

Modelling Bottled Water Repurchase Intention in Nigeria: Extending the Expectation Disconfirmation Theory with Trust

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Abstract

Purpose – This study aims to assess the effects of consumers bottled water quality expectation, perception, and brand trust, on repurchase intention.

Design/methodology/approach – A survey of two hundred bottled water consumers in Idah, a suburban setting in North-Central Nigeria was conducted. The paper conducted the factor analysis and test of hypotheses using the partial least squares – structural equation modelling technique. Further, the paper conducted the importance - performance analysis to estimate the performance and importance of the study predictors on repurchase intention.

Findings – The result shows significantly large positive, medium negative, and small positive effects of brand trust, expectation, and perception, on repurchase intention, respectively. Expectation has large positive effect on perception, and disconfirmation, and small positive effect on trust. Interestingly, brand trust is the principal predictor of consumers bottled water repurchase intention. Other relationships were nonsignificant.

Practical implications – Managers should keep advertisements realistic, improve the quality of the product and regularly disseminate results of analysis of water samples to improve consumer trust. Policy makers should ensure that advertising messages comply with code of practice to circumvent consumers' resorting to unsafe sources of drinking water due to dissatisfaction with performance of bottled water brands.

Originality/value – This study extends the expectation disconfirmation theory (EDT) through integration of brand trust and provides compelling evidence that trust is the most crucial driver of bottled water consumers repurchase intention in Nigeria.

Keywords - Bottled water, repurchase intention, brand trust, expectation disconfirmation, Nigeria, EDT, IPMA.

Introduction

The surge in bottled water (BW) consumption has continued in developing countries (Vasquez 2016). Between 2010 and 2015, the highest annual growth rate (CAGR), the per capita consumption of BW occurred in the developing countries of China (14%), Thailand (12.5%), Indonesia (12.2%) and India (10.9%) (Rodwan 2016). This growth has been associated mainly with consumers perception that bottled water is safer or better than tap water (Diduch et al. 2016; Prasetiawan et al. 2017). In Nigeria however, between 25% and 50% of bottled water on sale are contaminated (Igbeneghu & Lamikanra 2014; Onoja et al. 2015; Onuorah et al. 2016). Some pathogens isolated from bottled water samples include escherica. Despite the quality breach, BW consumption rose 500% between 2005 and 2015 (Euromonitor 2015).

Previous research has addressed several aspects of bottled water - microbial quality (Igbeneghu & Lamikanra, 2014; Onuorah et al., 2016), drivers of bottled water consumption (Doria 2006), and perception of bottled water (De Queiroz et al. 2013). Despite the enormous literature on bottled water, the factors that incline sub-urban consumers to increased repurchase of bottled water, amid substantial breach of bottled water quality is not apparent. Further, the role of brand trust in the explication of bottled water repurchase intention, in the context of a popular consumer behaviour model, the expectation disconfirmation theory (EDT) is yet unclear. Undertaking this study is vital to extending the EDT, advancing research on consumer behaviour literature, and informing drinking water policy and marketing strategy.

The purpose of this study is to integrate “brand trust” into the EDT to predict consumers’ bottled water repurchase intention (RPI). Based on the model, this paper aims to examine the effects of consumers quality expectation (EXP), brand trust (TRUST), and consumers’ quality perception (PERC) on RPI. Further, this paper investigates the effects of EXP, subjective disconfirmation (DISC), and PERC on TRUST, EXP and PERC on DISC, and EXP on PERC. Following from previous research (Bhattacharjee, 2001; Lankton, McKnight, & Thatcher, 2014; Venkatesh & Goyal, 2010), this paper adapted the conceptual model of this study from Oliver and Burke (1999).

The conceptual framework and research hypotheses

EDT is a sequential process model that explicates the psychological process a consumer experiences from pre-use expectations through perception, disconfirmation, and satisfaction to continuance intention (Premkumar & Bhattacharjee 2008). The model views RPI as a function of satisfaction (Oliver & Burke 1999), but Chang et al. (2010) argues that satisfaction with a product does not necessarily ensure customer loyalty. This necessitates investigating consumer brand trust within the context of EDT. The following sections explain the relationships amongst variables and postulate the study hypotheses.

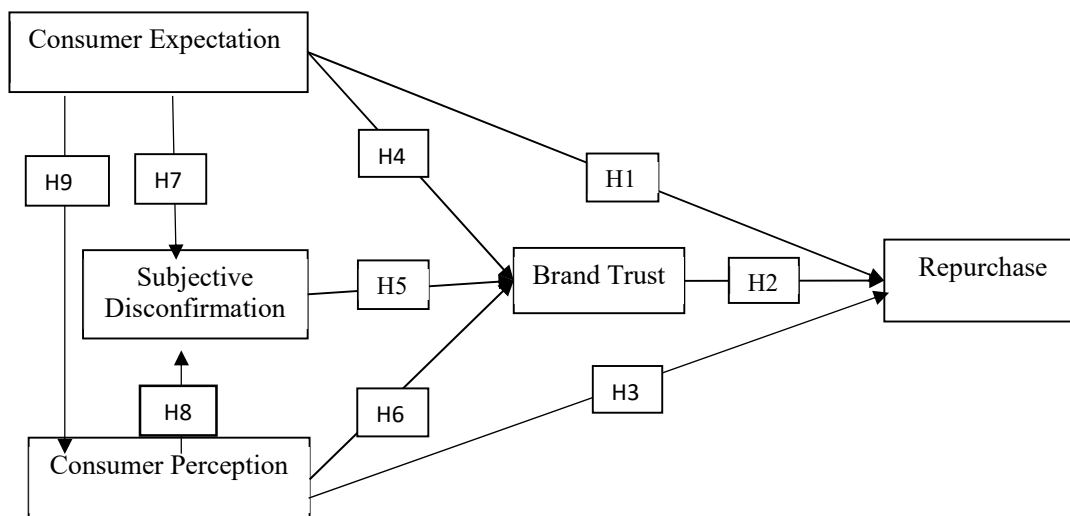


Figure 1: The Conceptual model of study
 Source: Adapted from Oliver and Burke (1999)

The effects of expectation, brand trust, and perception on repurchase intention

Repurchase intention is an existing customer’s *resolve to rebuy* a product or service, or from a store. RPI is important for businesses because it precedes actual purchase (Srivastava & Kaul 2016). Some factors that are thought to influence consumers RPI include EXP, TRUST, and PERC. Consumers’ expectation is customers’ pre-purchase or pre-use belief in the performance of a product (Wang 2017). Extant literature provides evidence that pre-use expectation relates to use intention. Roberts (Roberts 2012) argues that shared expectation cause intention while pre-entry expectations has equally been associated with intentions to enlist in the military (Ford et al. 2013). Brand trust is another factor extant literature associates with RPI. According to Hobbs and Goddard (2015) and Jones and Kim (2010), trust shapes attitude and induces commitment to future transactions, respectively. Chaudhuri and Holbrook 2002), and Morgan and Hunt (1994)

report positive relationships between trust and repurchase intention. Recently, Wang et al. (2015) reported that online consumers' trust affects intention to use m-commerce services. Another factor that extant literature associates with RPI is perception. Perception impacts intention (Bhattacharjee 2001). Similarly, Chen et al. (2009) and Hsu et al. (2014) respectively, found that perceptions affect attitudinal loyalty, and has positive effect on continuance intention towards social networking website. In the context of this study, public perception of water quality is based mainly on organoleptic (Abdul Wahid & Chew 2015). Following from above, this paper predicts that:

- H1:** High consumers' pre-use expectations of bottled water quality induced by bottled water advertisements will lead to higher repurchase intention
- H2:** The intention to repurchase a brand of bottled water will be higher among consumers who have stronger trust in the brand than those who do not.
- H3:** Positive post-use perception of bottled water brands will impact consumers repurchase intentions positively, such that higher positive perception will lead to stronger repurchase intention.

The effects of expectation, disconfirmation, and perception on brand trust

Brand trust, a consumers' inclination to rely on the capacity of a brand to fulfil its stated promise (Chaudhuri & Holbrook, 2001). Expectation has been said to lead to trust (Weber & Carter, 2003). Similarly, trust has been linked to expectation of reciprocity (Fandiño & Marcos Aguiar de Souza, 2013). Further, Sharkie (2009) reports that trust in leadership is connected to expectations about the leaders' performance. Positive disconfirmation occurs when a product out-performs consumers' expectation. In a study of interorganizational relationships, "when positive disconfirmation prevails, trust in a partner is reinvigorated" (Vlaar, Van den Bosch, & Volberda, 2007 p.417). Furthermore, Darke, Ashworth, and Main (2010) found positive effects of disconfirmation on trust. Perception is another predictor of brand trust (Roark & Sharah, 1989). Gomez and Rosen (2001) report significant link between managerial trust and employee perceptions. Lately, Tsai, Joe, Lin, Chiu, and Shen (2015) report links between perceived legal and economic citizenship and brand trust just as Palanski, Kahai, and Yammarino (2011) report relationship between trust and post-use outcome. Hence, this paper predicts that:

- H4:** When consumers' expectation about bottled water quality is high, the trust in the brand will also be high.
- H5:** Hence, when consumers disconfirm a bottled water consumption positively, the trust in that brand will be strongest than in situations of zero and/or negative disconfirmations
- H6:** When consumers have positive post-use perception of bottled water brands, it is likely that the brand trust on the product will be stronger than otherwise.

The effects of expectation and perception on disconfirmation

Disconfirmation is the "discrepancy between expectations and actual experiences" (Venkatesh & Goyal 2010 p.283). Expectation is one of the major components of customer behaviour (Cardozo, 1965). Churchill and Surprenant (1982) report inverse relationship between expectation and disconfirmation, whereas Morgeson (2013) indicate that stronger expectations tend to result in a greater likelihood of positive disconfirmation. Similarly, Alraimi, Zo, and Ciganek (2015) inform that initial expectation leads to disconfirmation. Further, consumers perception - the total view a consumer holds based on encounter (Deepa & Jayalakshmi, 2016), has positive effect on disconfirmation (Churchill & Surprenant, 1982; Lankton et al., 2014).

Hence, disconfirmation is a function of perception, (Ding & Chai 2015), of perceived performance (Nyer, 1996), or product/service performance (Premkumar & Bhattacharjee, 2008). Based on the evidence in extant literature, this paper predicts that:

H7: When consumers' expectation about bottled water quality is high, the disconfirmation outcome on the brand will be positive because consumers will assimilate whatever negative discrepancy exists after actual consumption of bottled water.

H8: Consumer post-use perceptions of a bottled water brand will lead to positive disconfirmation outcomes.

The effect of expectation on perception

Consumers perception is a post-experience opinion formed by a customer about a product (Rezai et al. 2017). Oliver (1980) views expectation as a frame of reference and comparison with perception as well as a predictor of perception. Gierczak (2015) and Parasuraman, Zeithaml, and Berry (1985) report the expectation/perception association. Further, expectation has been reported to have significant effect on service quality perception (Li, Hsiao, Yang, & Yen, 2009), on technology use outcome (Lankton & McKnight, 2007), and on perceived performance (Morgeson, 2013). Therefore, this paper predicts that:

H9: Through the assimilation process, consumers who have high pre-use expectation on bottled water quality will perceive the brand more positively than those who do not.

Methodology

This quantitative study determines the nature of relationships between RPI and its antecedent variables. The study population consists of consumers of bottled water in Idah, a sub-urban community in the Middle Belt region of Nigeria. The sample size was calculated using G*Power software. With three maximum number of predictors pointing at any construct, expected power of .80 and a medium effect size of 0.15, the minimum sample size required was 84 respondents. However, the study sampled 200 consumers through a self-administered questionnaire. This study analysed the data from 141 usable responses (Table 1) using the SmartPLS 3.0 (Ringle, Wende, & Becker, 2015).

Measures

The structured questionnaire measured five variables - consumers' EXP, PERC, DISC, TRUST, and RPI. All constructs were scaled 'strongly disagree' (1) to 'strongly agree' (7), except DISC which was scaled 'much worse than expected' (1) to 'much better than expected' (7). All the constructs except TRUST have reflective measures because the constructs cause the indicators. TRUST is specified formatively because the indicators form it (see Hair, Hult, Ringle, & Sarstedt, 2017).

Respondents' demographics

Table 1 describes the demographic characteristics of the respondents. Of the 141 respondents, 108 (76.6%), 75 (53.2%) and 69 (48.9%) were males, between ages 20 to 39 years, and had a Master's degree, respectively. Fewer female respondents (33) were sampled because women are generally fewer in academic environment in Nigeria where the sampling was conducted.

Table 1: Respondents' profile

Profile	Frequency	Percentage	Profile	Frequency	Percentage
Gender of respondents			Highest qualification		
Male	108	76.6	Below First degree	3	2.1
Female	33	23.4	Bachelor's degree	45	31.9
Respondent's age		100%	PGD or equivalent	12	8.5
20 to 39 years	75	53.2	Master's degree	69	48.9
40 to 59 years	57	40.4	PhD	12	8.5
≥60 years	9	6.4		N=141	100%
	N=141	100%			

Results

Descriptive statistics

The parameters of the study data and measurement model reliability and validity are presented together in Table 2. From the table, the mean scores for the items are generally high on a 7-point Likert scale. The highest and lowest mean scores are 6.338 (EXP1) and 3.483 (TRUST5), respectively.

Convergent reliability and validity

In factor analysis of reflective models, researchers estimate the internal consistency reliability, indicator reliability and convergent validity of the models. Internal consistency refers to the extent to which item responses associate with the total test score (Alshardan, Goodwin, & Rampersad, 2016). This paper uses the composite reliability (CR) index to estimate the internal consistency reliability. CR is considered more robust than the Cronbach's alpha because it considers the different outer loadings of the constructs (Hair et al., 2017). As shown in Table 2, all the CR are considered satisfactory since the indices are well above the threshold of 0.7 (Hair, Ringle, & Sarstedt, 2011; Nunnally & Bernstein, 1994). Indicator reliability considers the outer loadings to explain how much of an indicator's variance is explained by the underlying construct. The lower limit for this criterion is 0.7 (Nunnally & Bernstein, 1994; Hair et al. 2011). Some items with values lower than 0.7 were retained because the other indicators have high values, and AVE for those constructs were already above 0.5 (Ramayah, Cheah, Chuah, Ting, & Memon 2016).

Convergent validity is the extent to which a measure correlates with other measures of the same construct and the common measure is the average variance extracted (AVE) (Hair, Hult, Ringle, & Sarstedt, 2014). The convergent validity of the study models is established since all the AVE's are > 0.50 suggested by Fornell and Larcker (1981) and used generally as the gold standard for assessing a models' convergent validity.

Table 2: The Mean, standard errors, and standardized loadings of construct items, reliability and validity of constructs

Expectation (reflective model)		Mean	Stdev.	Loadings	CR ^a	AVE ^b
	Before I started drinking bottled water, I had expected that bottled water would:					
EXP1	be safe to drink	6.338	1.412	0.833	0.854	0.541
EXP2	have beneficial mineral content	5.517	1.989	0.654		
EXP3	have good taste	6.150	1.591	0.705		
EXP4	have no odour	6.255	1.248	0.811		
EXP5	have no colour	6.014	1.180	0.655		
Subjective Disconfirmation (reflective model)						
	Compared to my expectation,					
DISC2	BW safety level is (much lower/much higher) than I had expected	4.563	1.630	0.770	0.922	0.666
DISC3	BW mineral content is (much worse/much better) than I had expected	4.404	1.784	0.890		
DISC4	BW taste is (much worse/much better) than I had expected	4.056	1.870	0.877		
DISC5	BW colour is (much worse/much better) than I had expected	3.980	1.814	0.887		
DISC6	BW price level is (much higher/much lower) than I had expected	4.081	1.642	0.689		
DISC7	My dependence on BW is (much less/much more) than I had expected	4.027	1.700	0.763		

NB: *SD*=strongly disagree, *SA*=strongly agree, *BW*=Bottled water, ^a= Composite reliability, ^b= Average variance extracted
 EXP6, EXP7, DISC1 deleted due to low loadings.

Table 2 Continued

Perception (reflective model)	Items	Mean	Stdev,	Loadings	CR ^a	AVE ^b		
	Since I started drinking bottled water, I perceive that:							
PERC1	BW is safe to drink	6.141	1.542	0.698	0.861	0.559		
PERC4	BW has no odour	6.255	1.015	0.805				
PERC5	BW has good taste	5.852	1.587	0.908				
PERC6	BW is not expensive	4.993	1.981	0.588				
PERC7	I have become used to BW	5.503	1.775	0.700				
	Repurchase intention (reflective model)							
RPI1	I intend to continue buying this brand of BW	6.141	1.542	0.803	0.818	0.600		
RPI2	My intention is to continuing buying this brand than any other	5.568	1.775	0.727				
RPI3	If I could, I would like to continue buying this brand	5.946	1.580	0.763				
	Brand trust (formative model)			Weights	CV*	VIF**	t-stat	
TRUST1	This brand is reliable	5.607	1.574	-0.287	0.710	2.224	1.512	
TRUST2	I feel secure when I buy this brand	5.550	1.587	0.842		2.736	3.516	
TRUST3	The Producer of this brand is reputable	5.450	1.440	0.048		2.621	0.197	
TRUST4	I get excellent value for my money when I buy this brand	5.255	1.560	-0.619		2.504	2.782	
TRUST5	This brand is up-to-date	3.483	2.268	1.020		2.086	6.033	
TRUST6	Overall, this brand can be trusted	5.470	1.333	NA		NA	NA [§]	
N=147								

NB: All constructs except TRUST, are scaled 1=*SD* strongly disagree to 7= *SA* strongly agree

^a= Composite reliability, ^{*}= Convergent validity, ^{**}=Variance inflated factors, ^b= Average variance extracted

[§]= TRUST6 was used as a global item as so the weights, VIF and t-statics are no included here.

PERC2, PERC3 were deleted due to low loadings

Convergent validity for formative construct

The assessment of formative measures involves estimation of convergent validity, indicator collinearity, and relevance and significance of measures. Convergent validity is the extent to which an indicator correlates with other indicators that it is theoretically projected to correlate with (Subramanian, Gunasekaran, Yu, Cheng, & Ning, 2014). To assess the convergent validity, this paper conducted a redundancy analysis of TRUST using a global item TRUST6. The value of .710 in Table 2 indicates satisfactory convergent validity according to Hair et al. (2017).

For formative measures, indicator collinearity (which should be avoided), occurs when a construct's indicators are highly correlated (Wong, 2013). This paper assessed indicator collinearity using the variance inflated factor (VIF). The result also indicates no problem of collinearity as all VIF's values are lower than 3.3 suggested by Diamantopoulos and Sigauw (2006). Outer weights should also pass significance or content validity test to be retained. The result shows the indicator weights (relative importance), loadings (absolute importance), and the t-values. From Table 2, TRUST2, TRUST4 and TRUST5 are significant. TRUST3 is not significant but is retained because the corresponding loading 0.623 >0.50 recommended by Hair et al. (2017). This study retains TRUST1 because of content validity. TRUST1 measured reliability of brand, which is an essential element of trust.

Discriminant validity

Discriminant validity is the extent to which each construct is dissimilar from other in the same model (Chin, 2010; Rasoolimanesh, Ringle, Jaafar, & Ramayah, 2017). Evaluation of discriminant validity ensures that different indicators of different constructs are not measuring the same thing. The traditional method of evaluating constructs discriminant validity has been the Fornell and Larcker criterion (1981), and the cross-loadings of construct indicators. However, the Heterotrait-Monotrait (HTMT) is used here because it 'yields sensitivity levels of 95% or higher under all simulation conditions' (Henseler, Ringle, & Sarstedt, 2015 p.124). Particularly, HTMT_{.85} is used because it outperforms the other two approaches with an average sensitivity rate of 99.90% thereby achieving higher specificity and sensitivity rates (Henseler, et al. 2015).

Table 3: Discriminant validity of reflective models using Heterotrait-Monotrait ratio

	DISC	EXP	PERC	RPI
DISC	█			
EXP	0.306	█		
PERC	0.249	0.808	█	
RPI	0.208	0.256	0.222	█

Note: RPI Repurchase intention; EXP Consumer water quality expectation; PERC Consumer water quality perception; DISC Quality expectation disconfirmation

Reflective Construct	Composite Reliability	Average Variance Extracted	DISC	EXP	PERC	RPI
DISC	0.922	0.666	█			
EXP	0.854	0.541	0.306	█		
PERC	0.861	0.559	0.249	0.808	█	
RPI	0.818	0.600	0.208	0.256	0.222	█
Formative construct	Convergent validity					
TRUST	0.710	NA				

Further, HTMT ratio 'with 0.85 cut-off provide the best assessment of discriminant validity and should be the standard for publication in marketing' (Voorhees, Brady, Calantone, & Ramirez, 2016 p.119). From the results in Table 3, all the values are below the 0.85, the stringent criterion in HTMT, meaning the indicators of the reflective constructs are measuring distinct variables. Thus, the discriminant validity of the constructs has been established. The structural model estimation constitutes the second phase of analysis.

Structural model estimation

In conducting structural model estimation, Hair et al. (2017), suggest starting with collinearity analysis to ensure each of the constructs are measuring different things. This paper assessed each set of predictors(s) and criterion variable together by running PLS Algorithm and checking the VIF. The highest VIF for this study is 1.944, lower than 3.3 recommended by Diamantopoulos and Siguaw (2006). This means there are no collinearity problems with the structural model.

The hypothesis tests were conducted using PLS Algorithm and bootstrapping procedures to obtain the beta coefficients and the t-values. This is necessary to decide whether the test supports a hypothesis or not. This paper tested nine hypotheses as Table 4 and Figure 2 show. For H1, although the test result ($\beta = -0.387$, $t\text{-value} = 3.701$, > 1.645 , $p = .05$) is significant, it is not supported because it is a negative relationship contrary to the positive direction hypothesized. The results ($\beta = 0.620$, $t\text{-value} = 9.902$, > 1.645 , $p = .05$) and ($\beta = 0.260$, $t\text{-value} = 2.782$, > 1.645 , $p = .05$) indicate support for H2 and H3 respectively. Further, the results for H5 and H9 ($\beta = 0.244$, $t\text{-value} = 1.893$, > 1.645 , $p = .05$), and ($\beta = 0.691$, $t\text{-value} = 9.122$, > 1.645 , $p = .05$), respectively indicate significant relationships between DISC and TRUST, and EXP and PERC. Hence, the data supports the hypotheses. Those of H4 ($\beta = -0.014$, $t\text{-value} = 0.081 < 1.645$, $p = .05$), and H6 ($\beta = 0.037$, $t\text{-value} = 0.207 < 1.645$, $p = .05$) are not significant. Similarly, H7 and H8 results ($\beta = 0.169$, $t\text{-value} = 1.046 < 1.645$, $p = .05$), and ($\beta = 0.079$, $t\text{-value} = 0.523 < 1.645$, $p = .05$) are nonsignificant too. Hence, H4, H6, H7 and H8 are not supported.

Table 4: Results of structural model estimation

Hypotheses	Relationships	VIF	Std Beta	T-values	P Values	Decision	R ²	f ²	Q ²
H1	EXP -> RPI	1.915	-0.387	3.701**	0.000	NS	0.455	0.143	0.241
H2	TRUST -> RPI	1.006	0.620	9.902**	0.000	Supported		0.700	
H3	PERC -> RPI	1.917	0.260	2.782**	0.003	Supported		0.065	
H4	EXP -> TRUST	1.944	-0.014	0.081	0.468	NS	0.062	0.000	0.029
H5	DISC -> TRUST	1.056	0.244	1.893*	0.029	Supported		0.060	
H6	PERC -> TRUST	1.921	0.037	0.207	0.418	NS		0.001	
H7	EXP -> DISC	1.914	0.169	1.046	0.148	NS	0.053	0.016	0.030
H8	PERC -> DISC	1.914	0.079	0.523	0.300	NS		0.003	
H9	EXP -> PERC	1.000	0.691	9.122**	0.000	Supported	0.478	0.914	0.220

* $p < 0.05$, ** $p < 0.01$

Note: NS Not supported, TRUST Brand trust; RPI Repurchase intention; EXP Consumers water quality expectation; PERC Consumers water quality perception

The coefficient of determination (R²), the index of exogenous variables' effects on a criterion variable, measures a model's predictive accuracy (Hair et al., 2017). It represents the percentage of the variance in criterion variable explained by the predictor(s). In this study, EXP, TRUST, and PERC account for of RPI R² of 0.455. EXP, DISC, and PERC explain 0.062 variance in TRUST, while 0.053 change in DISC was accounted for by EXP and PERC. Finally, EXP explains 0.478 variance in PERC.

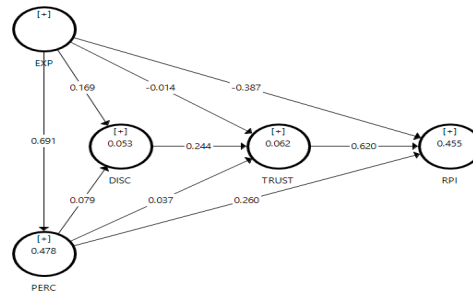


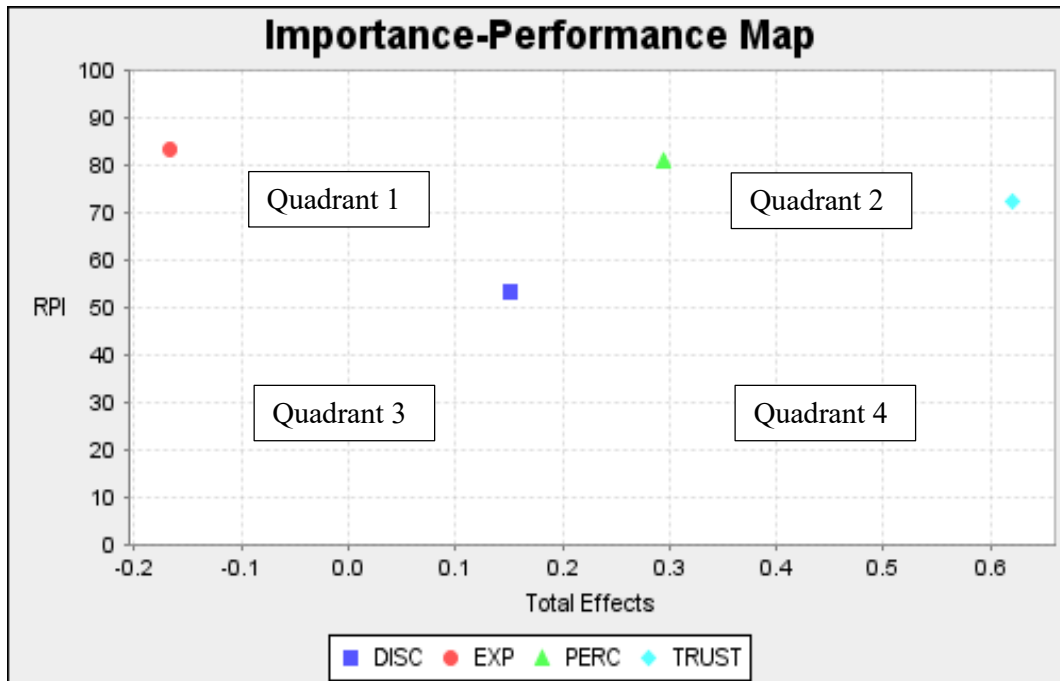
Figure 2: Statistical model of study

Effect size (f^2) which measures the substantive significance of an exogenous variable on an endogenous counterpart allows researchers to determine the contribution of a predictor to the R^2 of a criterion variable. The f^2 values of 0.02, 0.15 and 0.35 represent small, medium, and large effects, respectively (Cohen, 1988). From Table 4, the substantive effects of EXP on RPI is 0.143, TRUST on RPI 0.700, and EXP on PERC 0.914. Further, PERC has 0.065 effect on RPI, whereas DISC has 0.060 effect on TRUST. The remaining relationships have no substantive significances.

The Q^2 index measures a model's predictive relevance. This paper conducted a blindfolding test in the SmartPLS 3.0. The models have predictive relevance since all the values are above the zero threshold (Hair et al. 2017). From the analysis, EXP and TRUST have the strongest predictive relevance over RPI and PERC, in that order.

The importance performance matrix analysis (IPMA)

To get some finer details of the nature of inter-construct relationships and facilitate the study's conclusion, this paper conducted Importance-performance matrix analysis (IPMA), a complementary investigation in partial least squares structural equation modelling (PLS-SEM), (Sarstedt, Ringle, Smith, Reams, & Hair, 2014). IPMA builds on the standardized regression coefficients (importance) and the performance index (Mourad & Valette-Florence, 2016), combines the importance and the performance results in a two - dimensional map (Hair et al., 2014). The x-axis displays the importance (i.e., total effects) the predictors on the target construct, whereas the y-axis shows the performances ranging from 0 to 100, (Sarstedt et al., 2014). IPMA is important because its result aids prioritization of managerial actions (Hair et al., 2014).



Note: RPI Repurchase intention, DISC Disconfirmation of expectation, EXP Consumer quality expectation, PERC Consumer quality perception, TRUST Brand trust

Figure 3: The Importance – Performance Map
 Source: IPMA analysis output conducted by the researchers

Figure 3 shows the relative importance and contributions of DISC, EXP, PERC, and TRUST, to prediction of bottled water repurchase intention. The IPMA result indicates that EXP with -0.166 importance and 83.430 performance scores, locates in the upper part of first quadrant, while DISC (0.151, 53.221) also in quadrant 1 locates at the lower right-hand angle. Both PERC (0.295, 81.186) and TRUST (0.620, 72.375) are in quadrant 2. The connotations of IPMA are stressed under discussion of findings.

Discussion

This paper investigated the relationships between consumer quality disconfirmation, brand trust, and repurchase intention and the respective antecedents, through the theoretical lens of the expectation disconfirmation model. This paper tested the conceptual model to determine its predictive power, the R^2 of the endogenous constructs (Chin, 2010). The model exhibits substantial prognostic power as it predicted 46% of the variance in repurchase intention going by Chin, (1998). The test result shows that five of the hypothesized relationships are significant, namely, hypothesis one, two, five, six, and nine.

The findings of this study indicate that:

1. EXP has a significant inverse effect on RPI. Additionally, this paper finds expectation has significant inverse effect on repurchase intention. The finding aligns with extant literature which mention that social expectation leads to intention, (Roberts, 2012). Similarly, Ford et al. (2013) associate pre-entry expectation to intention to enlist in the military. The inverse relationship suggests that when bottled water quality performance falls below consumers expectation, the intention to engage in repurchase weakens. The contrast theory predicts that “product performance below expectations will be rated poorer than it is, while performance above expectations will be rated very high” (Oliver & DeSarbo, 1988 p.496). Expectation has medium effect (0.143) on intention. The EXP variable is in the first quadrant of the IPMA map. Though consumers expectations were high, it had little importance on consumers repurchase intention. Perhaps, consumers expectations in terms of water taste, odour, colour, etc have been raised due to promotional activities of marketers, referred to as “hyped” expectation (Riener, 2014).
2. TRUST has a significant positive effect on RPI in line with prediction. From the analysis, this paper provides evidence of positive effect of brand trust on repurchase intention. The effect of TRUST on RPI is large (.70). The IPMA analysis (Figure 3) shows TRUST in 2nd quadrant signifying high importance and high performance. Hence, consumers intention to continue to purchase bottled water brands of choice is driven primarily by trust. With high level of trust, consumers are more likely to have stronger intention to engage in repurchase. Doria (2006) reports influence of trust on public behaviours towards drinking water. This finding supports Jones and Kim (2010), and Lassoued and Hobbs (2015). Previously, Chaudhuri and Holbrook (2002) reported that brand trust makes the committed consumer increase the frequency of eating out in a favourite restaurant.
3. PERC has a significant positive effect on RPI. Hence, as positive perception of bottled water will lead to stronger intention to repurchase. Considering the IPMA, perception has high performance but medium importance in predicting intention. Bhattacharjee (2001) found that perceived usefulness predicted intention to continue IS use just as Zhang et al. (2011) reported that perceived website usability positively impacted customer repurchase intention. Hsu et. al. (2014) and Wu, Chen, Chen, and Cheng (2014) found the positive effect of perceived usefulness on continuance intention towards social networking website, and perceived value is positively related to repurchase intention. (Wu et al. 2014), respectively.
4. DISC has a significant effect on TRUST. This paper also finds that disconfirmation has a positive effect on brand trust. Impliedly, consumers who experience positive disconfirmation

(i.e., when product performance exceeds the pre-consumption expectation) will be more likely to have stronger trust in that brand, and vice-versa. The finding supports Loureiro, Miranda, and Breazeale (2014), and Vlaar et al. (2007). The result also reveals that perception has a small effect (0.065) on intention. In the IPMA map, PERC locates in the second quadrant, higher than Trust in performance but lower in importance. By implication, although consumers have elevated positive perception of bottled water quality, it is less important to consumers in comparison to trust vis-a-viz repurchase intention formation.

5. EXP has a significant positive effect on PERC. Similarly, expectation has a positive relationship with perception. This agrees with Li et al. (2009). The effect of expectation on perception is large (0.914). This means when consumers have high expectation concerning bottled water quality, the perception will also be high. This aligns with the assimilation theory (AT). AT holds that consumers dislike experiencing discrepancies between product perception and pre-consumption opinions. The coping strategy is to assimilate the perception in the direction of the pre-use beliefs (Pieters, Koelemeijer, & Roest, 1995). In extant literature, the assimilation effect akin to dissonance reduction or “soar grape” effect occurs to minimize the pain consumers would go through. Furthermore, assimilation effect may or may not occur depending on whether consumers compared bottled water quality performance against the pre-consumption expectation or against other sources of drinking water. The later might be the case because there is no drinking water source comparable to bottled water quality in Idah.
6. Hypotheses three, four, seven, and eight were not significant ($t < 1.645$, $f^2 < 0.02$) contrary to hypothesized positions and extant literature (Alraimi, et al. 2015; Earle & Siegrist, 2008; Mittal, Shubham, & Sengupta, 2017). To find patterns in the population subgroups, a post-hoc PLS-MGA test using gender and age as grouping variables was conducted in SmartPLS 3.0. The result suggests that gender could be the “lurking” factor as female consumers responded more strongly to most of the predictor questions thereby having higher β values for H4 (1.449), H8 (1.284) and H6 (1.433), than the male counterparts, 0.083, 0.586, and 0.500, respectively. For H 4, consumers aged 20 to 40 had higher β scores (1.560) than those above 40 (0.164). Hence gender and age are most likely the third variables affecting the strength of the relationships.

Conclusion

Contribution of study

Theoretically, this study contributes by extending the EDT through integration of brand trust and providing compelling evidence that trust is the most crucial driver of consumers bottled water repurchase intention in Nigeria.

Managerial and policy implications

The findings of this study have implications for managers and policymakers.

- Managers should keep advertising messages realistic (not exaggerating), improve the quality of the product, and regularly disseminate results of laboratory analysis of the products to maintain elevated level of consumer trust.
- Managers should offer products that coincide or surpass existing expectations. Managers should assure consumers that the brand ‘have the consumers best interest in mind’.
- For policymakers, product performance claims coming from brand owners on the product labels and advertising should be monitored to comply with advertising codes. This can curtail the level of dissatisfaction among consumers, thereby circumventing consumers’ resorting to unsafe sources of drinking water.
- The policymakers should also use communication to develop an informed group of consumers who are empowered to make choice of safe drinking water options.

Limitations and Future research

Despite the contribution of this study, it has some limitations. First, this paper collected data only in Idah suburban community. This limits generalisation of findings. Future research could have a wider coverage of data collection. In addition, future investigation should investigate how availability of other sources of drinking water impact consumption of bottled water in the area. Future studies can employ experimental design, whereby between-group comparisons based on exposure of subjects to results of laboratory analysis of bottled water samples can be evaluated. Furthermore, such studies could consider the effects of consumers demography on bottled water consumption in the area.

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