Causes of Customers' Cognitive Dissonance and Product Return Frequency: A Malaysian Packaged Food Context

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ABSTRACT

Manuscript type: Research paper
Research aims: The cost and frequency of purchased product return are of considerable concern to marketers and retailers. This paper examines the post-purchase cognitive states that influence product return and the drivers that cause cognitive dissonance.
Design/Methodology/Approach: A total of 208 valid responses were collected and analysed using SPSS v.22 and SmartPLS 3.2.8 software.
Research findings: The findings indicate that emotional dissonance and product dissonance were the main contributing factors determining product return frequency. Switching barriers, customer opportunism and customer attitude significantly affected the level of dissonance; the consideration of liberal return policies and customer expectations of product did not. Findings support the mediating hypothesis of emotional dissonance, and show that product dissonance significantly affects emotional dissonance. Importantly, emotional dissonance has a larger impact on product return frequency than product dissonance.
Theoretical implications: This study expands upon the existing literature by providing valuable insight into understanding the external and internal factors contributing to cognitive dissonance and product return frequency. Importantly, the study contributes to the conceptualisation

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of the mediating role of emotional dissonance in consumer behaviour, particularly in the retail context.
Practitioner/Policy implications: The findings are useful in assisting grocery marketers in designing and implementing effective customer retention strategies and loyalty programmes. Pairing of right perceptions about product quality, quantity and volume with cost would be effective to reduce emotional dissonance, and retailers could highlight exclusive product offerings to reduce product dissonance.
Research limitation/Implication: Future studies could take into account the influences of demographic variables and various communication platforms which might cause differences in consumers' product return behaviours. This study only presents the findings of a cross-sectional study. A longitudinal study could be conducted to compare consumers' product return patterns and cognitive dissonance over a longer time frame.

Keywords: Cognitive dissonance, Return frequency, Return policy, Customer opportunism, Switching barriers, Customer expectation and attitudes
JEL Classification: M31

1. Introduction

The technological revolution has been the underlying driver for convenient shopping, which inevitably changes the way consumers make decisions (See-To & Ngai, 2018). Food packaging technology, for instance, has enabled consumers to eat at their convenience. Consumers are not only opting to dine out, but also choose packaged food that is conveniently packed and available at various grocery retail stores. The recent Covid-19 outbreak and movement control order have further led to food stockpiling, including the amassing of packaged food. Malaysian packaged food recorded a strong 6% sale growth rate in the year 2019/2020 (Euromonitor International, 2020). Strong growth aside, retailers and marketers are concerned with the increased percentage of grocery products returned and costs (Frei et al., 2020; Rosenbaum et al., 2011). The understanding of the underlying determinants is important, yet insufficient.

Product return is not only costly, but could also lead to lower repurchase intention or product switching, and a possibility of the brand image being tarnished. The cognitive dissonance theory suggests a close relationship between cognitive dissonance and consumer post-purchase behaviour, such as product return. Cognitive dissonance, in relation to goods or services, is a mental process affected by the social environment which often occurs after a decision is made (Festinger, 1957). Prior studies show that cognitive

dissonance squeezes on the inconsistency of decision-making in terms of consumer emotional behaviour and attitude, based on ambiguous and partial data (Pei, 2013; Sharifi & Esfidani, 2014). The inconsistent thoughts, beliefs and attitudes of consumers can then lead to feelings of uneasiness (Festinger, 1957), unpleasantness (Aronson, 1997; Cooper & Fazio, 1984; Festinger, 1957), and in some cases, disappointment and of being deceived (Wilkins et al., 2016). To alleviate this discomfort, the consumer "may seek to undo the effects of a regretted choice by returning the product in question" (Powers & Jack, 2013). It is parallel to the cognition of behaviour, validation, or estimation of the expectation of a purchase with the actual consequences (Matsumoto, 2014; Sharifi & Esfidani, 2014).

In marketing, two dissonance dimensions experienced by consumers (Elliot & Devine, 1994; Sweeney, Hausknecht & Soutar, 2000), namely, product dissonance and emotional dissonance, are said to deter an individual from making rational future purchase decisions. Product dissonance is caused by the individual's belief that an alternative choice is more beneficial. Prompted by worry of having made the wrong choice, the individual wishes that he/she could have selected the alternative (Keaveney et al., 2007; Powers & Jack, 2013). Emotional dissonance is the disappointment or psychological disturbance that occurs due to the difference between the expected outcome and reality. It is due to the incongruity of the value of the product in terms of quality, quantity and volume with the cost (Powers & Jack, 2013; Wilkins et al., 2016).

Echoing Wilkins et al. (2016), the empirical examination of the effect of cognitive dissonance on post-purchase behaviours is insufficient (Matsumoto, 2014), despite having been examined since the early 1980s (e.g., Richins, 1983; Lindberg-Repo & Grönroos, 1999). Some suggest that consumers tend to return goods, switch to other products (Hunt, 1981), or have lower repurchase intentions (Kim, 2011; Wilkins et al., 2016). However, these cognitive dissonance studies were conducted in high-income countries, such as in the United States and in Europe, where consumers are reported to have higher consumer protection awareness (Consumer International, 2013). Consumers in these countries may express different dissonance characteristics than their lower-income Asian counterparts.

Unfortunately, the review of the literature shows a lack of consumer studies on product return (Hjort & Lantz, 2016; Rokonuzzaman et al., 2020). The existing literature mainly focuses on the product-related variables (e.g., Peterson & Kumar, 2009) and behavioural antecedents (e.g., Powers & Jacks, 2013). The underlying

consumer reason for returning a purchased product remains unclear (Powers & Jack, 2013). This paper hence answers the call from Powers and Jack (2013) to extend and include the individual variables of consumer expectation and consumer attitude in the examination of cognitive dissonance, and focuses on the Malaysian packaged food industry. In this study, the examination of packaged food returns is posited to be affected by both internal factors (i.e., consumers' expectations, attitudes and opportunism levels), and external (i.e., consumers' consideration of the firm's policy on returns and switching barriers). Emotional dissonance is also posited to play a mediating role between the exogenous factors and the frequency of the packaged food being returned. Understanding these relationships would benefit both consumers and retailers (Powers & Jack, 2013) in managing product return frequency and cognitive dissonance, as well as assisting retailers in planning customer retention strategies and loyalty programmes.

2. Literature Review

2.1 Cognitive Dissonance and Frequency of Product Return

The psychological discomfort engendered by cognitive dissonance determines the level of emotional and product dissonance, and has a direct influence on individual behaviour (Aronson, 1969, 1997; Cooper & Fazio, 1984), which could be responded to in a consonant or dissonant manner (Powers & Jack, 2013; Telci, Maden & Kantur, 2011; Wilkins et al., 2018). In the retail context, consumers make comparisons of their purchase with post-purchase alternatives (Powers & Jack, 2013). The option not chosen becomes counterfactual, which amplifies (Powers & Jack, 2013) and leads to dissonance and feelings of anxiety, uncertainty, doubt (Menasco & Hawkins, 1978; Montgomery & Barnes, 1993), and sometimes regret, and/or remorse (Insko & Schopler, 1972). To alleviate the discomfort and "reverse the outcomes of the regretted choice" (Powers & Jack, 2013), a consumer may return the purchased product (Le & Yi, 2019; Ülkü & Gürler, 2018). The unpleasant dissonance state could reduce the likelihood of future repurchase. In this study, cognitive dissonance is proposed to be affected by several external (i.e., consideration of liberal return policies and switching barriers) and internal (i.e., consumer opportunism, expectation and attitudes) drivers.

2.2 *Consideration of Liberal Return Policies*

The psychological dissonance experienced during (or after) the purchase could lead to higher product return. Consumers may wonder if they were fooled or if something was wrong with the deal they got. They may also wonder if they made the right choice, if they really need the product, or if they should have bought it at some other time. Despite being tedious, the goods return policy can be viewed as a way of reducing both the emotional and product dissonance of certain customers (Powers & Jack, 2013), by enhancing the perceived value experienced (Pei et al., 2014). The return policy can result in the development of trust, which in turn, reduces perceived risk (Rokonuzzaman et al., 2020) and translates to future purchase intention (Oghazi et al., 2018; Janakiraman et al., 2016). Consumers trust that the store's return policy is better and that they can benefit from returning the product. To better understand how the consideration of liberal return policy affects cognitive dissonance, this study adopts the three criteria used by Powers and Jack (2013): awareness of the return policy, satisfaction, and the belief that the benefits the consumer receives will be better than those of competitors. Therefore, the following hypotheses are developed:

H_{1a}: *Consideration of liberal return policies has a negative impact on emotional dissonance*

H_{1b}: *Consideration of liberal return policies has a negative impact on product dissonance*

2.3 *Switching Barriers*

Switching barriers are principally determined by the comparison between product advantages (benefits) versus accessibility, and the attractiveness of the substitute products (costs) (Tesfom et al., 2011). The time, cost, and money incurred to search for alternative products are also important switching barriers. The hesitation and antagonistic consequences of the goods purchased in terms of costs incurred to understand the substitute (or alternative product) reduces their chance of switching brands. Some researchers hence posit a positive relationship between switching barriers and loyalty (Liu et al., 2011), as these are the constraint-based determinants to remain with a product or retailer (Tsai et al., 2006). In fact, the literature review indicates that switching barriers affects customer loyalty more positively than satisfaction (Chuah et al., 2017). In grocery retailing, mass production of grocery products enables consumers to easily switch brands or products (Liu et al., 2011), even when they

are satisfied. This is especially true when the difference between the products is minimal or when switching barriers are low.

This study hypothesises that high switching barriers engender higher dissonance. Barriers limit consumer option to reduce dissonance, especially when it is perceived as inconvenient and time-consuming for them to make the switch. Higher emotional and product dissonances are experienced when there is less opportunity for them to look for alternatives due to time constraints, cost and/or effort. Forced compliance is forcing consumers to perform counter-attitudinal behaviours, which subsequently leads to dissonance (Dilakshini & Kumar, 2020). It is therefore hypothesised that:

H_{2a}: Switching barriers are positively related to emotional dissonance
H_{2b}: Switching barriers are positively related to product dissonance

2.4 Customer Opportunism

Customer opportunism refers to premeditated opportunistic behaviours which could occur during or before the purchase (Powers & Jack, 2013). It is in the individuals' self-interest to satisfy their own needs and wants (John, 1984) at the expense of others (Powers & Jack, 2013). Opportunistic behaviours could be enhanced by asymmetric information and parties' goal incongruence (San-Martín & Jimenez, 2017). Opportunistic consumers tend to form higher expectations of the purchase, and think more about the negative outcomes of a purchase as well as the actions to eliminate these negative outcomes (Powers & Jack, 2013). Opportunism causes them to be not entirely truthful with retailers. They might exaggerate their point in an attempt to convince the supplier to deliver on schedule, or they may even lie to protect their own interests. Dissonance becomes a means to justify the behaviour of the opportunistic customer. The relationship between customer opportunism and cognitive dissonance is hence hypothesised to be positive, due to the opportunities to consider future negative outcomes and unsatisfactory purchases, as well as the mitigative actions they could take (Powers & Jack, 2013):

H_{3a}: Customer opportunism has a positive impact on emotional dissonance
H_{3b}: Customer opportunism has a positive impact on product dissonance

2.5 Consumer Expectation of Product

Consumer expectation of a product refers to the consumer's beliefs about product performance prior to the purchase (Olson & Dover, 1979). Expectation-confirmation theory explains how a consumer

forms an initial expectation prior to product purchase, and then gradually comes to compare that with the actual performance over the consumption period. Assessment of performance is carried out to compare prior expectations of the product/service, in terms of content, quality and performance (Wilkins et al., 2016), with actual performance to determine if expectations are met (Fu et al., 2018). Expectation represents the consumer's beliefs about product attributes, which serve as a baseline for evaluating a judgement (Fu et al., 2018). Despite the fact that the perceived expectancy-perception gap could be small, consumers may view post-purchase surprises negatively (Harrison & March, 1984), which would further lead to dissonance. In other words, high expectation could lead to negative confirmation, and hence, higher cognitive dissonance. The following hypotheses are proposed:

H_{4a}: *Customer expectations of a product have a positive relationship with emotional dissonance*

H_{4b}: *Customer expectations of product have a positive relationship with product dissonance*

2.6 Consumer Attitudes Towards Marketing Strategies

Consumer studies across many sectors have highlighted the relationship between favourable attitudes and positive behavioural responses, such as repurchase intention and positive word of mouth (i.e., Liang et al., 2018; Mero, 2018). In retail, attitudes are formed based on a consumer's evaluations of the product's price tag, promotional strategy, and the uniqueness of the product in relation to the price (Powers & Jack, 2013). Rydell et al. (2008) state that a discrepancy between implicit and explicit attitudes can produce cognitive dissonance, as the "increased discrepancies lead to greater implicit ambivalence and increase[d] information processing of attitude relevant information." Cognitive dissonance is experienced when an individual performs a counter-attitudinal action (Franzoi, 2000), wherein the incompatibility between two (or more) attitudes, or the incompatibility between attitudes and behaviours, leads to discomfort and frustration (Burnes & James, 1995). However, a positive attitude should convince consumers that they will receive value, which will then result in lower cognitive dissonance. The following hypotheses are proposed:

H_{5a}: *Customer attitudes towards the firm's marketing strategies are negatively related to emotional dissonance*

H_{5b}: *Customer attitudes towards the firm's marketing strategies are negatively related to product dissonance*

Emotional dissonance affects an individual's judgement of product performance based on the emotional outcome (i.e., satisfaction or dissatisfaction). It is, for example, the dissatisfaction that results from the selection (Powers & Jack, 2013) or timing of the purchase (Simonson, 1992). On the other hand, consumers nowadays frequently seek product information to make comparisons. Product purchases are screened based on collected information or prior gratification. Price rates, as well as goods and services offered by substitute retailers for an identical retail branch, are used as comparison indicators (Sweeney et al., 2000). Prompted by their worries about making a wrong choice, product-related dissonance may induce emotions, such as worry, concerning the quality and quantity of the purchased product. High levels of emotional and product dissonance would then lead to unwelcome post-purchase behaviours, such as higher product return frequency.

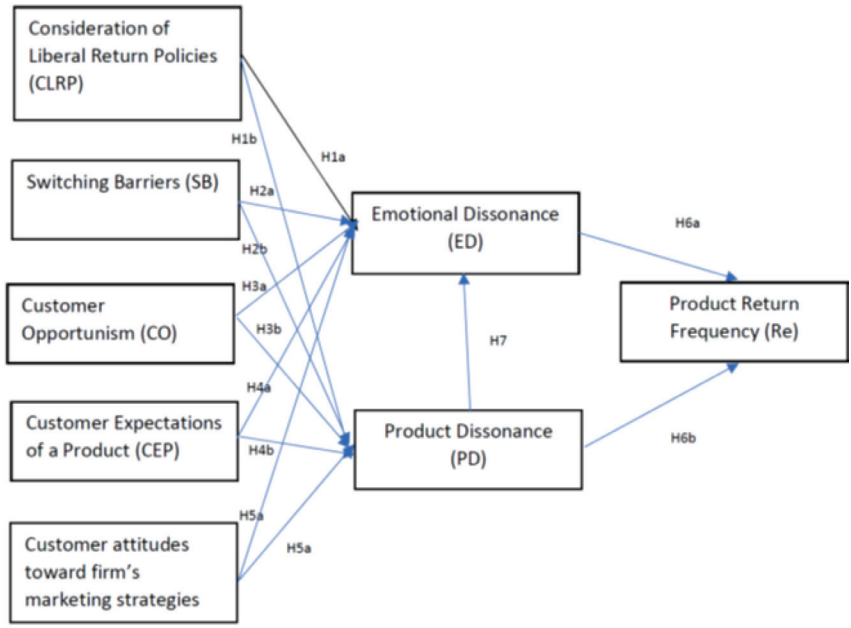
The mediating hypothesis of emotional dissonance is supported in a number of management and educational studies (i.e., Andela et al., 2016; Van Dijk & Brown, 2006; Rydell et al., 2008) as well as relational marketing studies (i.e., Sharifi & Esfidani, 2004). In the present study, it is posited that the consumer's emotional dissonance is affected by both internal and external factors, which in turn affect frequency of product return, with emotional dissonance serving a mediating role. Hence, the following hypotheses are proposed:

H_6: *Product dissonance is positive related to emotional dissonance*

H_{7a}: *Emotional dissonance is positively related to product return frequency*
H_{7b}: *Product dissonance is positively related to product return frequency*

H_8: *Emotional dissonance mediates the relationships between exogenous variables and product return frequency*
H_{8a}: *Emotional dissonance mediates the relationships between consideration of liberal return policy and product return frequency*
H_{8b}: *Emotional dissonance mediates the relationships between switching barriers and product return frequency*
H_{8c}: *Emotional dissonance mediates the relationships between customer opportunism and product return frequency*
H_{8d}: *Emotional dissonance mediates the relationships between customer expectations on product and product return frequency*
H_{8e}: *Emotional dissonance mediates the relationships between customer attitudes toward firm's marketing strategies and product return frequency*

Figure 1: Proposed conceptual framework



Note: Adapted from Wilkins et al. (2016); Powers and Jack (2013)

3. Methodology

This study aims to: i) determine the impact of cognitive dissonance on the consumer's packaged food product return frequency; ii) examine the external factors contributing to cognitive dissonance (i.e., consideration of liberal return policies and switching barriers) and the internal factors contributing to cognitive dissonance (i.e., consumer opportunism, expectations of product and attitudes towards firms' marketing strategies); as well as (iii) investigate the mediating role of emotional dissonance in the relationship between external and internal factors and packaged food return frequency. The study focuses on packaged food and product return, and applies a purposive sampling technique, wherein the targeted respondents are consumers who frequented grocery stores (including hypermarkets, supermarkets, minimarkets, convenience stores and traditional wet markets) at least on a weekly basis. Two screening questions were asked to ensure the suitability of respondents: whether they (1) ever buy packaged food products, and (2) ever return purchased products for any reason. These two screening questions would ensure eligible

respondents have either direct or indirect experience with packaged food products as well as product return.

Cognitive interviews with 20 respondents were conducted to improve the questionnaire instrument and content validity prior to the main study. A cognitive interview is "one of the more prominent methods for identifying and correcting problems with survey questions" (Beatty & Willis, 2007). Based on a G-Power analysis with a priori test, with an effect size of 0.15 (Cohen, 1988) and significance level at 95%, the minimum sample size required was 138 (Green, 1991). A total of 220 questionnaires were distributed via hardcopy and online forms, and 208 were found useable (response rate of 94.6%).

This study adapts and extends the studies of Powers and Jack (2013) and Wilkins et al. (2016). The three measurement items for consideration of return policies were adapted from Harris (2010), Powers and Jack (2013), and Elliot and Devine (1994). The five items of customer opportunism were adapted from Josh and Arnold (1997) and Powers and Jack (2013), while the four items of switching barriers were adapted from Powers and Jack (2013). The customer expectation of the product was measured with five items adapted from Rodriguez et al. (2006) and Wilkins et al. (2016); customer attitude towards the firm's marketing was measured with six items adapted from Gaski and Etzel (1986) and Wilkins et al. (2016). There were 12 items for emotional dissonance and four items for product dissonance, adapted from Sweeney et al. (2000) and Powers and Jack (2013). Finally, frequency of product return was adapted from Wilkins et al. (2016) with a single item, asking how frequent the respondents returned the purchased packaged food products. All variables, except frequency of product return, were measured with a five-point Likert scale, ranging from (1) strongly disagree to (5) strongly agree (see Appendix 1).

4. Analysis and Findings

Table 1 shows that out of 208 respondents, the majority are married (58.7%), females (66.3%), aged between 34 to 44 years old (28.8%), Bachelor's degree holders (52.4%), employed (69.7%) and earned more than RM3,000 monthly (56.3%). As most of the grocery decisions are made by women, and packaged foods are popular option among working women who appreciate convenience, the profile descriptions of the respondents are representative of the targeted population.

Table 1: Profile of the respondents

Variables	Categories	Frequency	Percentage (%)
Gender	Male	70	33.7
	Female	138	66.3
Age	Less than 24 years old	26	12.5
	Between 25-34 years old	53	25.5
	Between 34-44 years old	60	28.8
	Between 45-54 years old	46	22.1
	Between 55-64 years old	20	9.6
	More than 65 years old	3	1.4
Marital status	Single	83	39.9
	Married	122	58.7
	Divorce	3	1.4
Education status	SPM	29	13.9
	STPM/Matriculation	4	1.9
	Diploma	37	17.8
	Bachelor's degree	109	52.4
	Master's degree or professional certificate	25	12
	Doctoral degree	3	1.4
	Others	1	0.5
Employment status	Self-employed	35	16.8
	Employed	145	69.7
	Unemployed	28	13.5
Monthly income	RM1,500 and below	39	18.8
	RM1,501-RM2,000	21	10.1
	RM2,001-RM2,500	14	6.7
	RM2,501-RM3,000	17	8.2
	More than RM3,000	117	56.3

4.1 Construct and Convergent Validity

Construct validity (CV) attests to how well the results obtained from the use of a measure fit the theory around which the test is designed (Sekaran & Bougie, 2010). CV can be assessed through convergent and discriminant validity. The proposed significant cut-off value for loadings is at 0.5 (Hair et al., 2010). In this study, all the items measuring a particular construct had loading higher than 0.5 on its

constructs, which confirmed construct validity.

Factor loadings, composite reliability, and average variance were extracted to assess convergent validity with the recommended value of 0.5 for all indicators (Hair et al. 2010). The composite reliability values in Table 2 depict the degree to which the construct indicators reveal the latent construct, ranged from 0.834 to 0.972 (Hair et al. 2010). The average variance extracted (AVE) measures the variance captured by the indicators relative to the measurement error (Barclay et al., 1995). The AVEs ranged from 0.507 to 0.845. The three indicators hence confirmed convergent validity.

Table 2: Measurement model assessment

Model constructs	Measurement items	Loadings	Composite reliability (CR)a	Average variance extracted (AVE)b
Consideration of liberal return policies	CLRP1	0.912	0.925	0.805
	CLRP2	0.903		
	CLRP3	0.877		
Switching barriers	SB1	0.903	0.930	0.768
	SB2	0.885		
	SB3	0.848		
	SB4	0.868		
Customer opportunism	CO1	0.607	0.841	0.517
	CO2	0.750		
	CO3	0.767		
	CO4	0.821		
	CO5	0.625		
Customer expectation of products	CEP1	0.905	0.834	0.507
	CEP2	0.677		
	CEP3	0.719		
	CEP4	0.589		
	CEP5	0.628		
Customer attitude towards firms' marketing	ATT1	0.794	0.908	0.711
	ATT2	0.878		
	ATT3	0.874		
	ATT4	0.824		

Model constructs	Measurement items	Loadings	Composite reliability (CR)a	Average variance extracted (AVE)b
Emotional dissonance	ED1	0.814	0.972	0.741
	ED2	0.891		
	ED3	0.873		
	ED4	0.874		
	ED5	0.889		
	ED6	0.878		
	ED7	0.884		
	ED8	0.879		
	ED9	0.890		
	ED10	0.789		
	ED11	0.855		
	ED12	0.804		
Product dissonance	PD1	0.903	0.956	0.845
	PD2	0.904		
	PD3	0.938		
	PD4	0.933		

Criteria: Composite reliability >0.708 (Hair et al., 2017), AVE> 0.5 (Hair et al., 2017).

4.2 Discriminant validity

The discriminant validity reflects the degree to which items differentiate among constructs. Table 3 shows the heterotrait-monotrait (HTMT) output, and as suggested by Gold et al., (2001) and Henseler et al., (2015), the value of HTMT for each construct is lower than 0.9, which indicates that there is no discriminant validity problem found. In brief, all reliability and validity tests were confirmed, which imply that the measurement model for this study is valid and appropriate to estimate the parameters in the structural model.

Table 3: Heterotrait-monotrait (HTMT) criterion

	CLRP	CO	CA	CE	ED	PD	RF	SB
Consideration of liberal return policies								
Customer opportunism	0.308							
Customer attitude towards firms' marketing	0.379	0.235						
Customer expectation of products	0.370	0.380	0.719					
Emotional dissonance	0.171	0.538	0.125	0.109				
Product dissonance	0.117	0.361	0.075	0.179	0.500			
Return frequency	0.202	0.377	0.077	0.071	0.486	0.208		
Switching barriers	0.379	0.383	0.223	0.168	0.328	0.156	0.224	

Criteria: Discriminant validity is established at HTMT0.85 / HTMT0; consideration of liberal return policies = CLRP; customer opportunism = CO; customers attitude towards firms' marketing = CA; customers expectation of products = CE; emotional dissonance = ED; product dissonance = PD; return frequency = RF; switching barriers = SB.

4.3 Hypotheses testing

Path analysis was performed to test the hypotheses in this study. A bootstrapping procedure using 500 resample was used to assess if the direct relationships were significant. The results (see Table 4) revealed that the total direct effect of switching barriers (H2a: β = 0.195, t = 3.231, p = 0.001), customer opportunism (H3a: β = 0.402, t = 5.939, p = 0.000), attitudes toward firms' marketing strategies (H5a: β = -0.304, t = 3.507, p = 0.000), and product dissonance (H7b: β = 0.136, t = 1.030, p = 0.000) on emotional dissonance were significant. The direct effects from customer opportunism (H3b: β = 0.244, t = 3.239, p = 0.000) on product dissonance were also significant. However, there was no significant effect between consideration of liberal return policies (H1a and H1b) and expectation on product quality (H4a and H4b) on emotional and product dissonance. There was also no significant relationship between switching barriers (H2b) and customer attitudes toward the marketing strategies (H5b) and product dissonance. Product dissonance significantly affected emotional dissonance (H6: β = 0.344, t = 7.029, p = 0.000), and both emotional and product

dissonance significantly affected frequency of product return (H7a: β = 0.496, t = 5.658, p = 0.000, and H7b: β = 0.136, t = 1.030, p = 0.05).

Mediation analysis was performed to assess the mediating role of emotional dissonance on the linkage between consideration of liberal return policy, switching barriers, customer opportunism, customer expectation of products, customer attitude towards firms, marketing strategies, and return frequency. A statistically significant indirect effect (t-value > 1.96, two-tailed, p < 0.05) should be taken as evidence for mediation (Preacher & Hayes, 2004; Zhao et al., 2010). Path analysis was performed using the SmartPLS statistical tool to examine the indirect effect and confidence intervals. The indirect effects results indicated that emotional dissonance significantly mediated the relationships between switching barriers (β = 0.089, t = 2.936, p = 0.005), customer opportunism (β = 0.158, t = 3.831, p = 0.000) and consumer attitudes toward marketing strategies (β = -0.141, t = 3.018, p = 0.005), hence supporting H8b, H8c, and H8e.

The variance inflation factor (VIF) statistic is used to determine if formative indicators are too highly correlated with VIF values greater than 3.3, indicating high multicollinearity (Diamantopoulos & Siguaw, 2006). The findings in this study showed that the maximum value of VIF was 1.515, which was below the threshold of 3.3, and proved that there was no multicollinearity issue. R^2 indicates the variance explained in each of the endogenous constructs. An R^2 of 0.231 indicated that the product return frequency was 23.1% due to switching barriers, customer opportunism, and attitude towards marketing strategies, emotional dissonance, and product dissonance. R^2 had a moderate predictive accuracy in explaining the endogenous constructs (Henseler et al., 2009; Hair, et al., 2011). The change in R^2 value determines whether an omitted predictor construct has a substantive impact on the endogenous constructs. The findings showed that the omission of all independent variables had a small effect on the product return frequency (Cohen, 1989). Q^2 value was used to assess the model's predictive accuracy (Geisser, 1974; Stone, 1974). Cross-validated redundancy explores the predictive relevance of the PLS path model (Wold, 1982). The findings show a Q^2 value of 0.219, which indicates a small predictive relevance of the endogenous constructs.

Table 4: Hypothesis testing

Items	Hypothesis	Coefficient	Mean	SD	T-value	p-Value	BCI LL	BCI UL
Total effect (IV-DV)	H1a: Consideration of liberal return policies -> emotional dissonance	0.063	0.061	0.061	1.030	0.303		
	H1b: Consideration of liberal return policies -> product dissonance	-0.002	0.010	0.099	0.024	0.981		
	H2a: Switching barriers -> emotional dissonance	0.195	0.179	0.060	3.231	0.001		
	H2b: Switching barriers -> product dissonance	0.048	0.047	0.085	0.568	0.570		
	H3a: Customer opportunism -> emotional dissonance	0.402	0.324	0.068	5.939	0.000		
	H3b: Customer opportunism -> product dissonance	0.244	0.253	0.075	3.239	0.001		
	H4a: Customer expectation of products -> emotional dissonance	0.138	0.060	0.083	1.650	0.100		
	H4b: Customer expectation of products -> product dissonance	0.176	0.164	0.104	1.689	0.092		
	H5a: Customer attitude towards firms' marketing -> emotional dissonance	-0.304	-0.265	0.087	3.507	0.000		
	H5b: Customer attitude towards firms' marketing -> product dissonance	-0.059	-0.039	0.094	0.624	0.533		
	H6: Product dissonance -> emotional dissonance	0.344	0.344	0.071	7.029	0.000		
	H7a: Emotional dissonance -> return frequency	0.496	0.503	0.061	5.658	0.000		
	H7b: Product dissonance -> return frequency	0.136	-0.044	0.061	1.030	0.037		
Indirect effect (IV-DV)	H8a: Consideration of liberal return policies -> emotional dissonance -> return frequency	0.032	0.032	0.034	0.935	0.350	-0.047	0.029
	H8b: Switching barriers -> emotional dissonance -> return frequency	0.089	0.089	0.030	2.936	0.003	0.032	0.151
	H8c: Customer opportunism -> emotional dissonance -> return frequency	0.158	0.163	0.041	3.831	0.000	0.015	0.087
	H8d: Customer expectation of products -> emotional dissonance -> return frequency	0.038	0.030	0.037	1.035	0.301	-0.006	0.072
	H8e: Customer attitude towards firms' mktg -> emotional dissonance -> return frequency	-0.141	-0.13	0.047	3.018	0.003	-0.048	0.016

Lateral collinearity: VIF 3.3 or higher (Diamantopoulos & Sigouw, 2006).
$R^2 \geq 0.26$ considered substantial (Cohen, 1989)
$F^2 \geq 0.26$ consideedr substantial (Cohen, 1989)
$Q^2 > 0.278$ considered medium (Hair et al., 2017)
$P < .05$, $P < .001$

5. Discussion of Findings

Consumer post-purchase behaviour is an important concern for marketers. Happy consumers are committed, engaged, more likely to make future purchases, and willing to spread positive word of mouth about the product in question. Conversely, unhappy customers may cease future purchasing, do nothing about it, or return the purchased product. The return of products is costly to marketers and retailers, and the understanding of the underlying reasons for product return is insufficient (Powers & Jack, 2013), particularly in Asian countries such as Malaysia. Due to cultural differences, Malaysian consumers might respond differently to marketing, and they may engage in different dissonance-inspired post-purchase behaviours. Consumers could also react and respond differently in their purchase decisions for different product categories. A generalisation of the existing Western literature to the Malaysian scenario might be inappropriate.

This study provides important insights to better understand the relationship between cognitive dissonance and packaged food product return frequency in the Malaysian grocery retail context. Several interesting findings were found. First, in contradiction with Powers and Jack (2013) and Pei et al. (2014), this study did not find a significant influence of liberal return policies on both emotional and product dissonance. Powers and Jack (2013) argue that return policy could result in increased trust and reduced perceived risk, which would further translate into future purchase. However, in the case of grocery shopping, where most purchases are highly influenced by brand familiarity and habitual buying, customers might not need to perceive that the product return policy will benefit them or that it is better than those of competitors. Perceived risks could be minimised by familiar brands, with reassurance provided by customers' previous purchase experiences as well as their opportunistic tendencies.

A significant relationship was found between the second external factor—switching barriers and emotional dissonance. This could be attributed to the expected frustration experienced over the high switching barriers in returning products (Wathne & Heide, 2000). However, no significant relationship was found between switching barriers and product dissonance. One explanation could be that consumers were not worried over the availability of a better choice, but were instead affected by the difference between the expected outcome and reality in terms of quality, quantity and volume given the cost (Powers & Jack, 2013; Wilkins et al., 2016). Consistently, this could be due to the nature of grocery purchasing, which is highly

influenced by brand familiarity and habitual buying. Familiar brands are frequently chosen to minimise the need to look for alternatives, which explains why switching barriers had an insignificant influence on product dissonance. Packaged food mostly adopts an extensive distribution strategy. Grocery consumers do not experience product dissonance, as they are not switching familiar brands for unknown brands. They are more concerned with promotional timing, discounts and other issues, such as expiry dates and product freshness, which could lead to higher emotional dissonance.

Customer opportunism is found to have a significant relationship with emotional dissonance and product dissonance. Opportunism plays a significant role when consumers experience a higher level of post-purchase cognitive dissonance, as they could not justify their own perception of opportunistic evaluations or actions during or prior to the purchase. Consumers with higher opportunistic tendencies tended to have higher expectation of the purchase, and think more about possible negative outcomes. The high opportunism is also associated with the consideration of the chances of regret, and hence leads to higher level of cognitive dissonance, as corroborated by Powers and Jack (2013).

Insignificant relationships were found between consumer expectations of the product with both cognitive dissonance dimensions; this finding contradicts Wilkins et al. (2016). Nevertheless, Wilkins et al. (2016) tests the effect of package downsizing on inducing cognitive dissonance. A higher expectation about product packaging was found to cause a higher level of cognitive dissonance. The findings of this study, by contrast, could be attributed to the inherent nature of grocery products, in which brand familiarity and price promotion overshadow the influence of expectation. In other words, high product and brand familiarity decreased the impact of expectation. In this case, consumers are informed on the product quality and quantity, as well as the alternatives, so expectations play an insignificant role on cognitive dissonance.

Consumer attitude towards a firm's marketing strategies was significantly linked to emotional dissonance. However, there was no significant relationship found between consumer attitude and product dissonance. The findings of this study show that a consumer's favourable attitude towards the firm's marketing strategies caused lower emotional dissonance, in which a consumer's frustration over expectation versus the reality of the product could be lower. Furthermore, their attitudes toward the firm's marketing

strategies do not induce attitudinal discrepancies between the products and the market alternatives. This could be explained by the nature of grocery products, which normally adopt an extensive distribution strategy, and many are generic with little brand or quality differentiation.

Consistent with Powers and Jack (2013) and Sweeney et al. (2000), emotional dissonance and product dissonance were found to significantly affect product return frequency. This finding is in contradiction with Elliot and Devine (1994), who propose that emotion dissonance is a mediator between product dissonance and product return frequency. In this study, both emotional dissonance and product dissonance cause higher product return frequency. Higher product dissonance leads to more emotional dissonance, which can be attributed to factors such as worries over making the wrong choice (Keaveney et al., 2007; Powers & Jack, 2013). This can be caused by the perceived differences between the expected outcome and the actual outcome.

The mediation tests conducted support the mediating hypothesis of emotional dissonance, corroborating the studies by Andela et al (2016), Van Dijk and Brown (2006), Rydell et al. (2008) and Sharifi and Esfidani (2004). In this study, emotional dissonance mediated the relationships between switching barriers, customer opportunism, customer attitudes toward marketing strategies, and packaged food product return frequency. In other words, consumer evaluations of both internal (i.e., customer attitudes and opportunism) and external (i.e., switching barriers) factors would lead to the formation of emotional dissonance, which eventually causes them to return the packaged food products they bought.

6. Implications, Limitations, and Conclusion

6.1 Theoretical Implications

The findings of this study indicate several important theoretical implications. First, the study presents a comprehensive examination of the external and internal factors contributing to cognitive dissonance and product return frequency, extending upon Powers and Jack (2013) and Wilkins et al. (2016). The findings provide a better understanding of the post-purchase behaviours of grocery consumers in the Malaysian context. Second, the study presents contradictory findings to previous research, which can be explained by test context and setting (in this case, grocery shopping) as well as other possible factors (i.e., locality, culture, education and income level).

For instance, switching barriers and consumers' attitude toward marketing strategies are found to lead to an increase emotional but not product dissonance. Consideration of liberal return policies and consumer expectations are found to be insignificant in relation to cognitive dissonance. Third, the findings support the significant influence of product dissonance on emotional dissonance. In fact, the study contributes to the conceptualisation of the mediating role of emotional dissonance in consumer behaviour, particularly in the retail context. The influences of switching barriers, consumer opportunism and consumer attitude toward marketing strategies on product return frequency were mediated by emotional dissonance. Emotional dissonance has a larger impact on product return frequency than product dissonance. Finally, this study offers a comprehensive and in-depth understanding of the relationship between contributing factors, cognitive dissonance, and product return frequency in the context of grocery retail, which has attracted the attention of retailers, but has not been empirically tested.

6.2 Managerial Implications

In terms of managerial implications, it is imperative for grocery retailers to manage consumers' cognitive dissonance in order to reduce product return frequency. The understanding of emotional and product dissonance helps retailers to further understand the determinants of consumers' cognitive dissonance. The findings of the present study stress the importance of emotional dissonance, which is evoked by post-purchase disappointment which arises when there is a disparity between the expected outcome and actual outcome. In other words, promotional strategies that pair the right perceptions about product quality, quantity and volume with cost would be effective, especially for consumers with high opportunism. Retailers could create and highlight exclusive product offerings to reduce product dissonance experienced by consumers. An exclusive membership card or loyalty programme could be used to minimise the negative effects of switching barriers and retain existing customers while attracting new ones. Due to the nature of the grocery products, where points of difference could be harder to be created in term of product and brand differences, it is important to create an effective marketing communication strategy and to ensure that shopping at the store is an enjoyable and beneficial experience which induces a favourable attitude. Retailers should refrain from over- or under-promising in their promotional messages. Targeted promotional messages via multiple platforms should be used to

create personalised and customised offerings based on customers' shopping and product preferences.

6.3 Limitations

This study is not without limitations. Firstly, the respondent profile of this study might limit the generalisability of the findings, as most were younger working females. Despite the fact that the respondents are indeed the targeted respondents, future studies could look into other age groups to compare product return behaviours. Secondly, as younger consumers are adopting multiple platforms in their daily life, future researchers could also examine the emotional dissonance reflected via consumer's feedback or comments via digital platforms to better understand their needs and preferences, which further builds customer loyalty and reduces the possibility of product return (Wilkins et al., 2016). Thirdly, this study presents the findings of a cross-sectional study; a longitudinal study could be carried out to present more meaningful findings to see if consumers' product return patterns and cognitive dissonance differ under a longer time frame.

In conclusion, the findings of this study highlight the significant roles of emotional and product dissonance in influencing consumer's product return frequency. The findings present valuable insights into the relationships between external and internal drivers, cognitive dissonance and product return frequency in the context of the packaged food and grocery retail sectors. Future studies could compare the framework against different categories of grocery products (i.e., organic food, fresh produce, and ethnic food), as well as retail formats (i.e., online vs., offline). Variables, such as consideration of liberal return policies and expectations, do not play a significant influence on dissonance, which highlights the potential influences of other variables, such as prior experience or knowledge. Prior experiences have a significant influence on cognitive dissonance in the online shopping context (i.e., Liao, 2017); while consumer orientation and knowledge improves the congruity between attitudes and buying behaviours toward certain products (Hidalgo-Baz et al., 2017).

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Appendix 1: Model constructs and measurement items

Model constructs		Measurement Items	Source
Consideration of liberal return policies	CLRP1	I am familiar with the store's return policies	Harris (2010); Elliot, & Devine (1994); Powers & Jack (2013)
	CLRP2	I am satisfied with the store's return policies	
	CLRP3	This store's return policies are better than those of competitors	
Switching barriers	SB1	In general, it would be hassle for me to switch to another retailer	Powers & Jack (2013)
	SB2	It would take a lot of time and effort for me to change to another retailer	
	SB3	For me, the costs in terms of time, money and effort to switch to another retailer are high	
	SB4	It would be inconvenient for me to switch to another retailer to purchase the products/service I need	
Customer opportunism	CO1	I would alter the facts slightly to drive a better deal for myself	Joshi & Arnold (1997); Powers & Jack (2013)
	CO2	I would not be completely honest with this retailer	
	CO3	I would exaggerate my needs in an attempt to force the supplier to deliver on schedule	
	CO4	I would lie to this retailer (eg, other retailers are offering lower prices) in order to protect my own interests	
	CO5	I would present the facts to the retailer in a way that I look good	

Model constructs		Measurement Items	Source
Customer expectation of products	CEP1	This product will be a treat	Rodriguez et al. (2006); Wilkins et al. (2016)
	CEP2	I can trust this brand	
	CEP3	This product will not disappoint	
	CEP4	This product gives good value for money	
	CEP5	The package will contain a fair quantity amount	
Customer attitude towards firms' mktg	ATT1	The quality of most products is as good as can be expected	Gaski & Etzel (1986); Wilkins et al. (2016)
	ATT2	I am satisfied with most of the products I buy	
	ATT3	Most prices are reasonable considering the high costs of doing business	
	ATT4	In general, I am satisfied with the prices I pay	
	ATT5	Most businesses operate on the philosophy that the consumer is always right	
	ATT6	Most businesses seldom avoid the responsibility to the consumer	
		I felt scared	

Model constructs		Measurement Items	Source
Emotional dissonance	ED1	I felt hollow	Sweeney et al. (2000); Powers & Jack (2013)
	ED2	I felt uneasy	
	ED3	I felt I'd let myself down	
	ED4	I was in pain	
	ED5	I felt depressed	
	ED6	I felt furious with myself	
	ED7	I felt sick	
	ED8	I was in agony	
	ED9	After I brought this product, I wondered if I'd been fooled	
	ED10	After I brought this product, I wondered if they had spun me a line	
	ED11	After I brought this product, I wondered whether there was something wrong with the deal I got	
	ED12	I wonder if I really need this product	
Product dissonance	PD1	I wonder whether I should have brought anything at all	Sweeney et al. (2000); Powers & Jack (2013)
	PD2	I wonder if I have made the right choice	
	PD3	I wonder if I have done the right thing in buying this product	
	PD4		