"Consumer Choice Behavior during a Social Disruption"

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# CONSUMER CHOICE BEHAVIOR DURING A SOCIAL DISRUPTION

## Abstract

This paper[1] explores the relationship between an external socio-disruptive factor and consumer product and brand decision-making behavior. The social disruption was physical relocation, which resulted in a radical change in the toilet system, which had implications for toilet cleaning product and brands used. By using a sample calculator, a probability sample of 384 households from Cosmo City, South Africa were surveyed using a structured questionnaire. The data from 332 respondents (86% response rate) were analyzed using various inferential statistical analysis techniques to test three hypotheses. Multiple regression path coefficients demonstrated positive and significant changes $\left(\beta = 1.709, \ p < .0005\right)$ in the desired brand benefits following the social disruption, and that there were no significant differences $\left(\beta = -.601, \ p = .027\right)$ between households that switched brands and those that did not. The findings underscore the importance of recognizing that consumers re-evaluate their brand choices, leading to significant brand switching in cases where the social change has a radical effect on brand usage. The results also indicate that 'out-of-market' changes such as a radical social change have the same impact on consumer brand behavior and brand choice, as "in-market" disruptions such as the introduction of an innovative brand. The findings have strategy implications for marketers of toilet cleaning products in particular and consumer goods in general.

| **Keywords** | consumer behavior, brand choice, brand switching, brand identity, loyalty, social disruption |
|---|---|
| **JEL Classification** | M31, R23 |

## INTRODUCTION

The choice behavior that is observed in a consumer is essentially one that is geared to solve a current consumer problem or need. The solution to the consumer problem/need is profiled as "a structured process that involves various cognitive steps emanating from need awareness to need fulfillment, through to the actual purchase and consumption of the product or service" (Schiffman & Kanuk, 2007). Consumers are continually engaged in a process of product choice (Solomon, Russell-Bennett, & Previtte, 2012), and are deemed rational beings (Mankiw, 2006) who have to make a rational decision. Consumers are portrayed as choosing different product brands which satisfy needs that may be both functional and/or social (Kapeller, Schutz, & Steinerberger, 2012).

The different perspectives on how consumers make brand choices pose a challenge in the field of consumer behavior, and this paper recognizes and acknowledges various research that has been conducted with the aim of providing a holistic perspective of consumer choice. The classical marketing approach to consumer choice evolved from the fields of mathematics and economics. In classical marketing, Armstrong and

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1  The paper was developed entirely by the author from the PhD thesis of his student Masuku.

Kotler (2007) concede that consumers are deemed to be rational beings that act rationally to maximize utility as in the behavior of an economic man. Peter and Olson (2010) note that "the choice or decision making process is essentially a series of calculative and progressive problem solving steps to satisfy a consumer need". These choices according to Schiffman and Wisenblit (2015) "are always made within a confined set of products called the evoked set which a consumer has created through some rational criteria to best satisfy the immediate need".

The disciplines of sociology and psychology have also contributed to the modeling of consumer choice behavior. By taking cognizance of these contributions, the literature review of this study stretches from branding (Aaker, 2014), brand loyalty and brand switching, brand choice in the context of classical marketing (Kotler & Keller, 2009), social identity theory (Klipfel, Barclay, & Bockorny, 2014), identity theory and customer-brand identification (Ahearn, Bhattacharya, & Gruen, 2005). More specifically, this study (on which this paper is written) is built on the consumer brand identification (CBI) framework by Lam, Ahearne, Hu and Schillewaert (2010) by assessing the relational effects between an external socio-disruptive factor and consumer choice. More specifically, this research focuses on consumer choice behavior exhibited in toilet-care product brand usage in South Africa.

For the purposes of this research, a harmonized working definition of social identity from Fearon (1999, p. 14) is adopted, namely, "a social category, defined by membership rules and allegedly characteristic attributes or expected behaviors or a socially distinguishing feature that a person takes special pride in or views as unchangeable but socially consequential, or both things at the same time". The aforementioned working definition enabled the researcher to develop a balanced framework of defining the concept of "self" and also to articulate how "self" is manifested in product selection and brand choice decision. The review of studies on the social relationship between brands and consumers indicates that consumers engage brands that provide meaningful benefits to their social identity. Akerlof (1997) concludes in the "merging theory of social interaction" approach that people are deeply influenced in their choices and economic behavior by their social environment. The relationship between brand choice and "self" has been evidenced to motivate consumers to choose brands that signal self-congruity (White & Dahl, 2007).

The social theory approach has contributed to rational consumer choice by treating consumer behavior as either an internal or external driver. From an internal perspective, Satz and Ferejohn (1994, p. 73) conclude that rational choice describes "what is actually going on inside us when we reason". Certain researchers like Landa (2006) and Hedstrom (2006) argue that mental entities such as desires and beliefs on which individual preferences are based are causally linked to the individual's choice. In essence, beliefs and desires are mental states which motivate an individual and causally explain an individual's actions.

The concept of brand choice according to Blackwell, Miniard, and Engel (2006) is viewed as being concerned with how rational consumers make consumption decisions of choosing one brand/service over another. A review of brand choice behavior literature covering the recent decade reveals some interesting developments in the framing and understanding of consumer choice. Recent studies show research developments that involve a fusion of psycho-social and economic approaches to understanding consumer choice behavior. Some of the prominent works in this regard include Bhattacharya and Sen (2003), who used the literature on customer-company identification and brands to develop the consumer-company identification (CCI) concept. Ahearne, Bhattacharya, and Gruen's (2005) study supported the customer-company identification (CCI) results in higher product utilization and the role that customers play in influencing role behavior through actions such as positive word of mouth. By using the Consumer-Brand Identification (CBI) framework, Lam, Ahearne, and Schillewaert (2012) studied customer-brand relationship in disruptive market situations.

Although the relative CBI model by Lam et al. (2012) is adopted for this research, a critical and decisive assumptive deviation from the CBI framework is made. In the aforementioned study, the disruption was due to the implementation of an innovative brand, whereas in this research, the disruption is in the form of social household dwelling infrastructure change. The effect of this deviant assumption is summed up by Lam et al. (2012) as disruption in the form of an innovative brand being implemented or disruption as an internal or endogenous factor of a normal market (demand and supply). The proposed modification is that if the disruption is in the form of a physical dwelling, the disruption is external/ exogenous to the normal market operations.

The difference in the manner and form of disruption as referred to above allows for the research to be conducted from two perspectives, namely, that of utility maximization (functional) and social mobility (social). The social mobility aspect allows the study to investigate the impact of social change brought about by an external disruption in the form of physical dwelling infrastructure change. The utility maximization aspect is investigated through actual product consumption relative to the physical household need and other constraints. The research also deviated from Lam et al.'s (2012) approach by incorporating a different disruptive factor due to the need to understand the CBI thought process from a South African perspective. In the South African context, the consumers' consumption repertoire is affected by external market factors such as electricity and water supply, housing, etc., more than internal demand and supply factors.

Housing has been a dominant factor that changed people's lives in South Africa over the last decade. The government changed laws, enacted new ones and approved massive housing infrastructure that altered many 'consumer-brand' relationships, compared to the impact of internal demand and supply factors like the implementation of a new brand. Against this background, this research adopted the housing disruptive factor as its exogenous variable and then analyzed its effects on consumer-brand choice with respect to a basic household product, namely, toilet cleaning products.

The key research question which is addressed is: How has changes in Cosmo City households' sanitation infrastructure typologies led to changes in their toilet-care product brand consumption? More specifically, the objectives of the research on which this paper is written are to evaluate the impact of an external disruptive factor on the consumer's toilet-care product brand choice, explore the changes in desired brand benefits following a social disruption, and investigate the effects of lifestyle changes on the purchase and consumption of different toilet-care product brands.

A brief literature review is presented so as to contextualize the study, and includes an overview of housing and sanitation in South Africa and toilet-care product brands and the research milieu.

# 1. LITERATURE REVIEW

The South African (SA) government has made great progress through the Department of Human Settlements (DoHS) over the past few decades to deliver on its mandate to address Millenium Development Goal 7[2]. For example, the number of households who receive piped water from local municipalities increased from 78.7% in 2004 to 85.9% in 2013, which implied that people start having access to 'flushing' toilets, which motivated them to experiment with new toilet-care cleaning products. The tracking of water access to households therefore offers insights into understanding the changing toilet-care product brand consumption behaviour in South Africa.

In light of the above, the current research focuses on the toilet-care product market category of the total South African home care market, since it seeks to investigate the effects on brand choice of changes in household physical sanitary

2    Create sustainable human settlements, and improve quality of life for households; halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation; and achieve significant improvement in the lives of slum dwellers.

structures, and also the related lifestyle change effects on toilet-care product consumption. This research also focuses on the toilet-care product brand formats that are available to the South African consumer, as defined by the distribution channels, retailers, suppliers and research houses. These product formats are classified into three segments, namely, liquids, in-the-cistern ring blocks (ITC), and in-the-bowl ring blocks (ITB), which commanded a market of R168.8m; R96.1m and R67.6m, respectively (MarketLine, 2014a). It is also reported (Market Line, 2014b) that the South African toilet-care product category experienced an overall growth of 16.3%. This overall growth was realized by 16% in the liquids segment, 17% in ITBs and 17% in ITCs. This total category growth is equivalent to a CAGR of 3% over a five-year period from 2009 to 2014. In volume or unit terms, the three segments (liquids, ITCs and ITBs) realized a growth 13%, 11% and 11%, respectively, over the same period. The unit or volume CAGR was at 2% for the period 2009–2014.

## 2. THE RESEARCH CONTEXT

This research (on which this paper is based) was conducted in the context of a rapidly changing socio-economic and political landscape, which had far reaching effects on the economy and social spheres of South Africans. The new South Africa which attained its independence in 1994 has had to undertake bold and ambitious decisions to redress the imbalances of apartheid. One of the drastic redress measures has been the need to remove social barriers which involved segregation of movement, living areas, association and access to basic social amenities among the various racial population groups. The new South African government instituted a series of interventions in the social dwelling arena with various pieces of legislation being enacted such as the Reconstruction and Development Program (RDP), Growth Employment and Redistribution (GEAR) and Accelerated Shared Growth Initiative for South Africa (ASGISA) (DoHS, 2014a).

The White Paper on Human Settlement (1997) defined and specified various income bands of people who qualified for a housing subsidy, which is financial support given to qualifying households

to help them to acquire a house (DoHS, 2014b). The intention of the housing subsidy was to enable people who did not qualify for bank finance to buy houses at affordable rates. It was also intended to improve the living conditions of many black people who were living in informal structures and settlements, without proper sanitation and other basic infrastructure.

The SA DoHS which is commonly known as the National Department of Housing introduced the Integrated Residential Development Program in 1999, which was informed by the vision of the post-1994 government which sought to "restore, redistribute and reconstruct justice through human settlements or housing". The 1999 Integrated Residential Development Program (IRDP) replaced the previous project of linked subsidy program which had been in existence since 1995 (DoHS, 2012, 2014b). The integrated residential development program aimed to provide for the planning and development of integrated housing projects which would accommodate mixed housing units, and provide leisure and entertainment facilities in one spatial area. The objectives of integrated development are echoed and supported by the Millennium Development Goal (number 8), which states that "the South African government seeks to create sustainable human settlements, and improved quality of life for households". This will be achieved by Goal 7 (Target 7C) which proposes to halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation, and Goal 7 (Target 7D): achieve significant improvement in the lives of slum dwellers.

The progressive developments in the housing infrastructure, that is, the 1994 Act, the 2012 Amendment and the 2015 Millennium Development Goals, form an important backdrop to this study, as this study proposes that changes in physical housing infrastructure have a positive impact on consumer toilet-care product brand choice behavior. This research paper proposes that as the government strives for a reduction of informal dwellings, the toilet-care brand-choice relationship will be positively altered, due to changes in the sanitary facilities. With reference

to the aforementioned, three hypotheses were crafted to test the impact of an external disruptive factor on toilet-care product brand consumption by the households.

H1: *Brand switching during a social disruption is lower, when the brand benefits of the current brand are strong.*

H2: *The introduction of a social disruption leads to brand switching.*

H3: *Lifestyle and brand switching behavior are positively correlated.*

The above hypotheses were tested using the methodology described below.

## 3. RESEARCH METHODOLOGY

The study was conducted among households in Cosmo City, Johannesburg, South Africa, an area that is unique in that it is the first 'mixed residential' area with 5,000 low cost Reconstruction and Development Program (RDP) houses, 3,000 partially subsidized houses, and 3,300 bonded houses. The residential development is also the first of its kind in the "post-apartheid" era in South Africa which aimed to provide a combination of free, subsidized, and privately owned housing, leading to an economically integrated and diverse community (City of Johannesburg, 2015). Cosmo City is also unique, since it houses various Living Stands Measure (LSM) households (L3-L8) within a single geographic area. This close proximity between RDP and bonded houses creates a marketing challenge, since marketers need to understand how and why households switch product brands within and longitudinally among the different LSM households.

The survey methodology was adopted after considering factors such as the research objectives, time, cost, and logistics of reaching the respondents (Leedy & Ormrod, 2013). The aforementioned recommendations and guidelines were evaluated and used to inform the calculation of the sample size as follows: Household population in Cosmo City = 10000; margin of error = 5%; level of confidence = 95%; standard deviation = .5; therefore, 95% – Z; score = 1.96.

Sample size determination:

$$Sample\ size =$$

$$= \frac{(Z\text{-}score)^2 \cdot Std.Dev \cdot (1\text{-}StdDev)}{(margin\ of\ error)^2};$$

The following numbers were inserted into the formula to calculate the sample size with a 95% confidence level, .5 standard deviation, and a margin of error (confidence interval) of +/–5%.

$$\frac{1.96^2 \cdot .5(.5)}{.05^2} = \frac{3.8416 \cdot .25}{.0025} = \frac{.9604}{.0025} =$$
$$= 384.16 \simeq 384.$$

The sample size was then applied to the different 'socio-income' segments of Cosmo City so as to ascertain the actual number of respondents per unit, and the resultant allocation was done using a simple proportional representation of 38% from RDP houses (144), 31% from Low Cost Bonded Houses (120) and 31% from High Income Bonded Houses (120) per segment. The households were selected by using the housing data from the South African Government's Department of Human Settlement (DoHS, 2014b). Probability sampling was used to reduce bias and improve the quality of the sample that represents the population by considering the recommendations of Aaker, Kumar, Leone and Day (2013) on the four probability sampling considerations, which are target population, sampling method, sample size and non-response rate issues. The researchers opted for stratified random sampling, since it enabled the division of a sample frame into various sub-sets that share unique or homogeneous characteristics (Bernard, 2014). The Department of Human Settlement allocated RDP houses to LSM 2-4 in Extensions 2, 4 and 6. LSM 4-7 are residents were located in Extensions 0, 6, 8, 9 and 10, in the semi-bonded houses. Extensions 3, 5, and 7 households made up LSM 7-10, and these people occupy freehold bonded houses (South African Institute of Race Relations, 2012).

A structured questionnaire that was employed to survey the sample of residents of Cosmo City, Johannesburg, South Africa from April to June 2015 consisted of a battery of questions which ranged from administrative questions, brand choice questions and desired brand benefits

questions. The data were subjected to various statistical analyses using the SPSS statistical software. The anonymity and the confidentiality of the participants was guaranteed, and participants were assured that their names and addresses would not be included in any research publication. Participants were provided with information about the research purpose, a brief explanation of the aim of the research and anticipated results, and contact details of the researchers.

## 4. FINDINGS

The overall response rate was 92%. The reliability of the research instrument was measured by determining the Cronbach's Alpha coefficient which according to Warrens (2015, p. 127) is "an estimate of the reliability of a test score if the items are essentially tau-equivalent". The Cronbach's Alpha coefficients presented in Table 1 reveal that the research instruments used to measure the three research constructs produced an overall Alpha value which exceeded 0.7, which is the generally acceptable level (Tavakol & Dennick, 2011), thus implying that the research instrument had high internal consistency and reliability.

**Table 1.** Reliability of the research instrument

|  | Number of items | Cronbach's Alpha |
|---|---|---|
| Brand benefits | 10 | 0.874 |
| Social disruption (change in place of dwelling) | 9 | 0.896 |
| Lifestyle | 8 | 0.875 |

The researcher attempted to improve the external validity of the study by using a large sample size (Babie, 2013). The sample size was determined using statistical calculations to determine the optimal representative sample size for the research population. The study also combined the interview approach and the use of structured questionnaires in order to improve construct validity (Bush, 2013; Zikmund et al., 2013; Yin, 2014). To ensure statistical validity which measures the degree to which conclusions derived from the study using statistical procedures are valid or conform to the cut off confidence levels (Bush, 2013), the current research opted for a 95% confidence level in its computation of the sample size.

A combination of various controls was built into the research process and techniques to improve the research validity including aspects such as pilot testing of the questionnaire, refining the structure of research questions, attributes, and also translating the questionnaire into IsiZulu (MacKenzie, Podsakoff, & Podsakoff, 2011). The pre-testing of the initial questionnaire revealed the need to simplify some key research terms and wording. The pilot test also revealed some constructs which respondents could not understand or relate to. These were modified or changed to ensure that the research process yielded better internal and content validity. It also emerged from the pilot study that there was a need to translate the questionnaire into a local African language (isiZulu) to accommodate respondents that could not relate to the study constructs which were in English.

The study also used random sampling to select households that formed the sample of study. The randomised selection allowed the study to attain greater external validity (Burns & Bush, 2014). This was achieved as a result of the representative sample being free of selection bias. In so doing, the results had the potential of being generalized.

In order to establish construct validity of the research instruments, factor analysis (Hair, Robert, & Ortinau, 2006, p. 59) was conducted, initially using Principal Axis Factoring, in order to establish whether underlying factors existed. The Kaiser-Meyer-Olkin (KMO) measure was used to determine the effectiveness of factor analysis, and since as per Table 2, the KMO and Barlett's test result is fairly close to the possible maximum value of 1, this indicated that factor analysis was indeed a meaningful and effective analysis (Malhotra, 1993).

On the basis of the results reflected in Table 2, the data were subjected to Exploratory Factor Analysis using the Principal Axis extraction method. The outcome of the aforementioned procedure reflected in Table 3 indicates that only three factors accounted for about 52% of the variance among the factors.

Table 4 confirms the items which through Varimax rotation with Kaiser Normalization and after six rotations, converged (loaded) on the three factors.

**Table 2.** KMO and Bartlett's test

| Kaiser-Meyer-Olkin measure of sampling adequacy | | .857 |
|---|---|---|
| Bartlett's test of sphericity | Approx. Chi-Square | 6345.007 |
| | Df | 351 |
| | Sig. | .000 |

**Table 3.** Output of factor analysis

| Factor | Initial Eigenvalues | | | Extraction sums of squared loadings | | | Rotation sums of squared loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of variance | Cumulative % | Total | % of variance | Cumulative % | Total | % of variance | Cumulative % |
| 1 | 7.972 | 29.527 | 29.527 | 7.507 | 27.804 | 27.804 | 4.677 | 17.321 | 17.321 |
| 2 | 4.454 | 16.495 | 46.022 | 4.052 | 15.006 | 42.81 | 4.641 | 17.188 | 34.508 |
| 3 | 2.913 | 10.788 | 56.81 | 2.394 | 8.867 | 51.677 | 4.636 | 17.169 | 51.677 |
| 4 | 1.691 | 6.264 | 63.074 | – | – | – | – | – | – |
| 5 | 1.214 | 4.495 | 67.57 | – | – | – | – | – | – |
| 6 | 1.051 | 3.891 | 71.461 | – | – | – | – | – | – |
| 7 | 0.819 | 3.032 | 74.493 | – | – | – | – | – | – |
| 8 | 0.72 | 2.668 | 77.161 | – | – | – | – | – | – |
| 9 | 0.7 | 2.591 | 79.752 | – | – | – | – | – | – |
| 10 | 0.594 | 2.199 | 81.951 | – | – | – | – | – | – |
| 11 | 0.581 | 2.151 | 84.102 | – | – | – | – | – | – |
| 12 | 0.533 | 1.972 | 86.074 | – | – | – | – | – | – |
| 13 | 0.463 | 1.714 | 87.788 | – | – | – | – | – | – |
| 14 | 0.401 | 1.486 | 89.274 | – | – | – | – | – | – |
| 15 | 0.363 | 1.343 | 90.617 | – | – | – | – | – | – |
| 16 | 0.35 | 1.297 | 91.914 | – | – | – | – | – | – |
| 17 | 0.326 | 1.207 | 93.122 | – | – | – | – | – | – |
| 18 | 0.304 | 1.126 | 94.248 | – | – | – | – | – | – |
| 19 | 0.279 | 1.032 | 95.28 | – | – | – | – | – | – |
| 20 | 0.257 | 0.951 | 96.231 | – | – | – | – | – | – |
| 21 | 0.205 | 0.758 | 96.989 | – | – | – | – | – | – |
| 22 | 0.181 | 0.672 | 97.661 | – | – | – | – | – | – |
| 23 | 0.179 | 0.664 | 98.325 | – | – | – | – | – | – |
| 24 | 0.156 | 0.578 | 98.903 | – | – | – | – | – | – |
| 25 | 0.125 | 0.461 | 99.364 | – | – | – | – | – | – |
| 26 | 0.099 | 0.367 | 99.731 | – | – | – | – | – | – |
| 27 | 0.073 | 0.269 | 100 | – | – | – | – | – | – |

*Note:* extraction method: Principal Axis Factoring.

Factor 1 was labelled Brand Benefits, Factor 2 was labelled Social Disruption, and Factor 3 was labelled as Lifestyle Change.

## 4.1. Demographic data

The overwhelming majority (99.7%) of respondents were black Africans, and only 0.3% were from the colored community; 71% had a family size of 1-4 people; the majority (79.5%) owned the houses they currently live in, and the vast majority (82.5%) of the respondents indicated that the receive their income from formal employment. The majority (38.9%) of the respondents who indicated that they had previously lived in informal settlements, currently live in RDP houses. The research was guided by the LSM lifestyle measurement tool to focus on the changes in sanitary systems as an indicative measure to track the impact of a change in residence type on brand choice. Respondents were asked to compare the type of toilet system they used before moving to Cosmo City with the current one.

**Table 4.** Rotated factor analysis

| Measurement Items | Factor | | |
|---|---|---|---|
| | Brand Benefits | Change of Dwelling | Lifestyle Change |
| 18.1 Cleans effectively: gives a deep clean with less scrubbing | 0.727 | – | – |
| 18.2 Smells clean and fresh | 0.848 | – | – |
| 18.3 Has a long lasting fragrance | 0.623 | – | – |
| 18.4 Has a fragrance that matches my room spray | – | – | – |
| 18.5 Removes stains in the chamber | 0.585 | – | – |
| 18.6 Removes bad smell (odour) in the chamber | 0.636 | – | – |
| 18.7 Does not damage the environment | 0.537 | – | – |
| 18.8 Gives good value for money | 0.671 | – | – |
| 18.9 Is a socially acceptable product to use | 0.786 | – | – |
| 18.1 Is readily available when I go to buy it | 0.741 | – | – |
| 19.1 …smells better | – | 0.69 | – |
| 19.2 …cleans better | – | 0.704 | – |
| 19.3 …is cheaper | – | 0.79 | – |
| 19.4 ….is recommended by friends/family | – | 0.632 | – |
| 19.5 …gives me more status | – | 0.73 | – |
| 19.6 …is more suited to the type of toilet I have | – | – | – |
| 19.7 …is on promotion and therefore costs less than usual | – | 0.708 | – |
| 19.8 …matches my personality | – | 0.789 | – |
| 19.9 …matches my new lifestyle | – | 0.743 | – |
| 20.1 Now I participate in more social events and activities than before | – | – | 0.639 |
| 20.2 There are better job opportunities here | – | – | 0.7 |
| 20.3 The toilet systems in Cosmo have improved my health and wellbeing | – | – | 0.626 |
| 20.4 Moving into Cosmo city has improved my social status in society | – | – | 0.542 |
| 20.5 My family and I are more confident about a better future | – | – | 0.64 |
| 20.6 I am happy to spend more time in my home than before | – | – | 0.653 |
| 20.7 I feel that my family and I have achieved a better life | – | – | 0.637 |
| 20.8 My life is more comfortable as I have more space/rooms than before | – | – | 0.636 |

*Notes:* extraction method: Principal Axis Factoring, rotation method: Varimax with Kaiser Normalization. a. Rotation converged in 6 iterations.

## 4.2. Descriptive statistics

The findings indicate that 38.2% of the respondents changed from non-flushing to flushing toilets. This change influenced the type (and brand) of toilet cleaning products, since the respondents did not previously use any toilet cleaning products because of the nature of the toilets which were either "bucket, pit or bush' toilets. To this extent, it became evident that there was significantly more usage $(p < .0005)$ of all three types of toilet-care product brands, but private label brands are used more than national brands and informal (unbranded) products. This result confirms previous findings where, for example, Whelan and Davies (2006) found that in low involvement product brand categories including house cleaning products,

**Table 5.** Brand switching – binominal test results

| Measurement Items | Category | | N | Observed Prop. | Test Prop. | A symp. Sig. (2-tailed) |
|---|---|---|---|---|---|---|
| 6. Have you changed toilet cleaning brands or products since moving to Cosmo City? | Group 1 Group 2 | No Yes | 88 244 | 0.27 0.73 | 0.5 | .000a |
| | Total | – | 332 | 1 | | |

*Note:* a. Based on Z Approximation.

private labels are bought more often than in high involvement products, because private label brands offer a new experience at limited risk. The respondents also indicated that 'value for money' significantly influenced brand switching, which is line with the findings of Shukla et al. (2013) who concluded that "private label buyers focus on price and value consciousness".

This study focused on two dimensions of the LSM lifestyle measurement tool as defined by the South African Advertising Research Foundation (South African Advertising Research Foundation, 2015) to investigate the effect of lifestyle change on brand switch. The two LSM variables that were investigated were are flush toilet in/outside house and running water. The proposition was that a change in these two variables would trigger a reclassification of a household's socio-economic status. In this research, 39.2% of the respondents experienced a change in the two variables "flushing toilet and access to in-house running water" as they moved from informal settlements (housing) to formal housing in Cosmo City. The changes in these variables would move the affected respondents from LSM 2 to LSM 3 according to the LSM classification.

## 4.3. Brand switching

The majority (73.5%) of the respondents 'agreed' that they switched toilet-care product brands since moving into Cosmo City. A binominal test was conducted between the respondents who switched brands, and those who remained loyal to a particular brand, so as to determine whether there was a significant difference in the proportion of respondents who responded 'yes' compared to those who said 'no'. The results (Table 5) indicate that a significant proportion of respondents changed or switched toilet-care cleaning product brands after relocating to Cosmo City, because the *p*-value is significant as it is less than 0.0005 (Babie, 2013).

Table 6 indicates that brand switching was motivated mostly by promotional activities at the time of purchase, whilst compatibility with the type of toilet system was the least important reason for switching brands.

Furthermore, it can be observed from Table 7 that the strength of toilet-care fragrance is the most important factor for choosing a particular brand, whilst the least important factor was fragrance laddering, that is, matching the toilet-care product's cleaning fragrance with a room spray.

**Table 6.** Reasons for switching brands

| Item Number | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| 19.1 …smells better | 244 | 3.95 | 0.53 | 0.034 |
| 19.2 …cleans better | 244 | 3.93 | 0.577 | 0.037 |
| 19.3 …is cheaper | 244 | 3.94 | 0.673 | 0.043 |
| 19.4 ….is recommended by friends/family | 244 | 3.87 | 0.638 | 0.041 |
| 19.5 …gives me more status | 244 | 3.96 | 0.73 | 0.047 |
| 19.6 …is more suited to the type of toilet I have | 244 | 3.58 | 0.689 | 0.044 |
| 19.7 …is on promotion and therefore costs less than usual | 244 | 4.04 | 0.687 | 0.044 |
| 19.8 …matches my personality | 244 | 3.93 | 0.583 | 0.037 |
| 19.9 …matches my new lifestyle | 244 | 3.98 | 0.57 | 0.036 |

**Table 7.** Reasons for choosing a brand

| Item Number | It is important that my toilet cleaner... | Mean score |
|:---:|:---|:---:|
| 18.3 | Has a long lasting fragrance | 4.32 |
| 18.6 | Removes bad smell (ardour) in the chamber | 4.32 |
| 18.8 | Gives good value for money | 4.24 |
| 18.1 | Is readily available when I go to by it | 4.21 |
| 18.2 | Smells clean and fresh | 4.17 |
| 18.9 | Is a socially acceptable product to use | 4.17 |
| 18.1 | Cleans effectively: gives a deep clean with less scrubbing | 4.15 |
| 18.7 | Does not damage the environment | 3.66 |
| 18.5 | Removes stains in the chamber | 3.61 |
| 18.4 | Has a fragrance that matches my room spray | 3.52 |

## 4.4. Decision on the hypotheses

Multiple regression analysis was conducted to test the three hypotheses postulated in this study, and the results are presented in Table 8.

The results in Table 8 indicate that the respondents who switched brands are more likely to indicate that the product brand benefits are important $\left(\beta = 1.709,\ p = .0000\right)$ in influencing their brand switching behavior, compared to respondents who remained loyal to the current brand. The p-value of 0.000 for households who switched brands is less than 0.0005, indicating that the result is significant, thereby supporting H1. The households/participants agree that if the relative benefits of the current toilet-care product brands are lower than the impact of the social change, as represented by a change in toilet system, brand switching will occur, since people seek new product brands that can satisfy the new toilet's cleaning needs (Elbedweihy et al., 2014; Erics et. al., 2012).

Hypothesis (H2) is also supported, since the respondents who switched brands indicated that they are more likely to switch brands after a social change. The results are significant as indicated by the test results $\left(\beta = .200\right),\ p = .0000)$, and the p-value is less than .0005. The households/

participants agree that a change in sanitary infrastructure, that is, a change in the toilet system results in brand switching in the type and form of toilet-care product brands.

Regression analysis was conducted using lifestyle as an independent variable and brand switching behaviour as a dependent variable, and the results do not support hypothesis (H3), since they were not significant, as is evidenced by the test results, $\left(\beta = -.601,\ p = .027\right)$, where the $p$-value is greater than .05. In essence, the participants who switched brands following a change in the place and type of residential dwelling did not agree that the change in lifestyle motivated them to switch brands. The most plausible explanation could be that toilet-care products are low-involvement, routine products in the consumer's consumption repertoire (Nikic, 2012). The overall results of the study are summed up in the model reflected in Figure 1.

The overall findings on the effect of an external social disruption and relative CBI on brand switching supports the relative CBI framework by Lam et al. (2010). These results concur with the relative CBI model where consumers use functional brand benefit attributes to compare the incumbent brand's benefits with the disruptive entrant. In cases where the disruption is stronger than the brand benefits offered by the current

**Table 8.** Outcome of regression analysis

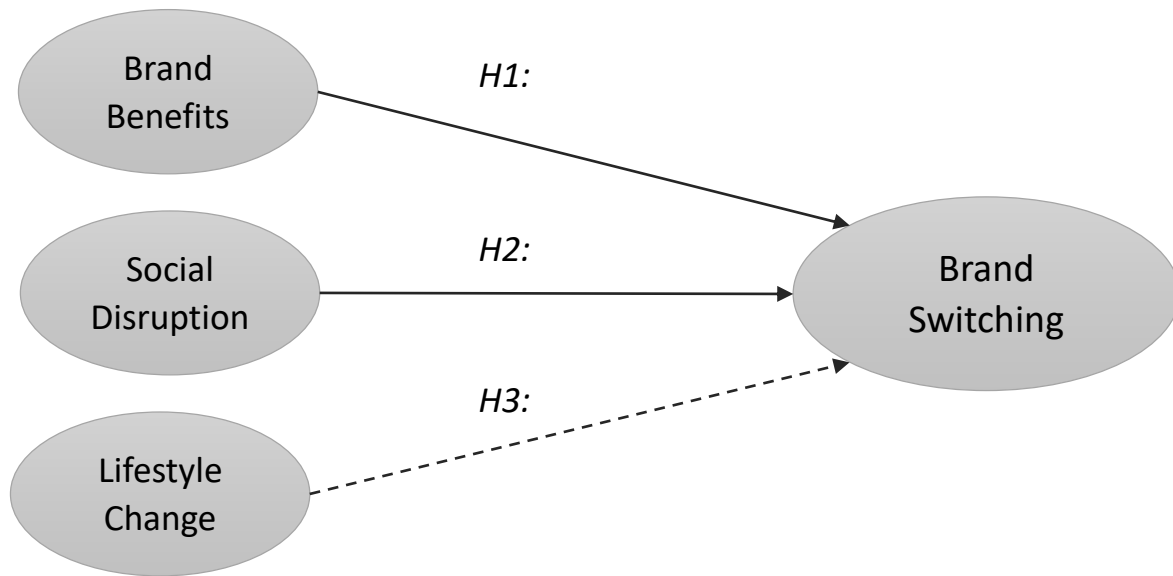| Variables | B | S.E. | Wald | Df | Sig. | Exp(B) | Result |
|:---|:---:|:---:|:---:|:---:|:---:|:---:|:---:|
| Brand_Benefits | 1.709 | .389 | 19.282 | 1 | .000 | 5.525 | Hypothesis supported |
| Lifestyle | −.601 | .272 | 4.881 | 1 | .027 | .548 | Hypothesis not supported |
| Social_Disruption | .200 | .050 | 16.008 | 1 | .000 | 1.221 | Hypothesis supported |
| Constant | −7.101 | 1.422 | 24.935 | 1 | .000 | .001 | – |

**Figure 1.** Hypothesized model

brands, brand switching occurs being motivated by both of functional utility maximization and social mobility (Lam et al., 2012). The findings are also in line with those of Solomon et al. (2013), Chang and Dibb (2012) who suggested that consumers weigh up the perceived benefits and costs of making a certain product acquisition and switch towards brands with higher perceived benefits and lowers costs.

Recent research on consumer behavior using relative CBI modelling has extended brand choice investigations to include social and psychological factors (Kaswengi & Diallo, 2015; Catalin et al., 2013; Lam et al., 2010; Kressman et al., 2006). These developments go beyond traditional explanations of rational brand choice (Dellaert et al., 2012; Marchant et al., 2011) which views consumers as choosing brands from a competitive set of products that is either competitive or complementary. Relative CBI models have been used to explain how social mobility and social creativity (Elbedweihy et al., 2014; Lam et al., 2012, 2010) can influence brand choice during conditions of an internal disruptive market change such as the introduction of a radically innovative brand.

## CONCLUSION

The findings are an indication of behavioral responses of Cosmo City residents to a social disruption, and lead the researchers to conclude that lifestyle has no significant influence on the brand switching behavior of toilet-care product brands of the respondents in this study. The findings imply that marketers have to move beyond simple demographic factor segmentation and use a multi-faceted approach in understanding brand switching behavior, because consumers have adapted well to changes in the market. In addition, residential developments like Cosmo City have blurred the demographic distinctions of pre-2000, making consumer behavior universal. Socio-psychological aspects need to be considered in researching consumer choice behavior, since non-market disruptions like a residential change have a similar significant impact on brand switching behavior, as 'in-market' disruptions like the introduction of an innovative new brand. It is recommended that sociological factors like consumer identity, consumer brand congruency, and social change are essential to the development of a holistic picture of consumer product brand choice.

These findings present some interesting issues that marketing practitioners and managers need to be cognizant of, which include the finding that consumers use a product's price as an indicator of its quality, toilet-care product consumers make quality comparisons between store brands and national brands,

and a store brands' perceived quality is influenced by the store name. Marketers need to incorporate these aspects in developing and implementing a holistic brand positioning strategy in a specific market.

The world is pushing for eco-friendly products that protect and preserve the environment. However, marketers need to be sensitive in developing and promoting toilet care products, since their adoption has been found to be of less significance in this research.

The study is unique as it focused on toilet-care product consumption/use behavior involving South African households who have "evolved" in terms of their demographic profiles, racial segregation, access to product markets, and consumption patterns, since the first democratic elections in 1994. The study adds to the body of knowledge of similar studies in other product market categories like Rubio, Villasenor and Oubina (2015) in the food category, and Beneke and Carter (2015) in the South African breakfast cereal product category. However, this study becomes the first which focused on the toilet-care product category.

## RECOMMENDATIONS

Marketers need to formulate marketing strategies that incorporate both functional and socio-psychological aspects of consumer behavior, since this research demonstrated that consumers do not only consider functional product attributes, but also socio-psychological attributes when choosing a brand. Product market research needs to incorporate lifestyle issues so as to adequately guide product development and positioning in the marketplace. Such an approach may yield better competitive advantage, improved brand equity, better product profitability and shorter product payback times. Marketers need to consider social disruptions in the same light as 'in-market' disruptions such as a price war, innovative product introductions, etc., because the impact is the almost the same on consumer product brand choice. Both types of disruptions lead to fractured consumer-brand relationships, which result in either brand switching or increased loyalty, as consumers seek to re-equilibrate their socio-economics brand benefits. Consumers need to be better educated on the finer aspects of toilet-care product brand formats.

## LIMITATIONS

The study focused on toilet-care product brands and on Cosmo City households only. It excluded point of sales or point of purchase consumer product brand choice and only investigated 'in-home' household consumer product behavior. The product categories were also simplified into a two brand study – private labels and national brands. The research also excluded investigations into channels behavior and how it affects consumer choice, as it focuses on consumer product brand behavior in the context of a market disruption.

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