Original Research Article

Do We Need to Consider Consumer Based Brand Equity as Facets in Managing Product Harm Crises? Asian Young Consumers' Point of View

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ABSTRACT

Product harm crises cause detrimental impact on consumer based brand equity (CBBE). Do the facets also cause the same? Do all nationalities respond in a similar way in valuing CBBE? This is an attempt to search answers to these research questions by using 101 Asian young consumers in China and Sri Lanka. Study used a pre-tested questionnaire survey in each country. Independent sample *t* test was used as the main analytical method. Results showed that product harm crises cause detrimental effects on facets of CBBE as well revealing a new insight in product harm crisis management literature. Moreover, study revealed the national significance of valuing facets of CBBE during product harm crises. Therefore, from managerial perspective, current study shows that it is more worthwhile to consider CBBE as separate facets rather than as a composite variable in particular in a product harm crisis situation, as it seems that facets of CBBE reflect the real economic significance of companies during product harm crises.

Keywords: Product harm crisis, consumer based brand equity, facets, China, Sri Lanka.

INTRODUCTION

Consumer based brand equity (CBBE) is a multi-faceted concept. [1] The effect of product harm crises on consumer based brand equity (CBBE) has been already documented in the existing literature. [2,3] Moreover, past literature has repeatedly documented the facets of brand equity. [1,2,4-7] However, none of them considered how product harm crises shape the facets of brand equity. Moreover, some researchers have discussed the facets of CBBE [1] and some have discussed CBBE as a composite concept [3] this keeps the status of CBBE ambiguous during unexpected and sudden situations. What we should consider? Whether CBBE as a composite concept or as a multi-faceted concept under such circumstances? This alarms future risk of markets in managing

this asset, in particular during the unexpected and sudden events such as product harm crises. This study tries to fill this gap in the existing literature.

In spite of understanding consumer perceptions in product harm crises vary across cultures, [8-10] the scarcity of cross cultural studies investigated the effect of product harm crisis on facets of CBBE, motivates this research to look into how culture shapes the facets of CBBE. Even though some cultural studies are present in the existing crises literature, [9-11] most of these studies are based on European and U.S context paying a very little attention to the Asian context. Therefore, majority of the existing theories are based on European and U.S consumers' view, and the existing theories based on Asian consumers' voice are scant. Hence, the

applicability of these theories and concept toward Asian consumer seems questionable. Economic expansion coupled with globalization demands Asian consumers' voice in existing theories.

In order to fill these existing caveats in the product harm crises literature, current study tries to answer the following research questions that yet remain unanswered. Does a product harm crisis shape the facets of CBBE? Is there any significant difference between Chinese and Sri Lankan consumers in valuing the facets of CBBE in a product harm crisis based on their beliefs? These questions are of particular concern to marketers, since it seems eroding market share significantly, if not explored.

Therefore, the purpose of the present study is to examine the effect of product harm crisis on facets of CBBE, with special reference to Chinese and Sri Lankan young consumers. That helps to spawn a number of important implications of CBBE. In fact, this study is one of the pioneering studies scrutinized Asians' views during product harm crises.

Hypotheses development: Product harm crisis seems affecting differently the various components of brand equity, as 'firm response to crises may differently affect the various components of brand equity….' [2] Past literature contended the importance of considering facets of CBBE in order to launch fruitful brand management strategies. [1] Moreover, the existing literature showed that the facets of CBBE capture consumers' brand related beliefs and these beliefs are mainly guided by their respective culture. [12] Therefore, national culture seems significantly shaping brand valuation as well as valuing of the components of brand equity. For instance, considering Turkey and Spain samples Kocakand his colleagues [13] argued that consumers arrive at different evaluations of brands as a result of different cultural conditions. By using three independent samples of American,

Korean, and, Korean Americans, related to multidimensional brand equity (MBE) consists of ten items reflecting the three dimensions of brand equity for example, brand loyalty, perceived quality and brand awareness/ associations, and a four -item unidimensional (direct) measure of brand equity (overall brand equity), Yoo and Donthu [5] revealed that the development of an individual -level measure of consumer based brand equity is reliable, valid, parsimonious, and draws on the theoretical dimensions put forward by Aaker [14] and Keller. [15] Authors further argued that a strong and significant correlation between these two measures. Moreover, in their study in 2002, authors revealed the differences in these brand equity dimensions with respect to an invariant effect on brand equity across the US and Korean national cultures. [16] In addition, related to UK and Spain consumers Builand his colleagues [17] revealed that the hypothetical structure of their dimensions of CBBE was supported in both countries. Further, authors argued that the reliability of the adoption of an etic approach, which refers as the "simultaneous use of samples from multiple cultures [18] or robustness of present theoretical models across cultures." [19,20] In addition, Erdemand his colleagues [21] proved the existence of cultural difference in consumer brand choice. By using survey and experimental data on orange juice and personal computers related to Asian, European, and North and South American respondents, authors showed that consumer perceptions on brand equity vary significantly among these countries due to the variation of Hofstede's [22] cultural dimensions of uncertainty avoidance, collectivism, and power distance. Moreover, authors revealed that the brand credibility is the key construct of brand equity in economic brand approaches. Credible brands provide more value to the collectivist and high uncertainty avoidance consumers due to

the higher quality and lower risk attached to these brands respectively. [21] In addition, brand knowledge, the antecedent of CBBE in Keller's [15] model, is mainly guided by the national culture which it is developed and used. [23]

Therefore, in the same vein, current study posits that consumers evaluation of facets of CBBE may vary based on their respective national ideologies. Yoo and Donthu [5] attenuated that different cultures place different levels of importance on the dimensions of brand equity. Due to the presence of wide disparity in using the facets of CBBE in the existing literature, study focuses on the main facets of CBBE, as suggest by Dawar and Pillutla, [2] in a product harm crisis context; brand attitude, brand trust, perceived quality of the brand, perceived quality of the products of the brand, and brand desirability. Therefore, it can be postulated that the consumer assesses these facets differently based on their specific national cultures.

H1= There will be a significant difference between Chinese and Sri Lankan consumers in assessing the facets of CBBE, i.e., (a) brand attitude (b) brand trust (c) perceived quality of the brand (d) perceived quality of the products of brand, and (e) brand desirability in a product harm crisis.

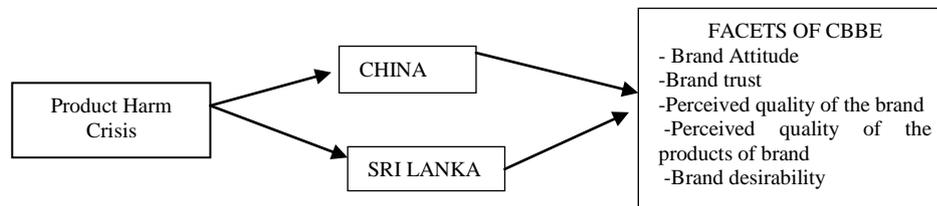Figure 1 represents the conceptual framework of the study

Fig.1: Conceptual model

MATERIALS AND METHODS

A self-administrated, pre-tested questionnaire survey was administered to test the proposed hypothesis. Two versions of questionnaire; Chinese and English were used to capture responses from Chinese and Sri Lankans respectively. The English version of the questionnaire was translated into Chinese by bilingual researcher and back-translated by different bilingual researcher in order to maintain translation equivalence. A fictitious crisis scenario explained a company culpable crisis situation. A fictitious yogurt brand "X" was used as the stimulus brand on the basis of pre-test. A pre-test comprised of a mixed sample of 40 students of Chinese and Sri Lankans showed that majority of the respondents preferred yogurt. All subjects rated their mean likeability above 5.Pre-test confirmed that there were no significant country specific differences or gender specific differences among respondents related to the likeability of yogurt (p>. 05). Moreover, there was no significant difference on the average likeability of the yogurt between Chinese and Sri Lankans (China=5.45, Sri Lanka=5.78; F=1.52, p=0.22). Nor did the two countries differ from each other on any pair of individual consumers. In addition, gender was insignificant with respect to the likeability of yogurt (male=5.49, female=5.75; F=0.94, p=0.34). Therefore, study concluded that any effect on the dependent variable was not attributable to differences in the importance of the product attributes for the two national cultures or genders. Hence, yogurt was selected as the product category in the final questionnaire.

Company culpable crisis (locus of the crisis is company, stable and controllable by the company) was used since Attribution theory predicts that consumers' attitudes are more likely to be negatively affected when the crisis event is perceived to be internal and controllable by the company than when it is external and uncontrollable [24] and it has been

proven in a product harm crisis context. [25] A fictitious brand and a fictitious crisis scenario were taken to avoid confounding effects due to consumers' potential relationships or experiences with existing brands and past product harm crisis situations. [26] Moreover, it helps to eliminate the potential effects of pre-existing brand attitudes [27] and to avoid the possibility of contamination of pre-existing brand associations- essentially, to minimize subject bias. [28]

Sample and procedure: Study conducted two surveys of two samples of total 101Chinese (n=51) and Sri Lankan (n=50) based undergraduate marketing and business management specialized students. After questioning several demographic questions, the company culpable product harm crisis scenario was stated followed by questions to elicit perceptions of locus, stability, and controllability in order to understand whether consumers responses reflect correctly identified crisis situation (company culpable). Then questions related to facets of CBBE, namely, brand attitude, brand trust, perceived quality of the brand, perceived quality of the products of the brand, and brand desirability [2] were stated in order to understand whether product harm shapes the facets of CBBE. Questionnaires were randomly distributed among respondents in classroom sessions. It is important to note that before the completion of questionnaires, respondents were informed that the scenario is imaginary in order to encourage them to read the fictitious scenario carefully and then answer the questions that followed. [29] Study performs a convenient sampling method since questionnaires can be easily and quickly collected and respondents are more corporative. [30] However, past scholars highlighted the threat of external validity and generalizability of the student samples due to the non-representativeness and unique characteristics of the population. [31] Our research argues that

the use of student respondents is deemed acceptable and even desirable in some cases particularly when they constitute the major consumer segment for the selected product. [4] In addition, Yoo and Donthu [5] used the word "student consumers" (pg.3). Most interestingly, past literature documented that well-matched (homogenous within and between cultures) samples are more useful than representative samples, because they allow more exact theoretical predictions and reduce the confounding effects of other factors in cross-cultural studies. [32]

Experimental condition was preferred as experimental researches are essential to build evidence based-knowledge for crisis management. [33] Moreover, experimental researches help to search important managerial implications, for instance, "moderating effects or mediating effects." [34,35] In addition, Theofilou and his colleagues [36] showed the significance of using imaginary scenarios as a valid method in a crisis management research.

Measures: The experimental survey instrument included measures of attributions (locus, stability and controllability of the crisis), and facets of CBBE. The items used for attributions [37] were measured with 7- point Likert scale ranging from 1= "strongly disagree" to 7= "strongly agree". Measurements of CBBE were made at the individual consumer level [5] and unidimensional CBBE was used to measure the facets of CBBE according to the suggestions of previous researchers. [5] Builand his colleagues [17] showed that the hypothetical structure of their dimensions of CBBE is supported in both countries in UK and Spain consumers. Further, authors argued that the feasibility of the adoption of an etic approach, which refers to the "simultaneous use of samples from multiple cultures" [18] or "robustness of present theoretical models across cultures." [19,20] Therefore, current study

used five-item unidimension seven point semantic scale to measure the facets of CBBE. For instance, brand attitude was measured as 1= unfavorable, 7= favorable; brand trust was measured as, 1= not at all trustworthy, 7= very trustworthy; quality of brand 'X' was measured as, 1= low quality, 7= high quality; perceived quality of the products of the brand 'X' was measured as, 1= low quality, 7= high quality, and brand desirability was measured as, 1= not at all desirable, 7= very desirable. Respondents rated fictitious experimental situations as, 1= "not realistic at all" and 7= "very realistic" at the end of the scenario to ensure the plausibility.

Analyses: Collected data were analyzed by using SPSS (version 20.0). Factor analysis identified the validity and reliability of the different items used in each construct measured the same underlying construct. The reliability of the scales was assessed by reliability coefficient, Cronbach's alpha.

RESULTS AND DISCUSSION
Reliability, Validity analysis and Manipulation check: The analysis showed the average correlation among the items verifying the internal consistency. All indexes were above their respective thresholds, providing evidence for acceptable scale reliability (Table 1). Moreover, majority of the respondents in two countries recognized correctly the locus, stability and controllability of the product harm crisis as internal locus (96% Chinese and 96% Sri Lankan), stable (98% Chinese and 90% Sri Lankan) and controllable (96% Chinese and 90% Sri Lankan), which the experimental scenario needed to accentuate. In addition, majority of respondents in China (78 %) and Sri Lanka (92 %) proved the reliability of the experimental scenario.

Table 1: Validity and Reliability results of each constructs with measurement scales: company culpable crisis

variables	Items	KMO of Sampling Adequacy		Cronbach's Alpha	
		China	SL	China	SL
Locus	The cause reflects an aspect of the celebrity The cause is inside of the celebrity The cause is related to the celebrity's own responsibility	.71***	.77***	.85	.95
Stability	The event is stable overtime	-	-	-	-
Controllability	The cause is under the control of target celebrity The target celebrity is responsible for the control of his own action	.50***	.50***	.74	.88
CBBE	What do you feel about the attitude of brand "X"? What do you feel about the trust of brand "X"? What do you feel about the overall perceived quality of brand "X"? What do you feel about the overall perceived quality of the products of brand "X"? What do you feel about the desirability of brand "X"?	.84***	.86***	.94	.92

Bartlett's Test of Sphericity, ***P< 0.001, Note: SL refers to Sri Lanka. CBBErefers to consumer based brand equity (as a measure of consumer belief)

Table 2: Facets of CBBE: Correlations and differences (*t* tests) and means [a]

	CHINA					SRI LANKA				
	Atd.	Tr.	PQx	PQpx	Des.	Atd.	Tr.	PQx	PQpx	Des.
Atd.	1	.70**	.78**	.78**	.74**	1	.78**	.69**	.70**	.65**
Tr.	*1.51*	1	.75**	.79**	.73**	*2.59**	1	.65**	.71**	.58**
PQx	*2.62**	*1.31*	1	.95**	.70**	*3.44***	*1.09*	1	.80**	.76**
PQpx	*3.05***	*1.79*	*.53*	1	.71**	*4.62****	*2.47**	*1.48*	1	.77**
Des.	*1.13*	*-.38*	*-1.89*	*-2.51**	1	*6.12***	*3.84****	*2.80***	*1.22*	1
Mean	1.96	2.20	2.44	2.54	2.14	1.58	1.84	1.96	2.14	2.28

Note: [a] Above the diagonal, Pearson correlations; below the diagonal *t* values in Italic, *** p<0.001, ** p<0.01, * p<0.05, Atd.= Brand attitude, Tr.=Brand trust PQx= Perceived quality of the brand, PQpx = Perceived quality of the products of brand Des.= Brand desirability.

Hypotheses test results
Impact of crisis on facets of CBBE: The independent samples *t* test was used to test H1. Results revealed that brand attitude (*t=*

1.79, p=0.07) and brand trust (*t*=1.91, p=0.05) were marginally significant [2, p. 221] between these two countries; China and Sri Lanka. Therefore, H1a and H1b

are supported. Even though product harm crisis cause detrimental effect on these two facets (demonstrating low mean values on seven point Likert scale), Chinese consumers exhibited relatively higher values than their Sri Lankan counterparts (Means were 1.96 vs. 1.58 related to brand attitude and 2.20 vs. 1.84 related to brand trust in China and Sri Lanka respectively) revealing the cultural disparity in valuing these facets. It is interesting to note that perceived quality of the brand was significantly different between these two countries (Means were 2.44 vs. 1.96 respectively in China and Sri Lanka, $t=$ 2.24, p= 0.03) verifying H1c. Therefore, respondents in these two countries perceive different "judgment about the product's overall excellence or superiority". [38] Interestingly, perceived quality of the products of the affected brand was also marginally significant (Means were 2.54 vs. 2.14 in China and Sri Lanka respectively, $t=$ 1.77,p= 0.08) whereas brand desirability is insignificant between these two countries (p> 0.05). Therefore, H1d is substantiated whereas H1e is not substantiated.

CONCLUSION AND IMPLICATIONS

This article examines whether product harm crisis shapes facets of CBBE in a cross cultural perspective. Study reveals that product harm crisis shapes facets of CBBE in a cross cultural perspective. Further study shows the cultural parity and disparity between consumers in these two Asian Emerging markets; China and Sri Lanka in valuing the facets considered brand attitude, Brand trust, Perceived quality of the brand, Perceived quality of the products of brand, and Brand desirability. Consumers in China and Sri Lanka viewed brand attitude, brand trust, perceived quality of the brand, and perceived quality of the products of the affected brand, significantly different way in a product harm crisis. The detrimental effect is

relatively lower with respect to Chinese, reflecting their national ideology of low uncertainty avoidance. They are belong to a culture with "low stress; subjective feeling of wellbeing" in uncertain situations. [39] However, national culture is insignificant related to brand desirability perceptions in a product harm crisis. These results embellish past literature by showing the cultural significance of facets of CBBE. [4,5]

Therefore, from managerial perspective, current study shows that it is more worthwhile to consider CBBE as separate facets rather than as a composite variable in particular in a product harm crisis situation, as it seems that the overall picture of CBBE does not reflect the economic significance during product harm crises. This is more important in case of multinational companies. Therefore, economic development coupled with globalization demands companies to scrutinize product harm crises situations in a cross cultural perspective.

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