KEY DETERMINANTS OF CUSTOMER SATISFACTION: EVIDENCE FROM MALAYSIA GROCERY STORES

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ABSTRACT

Customer satisfaction is critical to retail success. Concentrating on customer satisfaction has become a major goal in retailing industry, especially in grocery retail. This work examines the key determinants of customer satisfaction in grocery retailing and measure the link between store attributes and customer satisfaction. In addition, it aims to find out the effect size of these determinants on overall customer satisfaction in an emerging market, namely Malaysia. For this purpose, an extensive dataset from 313 shoppers who had carried out their purchase in different type of grocery stores has been analyzed. Using Partial Least Squares-SEM (PLS-SEM) analysis method, we show that three determinants (''monetary value'', ''service and convenience'', and ''store quality image'') have a direct impact on customer satisfaction. However, the weight that each factor shows is different. Results may help managers of grocery stores in Malaysia to develop and implement more successful relationship marketing strategies.

Keywords: *Customer Satisfaction, Grocery Stores, Store Attributes, PLS-SEM*

1. INTRODUCTION

In recent years, Grocery retailing in Malaysia has experienced a rapid growth [1]. Concentrating on customer satisfaction has become a major goal in retailing industry, especially in grocery retail, and thus, a full understanding of its antecedents is essential for researchers, retailers and practitioners. Despite the growth of new product categories and new industry players, few studies have investigated customer satisfaction within the retail food industry and grocery retail [2, 3]. Yet, customer satisfaction is increasingly becoming more important given the highly competitive environment in food retailing [4]. [5] acknowledged that the changing competitive landscape within the grocery industry makes it critical for retailers to better understand grocery customers.

Changes are occurring in the retail grocery sector in both developed and developing countries. For instance, consumer research has historically examined the consumers in western or developed countries, as in [6, 7]. [8] added that there is a lack of knowledge on differences of customer satisfaction formulation within Asia and between developed and emerging markets. [9] pointed out, it is clear that consumers of non-Western and developing countries such as Malaysia, are also of great managerial and theoretical importance, as evidenced by the huge expansion of retail sector in Malaysia [10], and a major growth of more than twenty percent per annum over the past decades [11]. [1] added, within Malaysia there is scarceness of literature on customer store choice behavior as well as, literature on consumers behavior [9].

Due to the modernization of the grocery retail industry in Malaysia [1], this study attempts to identify the determinants of customers' satisfaction based on their perception towards stores attributes within the case of grocery retailing in Malaysia. Several studies have shown a positive influence on customer satisfaction based on the evaluation that customer make on certain store attributes. This line of research is of a great interest to the management of grocery retail stores due to the lack of such investigation in Malaysia noting that previous studies have confirmed the existence relationship between sores attribute perceptions and the store choice [1]. Several related store attributes of grocery retailers have been identified in literature, referring to this, the present work aims to identify the underlying determinants of these attributes; analyze the existing relationships between customers perception towards the determinants and

their satisfaction; and measure the influence that each determinant make towards overall customer satisfaction. Following an intensive study of relevant literatures, we identify a modified set of measurable store attributes that are expected to influence overall satisfaction.

We examined data acquired from samples of 313 customers, collected in self-service retail grocery stores in Johor Bahru city in Malaysia. Store attributes are summarized into determinants to minimize the correlation among them, which are similar to those obtained by previous studies. These satisfaction determinants gather product and service variables that lead to overall satisfaction. We assumed that improvements in these determinants should increase overall customer satisfaction. Based on this, we conceptualized a model of customer satisfaction and it has enabled us to obtain a series of hypotheses. Partial Least Squares-SEM method was employed to test the proposed hypotheses; measure and validate the variables and analyze the influence that each factor makes towards overall satisfaction. After all, the new insights confirm the direct impact of attributes performances and factors on overall customer satisfaction as it support the proposals and the study has come to an interesting conclusion. The new results have differed from previous studies in the factors' significance, positiveness and influence. Grocery retailers in Malaysia may benefits from this study in employing the results to develop appropriate customer satisfaction policies. This article is organized as follows: in the next part, we provide a review of the relevant literature on customer satisfaction and its determinants in addition to store attributes. We then elaborate the hypotheses and the conceptual model. Sample data and the methodology are described in the third section. The paper concludes with the presentation of results and a discussion of possible extensions for future research.

2. LITERATURE REVIEW

2.1 Customer Satisfaction

Retailers believe that customer satisfaction plays a major role to the success of business strategy [6]. Customer's satisfaction is a crucial measure of firm's success and especially affects behavior, repurchase and work-of-mouth communication [12]. Basically, it is a marketing term that measures how the products or services offered by the company to meet or exceed customer expectations. Customer satisfaction helps to get a better insight of purchase behavior [13], increase

sales and profits [6] and in the long run, lead to customer loyalty and customer retention [14, 3]. As mentioned earlier, satisfaction determinants capture store variables that lead to overall satisfaction. In the following part we present a series of store attributes demonstrated in literature.

2.2 Retail Store Attributes

Based on previous studies [2, 6, 7, 14-18] there is a presence of set of store attributes which displayed by retailers to distinguish themselves from competitors. If those attributes applied positively, they will affect the customer's degree of satisfaction and influence store choice and purchase incidents [15, 19].

Among the attributes identified from relevant literature are of those referring to the price and the sales promotions in general. Retail pricing has been considered as an important element for determining the perception that the consumers have on a store and one of the major difficult issues faced by retailers [20]. It is the marketing factor where retailers expect customers to part with their money [21]. [21, 22] identified that price is a convincing tool that attracts customers to purchase from a certain retail store and it can be briefly affect retailer's profitability; store brand, sales, product and brand image, consumer's intent to purchase, consumer's experience and customer loyalty. [23] revealed that price is an important consideration when buying consumable goods for customers with low-income, as compared to wealthy customers.

The development of a policy on discounted prices or sales promotions will enable the retailer to gain certain beneficial effects such as increasing the sales in the product category [22, 24], accelerating purchases and attract clients towards the establishment [25]. Some investigation observed a positive relation between the price paid and the perception of product quality [26]. Especially, those consumers with limited resources of diagnosis of the information consider price as an important indicator [27]. In general, retail stores who offer good quality products with low price will attract more consumers [1]. Sales promotion is defined as a temporary reduction of price or multiple unit price for a specific set of products for a specific set of time. Retailers at present consider promotions to be a critical element of their marketing strategies [28, 29]. The work of [22] indicates that promotions increase purchase quantities of promoted products, and profit by increasing per consumer expenditures on promoted items [28]. Assortment is becoming one of the key factors to

bring store traffic and increase sales [30]. [31] assess the effects of assortment and ambience on choice using an experimental setting. They find that increasing the assortment size by adding items increases the likelihood of purchasing at a current store proportional to the attractiveness of the items added. [32] pointed out that consumer's perception of assortment attractiveness is based on cues such as the number of items carried and the space allocated to the category, which improves the perceptions of retailer's assortment variety and hence, positively affect consumers intention to visit the store and purchase. [33] studied the effect of assortment size and found it has a positive impact on choice satisfaction. And hence, a retail distributor who offers greater variety in products categories is enabling the customer to have a better experience towards the convenience of purchase, in this way increasing consumer satisfaction [34].

Retailers tend to increase the share of commercialized brands such as private label share in their product assortment as it is proven to affect consumer store loyalty [35]. The work of [36] identified a positive impact of brand name on consumer satisfaction based on the brand experience and brand personality as the consumer being loyal to the brand. Specialty retailers have focused on a narrow category of products with deep selections [37]. For many retailers, increasing the share of store brands in their revenues has become a strategic goal [35]. [38] addressed the growth of private label and exclusive merchandise and ongoing focus on issuing a strong retail brands. For example, if retailers believe that a specific brand does not improve their performance, they simply will remove it from their assortments [39]. As well as for retailers, choosing the right brands and products is important for their success [40]. In summary, greater perceived brand collection does influence store image, store choice, and satisfaction with the store [41].

Added-services provided by retailers is also an influential factor on self-satisfaction [7]. Retailers provide additional services for customers to discriminate their retail offerings, develop sustainable competitive advantage, and build customer satisfaction and loyalty, and increase their sales [20]. [42] named factors that have positive influent on retailer attractiveness, such as car parking, orientation, ambience, gastronomy and entertainment facilities. Added Services include post-sale customer support, on time product delivery, improved product quality, product advertising, responsive product repair, etc. [43].

Those factors also proved to be major factors enhancing shopping convenience.

Store atmosphere is seen as an essential element affecting customer's satisfaction, mood and purchasing behavior [44]. Retailers have to persuade consumers to come to their premises, make them stay and spend money as well as convince them to come again [42]. It is clear to indicate that store atmospherics closely linked to the physical store attributes as an important element of customer service [45]. Historically, [46] remarked that store atmosphere is experimented by the senses, the fundamental sight, ear, sense of smell and tact, which considered as the most influential element of consumers' decision to buy. Researchers' investigations on shopping centers have concluded that many consumers tend to make their purchase based on their behavior towards the atmosphere of the shopping center. In term of store size, [47] revealed that the average potential sale of Wal-Mart is 77.8% higher than Kmart stores, as Wal-Mart is benefited from larger store size as compared to Kmart. The in-store display, attractiveness and environment are significant aspect of success, strategic in-store display lead to increase sales especially through unplanned customer purchases [48]. Additional features of a positive store atmosphere have been recognized to influence consumers' response towards retail environment such as music [49] and store cleanliness [1].

The relationship with customers is one of the important features of the retailers that influence customer satisfaction. As with repeat transactions over time, personal relationships between retailers and consumers develop trust [1], retailers intended to formulate better relations with their customers. Shoppers tend to engage in social activities and interaction with fellow shoppers, as a result of this, shopping experience become more enjoyable. [1] claims that shoppers prefer to shop at stores where they find friendly and courteous personnel. [50] added that the quality of the offered service is measured by variables such as friendliness of staff, service personnel and courteous and knowledgeable staff.

Product and service quality are globally considered as a key influence of loyalty or consumers' behavioral intentions [51]. The qualities of products and services have been seen to have a strong impact on both purchase intention and customer satisfaction [52]. [53] also suggest that consumer satisfaction, or the fulfilment of expectations (disconfirmation) as an indicator of

perceived quality. [54] defines service/product quality as the customer's assessment of the overall excellence or superiority of the service.

Store accessibility is a vital factor in retailing [55] and is recognized as the perceived convenience of a store's location [56]. Additional analysis revealed that store location significantly affected the relationship between waiting time and customer satisfaction [57]. For instance, [7] explained that a store location near to the home reduces transaction costs associated with the purchase such as transport costs, time spent, and effort. Retailer location could also refer to the number of stores in a particular geographical area. The accessibility of a store to other destinations is one important factor determining interplay between agglomeration or competition forces [47]. [58] concluded that the right location might generate bottom-line benefits that offset these costs. [55] claims that researchers should consider the effect of travel time on customers' store choice and related retailing implications.

Another major variable relating to image of quality to be addressed in this study is the availability of stock and everyday fresh food, as it has been suggested for future research in the work of [7]. Based on the availability of meat, vegetables, fruits and fresh food, customers have paid a major concern and will react negatively to out of stock items as it affect their satisfaction and their choice to shop at a specific store [59]. As the majority of Malaysians are Muslims, the availability of guaranteed Halal meat and food products is a decisive factor in choosing a store [60]. The work of [1] indicates that consumers have ranked the availability of freshness of food items in the first place over the price and other attributes when it comes to store choice behavior.

2.3 Hypotheses

A rich collection of literary previous studies have proven the importance of customer service and the monetary value of the purchase as well as the perception of quality and their impact on the overall customer satisfaction. Despite this, based on store formats, business sector and the type of product and services, each factor shows a different weight [61]. Considering that previous work on customer satisfaction and the determinants of value, quality and services, the relationships among them seem to be tangled based on different theories. In this study we lean toward the first argument. Specifically, in our model we seek to determine the direct effect of these factors on overall customer satisfaction. Therefore, we postulate the following hypothesis:

2.3.1 Monetary Value

Customer satisfaction is recognized as being highly associated with 'value' and is based, conceptually, with attributes such as price [62]. The value to customers has been defined on a large scale as the customer's overall assessment of trade-off between what the customer gives and the benefits they get in return [63]; [64]. The work of [54] has provided evidence supporting an influential role of value on consumers purchase decision-making. [55] revealed that value for money based on price and promotions improves customer shopping experience while the work of [65] shows how the monetary value of the purchase is an antecedent of satisfaction, based on the theory that customers who perceived value for money are higher satisfied than customers who do not perceived it. Therefore, we proposed:
H1: Customers' perception of the monetary value offered by a grocery retailer has a positive impact on their overall satisfaction.

2.3.2 Customer Service and Convenience

The perception on services has a core link with customer satisfaction [66, 67]. [45] suggest that consumer service in grocery retailing is a threshold factor to maintain loyal and satisfied customers. In addition, convenience increases customer satisfaction and influence purchase and repurchase behavior [13]. Store services, relations with customers and store atmosphere as far important to customers as the physical characteristics of the offered goods such as price and quality [6]. In addition, consumer convenience means anything that saves or simplifies work and brings comfort to consumers [1]. [68] described the convenience of shopping from modern retail outlets in terms of the facilities provided such as car parking, trolleys and baskets, proximity to other shops, extended trading hours, good presentation of products, signage, and the desired width and depth of the product range. [69] found that some consumers were willing to pay a higher price to purchase fresh products in supermarkets rather than traditional retailers because of convenience.
H2: Customers' perception of the services and convenience offered by a grocery retailer has a positive impact on their overall satisfaction.

2.3.3 Store Quality Image

Positive store image and good value merchandise are key for retailers to achieve and

sustain success in an increasingly competitive marketplace [3]. One way of differentiating one store from another is the unique store image offered to client. Consumers use store image as an evaluative criterion in the decision-making process concerning retail outlet selection [70]. A store's perceived image is influenced by the store name and the quality of merchandise it carries [71]. Moreover, [52] and [72] concluded that higher estimation on product quality has a positive effect on customer satisfaction, including the retailer's own brand and own private labels [35]. Some studies not only indicate a direct effect of perceived quality on customer satisfaction but also indicate an indirect effect, given the perceived quality increases the value that the consumer perceive in the store's brand [72, 73].

H3: Customers' perception of store quality image offered by a grocery retailer has a positive impact on their overall satisfaction.

2.4 Conceptual Model

In this study, attributes were categorized into three factors, the Monetary Value Of The Purchase (MV); Customer Service And Convenience (CSC) and Store Quality Image (SQ). This goes in line with the scenarios set by [2, 6, 7, 8, 54] who indicate the presence of these three factors as determinants elements of differentiating competence, capability and capacity of retail stores including grocery stores. For this study the customer perception of service and convenience is measured by dimensions of Store Atmosphere, Assortment Variety, Customer Relation and Added Services. Monetary value of the purchase is measured by variables of Price and Sales Promotions. While store quality image is measured by Quality of the offer, Commercialized Brands, Store Accessibility and Stock Availability. See figure 1.

3. METHODOLOGY

3.1 Sample

The data for this study were collected during the period between November 2013 to March 2014. The survey was conducted through personal survey with consumers in various grocery retail stores (supermarkets and hypermarkets) in Johor Bahru city which is the capital of the southern state of the Malaysian peninsular and the third largest city in Malaysia according to Department of Statistics Malaysia [74]. The sampling method used in this study was non-probabilistic (convenience sampling). The goal of this study was explained to managers of the randomly selected stores and only

customers that already had carried out their purchases were invited to fill the questionnaire, A total of 400 questionnaires were distributed, however, only 313 were valid, which is consistent with sample size requirements for PLS-SEM method estimation [75] corresponding to a response rate of 78%. See table1.
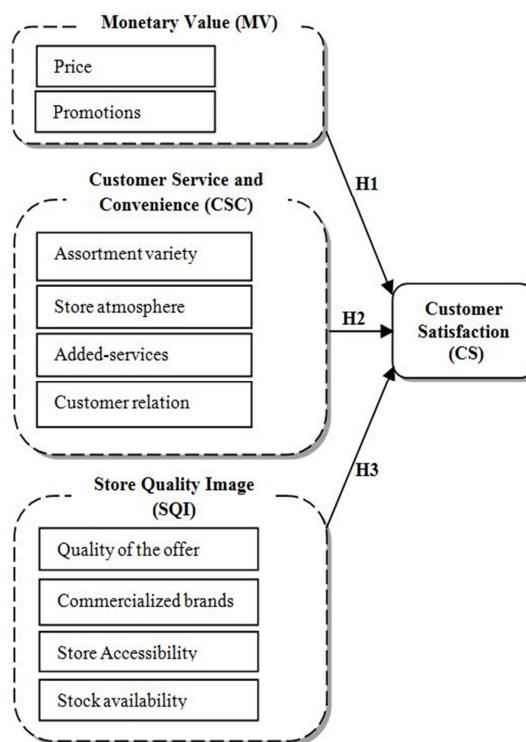

Figure 1. Integrative model on the determinants of customer satisfaction

Table 1: Technical specification of survey

Technical specification of survey	
Unit Sample	Consumers older than 20 years old
Geographic scopes	Johor Bahru city (Malaysia) total population= 1,334,188 (862005 above 20 years old)[a]
Method of collection	Personal Survey
Place were survey conducted	Hypermarkets and supermarkets located in the selected area
Sample size	313 Questionnaires
Sampling method	Nonprobabilistic: convenience sampling
Level of confidence	95% Z=1.96, p=q=0.5 Response rate: 78%
Date of field work	15 Nov 2013- 10 Mar 2014

[a]Department of statistics Malaysia [74].

3.2 Measurement Scales

Items used to measure study variables were mainly derived from validated scales suggested in previous studies. The survey instrument consisted of demographic questions and a total of 11 scaled items used to measure determinants of customer satisfaction. First 10 questions of the questionnaire measures store attribute perceptions, while the last question was regarding the assessment of overall satisfaction. All survey items are five-point Likert-type scales, ranging from ''strongly disagree'', 1, to ''strongly agree'', 5. A pilot test was, therefore, conducted with university students to validate the measurement items. The main purpose of this procedure is to modify or reduce the proposed variables; clarify the ambiguous and non-discriminatory items and eliminate any contradictions implicit and conduct a preliminary analysis of the factors. The wording of the survey items was modified based on the results of the pilot test and the advice of marketing consultants. see Table 3 for the key variables that were considered for this study.

3.3 Model Measurements

Using SmartPLS application, the whole model is measured by Partial Least Squares Structural Equation Modeling (*PLS-SEM*) analysis method, which is based on an iterative combination of principal components analysis and regression and aims at explaining the variance of the constructs in the model [75, 76]. Taking into consideration of the relationship that the literature establishes between the different explanatory variables considered, as well as the high degree of correlation existing among them, the model goes on to follow a Confirmatory Factor Analysis. Composite reliability was used to analyze the reliability of the constructs, since this indicator has been considered a more exact indicator than Cronbach's alpha [77].

For modeling the suggested relationships, a Partial Least Squares (PLS-SEM) approach was employed to estimate the structural paths coefficients R^2, f^2, Q^2, together with the Bootstrap technique (used to test the hypotheses) and to acquire 2-tailed P value. This technique has the advantage of simultaneously estimating all path coefficients and individual item loadings in the context of a specified model and, as a result, avoids biased and inconsistent parameter estimates. PLS technique is more efficient than the principle component analysis for dimension reduction due to the supervised nature of its algorithm [78]. PLS-SEM has several fit indices available, such as communality, redundancy measures, and the Stone-Geisser's Q^2 measure, which can be used to evaluate the predictive power of the model [79].

4. RESULTS

4.1 Descriptive Results

A simple majority of the respondents were males (52%) while females were slightly less (48%). The majority of respondents were in their 20s and 30s (85% of the respondents aged between 20 and 40, and 15.0% between 40 and 60 or above). Household size ranged from 1-7 where 50% of respondents ranged from 1-2, 29% ranged from 3-4 while 21% were 5 persons or above. Monthly household income ranged from (2,000 or lower to 6,000 or above) Malaysian Ringgit (RM). 45% of the respondents receives below than 2000 RM, from 2000 RM to 4,000 RM for 32%, and more than RM 4,000 for 23%. On average, the respondents shopping frequency was on weekly basis with 32%, 27% more than once in a week, while 32% on monthly basis or every 2 weeks. 52% of the respondents prefer to do their grocery shopping in hypermarkets while 48% of them prefer supermarkets. The information provided by the respondents confirmed that the overall sample profile matched closely with previous literature and customer satisfaction statistical studies. Table 2 shows demographic details of the samples profile.

4.2 Reliability and Validity of Measurement Items

Partial least squares (PLS) can tests the convergent and discriminant validity of the scales. In a confirmatory factor analysis (CFA) by PLS-SEM, convergent validity is shown when a measurement loads highly (coefficient above 0.60) and loads very significantly (t-values well within 0.01 level) on its assigned construct [81]. Table 3 shows the factor loadings of the measurement items and Table 6 presents t-values.

The factor loadings of all items surpass the recommended level of 0.60, demonstrating convergent validity, and all t-values are also above 1.96 [80]. Average variance extracted (AVE) assesses the amount of variance that a construct captures from its indicators relative to the amount due to measurement error. It is recommended that AVE should be greater than 0.50, meaning that 50% or more variance of the indicators should be accounted for. AVE measures for latent constructs exceeding 0.65. Therefore, the convergent validity of the latent constructs of the model is supported.

Table 2: Descriptive profile of respondents. (N=313)

Parameter	Range	Sample %	Parameter	Range	Sample %
Gender	Feminine	48		1-2	50
	Masculine	52	Household Number	3-4	29
				5 persons or more	21
	20-29	58			
	30-39	27			
Age groups	40-49	8		Below 2000 RM*	45
	50-59	5		2000-2999 RM	21
	60 years or more	2	Household Monthly Income	3000-3999 RM	11
				4000-4999 RM	8
	Daily	12		5000-5999 RM	6
	Twice a week	25		6000 RM or higher	9
Shopping Frequency	Weekly	32			
	Every 2 weeks	11	Store Type	Supermarkets	48
	Monthly	21		Hypermarkets	52

*RM= Rinngit Malaysia

In order to assess the reliability of measurement items, we compute composite construct reliability coefficients. Composite reliabilities range from 0.803 (for customer service and convenience) to 0.878 (for Monetary Value), which exceed the recommended level of 0.70 [81]. AVEs range from 0.506 (for customer service and convenience) to 0.783 (for Monetary Value), which also exceed the recommended level of 0.50 [77]. The results, therefore, demonstrate a reasonable reliability level of the measured items.

Table 3: Reliability and validity measures (N=313)

Determinants	Attributes[a]	Loadings	Composite Reliability	Cronbachs Alpha	AVE[b]
Monetary Value			0.878>0.7	0.735	0.783>0.5
	Price	0.832			
	Promotions	0.935			
Customer Service & Convenience			0.803>0.7	0.674	0.506>0.5
	Assortment Variety	0.764			
	Store atmosphere	0.694			
	Customer Relation	0.639			
	Added Services	0.743			
Store Quality Image			0.805>0.7	0.682	0.511>0.5
	Quality of offer	0.743			
	Stock Availability	0.614			
	Commercialized Brands	0.794			
	Store Accessibility	0.696			

Chi-square (X^2) value: **913.874**

[a] The items of these constructs were evaluated with 5 point Likert scale (1= strongly disagree, 5= strongly agree).

[b] Average Variance Extracted.

Discriminant validity indicates the extent to which a given construct is different from other latent variables. To assess discriminant validity, AVE should be greater than the variance shared between the latent construct and other latent constructs in the model. All latent constructs satisfy this condition. For this reason, the discriminant validity of the latent constructs of the model is sustained. As shown in Table 4, all the measurement items loaded considerably more strongly on their respective factor than on the other constructs.

Table 4: Discriminant validity

Constructs	(CS)[a]	(CSC)[b]	(MV)[c]	(SQI)[d]
Overall satisfaction	*single item*	0.331	0.318	0.307
Assortment variety	0.247	**0.764**	0.496	0.422
Store atmosphere	0.189	**0.694**	0.430	0.364
Customer relation	0.249	**0.639**	0.257	0.310
Added services	0.245	**0.743**	0.261	0.420
Price	0.212	0.427	**0.832**	0.397
Promotions	0.331	0.464	**0.935**	0.386
Quality of the offer	0.207	0.429	0.415	**0.743**
Stock availability	0.183	0.328	0.230	**0.614**
Commercialized brands	0.279	0.401	0.309	**0.794**
Store Accessibility	0.191	0.372	0.295	**0.696**

[a] *Customer Satisfaction.*
[b] *Customer Service and Convenience.*
[c] *Monetary Value.*
[d] *Store Quality Image.*

4.3 Assessment of The Theoretical Model

For the purpose of testing the previous hypothesis relationships we have carried out partial least squares (PLS-SEM) analysis with a 300 iteration bootstrap procedure. In this model, Store Image (SQI), Monetary value (MV) and Customer Service & convenience are the predictor variables of this research in order to indicate customer satisfaction.

Table 5: Models summary N=313

R	R^2	Adjusted R^2	Standard error of the estimate
0.421	0.177	0.154	0.684

Table 5 shows the values of the coefficient of determination R-squared (R^2), which quantifies the proportion of the variation explained by the model. It represents that 17.7% of the variation in customer satisfaction has been explained by the model with about 0.684 estimation of error, PLS-SEM analysis has indicate 0.154 predictive power of R-squared. As mentioned, the nonparametric bootstrap re-sampling technique [82] procedure is used by PLS-SEM path modeling to provide confidence intervals for all parameter estimates, which was performed to generate (5000) sub-samples following the indication of [75, 79, 83]. The significance of the path coefficients is examined by analyzing the *t*-values of the parameters with two-tails and 312 degrees of freedom (*n-1*, where *n* represents the number of sub-samples) to calculate the significance of path coefficients (*β*). All paths are found to be significant to the expected direction; one is significant at the level of 0.01 and two at the

level of 0.05. Table 6 shows the structural equation results.

Table 6: Summary of results N=313

Determinants	β^a	*t*-value[b]	Significance[c]
CSC	0.169	2.535	0.012**
MV	0.171	2.732	0.007***
SQI	0.142	2.306	0.022**

[a] *Path Coefficient*
[b] *Bootstrapping (5000) p>1.69*
[c] *Probability (two-tailed) p<0.10; **p<0.05; ***p<0.01*

We predicted in H1 that monetary value for customer should be positively related to consumers' satisfaction with that retailer. Hence the results of the study support this proposition. The link between monetary value and customer satisfaction (path coefficient (*β*)= 0.171, *t*= 2.732, two tailed= 0.007 *P*<0.01) is proven to be significant and positive to customer satisfaction with high variance of 78% explained by this variable.

The results also support H2 which states that *Customers' perceptions of the service and convenience offered by retailer has a positive impact on their satisfaction.* The findings support this hypothesis as the consumers' perception of services and convenience is an antecedent of their overall satisfaction. The link between customer service and convenience towards customer satisfaction is as follow: path coefficient (*β*)= 0.169, *t*= 2.535, two tailed= 0.012 *P*<0.05. These results confirm that consumers' perception of services and convenience offered by a retailer have a positive influence on overall satisfaction and attitude towards that retailer as indicated by the path coefficient. The total variance explained for this last variable is approximately 51%.

H3 posits that store's quality image of a grocery retailer should be positively related to customer satisfaction towards that retailer. The results of the study support this proposition (path coefficient (β)= 0.142, t= 2.306, two tailed= 0.022 P<0.05). Total variance explained by this variable is around 51%. By referring to Figure 2, all study hypotheses are supported and validated.
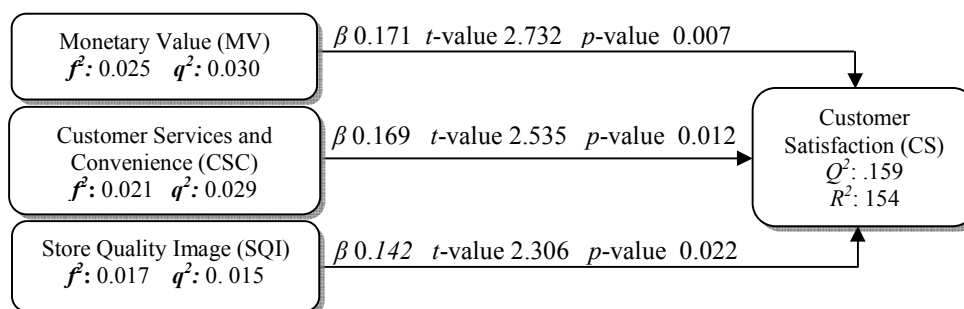
Figure 2. Model results

4.4 Effect Size Measurements

In order to measure the effect size of each significantly proven variables, the effect size f^2 is performed to predict the influence for latent variables [84]. The effect size f^2 is calculated as the increase in R^2 relative to the proportion of variance of the endogenous latent variable that remains unexplained [83]. f^2 is measured by applying the below formula.

$$f^2 = \frac{R^2 included - R^2 excluded}{1 - R^2 included}$$

According to [84] $f^2 \geq 0.02$, $f^2 \geq 0.15$, $f^2 \geq 0.35$ for weak, moderate, strong effects. The result implies that monetary value of purchase has the highest effect size on customer satisfaction ($f^2 = 0.025$) followed by customer service and convenience ($f^2 = 0.021$) then store image ($f^2 = 0.017$). These findings shows that consumers put high value on factors related to monetary value such as price and sales promotions, and slightly less on factors relying on services and environment while consumers put lesser value on factors associated with retailers' quality image.

Blindfolding procedure is also performed to obtain cross-validated redundancy measures for each construct, as well as, the predictive relevance test of Q^2 for the endogenous construct, which supports these positive results[79]. A Q^2 greater than zero implies that the model has predictive relevance, whereas a Q^2 less than zero suggest that the model lacks predictive relevance. In general, the results confirm that the structural model has satisfactory predictive relevance for overall satisfaction construct. Effect size of q^2 is also examined for latent variables by applying the formula

$$q^2 = \frac{q^2 included - q^2 excluded}{1 - q^2 included}$$

to show the degree size of q^2 for each latent variable. Table 7 presents f^2, q^2, Q2 along with R2.

Table 7: Effect Size on Overall Satisfaction

Overall Customer Satisfaction				
Determinants	f^2	q^2	R^2	Q^2
MV	0.025	0.030	.154	.159
CSC	0.021	0.029		
SQI	0.017	0.015		

$f^2 \geq 0.02$, $f^2 \geq 0.15$, $f^2 \geq 0.35$ for weak, moderate, strong effects.
$q^2 \geq 0.02$, $q^2 \geq 0.15$, $q^2 \geq 0.35$ for weak, moderate, strong effects.

5. DISCUSSION AND CONCLUSION

The preceding results discriminate our study from previous studies and complement their results in a number of ways. First of all, this study has confirmed that the suggested retail stores' attributes influence customer's selection criteria, these results are in line with those of [6, 7] who argued that the perception of store's attributes positively affect customers' satisfaction. However, our results are the first to specifically support this proposition within grocery retailing in Malaysia. Secondly, the study has identified the determinants of which the consumers have to perceive upon stores, which significantly influence their overall satisfaction with grocery retailers. The first determinant, "Monetary Value", which is composed of elements such as the price reduction and sales promotions that offered by stores are essentially the same as those identified by previous studies. The second component, "Customer Services And Convenience", brings together the product assortment, store atmosphere, the relation with customers and complementary services offered at the stores (whether being necessities or luxuries), such as banking services, numbers of check out cashiers and availability of car parking, thus encouraging customers to stay and purchase at the store. Importantly for this study, and again how it distinguishes itself, the third component of customers' satisfaction determinants, the "Store Quality Image" which the retailer has and perceived by consumers, is indeed has an impact on overall

customer satisfaction. It signifies the customer overview of store quality image of products and services, and related attributes. In this last regard, while [6, 7] categorized the quality attributes, deemed as necessary, our study shows the need to integrate not only commercialized brands and the quality of product and services attributes but also the locational and stock availability attributes. Thirdly, this study is also characterized by showing the weight and effect size of each of these determinants has on overall customer satisfaction, where all the three factors are significant and shows a positive impact on overall customer satisfaction as previously advanced by [6]. However, [7] rejected "economic value". Thus, what is particularly important here is the positive influence of the "Monetary Value" component on customer satisfaction, not only so, but it has shown the highest impact on customer satisfaction among the other factors unlike the two prior studies [6, 7] where they show that customers are greatly affected by "services" than the other factors. This disparity in results could be due to disparity of the chosen area, the questionnaire samples or material factors such as the individual income as this factor cares of the monetary value for customers, which could be interesting for further investigation. The purpose of our study was to compare customer perceptions concerning satisfaction across grocery stores and identify its determinants, in addition, the research examined store attributes to determine the relation-ship between those attributes and satisfaction as well as to determine their category based on the identified determinants. furthermore, the study meant to measure the weight of attributes towards the customer satisfaction and finally measure the effect size that each determinant shows toward overall satisfaction. Our results depict distinct differences from previous studies. All hypotheses were positive and supported while some attributes were removed during the pilot study. The result shows that customers in Malaysia make greater value to the monetary value of the purchase, which is slightly higher than the value of service and convenience with a lesser effect of store quality image. This means that retailers should pay higher attention on competitive prices and attractive promotions in order to target customers needs and gain their satisfaction as well as, maintaining and promoting a large variety of quality products in line with the types of products that their target customers seek. Promotional strategies should highlight employee service dimensions (e.g. friendly and helpful) since service and convenience is also a critical determinant of satisfaction for

grocery store shoppers. Our results demonstrate that price, promotions, store brands, product assortment, quality, added-services, store accessibility, store atmosphere, the relation with customers and stock availability of fresh items was the step wise order of attributes affecting customers satisfaction. Grocery retailers should take these results into consideration when developing their retail format and promotional strategies.

6. LIMITATIONS AND FURTHER RESEARCH TRENDS

Limitations of this study must be acknowledged and might be addressed in future approaches to validate or refine the model. This study has two limitations however, related to the nature of the sample and to a moderating variable. First, as the sampling technique used was non-probabilistic and depended on the availability of retail customers who were willing to fill the survey, further research could extend the sample number in order to get more accurate data. Second, this study could not control "income and household number variables" that could enable to analyze the data in a deeper manner. Because a number of respondents were reluctant to complete this information in the survey, we could not analyze the effects of these parameters. Therefore, future research should test the influence and effect of these additional details. Research limitations include a sample that has lesser incomes than the average Malaysian household based on Household Income and Basic Amenities Survey Report of Department of Statistics of Malaysia [85]. A subsequent study may include samples of segments with higher income for a better representation of the economic situation of Malaysian society.

In addition, despite the limitations highlighted, there are several areas that are seen as fertile areas for future research to expand and enhance current knowledge. Given that this study was limited to a fixed area, the Southern Region of Malaysia, subse-quent research could draw a sample from other regions such as the Northern Region, East Coast Region, Central Region and East Malaysia. Cond-ucting the study in different geographic localities will be necessary to capture the impact of different ethnic groups and the different levels of economic development in Malaysia. Furthermore, additional studies (locally or globally) will be useful to validate the findings drawn from this study.

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