feel, and behave. These programs are acquired naturally in the process of growing up. With this mental programming, people can function smoothly and amiably in the society. On the other hand, individuals always possess different mental programming and thereby have dissimilar values, perception, and behavior. This statement is consistent with Mueller and Thomas (2001), who believe that culture is the specific beliefs held by certain groups or societies. These beliefs shape the characteristics of a group and further style the behavior of members of a group. It could be the reason that consumers who belong to different cultural groups will have various preferences on particular products and moreover, the consuming structure, perception toward products and decision on purchase of theirs are different because of the cultural issues. Singh (2006) discovers one pivotal principle after reviewing relevant studies, which is that members with similar conceptual or geographical trait have identical consuming behavior. Scholars refine this type of trait as national attribute or national culture and this definition is of great help to interpret different consuming behaviors of consumers from various countries (Delener and Neelankavil, 1990).

Innovativeness

A clear definition on marketing innovativeness is difficult to locate in pertinent articles of marketing or innovation; therefore, it is necessary to provide the operational definition of this term employed by the present study before in-depth discussion is initiated on the relationship between marketing strategies and level of consumers' level of acceptance toward innovativeness. Goswami and Mathew (2005) propose that most definitions on innovation are based on the concept of novelty and newness in addition to the profits and/or economical value innovativeness is able to bring in. Innovativeness is considered as a process of change. Change can lead to innovation and vice versa; nevertheless, the emphasis of any type of innovativeness should be placed on the novelty and value.

If the definition of marketing is re-shaped by including the concept of innovativeness, the ideology of innovative marketing can be evidently sketched, which covers innovative mindset, products, service, and even pricing, promotion and logistics. OECD (2002) endues the term "marketing innovativeness" a new meaning as a novel marketing strategy that a company adopts to comply with consumers' expectation, to expand its business to a new market or to redefine the market segmentation. This novel marketing strategy includes changes in the wrapping, logistics, promotion and pricing of products.

Singh (2006) points out the fact that more and more businesses depend on the profits founded on the success of new products to survive in the competitive market; thus, while a business is drafting its innovative marketing strategies, marketers always focus on the innovation of products and/or service to exceed consumers' expectation on value. However, expectation on value can also be realized through consumers' being able to receive products or service in a faster and more convenient fashion as well as innovation in pricing, advertisement and promotion. According to the analyses of many scholars' statements on innovative marketing, the present study hereby defines this term as "a business' innovative concept to orchestrate marketing activities, which contain novelty to attract consumers and satisfy their needs on value."

Consumers' level of acceptance toward innovative marketing

The results of Hirschman's (1980) study indicate two major concepts about consumers' level of acceptance toward innovativeness. The first one is aligned with the theory of Rogers and Shoemaker (1971), which literately refers to individuals who use or adopt new products/idea

earlier than others in the society. Another concept is proposed by Midgley and Dowling (1978) and they believe that level of acceptance toward innovativeness is the way individuals take new viewpoints and make innovative decision without referring to other people's experience. Roehrich (2004) further constructs four inclinations on acceptance of innovativeness; namely, desire for excitement, need for novelty, independent to other people's experience, and necessitate for uniqueness.

Yet, there is no universal definition about consumers' level of acceptance toward innovativeness. Tellis et al. (2007) summarize results of various studies and came up with a general characterization as individual's willingness to change, inclination to purchase new products, and preference for novel and unique experience. With this characterization as the principle, the present study extends the definition as "individual's willingness to change his/her original preference to accept innovative products, service, and marketing strategies initiated by the business."

Relationship between national culture and innovative marketing

Rigorous competition of market share in one region encourages enterprises to look for opportunities in different countries. In order to ensure the success of its business in foreign markets, it is necessary for them to understand the target market first. Most research on consumer behavior focus on the issues of consumers' preference on innovative products. The main reason rests on the reality that research and development of new products are the main sources of profits for a business; nonetheless, failure of new products brought into American market is estimated as much as 25,000 per year (Hoffman, 2005). Takada and Jain (1991) mention that cultural differences of consumers do affect their level of acceptance toward new products and service. Steenkamp et al. (1999) also argue that culture can significantly influence an individual's personality and then behavior; therefore, while considering consumers' level of acceptance toward innovativeness, it is essential to take culture into account. This statement is concurred with what Tellis et al. (2003) have discovered, who believe that consumer's level of acceptance toward innovativeness does vary in different countries. Hauser (2006) points out that the successful innovation is based on truly understanding consumers' needs and developing products that match their needs.

The prior studies have elucidated the importance of understanding cultural differences and fulfilling consumers' needs through innovation for successful marketing strategies in different countries. However, what discriminates the present study and previous studies is that a business's effort to satisfy consumers' expectation should go beyond just the products. Sometimes there is no problem to a new product but the marketing strategies do not appeal to consumers, which lead to the failure of promoting this new product. For this reason, the present study proposes a construct of extending the discussion of meeting consumers' needs to the relationship between cultural issues and innovative marketing. Among all the pertinent studies, Hofstede's National Culture Framework is the most appropriate instrument for research on cultural differences (Clark, 2003). Furthermore, many scholars who work on intercultural consumers' level of acceptance (Steenkamp et al., 1999; Van Everdingen and Waarts, 2003; Singh, 2006) also employ Hofstede's theory. Hence, the present study is utilizing this framework to sketch the association between various dimensions of cultural issues and innovative marketing.

Power distance

Power distance refers to members of an organization or group (that is, family) who are given less power or authority but still willing to accept suchlike unfair distribution of power (Hofstede, 1991). Large power distance means individuals who are agreeable to recognize existed hierarchy of power distribution and do not want to challenge it; on the other hand, small power distance indicates members of a group enjoy equal power. Members of large-power-distance groups are found to have lower level of acceptance toward innovativeness (Van Everdingen and Waarts, 2003). Thatcher et al. (2003) provide an explanation by pointing out that members of large-power-distance groups also get a feeling that they seldom receive corresponding feedbacks while they try to adopt new things or ideas and hence are not taking innovativeness very well. In contrast, individuals of this type of groups also have a sense that they lack resource or opportunities to make decisions on innovativeness, which lower their interests of solving problems through innovation. While they do not actively consider the advantages of accepting new things, it is difficult to expect them to take on innovativeness. Most previous studies on power distance and level of acceptance toward innovation reveal a negative relationship between these two variables (Van and Waarts, 2003; Thatcher et al., 2003; Singh, 2006). Based on the results of these studies, we hereby propose the first research hypothesis:

H1: The larger power distance of a national culture is, the lower consumer's level of acceptance toward innovative marketing will be.

Uncertainty avoidance

Uncertainty avoidance means member's level of tolerance toward in a society. They will feel either reluctant or

tolerant to unstructured situation that usually implies novel, unknown, surprising, and different circumstances. In a society with culture of high uncertainty avoidance, individuals would view different things as precarious ones; conversely, individuals with low uncertainty avoidance are always interested and curious in new things (Hofstede, 1991). On the premise of avoiding risks, individuals comparatively would not like to accept innovativeness and acknowledge novel concepts unen-thusiastically; thus, they cannot tolerate change. Past research on the correlation of uncertainty avoidance and level of acceptance toward innovation show a negative relationship as well (Lynn and Gelb, 1996; Steenkamp et al., 1999; Van Everdingen and Waarts, 2003; Singh, 2006) . The second research hypothesis of the present study can be stated as:

H2: The stronger uncertainty avoidance a national culture is the lower consumers' level of acceptance toward innovative marketing will be.

Individualism

Individualism can be defined as people of a society pre-ferred to being an individual than a member of a group or an organization. The relationship among individuals is loose and people only care about personal advantages and his/her families. Within the society of individualism, people are educated in a way of putting "I" before "we" (Hofstede, 1991) and people enjoy total self-deter-mination to make decisions on pursuing their goals or achievements freely. Therefore, people tend not to follow the norm of the society and they are allowed to act independently. Thatcher et al. (2003) argue that people's level of acceptance toward innovativeness is relatively higher while they are under the circumstance of individualism.

Besides, Midgley and Dowling (1978) emphasize the fact that consumers' level of acceptance toward innovativeness characterizes an individual's tendency to active behavior, which also refers to his/her independence to other people. Pertinent studies on the association of individualism and level of acceptance toward innovation show a positive relationship between these two variables (Steenkamp et al., 1999; Thatcher et al., 2003; Tellis et al., 2003; Singh, 2006). For this reason, we are able to construct the third research hypothesis as:

H3: The stronger individualism a national culture is, the lower consumers' level of acceptance toward innovative marketing will be.

Masculinity

Masculinity connotes the value of a society, emphasizes wealth and achievement as well as enthusiasm to receive others' recognition. People with masculinity are confident, positive, and willing to take challenge. They are attentive to their performance and development; nevertheless, they easily ignore other people's responses. It is fair to put in an oblique way that individuals with higher mas-culinity love to own physical items to satisfy their vanity. In other words, they can demonstrate their wealth and success by showing off their acquisition of new products (Steenkamp et al., 1999). Furthermore, with masculinity, people are characterized to make decisions indepen-dently, which is crucial for marketers to promote new products to this type of consumers because masculine people are easier to accept new things than their feminine counterparts (Tellis et al., 2003). The positive correlation between masculinity and level of acceptance toward innovativeness has been confirmed by preceding studies (Steenkamp et al., 1999; Tellis et al., 2003; Van Everdingen and Waarts, 2003; Singh, 2006) and accordingly we come up with the fourth hypothesis for this present study:

H4: The stronger masculinity a national culture is, the lower consumers' level of acceptance toward innovative marketing will be.

Long-term orientation

Culture with long- term orientation educates individuals be frugal, persistent, and willing to accept consequences of gradual transformation and modify the tradition to match the modernization.

On the contrary, individuals in the culture with short-term orientation respect the tradition extremely and this attitude would impede consumer's acceptance of new products (Hofstede, 1991). Holbrook and Schindler (1994) also found out if consumers' attitude is more past-oriented, they prefer purchasing products that they are used to than innovative ones. Steenkamp et al. (1999) propose that consumers with short- term orientation have lower level of acceptance toward innovativeness and long-term orientation leads to higher level of acceptance. This result is echoed in the study conducted by Van Everdingen and Waarts (2003). The fifth research hypothesis is thus proposed as:

H5: The stronger long-term orientation a national culture is, the lower consumers' level of acceptance toward innovative marketing will be.

Innovative marketing

The present study subcategorizes innovative marketing into five dimensions and five research hypotheses are presented consequently. All these five subcategories are discussed respectively as follows.

Consumers' creativity

Hirschman (1980) believes that consumer's creativity is associated with his/her adoption of innovativeness and he describes consumer's creativity as his/her ability to solve consumption-related problems. Therefore, con-sumers with better creativities are more able to think out of box and then come out with alternatives to solve unex-pected yet urgent problems of consumption. This type of ability is affected by factors such as individual's educational background, life experience, and personality. These factors would be accounted distinctly in different countries and thus we propose the sixth research hypothesis of the present study:

H6: Consumers' creativities in various national cultures are significantly different.

Searching for novelty

The definition of this term specifically denotes the eagerness to search for novelty (Hirschman, 1980). There are two main concepts in this regard: to search for novelty and unknown information and to change his/her original choice for the newer and special idea or item. The development of searching for the novelty is derived from individual's thirst for diversity and excitement to redirect their attention from tedious and boring ones. Such change is influenced through new information received by individuals and consumers in different countries always receiving different amount of new information via public media, exhibition of real products or other marketing promotion. The seventh hypothesis is proposed accordingly:

H7: Consumers' searching for novelty in various national cultures is significantly different.

Doubt

A consumer's doubt refers to his/her sense of uncertainty toward new marketing strategies, products, and service promoted by the business; thus, he/she would naturally generate resistance toward that item. Hofstede (1991) indicates that individuals tend to avoid uncertain items if they are bearing with high pressure, anxiety and preferring conservatism, which also reflects the fact that their level of doubt is higher. The level of a person's doubt is affected considerably by the economical development and social structure of a country, and we can construct the eighth hypothesis for the present study as:

H8: Consumers' doubts in various national cultures are significantly different.

Making innovative decisions actively

Midgley and Dowling (1978) asserts the connection of a person's innovative decision made independently from other's experience and his/her adoption of innovativeness. That is to say, an individual who likes to make innovative decisions intrinsically always does it actively due to his/her individualism personality. Hofstede (1991) further discovers the interrelationship between individualism personality of a citizen and GNP per capita of his/her country. It is worthy to conduct a further study on the association of an individual's making innovative decisions actively and the national culture he/she immerses, which is the derivation of the ninth research hypothesis:

H9: Consumers' making innovative decision actively in various national cultures is significantly different.

Perception to attractiveness of marketing strategies

Within this subcategory, the focal point is consumers' being attracted to the marketing activities initiated by the business, which include marketing strategies, design of the products, promotions and advertisements. These marketing activities depend extensively on consumer's preference, purchasing habits, and acceptable price range, which are extremely dissimilar in different countries. Another issue that cannot be overlooked is the cultural taboo and it will seriously determine how consumers perceive the marketing strategies. The tenth hypothesis is hereby ascertained:

H10: Consumers' perceptions to attractiveness of marketing in various national cultures are significantly different.

METHODOLOGY

Participants

The present study was conducted in the period from May 1st to June 30th, 2008 while a questionnaire was distributed to local consumers (Taiwanese) and international students from different countries. A total number of 450 copies of questionnaires were distributed and 446 valid ones were successfully retrieved for statistical analyses. The sampling techniques employed by the present study was simple random sampling, by means of this technique, 217 Taiwanese consumers and the other 229 ones were international students in Taiwan. Among this group of international students, 57 were from Hong Kong, 69 from Malaysia, 40 from Macao, 25 from Vietnam, 18 from Indonesia, 19 from Myanmar and 1 from Japan. Since only one valid sample was from Japan, we decided to partial it out for its lack of statistical power for generalizability. As a result, the finalized total of participants was 445 instead of 446.

Design of questionnaire

The design of questionnaire used by the present study was on the basis of Hofstede's study about national culture in 1994 and the

scale developed for the research about consumer's adoption of innovativeness, which was conducted by Hurt et al. (1977). For the national culture facet, 18 items were constructed for the questions about national culture and "power distance" (4 questions), "individualism" (4 questions), "avoidance of uncertainty" (4 questions), "masculinity" (4 questions), and "long-term orientation" (2 questions) are the major dimensions contained in this part.

Another facet of this questionnaire consisted of 20 questions, which were extracted out of 53 questions from the scale of Hurt et al. (1997) through factor analysis and Varimax rotation. The original scale has attribute of describing respondent's personality and willingness to change, which matches the purpose of this present study. For this reason, the evaluation of a participant's level of acceptance toward innovative marketing is administered with this section of the questionnaire.

RESULTS

Demographic data

The following table summarizes the demographic information of all valid 445 participants. The demographic data demonstrated the fact that in the present study, we had more female participants than the males (290 to 155). More than half of them were younger than 20 years old (63%) and hence most of them were unmarried (97%) whereas 92% of the total participants were students and 91.2% of them had income less than 20,000 NTD monthly. It also makes sense that not so many of them (12.4%) had more than two-year length of working at this position (Table 1).

Logarithmic regression

Logarithmic regression was used to justify the relationship between national cultures and consumer's level of acceptance toward marketing innovativeness. The detailed information is conveyed and presented in Table 2. According to the results of logarithmic regression, the power distance had negative relationship with individual's level of acceptance toward marketing innovativeness (estimate = -0.01), so was the avoidance of uncertainty (estimate = -0.01). The other dimensions, individualism, masculinity and long-term orientation, were all positively correlated to individual's level of acceptance toward innovativeness and the estimated values were 0.04, 0.02, and 0.04 respectively.

ANOVA and Duncan multiple comparisons

The dimensions on consumer's status of adoption on innovation were analyzed on the basis of participants' nationalities through one-way ANOVA to examine whether significant differences did exist in different national cultures. If any difference was significant, Duncan Multiple Comparisons were administered for further investigation.

According to the information shown in Table 3, it is noticeable that the differences were significant in the target seven regions/countries, which supported the sixth research hypothesis. In general, within this dimension, the mean scores of Taiwanese participants were lower than their counterparts of other nationalities. Since the differences were significant, Duncan Multiple Comparisons were utilized and the results showed no significant difference for Questions 39 and 40 (Table 3).

Table 4 demonstrates the situation that consumer's searching for novelty was quite different in the target countries. In terms of Taiwanese consumers' interests for novelty, they were leading their peers from the rest of 6 countries. From a comprehensive standpoint, consumers in Taiwan displayed comparatively less enthusiasm on searching for newness. Duncan Multiple Comparisons advancely showed no difference among question items from 41 to 48.

As what Table 5 has presented, differences of consumer's doubt in the target countries were significant; therefore, the eighth research hypothesis was sustained. In this dimension, Taiwanese consumers' responses toward questions 54 and 55 were the highest among all participants while the responses of other two questions were average (Table 5). No difference has been discovered among questions of this dimension with the application of Duncan Multiple Comparisons.

In terms of consumer's making innovative decisions actively, significant differences were found among participants of different nationalities. We could hereby propose the acceptance of the ninth research hypothesis. The average scores achieved by Taiwanese consumers were all below the mean score of all participants, which indicated that Taiwanese comparatively were not used to making such decisions actively. Furthermore, the results of Duncan Multiple Comparisons showed no significant differences existed among these question items except item 53, which did assert dissimilarities in Taiwanese and Myanmar consumers (Table 6) . The proposed tenth research hypothesis supporting significant differences were shown in the ANOVA Table 7. Generally speaking, Taiwanese consumers had higher average scores on item 56, 60, 61, and 62. While the total scores of each question were taken into account, Taiwanese consumers were ranked the second highest one (just slightly behind the Myanmar) (Table 7). Therefore, compared to consumers of other nations, Taiwanese had stronger perception to attractiveness of marketing strategies. No significant differences were found with Duncan Multiple Comparisons among questions of this dimension. The data rendered in the Table 8 were the scores of dimension of national cultures. The higher the score is, the stronger character a national culture has (Table 8). On the same token, the low score represents the national culture has a weak attribute. Scores of consumer's level of acceptance toward innovativeness were elicited on the basis of the average score consumers of each country obtained, and then it timed the weighted values (that is,

Table 1. Demographic data on participants.

Item	Category	Number	Percentage
Gender	Male	155	35
	Female	290	65
Age	Under 20	279	63
	21~30 years old	153	34
	31~40 years old	8	2
	41~50 years old	5	1
Marital status	Married	13	3
	Unmarried	432	97
Occupation	Full-time students	408	92
	Governmental	5	1
	Manufacturing	5	1
	Business	6	1
	Service	16	4
	Freelance	4	0.8
	Other	1	0.2
Educational background	High school	230	52
	Junior college	11	2
	University	188	42
	Post-graduate	16	4
Monthly income	Below 20,000 (NTD)	404	91.2
	20,001 - 40,000 (NTD)	30	6.8
	40,001 - 60,000 (NTD)	6	1.3
	60,001 - 80,000 (NTD)	1	0.2
	Above 80,001 (NTD)	2	0.5
Length of working at this position	Less than 6 months	293	66.2
	6 months ~ 1 year	66	15
	1 year ~ 1 and half years	16	4
	1 and half ~ 2 years	11	2.4
	Longer than 2 years	55	12.4

Table 2. Logarithmic regression model of the relationship between national culture and consumer's level of acceptance toward innovative marketing.

Dimension	Estimate	Wald statistic	Level of significance
Power distance	-0.01	7.90	0.00
Avoidance of uncertainty	-0.01	15.88	0.00
Individualism	0.04	231.88	0.00
Masculinity	0.02	43.15	0.00
Long-term orientation	0.04	87.14	0.00
	2.78	14	0.00

Table 3. ANOVA table of dimension 1.

| Question | Dimension 1: Consumer's creativity | | | | | | | Total mean | F | P |
	Hong Kong	Macao	Malaysia	Vietnam	Myanmar	Indonesia	Taiwan			
				Mean						
39	4.31	4.36	4.23	4.32	4.63	4.22	3.38	4.21	42.33	0.00
40	4.00	4.03	4.01	3.72	4.37	3.89	2.92	3.85	39.71	0.00
Total	8.31	8.39	8.24	8.04	9.00	8.11	6.30			

Table 4. ANOVA table of dimension 2.

| Question | Dimension 2: Consumer's searching for novelty | | | | | | | Total mean | F | P |
	Hong Kong	Macao	Malaysia	Vietnam	Myanmar	Indonesia	Taiwan			
41	4.26	4.28	4.14	4.20	4.32	3.94	4.27	4.20	64.25	0.00
42	4.00	3.98	3.83	4.04	4.05	3.89	3.87	3.95	58.89	0.00
43	3.58	3.75	3.48	3.52	3.79	3.61	3.78	3.64	63.81	0.00
44	3.69	3.94	3.51	3.60	3.58	3.67	3.11	3.59	46.59	0.00
45	3.86	4.08	3.72	3.80	3.79	4.00	3.99	3.89	60.74	0.00
46	4.35	4.33	4.19	4.56	4.42	4.39	3.83	4.30	49.99	0.00
47	3.39	2.95	3.33	3.04	3.26	3.38	3.21	3.22	59.34	0.00
48	3.68	3.75	3.59	3.80	3.84	3.72	3.70	3.73	59.46	0.00
Total	30.81	31.06	29.79	30.56	31.05	30.60	29.76			

Table 5. ANOVA table of dimension 3.

| Question | Dimension 3: Consumer's doubt | | | | | | | Total mean | F | P |
	Hong Kong	Macao	Malaysia	Vietnam	Myanmar	Indonesia	Taiwan			
49	3.81	3.90	3.67	3.92	3.95	3.78	3.66	3.81	56.42	0.00
50	2.39	2.53	2.49	2.40	2.53	2.44	2.45	2.46	55.01	0.00
54	2.40	2.78	2.48	2.56	2.47	2.61	3.21	2.64	80.46	0.00
55	2.57	2.53	2.71	2.80	2.53	2.72	2.80	2.67	61.82	0.00
Total	11.17	11.74	11.35	11.68	11.48	11.55	12.12			

consumer's creativity - 37.004%, consumer's searching for the novelty - 9.251%, consumer's doubt - 18.502%, consumer's making innovative decision actively - 24.67%, consumer's perception to attractiveness of marketing strategies - 10.573%); afterwards, all these weighted values were summed up for the final scores. For example, Hong Kong consumer's level of acceptance toward innovation was derived as 4.16*37.004% + 3.85*9.251% + 2.79*18.502% + 3.74*24.67% + 3.44*10.573% = 3.70 (Table 9). The information in Table 8 indicated the fact that Myanmar consumers had the highest level of acceptance toward innovativeness whereas Taiwanese consumers had lowest score.

The analysis of Neural network

Neural network has been a popular methodology exploited by researchers and practitioners to predict, classify, and cluster data since its advent (Berry and Linoff, 1997). The present study applied neural network to predict the relationship between the input variables and output variable, which comprises many layers. The input layer is used to handle external data; the output layer is employed to produce information; moreover, the hidden layer features interactions between input and output data. Neural network can be applied for nonlinear questions as well. Accordingly, the present study utilized

Table 6. ANOVA table of dimension 4.

| Question | Dimension 4: Consumer's making innovative decisions actively | | | | | | | Total mean | F | P |
| | Mean | | | | | | | | | |
	Hong Kong	Macao	Malaysia	Vietnam	Myanmar	Indonesia	Taiwan			
51	3.49	3.60	3.45	3.48	3.68	3.44	2.59	3.39	37.86	0.00
52	3.86	3.90	3.91	3.84	4.16	3.61	3.33	3.80	48.48	0.00
53	3.86	3.95	3.83	3.88	4.37	3.67	2.72	3.75	35.49	0.00
Total	11.21	11.45	11.19	11.20	12.21	10.72	8.64			

Table 7. ANOVA table of dimension 5.

| Question | Dimension 5: Consumer's perception to attractiveness of marketing strategies | | | | | | | Total mean | F | P |
| | Mean | | | | | | | | | |
	Hong Kong	Macao	Malaysia	Vietnam	Myanmar	Indonesia	Taiwan			
56	3.35	3.40	3.39	3.28	3.47	3.22	3.51	3.37	64.82	0.00
57	3.32	3.40	3.41	3.20	3.47	3.33	3.21	3.33	56.31	0.00
58	3.21	3.30	3.36	3.16	3.47	3.27	3.22	3.28	57.49	0.00
59	3.53	3.55	3.74	3.56	3.79	3.67	3.62	3.64	59.33	0.00
60	3.74	3.85	3.80	3.80	4.00	3.78	4.00	3.85	63.45	0.00
61	3.18	3.28	3.25	3.04	3.58	3.06	3.88	3.32	80.45	0.00
62	3.75	3.78	3.83	3.68	3.89	3.67	3.89	3.78	63.03	0.00
Total	24.08	24.56	24.78	23.72	25.67	24.00	25.33			

Table 8. Scores of dimension of consumer's national cultures.

Dimension	Hong Kong	Macao	Malaysia	Vietnam	Myanmar	Indonesia	Taiwan
Power distance	51	66	51	73	57	60	53
Avoidance of uncertainty	52	45	56	34	43	64	60
Individualism	94	94	91	100	83	98	67
Masculinity	-9	-4	5	-28	11	-4	37
Long-term orientation	43	43	42	43	44	40	55

Table 9. Scores of dimension of consumer's level of acceptance toward innovativeness.

Dimension	Hong Kong	Macao	Malaysia	Vietnam	Myanmar	Indonesia	Taiwan
Level of acceptance toward Innovation	3.70	3.77	3.69	3.66	3.95	3.63	3.16

various types of neural networks to examine the association of national cultures and innovative marketing. The input variables included five items on national cultures and the outputs were variables of innovative marketing (Table 10). Data in Table 10 were the results of neural network analysis. Index 1 represented the General Regression Neural Network (GRNN), in which the first hidden layer had 5 units and the second one 6 units with the value of .166 as the Train Error. The second index was the Radial Basis Function Network (RBFN) and there was one unit found in the first hidden layer. The Train Error of this index was 2.463. Linear Network was the Index 3, which contained no hidden layer and the Train Error was 0.00 in this case. Index 4 was the Multi-layer Perception Network and the first hidden layer had 12 units with the Train Error of .009. Index 4 and 5 were similar but they did have some differences on the second hidden layer (Index 5 has another 12 units in the second hidden layer) and the Train Error (Index 4 is 0.009 and Index 5 is 0.002,

Table 10. Neural network analysis of national cultures and innovative marketing.

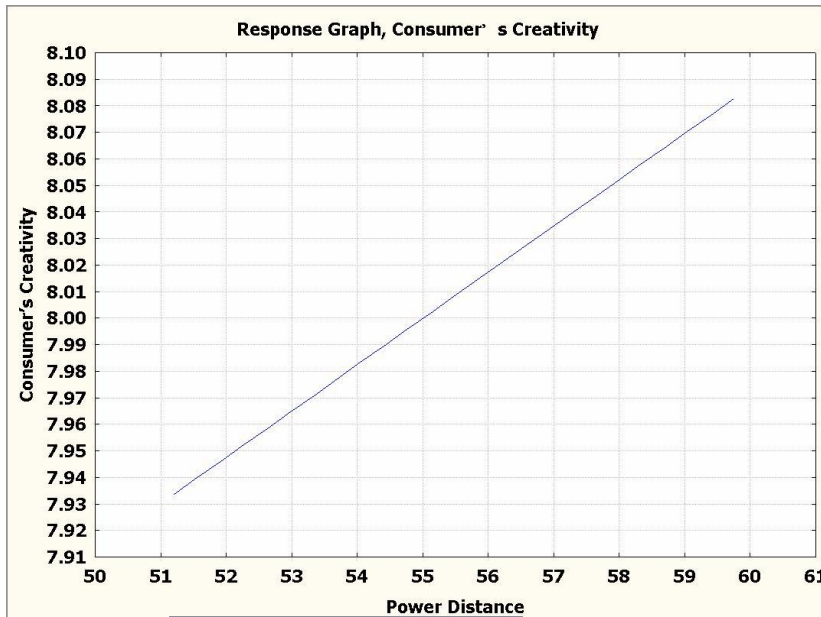| Index	Profile	Train perf.	Select perf.	Text perf.	Train error	Select error	Text error	Input	Hidden (1)	Hidden (2)
1	GRNN 5:5-5-6:5	0.02	0.00	0.00	0.166	45.20	17.94	5	5	6
2	RBF5:5-1-5:5	0.27	0.00	0.00	2.463	31.86	27.82	5	1	0
3	Linear5:5-5:5	0.00	0.00	0.00	0.00	19.03	0.78	5	0	0
4	MLP5:5-12-5:5	0.02	0.00	0.00	0.009	3.80	1.24	5	12	0
5	MLP5:5-12-12-5:5	0.01	0.00	0.00	0.002	2.98	1.38	5	12	12

Figure1. Relationship between consumer's creativity and power distance.

respectively). The lower value a Train Error has, the better model the network is; thus, Index 3 was the best model in the case of the present study. Based on this information, the graphs founded on the linear network of Index 3 demonstrated the relationship between national culture and innovative marketing. The following graphs portrayed the positive relationship among dimensions of national cultures and marketing innovativeness. However, consumer's perception to attractiveness of marketing strategies and power distance had a negative relationship (Figures 1 - 5). Relationships among variables in the dimensions of national cultures and innovative marketing drawn out from neural network analysis were summarized in Table 11, which specified the connection of individual variables of these two dimensions.

CONCLUSIONS AND DISCUSSION

The present study is designed to consumer's level of

acceptance toward innovative marketing from national cultures perspective. The aspect of national cultures is based on Hofstede's research (1991) and participants are from Hong Kong, Macao, Malaysia, Indonesia, Vietnam, Myanmar, and Taiwan respectively. Results of this study show that power distance and avoidance of uncertainty correlate negatively with level of acceptance toward innovativeness whilst individualism, masculinity, and long-term orientation have positive relationship with consumer's adoption of innovativeness. For consumer's level of acceptance toward innovative marketing, five dimensions are found to be significantly different across these seven regions/countries. Additionally, through Duncan Multiple Comparisons, this study discovers no significant difference existed amid most of the variables. Afterwards, the analysis of neural network is implemented to attain comprehensive association of national cultures and innovative marketing, which is of great assistance to make precise reflection and prediction on behaviors of consumers with various cultural backgrounds.
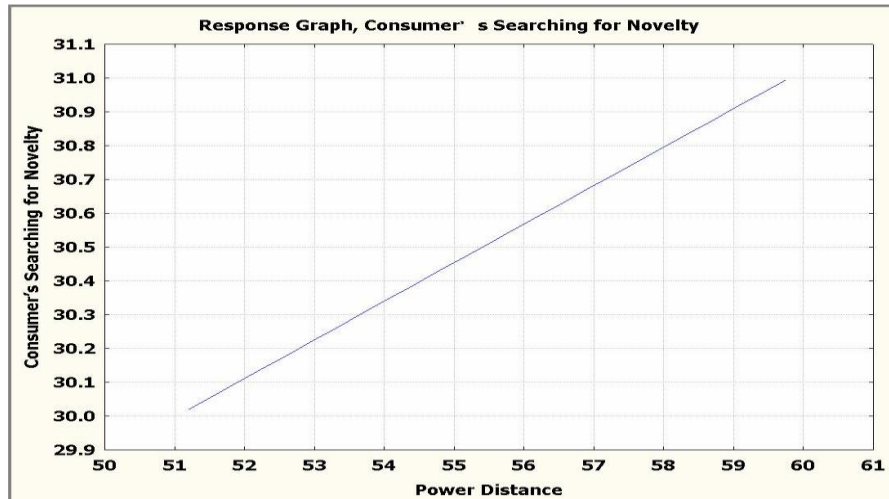
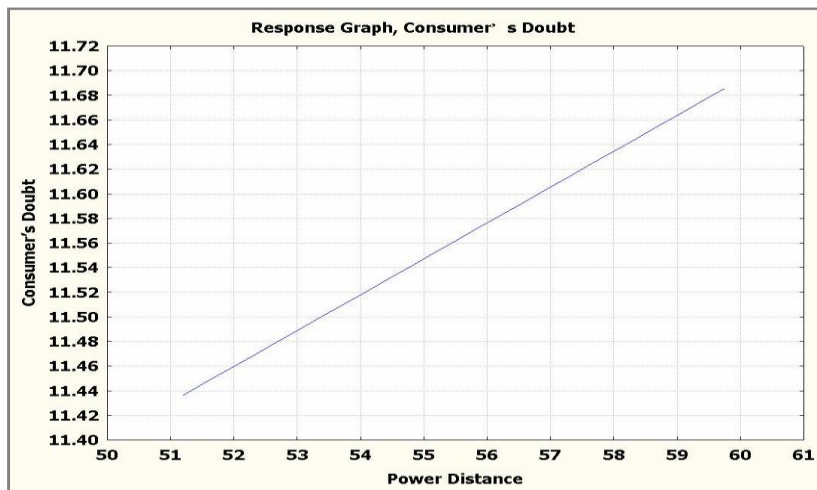**Figure 2.** Relationship between consumer's searching for novelty and power distance.

Figure 3. Relationship between consumer's doubt and power distance.
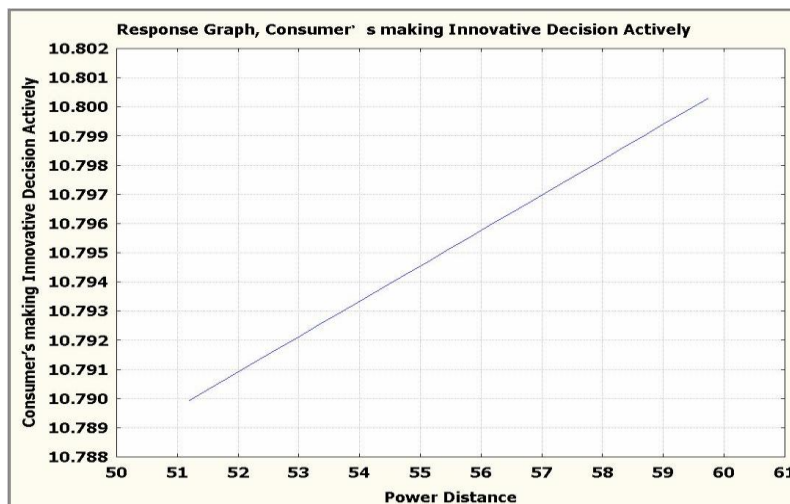

Figure 4. Relationship between consumer's decision to make innovative decisions actively and power distance.
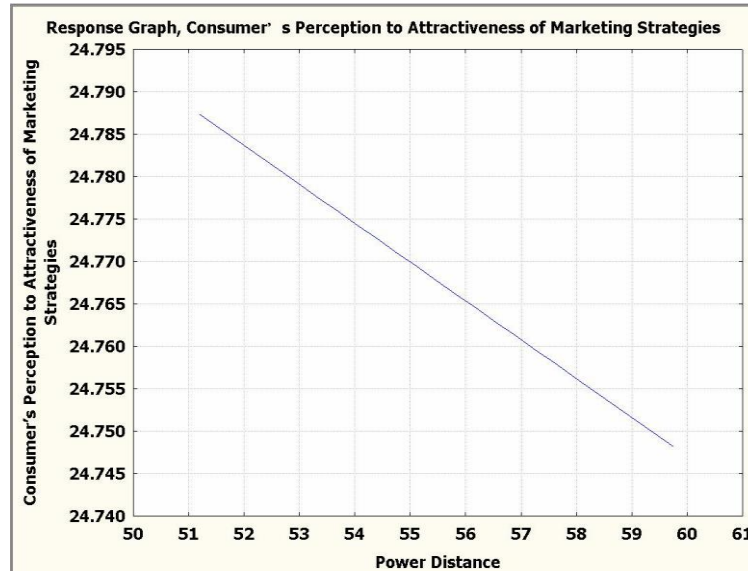
Figure 5. Relationship between consumer's perception to attractiveness of marketing strategies and power distance.

Table 11. Relationships among variables in the dimensions of national cultures and marketing innovativeness.

	Consumer's creativity	Consumer's searching for novelty	Consumer's doubt	Consumer's making innovative decision actively	Consumer's perception to attractiveness of marketing strategies
Power distance	Positive	Positive	Positive	Positive	Negative
Avoidance of uncertainty	Positive	Positive	Positive	Positive	Negative
Individualism	Negative	Negative	Negative	Negative	Negative
Masculinity	Positive	Negative	Positive	Negative	Positive
Long-term orientation	Positive	Positive	Positive	Positive	Negative

First of all, in the dimension of consumer's creativity, Taiwanese consumers are asserted to have lowest creativity among all participants, which points out the weakness of Taiwanese consumers when they are facing problems about the products or service. According to Hirschman (1980), consumers with greater creativity would fairly choose new products to solve the existing problem on consumption. Greater creativity does not link to higher level of acceptance to new items; rather, it implies the better ability to assess products. Should a specific new item bring in more benefits than the original one, consumers with greater creativity tend to acknowledge it momentarily.

On the subject of consumer's searching for novelty, all participants, regardless of their nationalities, realize the importance of acquiring new information or knowledge to stay on top of competition. Taking the issue of con-sumer's searching for new ways to solve problems into consideration, Taiwanese consumers outstand at this point, which means that Taiwanese are able to adopt new

ideas to replace the old ones. For the dimension of searching for applicable information about new concept, participants from all countries score above 4 point except the ones from Taiwan. The inferences of this piece of information are twofold: they do not take new concepts or they do not need to exploit their efforts for it. Furthermore, consumers have identically negative responses to being asked to share new information with one another, but they all are willing to try new products or service.

While considering consumer's doubt, the higher score signifies the more thorough concern the consumers have taken on the new product or service. Results of this pre-sent study receive universal feedbacks from participants of various countries. Consumers of the target countries do not take the marketing strategies straightforwardly; in other words, they tend to have a dubious attitude toward the quality of the products or service a business is able to offer as well as the feasibility of the marketing strategies as the business is proposed. However, Taiwanese consumers have higher possibility to accept marketing

strategies than their peers because they have the lower score in this dimension. On the other hand, Taiwanese consumers would wait for the confirmation or testimony from other consumers before making consumption decision. Therefore, they do not prefer to make innovative decision actively. Compared to consumers of other countries, Taiwanese are not the ones who lead the trend of using innovative products or service. They have to assess the value of the product or service before taking action.

For consumer's perception to attractiveness of marketing strategies, participants' answers are similar across countries. The innovative marketing strategies or product designs do appeal to the participants and they also pay attention to creative or groundbreaking commercials, particularly Taiwanese consumers. They also care about the new logistic system that a business should use to avoid the occurrence of backorder. The analysis of this dimension concludes that Taiwanese consumers have higher level of acceptance toward the innovative marketing strategies, including promotion activities, products design, and logistics.

SUGGESTIONS FOR BUSINESS

When enterprises are trying to expand their business to the markets of various cultures, acquiring knowledge on the relationship between national cultures and consumer's level of acceptance toward marketing innovativeness is crucial to acquire shares in the market. Results of previous studies have ascertained that in the cultures of high power distance, consumers have lower level of acceptance toward marketing innovativeness because they are used to follow, not to lead (Hofstede, 1991). In the society of this cultural attribute, business may achieve great success in marketing if the endorsement of a celebrity can be applied.

For a market with high avoidance of uncertainty, consumers usually do not take risks and thus have lower level of acceptance toward innovative marketing. They tend to stick to the products they are already familiar with. Under such circumstances, it may be able to break the ice by giving out free samples of new products to the consumers or to offer them satisfaction guarantee to raise their interests. Besides, providing some add -on value such as warranty and after-sales service to strengthen consumer's confidence in new products may also be realistic as well.

Consumers of individualism do feel comfortable to try new products; however, the societies of fellowship have rigid social structures. Marketing strategies in the fellowship cultures can help consumers acknowledge the benefits of new products or service through "soft" approach of sharing. Such "soft" approach of sharing is also good for consumer of feminism societies. Singh (2006) proposes that feminism consumers are easier

being influenced by other's opinions. Furthermore, they tend to follow the trend than consumers of masculinity do. Creating a fashion for feminism consumers to trace may be an effective marketing strategy. Similar to their individualism counterparts, consumers with short-term orientation focus more on themselves and they prefer not to accept new products. Case in point, accentuating the value of a new product to reflect his/her status may encourage consumer to try it.

Moreover, the present study also proposes some suggestions to marketers of businesses on the account of five dimensions of innovative marketing. When they are dealing with consumers whose creativity is comparatively lower, markets may utilize public media including TV/radio commercials and advertisements in periodicals to make consumers re-assess how new products or service may solve the problems they are facing currently. Consumers may have more interests to accept the innovative marketing strategies implemented by the business. For those of feminism, the present study recommends marketers may give out free samples for trials and consumers will experience the benefits a new product or service has brought to them.

In countries where consumers are not very used to searching for novelty, enterprises might maximize the use of public media to elevate the curiosities of consumers on the new products/services through in- person Q and A or other on-site interview. The exposure of new products or service may further prompt consumer's interests to explore new things. To consumers with greater doubts, marketers may promote their willingness to try new products via add-on values such as after-sale service. Nonetheless, when the target consumers are those who are reluctant to make innovative decisions actively, endorsements of celebrities may be an effective marketing plan to attract potential consumers.

The enterprises are advised to reconsider their capability before entering the markets where consumers' perception to attractiveness of marketing strategies is rather lower. Consumers with lower perception to attractiveness of marketing strategies usually feel comfortable with the products or services they are having unless some major flaws have been discovered. It will not be an easy job for marketers to change these consumers' mindsets in a short period of time. Furthermore, the cultural taboo is another issue needed to be careful about. To sum up, apprehending a share in these markets will take enterprises an impressive amount of time and efforts to alter target customers' consuming behaviors.

SUGGESTIONS FOR FUTURE RESEARCH

The contribution this paper may have to the academia is its empirical findings on the significant influence of national cultures toward consumer's level of acceptance on marketing innovativeness. However, the present

research also has its limitations, which can lead to the suggestions for the future research. Cautions are advised when interpreting the results of this study. The participants were mainly from Asian countries and thus, the generalizability of the results should be limited to the aforementioned countries. Survey of a larger scope to include more national cultures can be carried out for further comparison. In addition, the publication of Hofstede et al. (2008) adds another two dimensions in the updated questionnaire on national cultures, which makes suchlike survey much more all- inclusive. Last but not least, there is a need to contain all major cultures for comparison of consumers' behavior. Future studies may shed light on related comparisons across various cultures on the basis of these seven dimensions.

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