Measurement Model of Brand Loyalty for Palm Cooking Oil Market in Malaysia

Omar Kassim A. Shaban*, Liu Yao, Mohd Ridzuan Bin Darun

Faculty of Industrial Management, Universiti Malaysia Pahang,
Gambang, 26300 Kuantan, Pahang, Malaysia

Abstract

This study examines how Prahalad's market framework influenced brand loyalty in the base of the Palm Cooking Oil market in Malaysia. Although there is a positive correlation between brand awareness and brand loyalty, no studies have quantitatively examined all of Prahalad's 4As as a set of independent variables influencing the dependent variable brand loyalty. The previous studies did not address a statistically significant standardized parameters estimate existing between awareness and brand loyalty. This Rstudy addresses this gap in the research literature through its investigation of the simultaneous impact of Prahalad's 4As on brand loyalty of Palm Cooking Oil in Malaysia. The study validated earlier studies, finding a statistically significant standardized parameters estimate existing between awareness and brand loyalty. These findings directly support Prahalad's initial 4As framework as it relates to awareness and affordability.

Keywords: Brand Loyalty, Prahalad's, awareness, affordability, access and availability

1. Introduction

The infinite growth of emerging markets and self-sufficiency markets and identified five unique characteristics of emerging markets, including: 1) market heterogeneity, 2) social and political governance, 3) no brand competition; 4) Resource shortages; 5) inadequate infrastructure (Sheth, 2011). The existing traditional industrialization and capitalist marketing tools need to be reconsidered to accommodate these unique emerging market characteristics, Sheth suggested to successfully introduce branded products and services into the BoP market. He emphasizes affordable branded products and services, presenting marketing theories that describe brands, branding, brand equity and brand loyalty, which is particularly important for the validation of the BoP market. Brand loyalty is defined as a customer's unconditional commitment to maintaining a strong relationship with the brand that under normal circumstances is unlikely to be affected (Khan & Mahmood, 2012). Brand loyalty is considered a multidimensional structure that can be influenced by factors such as customer perceived value, brand trust, satisfaction, higher willingness to pay, repeated buying behavior and commitment (Sheth & Park, 1974). Brand Loyalty research focused on the definition of brand loyalty, including repetitive and consistent buying patterns. Jacoby and Chestnut (1978) analyzed the unique operational definitions of 53 brand loyalty and divided them into three broad categories: 1) behavior based on open behavior, 2) attitudes based on preference statements or statements of possible behavior, 3) Composite, behavior and attitudes. According to Oliver (Oliver, 1997), brand loyalty refers to the tendency to be faithful to the focus of the brand, which is intended as a primary choice. Aaker (1991) defines brand loyalty, even in the face of superior characteristics, price and convenience of competitors and brands but also with its symbols and slogans, consumers continue to buy the brand. According to Aaker (1991), brand loyalty for the brand or company adds considerable value, because it provides a set of Long-term custom buyers. With the definition of brand loyalty, the history of brand loyalty research conducted in the BoP market needs to be studied. Therefore, and in response to Sheth's (2011) proposal, this quantitative research examines the implications of Prahalad's 4As market approach for BoP market brand loyalty.

1.1. Bop Market Brand and Value Awareness

Contrary to the dominant assumptions of multinational corporations, Prahalad (2004, 2010) found that poor BoP consumers had both a sense of brand and a sense of value. Prahalad found that BoP consumers buy the ideal brand, saying "eager for new and different quality of life is everyone's dream, including BoP's". Van Kabing (2004) found that "a considerable number of urban poor people in developing countries are willing to pay for the designer brand". Vancouver Peng identified two main reasons, in particular: 1) the designer label is a symbol of the social status and integration of the poor who are generally excluded from society; and 2) the purchase of

branded products, the visual distinction between buyers and the poor of the buyers, cannot afford these brands of products. Jaiswal and Venugopal (2008) reviewed the introduction, distribution and marketing of Cavin Kare Shampoo Chik in India's BoP market. The authors found that if the brand offers an acceptable value proposition for BoP consumers, BoP consumers may be aware of the brand, and branded products to picky. Barki and Parente (2010) found that the poor were cautious to buy with limited funds and tend to be more branded to avoid buying errors; the authors found that poor consumers believe that branded products will provide the desired value. The behavior of buying branded products is widely known among Brazilian consumers and has been widely recognized through the discovery of many studies from the Brazilian market research firm (Barki & Parente, 2010). After careful review, none of new studies quantified the basic relationship of Prahalad's 4As as an inclusive four-variable combination. Second, although there was a positive correlation between brand awareness and brand loyalty (Nguyen, Barrett, & Miller, 2011; Khan & Mahmood, 2012), there was no study of Prahalad's 4As as an inclusive set of quantitative tests an independent variable that affects the brand loyalty. This gap in research literature lays the foundation for the study and examines the implications of Prahalad's 4As for brand loyalty. The hypotheses of testing the impact of 4As as independent variables on the dependent variable brand loyalty are summarized in Table 1. All the hypotheses are predicted to be positive (for example, the higher level of each of the expected 4As will result in a higher level of brand loyalty).

Table1 Hypotheses Testing the Impact of Prahalad's 4As on Brand Loyalty Hypotheses Statement

No.	Hypothesis Statement
H1	Higher levels of product awareness will be positively related to higher levels of brand loyalty. The relationship is expected to be positive.
H2	Higher levels of product affordability will be positively related to higher levels of brand loyalty. The relationship is expected to be positive.
H3	Higher levels of product access will be positively related to higher levels of brand loyalty. The relationship is expected to be positive.
H4	Higher levels of product availability will be positively related to higher levels of brand loyalty. The relationship is expected to be positive.

2. Methodology

The methodology adopted to achieve the research objective is explained in the following sections.

2.1. Research Type

A quantitative method was selected for this study because Prahalad's 4As quantitative validation was not found in the BoP literature review. The purpose of quantitative research is to quantify the data and then extend the results from a limited study sample population to a larger population (Malhotra, 2012). Data collection is highly structured, using Likert formatting questions for formal questionnaires. Data analysis and interpretation is performed using the structural equation model (SEM) statistical techniques, in particular the EQS SEM software (Bentler, 2006; Bentler & Yu, 2002). In testing the impact of 4As on brand loyalty, 4As are independent variables that influence individual variables of brand loyalty. This is described as a dependent technique with multiple independent variables and a single dependent variable (Hair, Black, Babin, And Anderson, 2010).

2.2. Research Constructs

This research may be defined as configured research but not directly measurable "unobservable or potential concept" conceptually. Five structures were used: awareness, affordability, access, availability, and brand loyalty. A perfect structure cannot be directly measured, but must be based on previous studies. This research uses several indicators such as "(hair, black, baby and Anderson, 2010, p. 613) approximate measurements. Awareness of Prahalad (2012) is the awareness of a product or service, which are both knowledge of BoP consumers' available products or services, and an understanding of how BoP consumers are using a product or service. Under Prahalad (2004) 2010, 2012), affordability of a product or service is the ability to BoP consumers pay for goods or services, BoP consumers have the ability to finance a product or service. Access according to

Prahalad (2004, 2010, 2012) is the access to products or services, even for consumers in remote areas, where there is a local source or store of products or services. Availability, according to Prahalad (2004, 2010, 2012) is the availability of a product or service in uninterrupted or continuous supply. Brand loyalty by definition Oliver (1997), is the faithful the tendency to prefer one brand, which became the main selection of potential buyers.

2.3. Selected Population and Sample Size

All of structures were measured with a five-point Likert scale, requiring respondents to indicate consistency with the stated statements, ranging from 1 (strongly disagree) to 5 (very much agree). The study was conducted in Malaysia, economic and demographic data are collected by government agencies. Malaysian palm oil consumption enterprises are mainly distributed in food processing enterprises, catering enterprises, chemical processing enterprises three categories. The initial minimum sample target size is based on 300 participants, enough size to make a statistically significant result statement. The sample was various types of employees currently employed by Malaysia's SCS Food Manufacturing Sdn Bhd, Secret Recipe Cakes & Cafe Sdn Bhd and the Malaysian Cosmetics Manufacturers Group (MOMG).

2.4. Variable Data Collection Procedure

The four independent variables (i.e., awareness, affordability, access and availability) were assessed using four sets of three questions for each, which were defined based on Prahalad's works (2004,2010, 2012).

Awareness. Based on Prahalad's definition (2012), the awareness scale items include:
• I am aware of what branded products are available.
• I am familiar with the advantages of branded products.
• I know how to use branded products.
Affordability. Based on Prahalad's definition (2004, 2010, 2012), the affordability scale items include:
• I can afford branded products.
• I have enough money to buy branded products.
• I usually have money to pay for branded products.
Access. Based on Prahalad's definition (2004, 2010, 2012), the access scale items include:
• There is a local store which sells branded products.
• The local store is open when I want to buy branded products.
• It is easy for me to walk to a local store to buy branded products.
Availability. Based on Prahalad's definition (2004, 2010, 2012), the availability scale items include:
• The local store has the branded product that I want to buy.
• The local store sometimes runs out of the branded product that I want to buy.
• The branded product is always available for me to buy.
Brand loyalty. The single dependent variable brand loyalty was assessed using three questions adapted from Lam (2007) in his study that examined the cultural influences impacting brand loyalty. Lam acknowledged that these items were initially developed by Sproles and Kendall (1986) and were employed by Shim and Gehrt (1996). The three brand loyalty scale items include:
• I have favorite brands I buy over and over.
• Once I find a product or brand I like, I stick with it.
• I regularly change the brands that I buy.
It should be noted the five constructs (i.e., the 4As and brand loyalty) were presented in a staggered format to improve the reliability of the survey. For example, awareness was measured by question # 1, # 6, and #11.

2.5. Key Assumptions of Research Methodology.

This Research included two assumptions inherent in international Research. The first key assumption addressing the issue of cross-cultural communication was that the questions in the measurement instrument were understood in the Malaysia. The questionnaire was presented to the respondents in English language. The Malaysian language is based on Malay, which is one of two official languages in the Malaysia; the second official language is English. English is taught in grade schools through universities, used in courts of law, and used by most news researches and some radio broadcasts. The population in the Malaysia can communicate in English, and a majority of the population is literate. Recognizing the existence of cultural language idioms, the measurement instrument was reviewed for both comprehension and unique language issues by university professionals. The second key assumption addressing the issue of cross-cultural communication is that the questions in the measurement instrument were answered accurately and without bias in the Malaysia. The measurement instrument was developed to minimize bias-generating questions. The items did not contain any gender-related questions which might have been offensive to respondents in the Malaysia. There was the potential for the introduction of some minimal bias based on a social desirability of branded products; this bias can arise from the respondents' desire to be able to afford and use branded products. This bias, while not

eliminated on the level of an individual respondent, was judged to have had minimal impact across the large population sample which was used in this Research.

3. Interpretation of Data - Structural Equation Modeling

The data items are analyzed by structural equation model (SEM). The specific SEM program used is Windows version 6.2 (Bentler, 2006; Bentler & Yu, 2002). SEM is an appropriate analytical method for using multiple constructs and multiple variables in this study. SEM has been defined as a "multifactorial technique, combining factor analysis and multiple regression aspects that enable researchers to simultaneously examine a range of interrelated relationships between measurement variables and potential constructs (variables) and between several potential constructs Dependencies (Hair, Black, Babin, And Anderson, 2010). These authors found that "SEM is the best multivariate process to test the constructive validity and theoretical relationship between a set of concepts represented by multiple measurement variables" Hair et al., 2010). In addition, the EQS SEM has a proven ability to analyze non-normal data through its robust fit statistics availability (Bentler, 2006; Bentler & Yu, 2002).

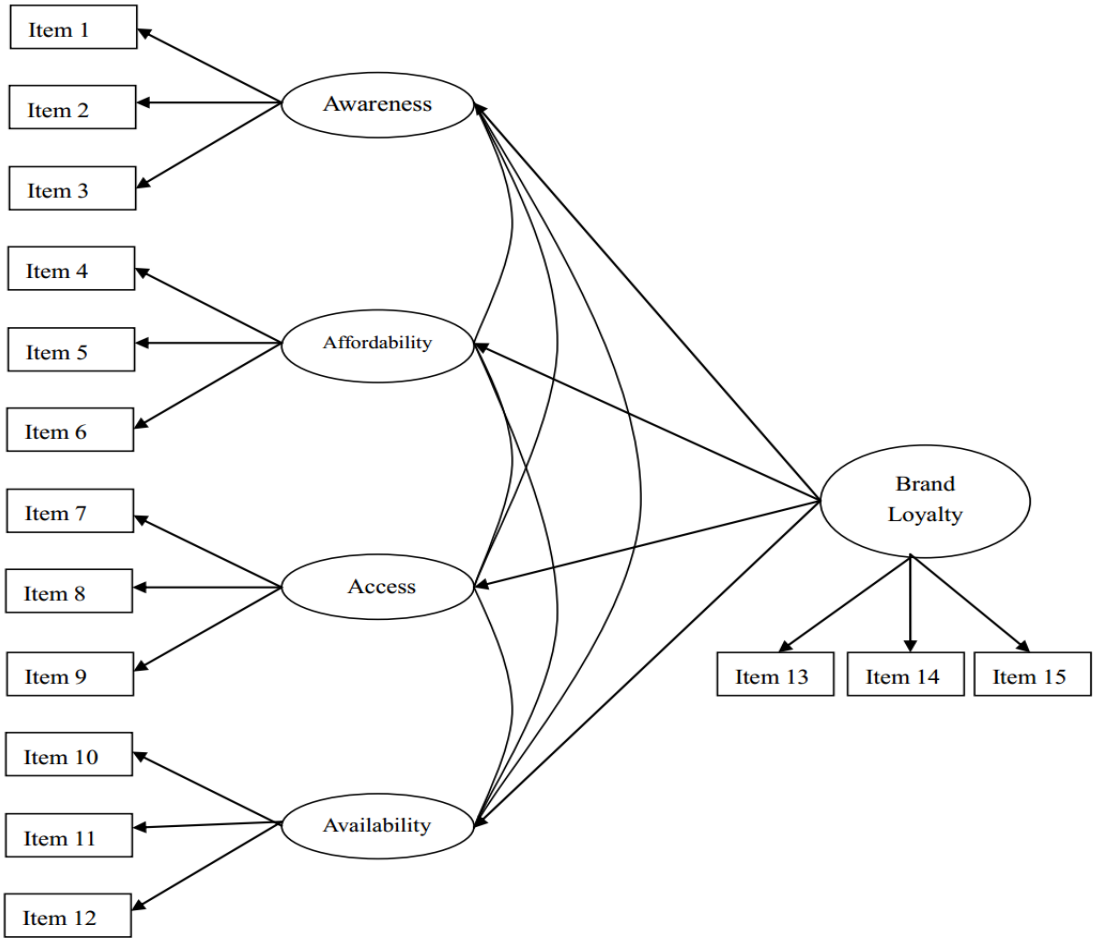

Figure 1 The Structural Equation Model - The Impact of Prahalad's 4As on Brand Loyalty

Note. This model was utilized in this examination of the impact of the 4As on brand loyalty. This figure shows all the relationships to be examined; first the interrelationships between Prahalad's 4As, and then second, the relationships between Prahalad's 4As and brand loyalty.

3.1. Univariate Analysis

The next major step in the research data analysis was univariate analysis to assess the data for normality, and then, to assess the data for reliability. Tests for skewness and kurtosis were employed to test for normality. Cronbach's a (alpha) was computed to assess the internal consistency reliability of the five constructs.

3.2. Normality Measures

It is appropriate to use independent variables and dependent variables as a continuous variable to test the degree of skewness and kurtosis in the analysis. Appendix (G) lists the central trend measures, including determining the mean and pattern of the variables; showing further skewness and kurtosis metrics and their associated z-scores. While it is important to recognize that there are skew and kurtosis in the response, it is also necessary to understand the magnitude or extent of such skewness. Appendix (G) further defines the four degrees of bias specified by D'Agostino, Belanger and D'Agostino (1990) who define skew categories including: slight, acceptable, medium and substantial. Supports the normal distribution of the Bentler and Chou methods, with 14 of the 15 variables showing a smaller skew (ie, the absolute value of the skewness statistic is <1.00) (Bentler & Chou, 1987; D'Agostino, Belanger & D 'Agostino, 1990). An indicator variable AwarQl of the assessment consciousness shows a degree slightly above the skewness at 1.357 and is classified as acceptable Skewness (ie, the absolute value of skewness statistics> 1.00, <2.00). When examining the independent and dependent z-fractions, only two variables scored less than 1.96 on the .05 significance level. These two variables are AffdQ7 (z = 1.444) and AffdQ12 (z = 0.747). In general, these variables were identified as abnormal, albeit not as normal as a slight and acceptable degree (Bentler & Chou, 1987; D'Agostino, Belanger & D'Agostino, 1990). After determining that the variables have a non-normal distribution, selection of the applicable statistical method is performed. Byrne (2006) announced that EQS SEM can use Robust Fit statistics to correct abnormal data distributions in large samples using EQS. Robust statistical statistics are defined as "calculated values [valid] statistics, despite violations of the normality assumptions of the estimation method" (Byrne, 2006). The research has a large sample size (n = 606) and follows the Byrne statement to determine the analysis of the minimum non-normal data by using robust fit statistical analysis. The following analysis has been using robust fit statistics.

3.3. Reliability Measures

A common measure of reliability is internal consistency. The reliability coefficient of the five constructs utilized in this research were measured using Cronbach's a (i.e., alpha) scores, and all five constructs were determined to be reliable measures. Table 2 provides a summary of the Cronbach's reliability measures, which are presented sequentially from highest a score to the lowest a score, within each construct. As referenced in Hair, et al., (2010), a Cronbach's a of 0.70 is the generally agreed lower limit of acceptability, with an Alpha score of 0.60 being judged as acceptable in exploratory Research. Three constructs had acceptable Cronbach's a coefficients based on a combination of three question items, specifically: • Awareness: a = 0.644; based on AwarQ1, AwarQ6 and AwarQ 11. • Affordability: a = 0.871; based on AffdQ2, AffdQ7 and AffdQ12. • Access: a = 0.677; based on AccsQ3, AccsQ8 and AccsQ13. As shown in Table 2, availability and brand loyalty presented the highest Cronbach's a through a pair of two question items, specifically: • Availability: a= 0.772; based on AvalQ4 and AvalQ9. • Brand Loyalty: a= 0.574; based on BrLyQ5 and BrLyQIO. While brand loyalty with an a= 0.574 was slightly below the low limit of 0.60 judged as acceptable in exploratory Research, it was considered as approximately meeting the lower limit of reliability for exploratory Research (Hair, et al., 2010). The dependent variable brand loyalty construct does have a lower reliability than the independent variable constructs; this suggests the need for potential development of future measures which would more reliably represent the brand loyalty construct.

Table 2 Reliability Scores for the Five Constructs

Construct	Questionnaire Items	Number of Items	Cronbach's Alpha
Awareness	AwarQ1, AwarQ6, AwarQ11	3	0.644**
	AwarQ6, AwarQ11	2	0.582
	AwarQ1, AwarQ11	2	0.563
	AwarQ1, AwarQ6	2	0.488
Affordability	AffdQ2, AffdQ7, AffdQ12	3	0.871**
	AffdQ7, AffdQ12	2	0.863
	AffdQ2, AffdQ7	2	0.806
	AffdQ2, AffdQ12	2	0.780
Access	AccsQ3, AccsQ8	3	0.677**
	AccsQ3, AccsQ8, AccsQ13	2	0.615
	AccsQ8, AccsQ13	2	0.595
	AccsQ3, AccsQ13	2	0.543
Availability	AvalQ4, AvalQ9	2	0.772**
	AvalQ4, AvalQ14	2	0.574
	AvalQ4, AvalQ9, AvalQ14	3	0.483
	AvalQ9, AvalQ14	2	0.205
Brand Loyalty	BrLyQ5, BrLyQ10	2	0.574**
	BrLyQ5, BrLyQ10, BrLyQ15	3	0.230
	BrLyQ5, BrLyQ15	2	-0.092
	BrLyQ10, BrLyQ15	2	-0.220

Note. Construct reliability scores are presented sequentially from highest to lowest a scores. ** Highest Reliability Coefficient using Cronbach's Alpha

4. Multivariate Analysis

The third step in the research data analysis was to use multivariate analysis of EQS SEM, which includes, testing the measurement model, constructing the structural model and developing and testing a series of revised models. In the measurement model, there is no structural relationship between the five structures. All five constructs are considered exogenous and are related; the measurement model is also known as the confirmatory factor analysis model (Hair, et al., 2010). In addition, the measurement model is evaluated to determine whether an acceptable fit is reached before the analysis can proceed to the first structural model. In the structural model, the hypothetical relationships between the five constructs are added, allowing the research model to be tested with the hypothetical relationship between the constructs. Structural relationships are evaluated according to their statistical significance, and whether they show the appropriate direction of the hypothetical relationship. Developing and testing a series of revised models is conducted by calculate the fitness metric to assess the model strength. The results from the alternative model are compared to the results obtained from the first structural model to determine whether the alternative correction model is more predictive than the hypothetical model depicted in the first structural model. Based on the evaluation of the model strength, the optimization model was determined.

4.1. Measurement Model

Prahalad's initial market model presents the potential structure of awareness, affordability, access and availability as the underlying marketing practice that affects the pyramid market. A measurement model was constructed to test the initial market model. According to Byrne, the main task of the model test is "to determine the fit between the hypothetical model and the sample data." The EQS SEM is a statistical method used to check the measurement model to determine its goodness of fit. The measurement model has five potential builds (or potential variables), including: awareness, affordability, access, usability, and brand loyalty. As described, the measurement model does not include structural connections between these structures. Figure 2 graphically presents the measurement model.

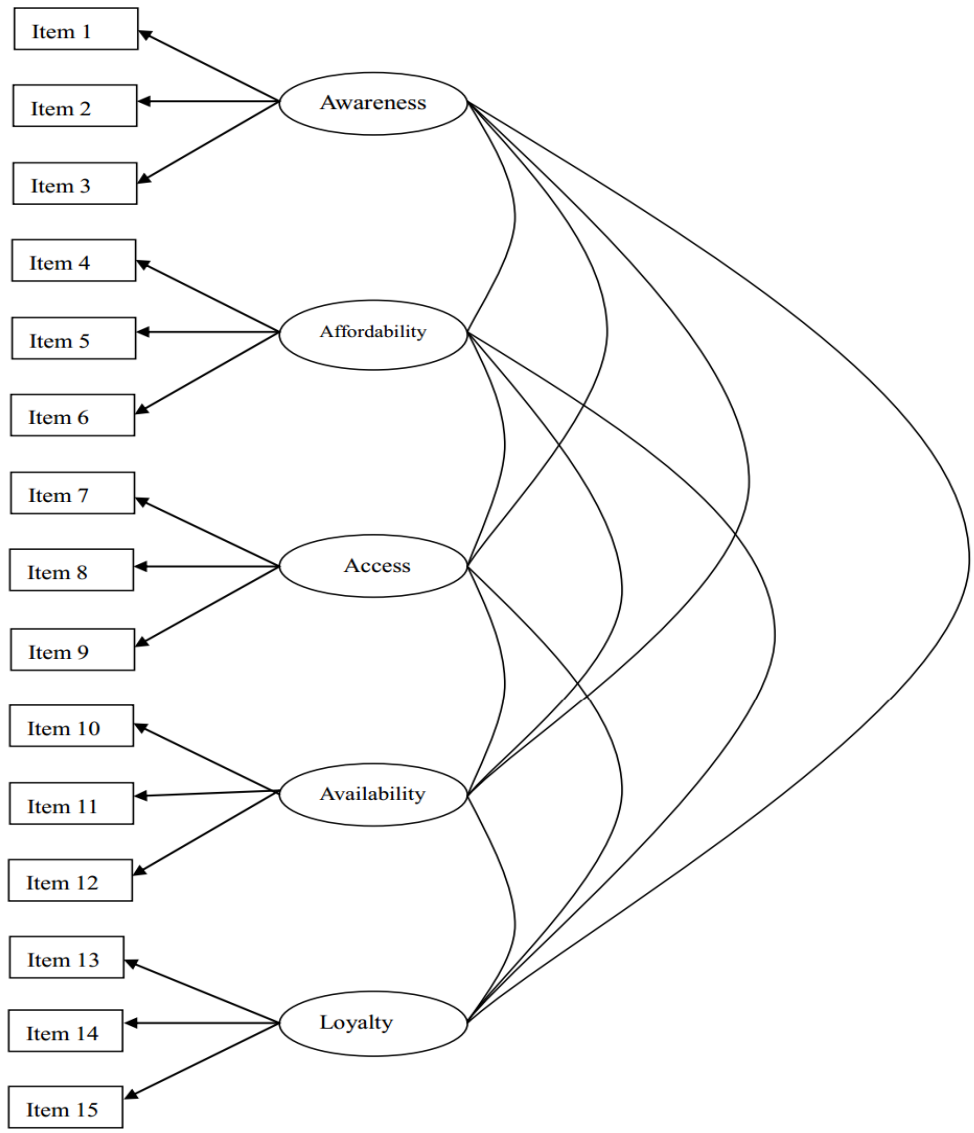

Figure 2 Measurement Model - Exogenous Constructs

The underlying constructs are unobservable and are measured by problem items. Since they are unobservable, these structures have no deterministic metric (Byrne, 2006). In order to establish this metric, Byrne (2006) proposed a method in which the first load parameter in each cohort set is fixed to 1.0. This helps to establish the size of the five structures in the measurement model. As quoted by Byrne (2006), Joreskog (1971) points out that measures are called homologous "if each measure in the set is intended to evaluate the same structure, except for the measurement error". In addition to the first load parameter, all other parameters are freely estimated. According to EQS practice, the following parameters can be indicated by an asterisk [*] for the sake of clarity. The most common SEM estimation process is the maximum likelihood estimation (MLE) (Hair, et al., 2010). It has been shown that MLE is robust in the analysis of abnormal data sets (Hair, et al., 2010). Due to the previously determined non-normal data, the ML robust fit statistics were selected as the estimation procedure for this analysis (Bentler & Chou, 1987; D'Agostino, Belanger & D'Agostino, 1990), despite the underage and acceptable levels. As an additional test to determine the non-normality of the data set, the normalized estimate of the multivariable kurtosis is calculated with a value of 30.0671; Bentler (2005, as mentioned by Byrne, 2006) suggests that a value greater than 5.00 indicates a non- Normal distribution. A value greater than 5.00, the normalized estimate of the multivariable kurtosis confirms that the data set is not normal. In the non-normal distribution confirmed in the data set, the ML robustness statistics in the EQS are used for the analysis of the model. Figure 3 graphically presents a standardized estimate of the measurement model.

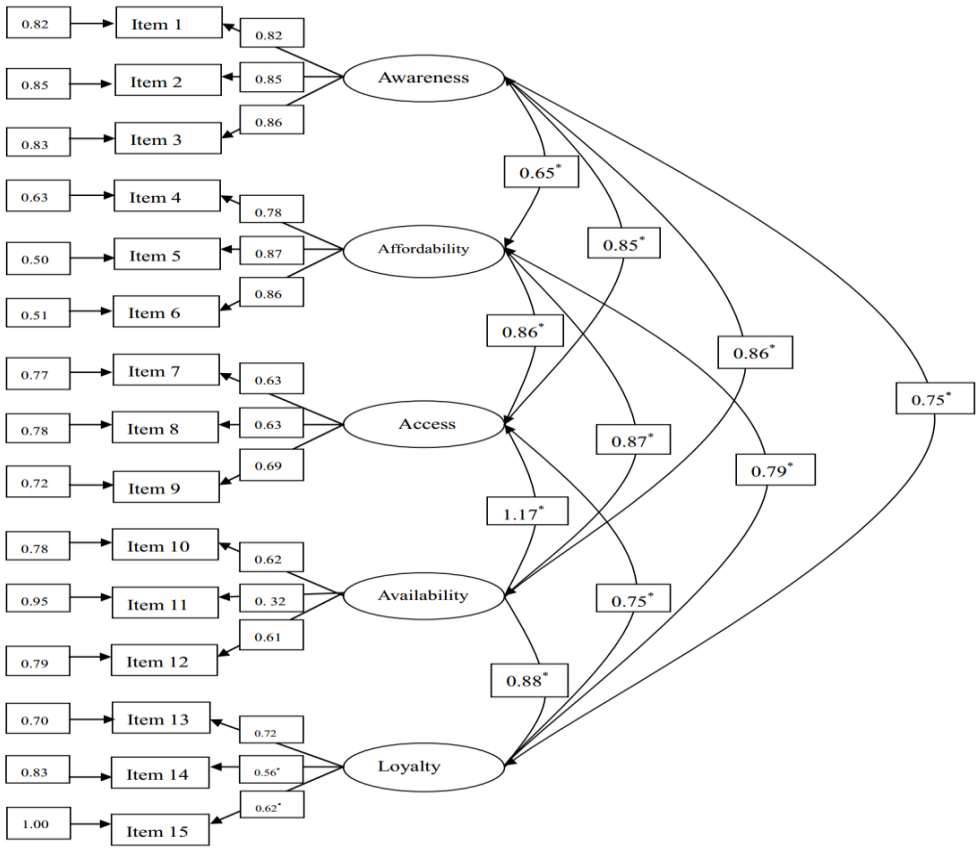

Figure3 Measurement Model with Standardized Estimates

Note. Following EQS practice, parameters free to be estimated are indicated by an asterisk [*]. The estimated correlations between the five exogenous constructs are listed in Table 3. In examining the estimated correlations for the latent constructs, an estimated correlation of 1.169 was observed between the latent construct access and the latent construct availability, this correlation that exceeds 1.00 is an indicative of collinearity existing between these two latent constructs. The resolution of this collinearity was addressed in a subsequent model.

Table 3 Measurement Model - Correlation Matrix for Latent Exogenous Constructs

	Awareness	Affordability	Access	Availability	Brand Loyalty
Awareness	1				
Affordability	0.646	1			
Access	0.848	0.860	1		
Availability	0.858	0.868	1.169	1	
Brand Loyalty	0.748	0.785	0.754	0.883	1

Standardized residuals were evaluated in the measurement model to determine the fit between the sample data and the hypothesized model. The largest standardized residuals had a value of 0.137. Byrne (2006) suggests that 100% of the standardized residuals should be clustered around the zero point (i.e., 0.0). The average absolute standardized residual was 0.0371, and the average off-diagonal absolute standardized residual was 0.0424. Indicating a good fit, 94.16% of the standardized residuals were distributed between -0.1 and 0.1, clustered around the zero point.

4.2. Goodness of Fit

This section outlines the measures utilized to assess appropriate goodness-of-fit measures to validate the measurement model in preparation for testing the structural model. Multiple goodness of fit measures including robust fit statistics, were computed and examined. Satorra and Bentler (1988) developed the Satorra-Bentler χ^2 (S-B χ^2) as a reliable test statistic based on a scaling correction for evaluating mean and covariance structure

models when distribution assumptions are violated (Byrne, 2006). In general, the smaller the χ^2 statistic, and the more significant (i.e., smaller) its p-value, the better the model represents the data (Hair, et al., 2010). The measurement model generated a S-B x2 of 296.5154 with 80 df, and p = 0.0000. The comparative Fit Index (CFI) is a widely used incremental fit index with insensitivity to model complexity (Hair, et al., 2010). The CFI is a normel statistic with scores ranging from 0.0 to 1.0. Hair suggested a CFI greater than 0.90 as indicative of a well-fitting model. Byrne (2006) has suggested a more rigorous 0.95 as a target threshold for acceptability of fit. The measurement model generated a CFI of 0.907 which met the Hair target, but did not meet the Byrne target of acceptability of fit. Root mean square error of approximation (RMSEA) is an absolute fit index appropriate for this research data set, as it is well suited for large sample sizes consisting of more than 500 respondents (Hair et al., 2010). While Byrne (2006) identified a RMSEA of 0.05 or lower as the target threshold for acceptability of fit, Hair et al., (2010) suggested that recent research point to not having an absolute cut-off for RMSEA. Hair suggests using a confidence interval giving the range of RMSEA levels for a given confidence level. The measurement model generated a RMSEA value of 0.067, which was higher than Byrne's 0.05, the lower of the two target thresholds for acceptability of fit. The measurement model had a 90% Confidence Internal (90% CI of RMSEA) between 0.059 and 0.075. The root mean square residual (RMR) represents "the average residual value derived from the fitting of the variance-covariance matrix of the model" to the equivalent matrix of the sample data (Byrne, 2006). This measure is difficult to interpret without standardization. Byrne suggested the standardized RMR (SRMR), an absolute fit index, as a preferred measure of fit with a value of 0.050 or less. Hair et al., (2010) suggested that an SRMR greater than 0.10 was indicative of a problem with fit, representing a badness of fit measure. The measurement model generated a SRMR of 0.049, which meets both the Byrnes and Hair target thresholds for acceptability of fit. Summary statistics from the measurement model are shown in Table 4.

Table 4 Measurement Model - Summary of Key Statistics

Model		Measurement Model
Statistic	Target measure	
Standard residuals	100.00% clustered between ±0.10 0)	94.16%
S-B χ^2	Smaller χ^2& smaller p-value 0)	296.5154 (80 df), p =0.00000
CFI	> 0.950[1] > 0.900[2]	0.907 **
RMSEA	< 0.050 [1]	0.067
90% CI of RMSEA (Interval)		0.059 to 0.075 (0.016)
SRMR	< 0.050 [1] < 0.100[2]	0.049 ***

Note [1]. Target threshold as identified by Byrne (2006), Note [2]. Target threshold as identified by Hair, et al., (2010), * Meeting target threshold - Byme only, ** Meeting target threshold - Hair, et al., only.

Four hypotheses tested Prahalad's 4As as independent factors impacting the dependent factor brand loyalty. Two of the hypotheses were supported, fitting Prahalad's strategic 4As framework; specifically: awareness significantly impacted brand loyalty (Pstandardized = .413, n = 606, p < .001), and affordability significantly impacted brand loyalty (Pstandardized = .501, n = 606, p < .001). The two remaining hypotheses were not fully tested due to the collinearity which was found between access and availability.

5. Discussion

The research was based on the 4As theory originally proposed by Prahalad. The research results support and expand research studies that previously focused on brand and brand loyalty in emerging markets and BoP markets. An empirical study by Nguyen, Barrett and Miller (2011) examines the purchase of shampoo for female consumers in two BoP markets in Thailand and Vietnam. They investigate five structures: brand loyalty, brand awareness, perceived quality, advertising attitude, and distribution intensity and they introduce three suggestions: First, they suggest that the distribution intensity is an undefined alternative to Prahalad's entry, and is positively correlated with brand awareness; found in Thailand (p = 0.34, p <0.001) and Vietnam (P = 0.25, p <.05) this relationship is important. This research supports this early finding, showing a statistically significant positive estimate correlation between consciousness and existence (r = .843, n = 606, p <.05).

Second, they suggests that brand awareness is positively related to brand loyalty; this relationship is supported in Vietnam (p = 0.27, p <.001), but there is no statistical significance in Thailand (p = 0.04, p <.52). The

research supports this relationship, showing a statistically significant standardized parameter estimate (pstandardized = .413, n = 606, p <.001) between consciousness and brand loyalty.
Third, they did not suggest that there was no relationship between the measured distribution intensity (ie, the access agent) and the brand loyalty. This research tests this relationship and is not supported, especially in the presence of a slight negative and unimportant relationship with brand loyalty (Pstandardized = minus .033, n = 606, p <.565). The second empirical study of Khan and Mahmood (2012) examines the relationship between Pakistan's mineral water brand loyalty and brand equity. Using the structured equation model (SEM), the authors found that there was a significant positive correlation between the autonomy of the independent variable brand and the brand loyalty of the intermediate variable (r = .500, p <.000). In support of this early finding, this research found a significant statistical correlation between consciousness and brand loyalty (r = .843, n = 606, p <.05). This further confirms the relationship between awareness and brand loyalty found in the BoP market.
An exploratory study by Kumar et al. (2013) has developed a conceptual framework that focuses on creating profitable customer loyalty (PCL) in emerging markets. PCL is described as "exhibiting behavior and highly loyal customers and providing profits for the company." A research proposition in their conceptual model is "awareness of the product and the benefits of the product, leading to the creation of PCL in emerging economies". The authors argue that their empirical verification of the research proposition will provide PCL insights for emerging economies. This research provides empirical validation, extending the proposed Kumar et al model, and finding statistically significant standardized parameter estimates (pstandardized = .413, n = 606, p <.001) between consciousness and brand loyalty. Generally, the results of this research support and expand the early research focus on emerging and BoP market brand and brand loyalty.

6. Conclusion

This research adds to the foundation of empirical literature on Prahalad's 4As framework in BoP markets. First, the research tested for independence among the 4As as separate constructs. Rather than independence, this research found high positive estimated correlations among the four constructs. This finding was not supportive of Prahalad's 4As market framework. This research found a strong positive relationship between the construct awareness and the construct brand loyalty. This finding supported Prahalad's initial 4As framework (Prahalad, 2004, 2010, 2012), and provided corresponding support for this relationship quantified in earlier empirical studies (Khan & Mahmood, 2012; Nguyen, Barrett & Miller, 2011). Two of the four constructs, access and availability, exhibited collinearity; it was suggested that this collinearity is a reflection of an institutional void in the distribution channel (Casselman et al., 2015). Identified as elements of institutional void, access and availability would be expected to exhibit a high degree of interrelation; this research found a high degree of interrelation between these two constructs.

References

Aaker, D. A. (1991). Managing brand equity. New York: Free Press.

Barki, E., & Parente, J. (2010). Consumer behaviour of the base of the pyramid market in Brazil. Greener Management International, (56), 11. Retrieved from

Bentler, P. M. (2006). EQS 6 structural equations program manual. Encino: Multivariate Software, Inc.
Bentler, P. M., & Chou, C. (1987). Practical issues in structural modeling. Sociological Methods & Research, 76, 78-117.

Bentler, P. M., & Wu, E. J. C. (2002). EQS 6 for Windows user's guide. Encino, CA: Multivariate Software, Inc.

Byrne, B. M. (2006). Structural equation modeling with EQS: Basic concepts, applications, and programming. New York: Psychology Press.

D'Agostino, R. B., Belanger, A., & D'Agostino, R. B. (1990). A suggestion for using powerful and informative tests of normality. The American Statistician, 44(4), 316-321.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Jacoby, J., & Chestnut, R. W. (1978). Brand loyalty: Measurement and management. New York: Wiley.

Jaiswal, A. K., & Venugopal, P. (2008). CavinKare Private Limited: Serving low income consumers. Asian Case Research Journal, 72(1), 1-28.

Khan, M. A., & Mahmood, Z. (2012). Impact of brand loyalty factors on brand equity.

International Journal of Academic Research, 4(1), 33-37.

Kumar, V., Sharma, A., Shah, R., & Rajan, B. (2013). Establishing profitable customer loyalty for multinational companies in the emerging economies: A conceptual framework. Journal of International Marketing, 21(1), 57-80.

Lam, D. (2007). Cultural influence on proneness to brand loyalty. Journal of International Consumer Marketing, 19(3), 7-21.

Malhotra, N. K. (2012). Basic marketing Research: Integration of social media. Boston: Pearson.

Nguyen, T. D., Barrett, N. J., & Miller, K. E. (2011). Brand loyalty in emerging markets. Marketing Intelligence & Planning, 29(3), 222-232.

Oliver, R. L. (1997). Satisfaction: A behavioral perspective on the consumer. New York: McGraw Hill.

Prahalad, C. K. (2004). The fortune at the bottom of the pyramid: Eradicating poverty through profits. Upper Saddle River, NJ: Wharton School Publishing.

Prahalad, C. K. (2010). The fortune at the bottom of the pyramid: Eradicating poverty through profits (Revised and updated 5th anniversary ed.). New Jersey: Pearson Education.

Prahalad, C. K. (2012). Bottom of the pyramid as a source of breakthrough innovations. Journal of Product Innovation Management, 29(1), 6-12.

Satorra, A., & Bentler, P. M. (1988). Scaling corrections for chi square statistics in covariance structure analysis. American Statistical Association 1988 Proceedings of the Business and Economics Sections (pp. 308-313). Alexandria, VA: American Statistical Association.

Schoell, W. F., & Guiltinan, J. P. (1990). Marketing contemporary concepts and practices. Boston: Allyn and Bacon.

Sheth, J. N. (2011). Impact of emerging markets on marketing: Rethinking existing perspectives and practices. Journal of Marketing, 75(4), 166-182.

Sheth, J. N., & Park, C. W. (1974). A theory of multidimensional brand loyalty. (Faculty Working Researchs No. 151). Urbana, Illinois: University of Illinois at Urbana Champaign, College of Commerce and Business Administration. Retrieved from https://www.ideals.illinois.edU/handle/2142/28766
Shim, S., & Gehrt, K. C. (1996). Hispanic and Native American adolescents: An exploratory study of their approach to shopping. Journal of Retailing, 72(3), 307-324. Sproles, G. B., & Kendall, E. L. (1986). A methodology for profiling consumers' decision-marking styles. Journal of Consumer Affairs, 20(2), 267.

Tong, X. (2006). Creation of brand equity in the Chinese clothing market. (Ph.D., University of Missouri - Columbia).