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An Empirical Model That Measures Brand Loyalty of Fast-moving Consumer Goods

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ABSTRACT A model to measure the brand loyalty of Fast-moving Consumer Goods (FMCG) was developed by researching historical brand loyalty models, by identifying brand loyalty influences, by validating the measurement criteria and, ultimately, by constructing a structural equation model. Twelve brand loyalty influences were included in the model, two of which further possess sub-influence qualities. The model shows good fit indices with the Comparative Fit Index (0.815), while the secondary fit indices RMSEA (0.131 within a small margin of 0.018) and Hoelter (77 at p <= 0.01) also show satisfactory model fit. Management can use the model as diagnostic brand loyalty tool in managerial decision-making, while academics and brand researchers could apply the model in extended brand loyalty research.

INTRODUCTION

The financial success of a business largely depends on its ability to generate turnover in the market, and therefore success in reaching its marketing objectives. Marketing is firmly embedded as a core business function and involves anticipation and satisfaction of customer needs where there is mutual benefit (Moolla 2010). Kotler and Keller (2006:35) maintain that a key ingredient to the marketing process is insightful, creative marketing strategies and plans that guide marketing activities, and to develop the right marketing strategy over time often requires a blend of discipline, flexibility and innovation that firms need to abide by in order to gain a competitive advantage. Although numerous strategies and approaches to attaining a competitive advantage in the market exist, it is commonly recognised that any strategy that facilitates repetitive buying behaviour of an organisation's products or services positively contributes to market share and a sustained competitive advantage. In this regard, branding and brand management serve as competitive advantages and became primary tools that are used to distinguish an organisation's products from the products of its competitors.

Branding, according to Lamb et al. (2008: 214), has three main purposes, namely product identification, repeat sales (loyalty), and enhancing new products. Organisations in the last decade have recognised the importance of branding on these three levels and have discovered the benefits of retaining customers rather than seeking new ones. In addition, these organisations have also recognised the importance of brand loyalty in their completive strategy and as tool to retain their customer base. Resultantly, a strong need for knowledge and research on brand loyalty realised, especially how to accurately measure brand loyalty and to apply these results as managerial tool in formulating competitive strategies.

Brand Loyalty

Historically, the concept of brand loyalty first appeared as a uni-dimensional construct. However, in the 1950s, two separate loyalty concepts evolved; one to measure attitude and one to measure behaviour. This bi-dimensional construct or composite model was researched and eventually presented by Jacoby (1971) as a brand loyalty model. Jacoby and Chestnut (1978) continued the research and refined Jacoby's initial model and combined both the attitudinal and behavioural constructs, thereby signalling the beginning of much interest in brand loyalty research (Rundle-Thiele 2005). Using this composite model as a base, several models have emerged since, offering new dimensions and influences in various industries. Most notable was the model offered by Dick and Basu (1994), which identified the need to define the different manifestations of composite loyalty as separate dimensions. The concept *brand loyalty* became one of the most researched topics, and extended

towards the services industry that has rapidly grown since the 1990s. With the increased interest in a more relational approach to marketing, the focus shifted towards building long-term relationships with customers. This approach was in contrast with the traditional view of transactional marketing, where the emphasis was on single transactions (Rao and Perry 2002). This new approach to marketing was met with enthusiasm, and represented, according to Scott (2006), "a fundamental reshaping of the field". It quickly became apparent that retaining a customer was far cheaper and convenient than creating a new one.

Aaker (1996) already stated in 1996 that the most important effects of brand loyalty are reduced marketing costs, trade leverage, the attraction of new customers through created brand awareness and reassurance to new customers, as well as the gained time to respond to threats by the competition. Since 2001, brand loyalty has risen in spite of the continuous entry of new products entering the market. This phenomenon can be accredited to the consumer becoming aware of the advantages of well-known brands, such as the benefit of saving time searching for products or issues regarding the quality of the products (Daye and Van Auken 2009). Brand loyalty is built over time through a collection of positive experiences that requires consistent effort and attention to detail. Loyal customers are repeat customers who choose a brand or company without even considering other options. They buy more, and they buy more regularly, and they frequently recommend the brand to others (Manternach 2010). However, Aaker (1996) indicated that care should be taken in marketing mix decisions, because brand loyalty reflects the probability that a customer will switch to another brand, and this probability increases when the brand is subjected to a change in its marketing mix.

Aaker (1991, 1996) has formerly noted that different methods of measuring brand loyalty exist, which are based upon either the actual purchasing behaviour of the consumer, based upon the loyalty constructs, or based upon influences of switching costs, satisfaction and commitment. Based on Aaker's theory, measuring brand loyalty cannot be accomplished without considering the constructs or influences that have a direct bearing on it. Influences affect brand loyalty in several ways. Some influences work together to achieve loyalty, while others could work independently. The nature of this relationship of the influences, according to Radford (2008), is unclear, which explains why there is widespread activity in brand loyalty research among marketers.

Similarly, Lagace (2008) states that marketing managers must identify the influences of connection that is most relevant or could be made more relevant to consumers. For example, managers need to consider whether a product offers connection to, or disconnection from, others or oneself. And they must decide whether a connection is physical, social, or mental. Once these levels of connection are understood, marketing managers can better show how a product or service attends to the consumer's basic human needs.

Problem Statement

The emergence of brand loyalty has led to a growing interest in the way in which branding is managed. This led to several studies investigating the influences of brand loyalty in various segments, such as healthcare, fashion and publishing, and there is little evidence of brand loyalty research strictly in the FMCG sector (Chaudhuri and Holbrook 2001; Giddens 2001; Uncles et al. 2003; Schijns 2003; Musa 2005; Punniyamoorthy and Raj 2007; Maritz 2007). There is even less research in identifying and ranking brand loyalty influences in the FMCG sector, complicating any attempts to measure brand loyalty in this sector. In this regard, Knox and Walker (2001) state that brand loyalty can only be managed once the influences have been comprehensively identified, researched and measured. Resultantly, the first problem at hand is to measure brand loyalty for Fast-moving Consumer Goods. Secondly, as far as it could be ascertained, no theoretical or empirical study has been conducted to determine the similarities of brand loyalty influences across multiple FMCG products. Ascertaining whether FMCG products can be treated as a single entity for brand management purposes can be an extremely valuable finding for marketers and brand managers (Moolla 2010). Finally, an existing framework to test brand loyalty influences for FMCG products could not be identified. The need to conceptualise one is required so that additional research can be conducted and mar-

keters and brand managers could formulate their marketing or branding strategy using the most powerful influences proven through research.

In essence, if brand loyalty is properly managed, it represents a strategic asset for the company that can be used in several ways to provide a certain value for the company (Aaker 1991). The challenge, however, lies in ascertaining the actual brand loyalty value of a product or service.

Objectives of the Study

The primary objective was to develop a model to measure brand loyalty in the FMCG segment. This objective was achieved by the following secondary objectives:

- Identify, by means of a literature review, the influences and dimensions of brand loyalty;
- Assess the importance and relevance of each of the identified influences to products in the South African FMCG sector;
- Examine the hypothesised linear relationship between attitudinal loyalty and behavioural loyalty constructs and implicitly formulate a model that presents the most powerful brand loyalty influences in the FMCG sector; and
- Determine the model fit by means of recognised fit indices.

RESEARCH METHODOLOGY

An exploratory perspective was taken to first examine a broad range of survey-based loyalty influences and then reduce the influences in designing the measure. Regarding the findings of the literature research, it was determined that brand loyalty is influenced by an array of influences. Not all of these influences that affect brand loyalty can be tested. By examining similar research studies and adopting a structured technique of evaluating the influences, it was possible to reduce the influences to the most important ones. These influences, twelve in total, were then further examined and a number of valid questions to measure each influence were formulated based on the literature review. This culminated in the final result, namely the model to measure brand loyalty. The research methodology is shown in Figure 1.

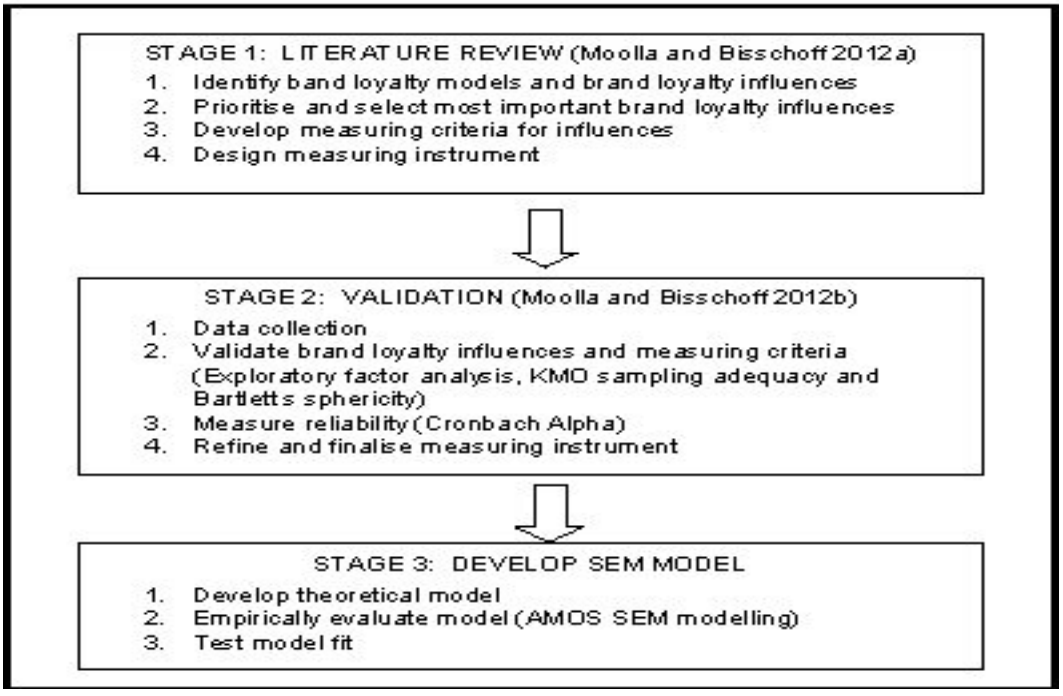


Fig. 1. Research methodology

A sample of 550 post-graduate management students in full-time employment was randomly selected for the study. The sample was selected because of the following reasons:

- sets a minimum educational level for entry into the research;
- represents a segment that is more informed about contemporary business practices;
- represents a community that is more likely to analyse their own purchasing behaviour;
- represents middle to higher income earners that have a wider choice of brands to consider in their purchasing decision;
- represents a segment of middle to higher income earners whose brand choices are shielded from the economic downturn;
- represents a segment that falls between LSM 6 to LSM 10 category, which, according to Martins (2007:168), is responsible for 64.1% of the food expenditure in South Africa; and
- would be able to understand the terminology and nomenclature specified in the questionnaire.

The sample size conforms to and exceeds the recommendation by Hair et al. (1998) in that the number of respondents should be a ratio of 14 observations to each variable in order to perform factor analysis. When the 36 variables identified in 12 categories are multiplied by the suggested 14 observations, a sample of 504 is recommended.

The questionnaire that was developed in Stage 1 and validated in Stage 2 of the research (see Fig.1) was used to measure the importance of the 12 influences in maintaining brand loyalty (see Moolla and Bisschoff 2012a, b). The technique comprised a process where respondents had to evaluate the importance of each of the influences relative to the remainder of the influences using a 7-point Likert scale. Although Likert scales are ordinal, Stone (2009:2) believes there is evidence that people (at least in business research) do respond in patterns that are close enough to approximate interval level.

The data was collected using a personal approach. Questionnaires were distributed to the respondents who satisfied the demographic profile of the study during lectures at the several venues in South Africa at the same time. This questionnaire was accompanied by a covering letter that provided the reasons for the study. Respondents were encouraged to participate in the study. Volunteering respondents were given 30 minutes to complete the questionnaire. It was possible to distribute and collect the questionnaires within 30 minutes as groups of respondents were at the same place at the same time. It was also possible to achieve a highly favourable questionnaire return rate of 98% (541 out of 550) using the direct approach.

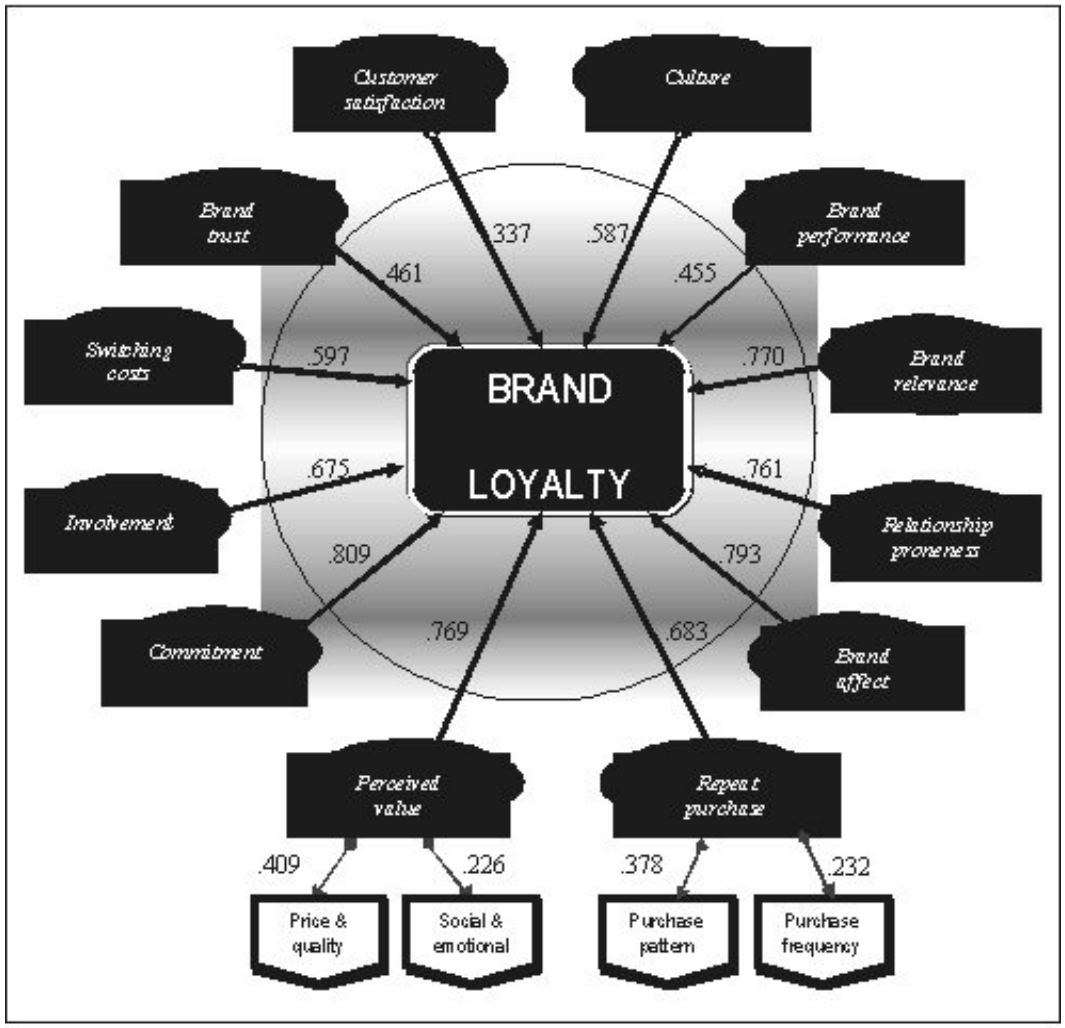
The *Statistical Package for the Social Sciences* Incorporated (SPSS Inc) was used to analyse the data. For Stage 3 (which is reported on in this article), the actual model construction and goodness-of-model-fit were performed by the specialised statistical add-on to SPSS, namely AMOS. This software is specifically designed to perform structural equation modelling (SEM).

RESULTS

The results of the structural equation model appear in Figure 2. The Figure depicts the 12 brand loyalty influences with their respective standard regression weights. In Figure 2, the influences, as well as their respective calculated influences on brand loyalty, are shown. For example, taking the influence *Customer satisfaction*, the figure shows a standard regression weight of .337 assigned to it. The regression weight portrays the relative importance of *Customer satisfaction* to be 0.337. Compared to the brand loyalty influence *Commitment* (with a regression weight of 0.809), it is clear that *Commitment* is regarded to have a much stronger influence on brand loyalty than *Customer service*. The relative importance of all the other influences is interpreted in a similar manner.

In addition, two of the influences (*Perceived value* and *Repeat purchase*) portray duel properties, and as a result have sub-influences embedded within the influences. Once again, by means of example, the brand loyalty influence *Perceived value* actually consists of *Price and quality* and *Social and emotional* as sub-influences. These sub-influences explain a variance of .409 and .266 respectively with regard to *Perceived value,* while *Perceived value per se* has a regression weight of 0.769. The brand loyalty influence *Repeat purchases* and its sub-influences are similarly interpreted.

The twelve brand loyalty influences are ranked in order of importance in Figure 3. Clearly, *Commitment, Brand effect, Brand rel-*



Source: Moolla and Bisschoff (2012b)

Fig. 2. Brand loyalty model

evance, Perceived value and *Relationship proneness* have the greatest effect on brand loyalty (all have coefficients of 0.76 and higher). *Customer satisfaction, Brand performance* and *Brand trust* have the least effect on brand loyalty (with coefficients below 0.50).

The regression weights of the individual measuring criteria pertaining to each of the brand influences appear in Appendix A for the sake of completeness. These regression weights are interpreted in a similar fashion than the regression weights that pertain to the brand loyalty influences.

Success of Model Fit

A variety of fit indices are available to measure the goodness of fit pertaining to structural equation models. Fit, according to Kenny (2010), refers to the "ability of a model to reproduce the data (that is, usually the variance-covariance matrix)". Kenny also points out that it should also be noted that a good-fitting model is not necessarily a valid model, and *vice versa*.

Both normed and non-normed fit indexes are frequently used to test the goodness of fit of a structural equation model. However, one disad-

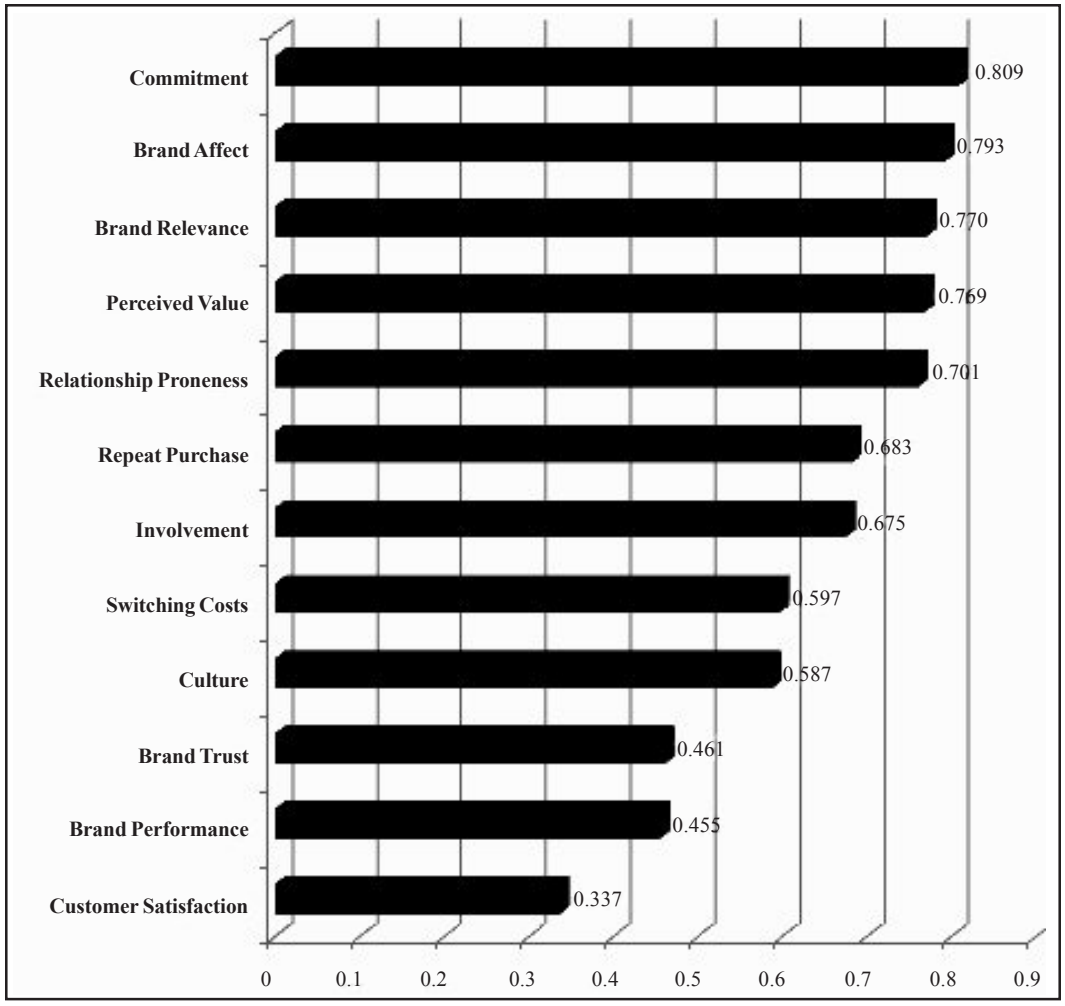


Fig. 3. Importance of influences on brand loyalty based on standard regression weights

vantage of typical indices is that they are influenced by the population parameters of the research. To address this deficiency, Bentler and Bonnet (in Bentler 1990) proposed that two coefficients should be used to address the deficiency of population parameters, namely the *Comparative Fit Index* (CFI) for normed and non-normed *Fit Index* (FI) to determine the fit of the model. Bentler (1990) continues and points out that the CFI avoids the underestimation of fit often noted in small samples, but it also performs well at all sample sizes. In the interpretation of the CFI, a value above 0.9 is regarded to be a very good fit (Konovsky and Pugh 1994:662).

The constructed model on brand loyalty in this study returned a *Comparative Fit Index* (CFI) of 0.815 (See Table 1). This index signifies a fair fit as it exceeds 0.80 as index value.

The *Root Mean Square Error of Approximation* (RMSEA) for this model is relatively high (0.131), indicating a lower level of fit than the CFI. Ideally, the RMSEA should be lower than 0.05 and models with a RMSEA of .10 or more have poor fit (Dixon and Dixon 2010:117). The model has a lower confidence limit of 0.122 and a higher limit of 0.140. These limits indicate a very narrow confidence interval (0.018). Together with the RMSEA value and narrow confidence interval, the model can be considered a

Table 1: Comparative Fit Index (CFI)

Model	*NFI Delta1*	*RFI rho1*	*IFI Delta2*	*TLI rho2*	*CFI*
Default model	.800	.719	.816	.741	**.815**
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

good fit of the model to the population (Browne and Cudeck 1997:232-243). Regarding the *p of Close Fit* (PCLOSE) test, where the *p*-value examines the alternative hypothesis when the RMSEA is greater than .05, the model returns a p-value of 0.00. A *p-value* that is greater than 0.05 signifies that the fit of the model is a close fit (Garson, 2010). Table 2 depicts the root mean square error of approximation.

Table 2: Root mean square error of approximation

Model	*RMSEA*	*LO 90*	*HI 90*	*PCLOSE*
Default model	**.131**	.122	.140	.000
Independence model	.257	.249	.264	.000

The goodness-of-fit for the model according to the *Hoelter Index* is used to judge the critical sample size (N); therefore, if the sample size is adequate. A *Hoelter's* N under 75 is considered unacceptably low to accept a model by chi-square (Garson 2010). The *Hoelter* N returns two values at the following levels of significance: 0.05 and 0.01. The brand loyalty model returns an acceptable value of 77 at the 0.01 levels of significance, but falls below the N=75 level at the 0.05 level of significance (69) (see Table 3).

Table 3: Hoelter's Index (N)

Model	*Hoelter .05*	*Hoelter .01*
Default model	**69**	**77**
Independence model	19	21

In summary, the model fit is satisfactory. Although the CFI as primary fit index exceeds 0.80, a CFI of 0.90 or higher would have provided a better fit. However, in defence of the model, it is an exploratory model and the fit is not expected to be in that category of fit, nor is it deemed imperative because the model is exploratory in nature and not a final and operationalised model.

MANAGERIAL IMPLICATIONS

The brand loyalty model was developed from an in-depth literature review that identified 28 brand loyalty constructs. These constructs were prioritised and eventually 12 of them were included in the brand loyalty model. This methodology has, firstly, a specific managerial application because managers aiming to measure brand loyalty constructs in their enterprises could use the selected 28 (or even better, the 12) brand loyalty constructs identified by this study to do so. Secondly, the measuring criteria and brand loyalty influences were empirically validated, and the data confirmed to be reliable. The criteria, validation and reliability further allows for successful brand loyalty applications in practice because the measuring criteria pertaining to each brand loyalty construct has been identified, validated and yielded reliable results. As such, managers applying these criteria to measure brand loyalty constructs are assured of a valid measuring instrument and a better probability to collect reliable data. The model to measure brand loyalty was developed and empirically evaluated by means of structural equation modelling. Thirdly, the fact that the brand loyalty influences were then ranked in order of importance based on the regression weights provides a scientific base for managers to select and also concentrate their managerial energy towards the more important brand loyalty constructs when they apply the model in their enterprises. In addition, the structural equation modelling was used to measure the model goodness-of-fit, and the model proves to be a satisfactory fit which should encourage managers to use the model with confidence in practice. In summary, the exploratory model provides a sound managerial tool that can be employed by managers and academia to measure brand loyalty. Although the model requires further validation in the FMCG industry, as well as in other industries, it could already be employed to provide managerial insight in better brand and brand loyalty management.

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APPENDIX

Appendix A: Standard regression weights of measuring criteria per brand loyalty influence

Code	*Items per influence*	*SRW*	*Code*	*Items per influence*	*SRW*
CUS_05	Customer satisfaction	.674	INV_04	Involvement	.389
CUS_04	Customer satisfaction	.297	INV_03	Involvement	.504
CUS_03	Customer satisfaction	.536	INV_02	Involvement	.827
CUS_02	Customer satisfaction	.708	INV_01	Involvement	.798
CUS_01	Customer satisfaction	.656	BPP_03	Brand performance	.709
SCR_05	Switching costs	.533	BPP_02	Brand performance	.470
SCR_04	Switching costs	.131	BPP_01	Brand performance	.583
SCR_03	Switching costs	.636	RPR_04	Relationship proneness	.754
SCR_02	Switching costs	.695	RPR_03	Relationship proneness	.667
SCR_01	Switching costs	.689	RPR_02	Relationship proneness	.729
BTS_04	Brand trust	.416	RPR_01	Relationship proneness	.629
BTS_03	Brand trust	.659	BRV_04	Brand relevance	.588
BTS_02	Brand trust	.883	BRV_03	Brand relevance	.727
BTS_01	Brand trust	.830	BRV_02	Brand relevance	.747
PLV_04	Perceived value	.745	BRV_01	Brand relevance	.757
PLV_03	Perceived value	.153	RPS_05	Repeat purchase	.689
PLV_02	Perceived value	.758	RPS_04	Repeat purchase	.398
PLV_01	Perceived value	.081	RPS_03	Repeat purchase	.514
COM_05	Commitment	.623	RPS_02	Repeat purchase	.285
COM_04	Commitment	.774	RPS_01	Repeat purchase	.429
COM_03	Commitment	.762	BAF_01	Brand affect	.814
COM_02	Commitment	.543	BAF_02	Brand affect	.806
COM_01	Commitment	.753	BAF_01	Brand affect	.803
CUL_04	Culture	.574			
CUL_03	Culture	.616			
CUL_02	Culture	.699			
CUL_01	Culture	.724			