

Modeling Relationship among Factors that Affecting Customers' Intention in Purchasing Malaysian Cars using Structural Equation Model

Azme Khamis

Department of Mathematics and Statistics
Faculty of Science, Technology and Human Development,
Universiti Tun Hussein Onn Malaysia (UTHM)
azme@uthm.edu.my

Nabilah Syuhada binti Abdullah

Department of Mathematics and Statistics
Faculty of Science, Technology and Human Development,
Universiti Tun Hussein Onn Malaysia (UTHM)
hw130038@siswa.uthm.edu.my

Abstract- This study was conducted in order to examine the factors that influence customers' intention to purchase Malaysian made cars. The objectives of this study are: (i) To investigate the relationship between service quality, product quality and price fairness with customer satisfaction and trust; (ii) To investigate the relationship between the customer satisfaction with trust and purchase intention; (iii) To identify the relationship between the service quality, product quality and price fairness with customer satisfaction. Structural Equation Modeling (SEM) was employed and analysed using AMOS software. Stratified sampling design used in selecting 120 employees as the respondent for the study. The result revealed that only product quality and price fairness leads to customer satisfaction. Meanwhile, customer satisfaction will lead to trust, and trust influences the purchase intention.

IndexTerms—SEM, Stratified Sampling Design, Malaysian made cars, Customers intention

I. INTRODUCTION

Nowadays, the automobile industry in Malaysia has shown a steady year by year growth through joint venture with others countries to produce better products by using technology advancement. Malaysia is now taking steps in the manufacturing industry, particularly heavy commercial vehicles in order to achieve the goals set during the Establishment of the Heavy Industries Corporation of Malaysia (HICOM) in year 1980. In this wondrous world where penetration in the market in the presence of competitors is very problematic and challenging, it is very much important to determine the exact features which the consumer wants. It will help the marketers to focus on the features of the product that are significant and are positively correlated with purchase intentions of the customers. The customer driven approach is applied to find out the perception of users to have an exact idea about preference and desires.

The country's first national car project, Perusahaan Automobil Nasional Berhad (PROTON) initiated in 1985 was an important step towards the development of motor vehicle industry in Malaysia. While, Perusahaan Otomobil Kedua Sdn Bhd (PERODUA) was established in 1993. Both of this car brands have always been committed manufacturing cars locally

that are recognized internationally. The automation and robotics in the manufacturing process were used to increase cost-efficiency, reliability, and quality. It gives opportunity to Malaysian customer to purchase compact car with reasonable price.

However, the effort by Malaysian automobile companies like PROTON to collaborate with Volkswagen should be applauded (Mohd. Uzir & Kanageswary, 2004). By working together, both company can gain in terms of technology and expertise in producing quality cars at competitive prices and also be a catalyst to promote Malaysian cars in the regional market. The stereotypes of country and the preference of customer influence the purchase intention (Teo, *et. al.*, 2011).

Nonetheless, circumstances exist whereby customers would prefer local brands over global brands. Local brands may be better in positioning themselves as 'sons of the soil' to directly identify with customers' own local traditions, customs, and culture (Cayla and Eckhardt, 2007). In turn, a local brand is produced domestically for a specific national market and usually only obtainable in the particular region (Batra *et al.* 2000). It is identified that a local brand may be preferred when customers can identify with others in their community as the local brand is often positioned to understand local needs and culture (Cayla and Eckhardt, 2007).

Purchase intention can be defined as individual's intention to buy a specific brand individuals who want to buy a specific brand which they has chosen for themselves after certain evaluation; there are variables by which we can measure purchase intention for instance consider the brand for purchasing and expecting to purchase the brand in the future (Laroche and Zhou, 1996; Laroche and Sadokierski, 1994; MacKenzie and Belch, 1986). Doing purchase intention for a specific brand requires assessment of all brands available in market (Teng, *et. al.*, 2007).

Purchase intention is the implied promise to one's self to buy the product again whenever one makes next trip to the market (Fandos and Flavian, 2006; Halim and Hameed, 2005). It has a substantial importance because the companies want to increase the sale of specific product for the purpose to maximize their profit. Purchase intention depicts the impression of customer retention. There are certain functions

of the brand which have a strong influence on the purchase intention of the customer's i.e. brand image, product quality, product knowledge, product involvement, product attributes and brand loyalty.

Halim and Hameed (2005) explain purchase intention as the number of patrons that has a proposal to buy the products in future and make repetition purchases and contact again to the specific product. In Jin and Kang (2011) explains purchase intention relating four behaviors of consumers including the undoubted plan to buy the product, thinking unequivocally to purchase the product, when someone contemplate to buy the product in the future, and to buy the specific product. Fandos and Flavian (2006) explain the phenomenon of purchase intention as the projected behavior of consumers on short basis about the repetition purchase of specific product i.e. when someone decided to buy the product whenever they will come again to the market.

Arslan and Altuna (2010) and Meenaghan (1995) studied the effect of brand image in terms of the attitudes of the consumers about the particular brand which helps to point it and thinking the positive and negative feeling of the buyers in the significant way to make the product different from others. They have the view that there are three aspects of brand image which make the whole image of the brand which are; favorability, strength, and distinctiveness. Research on the phenomenon by using marketing sense to explain it as the set of statements given to the target market to capture the purchase intentions of the targeted consumers was done by Bian and Moutinho, (2011). Meanwhile, Jalilvand, *et. al.* (2011) has been investigated the effect of brand equity components on purchase intention, while Lee, *at. al.* (2011) explain the brand image as the overall mind reflection and beliefs about the particular brand by keeping in mind its unique qualities which make it different from the others. Chi, *et. al.* (2009) and Guo, *et. al.* (2011) studied the influence of brand image on consumer purchase intention. Wang, *et. al.* (2001) found that demographic factors of consumers may provide information that will help them to predict consumer behavior in terms of consumers' segmentation with psychographic variables. Mafe and Blas (2008) in their research found that the age of a consumer had an impact on the purchasing behavior of consumers who were shopping for televisions in the country of Spain. Research was carried out in service quality by Rajaram and Sriram (2014) at hypermarket in India and found that there is a significant positive effect on service quality of the hyper markets to customer behavioral intention and conclude that service quality highly influences customer behavioral intention and purchase preference.

This study will generally provide information on the extent as well as depth of satisfaction on intention to purchase Malaysian made cars and the factors that affect it. The theoretical framework in this study was adopted from Chin, (2011) that shows the variable considered relevant to the study. The exogenous variables in the study were service quality, product quality, price fairness, customer satisfaction and trust while the endogenous variable is purchase intention. We are focusing on the purchase behavior of the customers that how general public attract to make purchase of the branded product and also reveal the important aspects which are quite necessary to capture the purchase intention of the customers. This research helps to categorize that among these aspects which

factors have significant effect on the purchase intention of the patrons.

By understanding what drives customers to make the purchase, marketer can improve and tailor their services and products to win consumer preferences, substantiate customer base and maintaining sustainable competitive advantages. Moreover, the result of this study is going to be a valuable material for students and also professionals who wish to get involved in the automobile industry. The information provided is to generate a perceived overview of the industry so that they will be well prepared to face the challenges and obstacles in this new era of automobile industry. The present study aims to discuss the factors influencing customers' intention to purchase Malaysian made cars. The study proposed the following hypotheses based on the structure:

- (i) Customer satisfaction and trust has significant influence on purchase intention towards Malaysian cars.
- (ii) There is a significant relationship between service quality, product quality, price fairness and customer satisfaction.
- (iii) There is a significant relationship between service quality, product quality, price fairness and trust.
- (iv) Service quality, product quality and price fairness has significant influence and direct effect on purchase intention towards Malaysian cars.

Questionnaires have been designed to get information from the respondents to answer the research hypothesis. The questionnaire has been divided into seven sections. Demographic profile in section A, Section B: Service Quality, Section C: Product Quality, Section D: Price Fairness, Section E: Customer Satisfaction, Section F: Trust and Section G: Purchase Intention, the respondents are provided with a Likert scale score to answer the question likes 1 (Disagree) until 10 (Agree) to indicate their opinion on each statement given. Table 1 summarizes the measures used in this study.

TABLE I. SUMMARY OF MEASURES

Sect ion	Construct	Item	Description
A	Demographic profile		Gender, age, marital status, academic qualification, personal income
B	Service Quality	SQ1, SQ2, Q3, SQ4, SQ5	Good quality service, employee's responsiveness, customer confidence, employees caring, car's problem.
C	Product Quality	PQ1, PQ2, PQ3, PQ4,	Car's performance, car's outlook, car's feature, car's

		PQ5	accessories, car's warranties
D	Price Fairness	PF1, PF2, PF3, PF4, PF5	Reasonable price, price discriminant, overprice, brand acceptable, brand market power
E	Customer Satisfaction	CS1, CS2, CS3, CS4	Overall performance decision making, spread positive word, the future making decision
F	Trust	T1, T2, T3, T4	Brand competence, brand trustworthy, brand integrity, brand responsible
G	Purchase intention	PI1, PI2, PI3, PI4, PI5	Intention to purchase, car's information, peoples' views, brands comparison, the most suitable car

The population in this study is the customers who have the intention to purchase the Malaysian cars and the target sample is the current Malaysian car users in Perlis whereas the sampling frame for this study were employees who work in KWSP building located in Perlis, Malaysia. The sampling method used in this study was stratified sampling. The population was stratified into stratum and 120 respondents out of a total of 174 employees were selected from each stratum by using simple random sampling. The questionnaires were collected and compiled using SPSS 16. These data were then used to study and discuss causal relationships between Service Quality (SQ), Product Quality (PQ), Price Fairness (PF), Customer Satisfaction (CS), Trust (T) and Purchase Intention (PI) by modeling a structural equation model using AMOs 20.

II. RESEARCH METHODOLOGY

2.1 Introduction

The two vital components of SEM are the path model and the measurement model. The path model or path analysis quantifies specific cause-and-effect relationships between observed variables (Bollen, 1989; Jöreskog, 1993). The measurement model quantifies linkages between (i) hypothetical constructs that might be known but unobservable components and (ii) observed variables that represent a specific hypothetical construct in the form of a linear combination. Structural equation model or SEM was developed as a unifying and flexible mathematical framework to specify the computer application (Byrne, 2001; Blunch, 2013). Analysis of moment structure (Amos) integrates an easy-to-use graphical interface with an advanced computing engine for this type of analysis. Amos provides very clear and easy representation of path

diagrams in SEM models for students and fellow researchers. The numeric methods implemented in Amos are among the most effective and reliable available (Arbuckle, 2012).

Structural Equation Modeling (SEM) is an alternative method for testing our modeling of complex situation. SEM is a collection of procedures that tests hypothesized relationships among observed variables (Grace, 2008; Schumacker and Lomax, 2004; Bollen, 1989). Complex interactions are first translated into a paths diagram variables and are then evaluated against multivariate variables (Bollen, 1989). These paths postulate direct and indirect effects among latent component, as well as spurious associations between variables that may be attributable to common causes. A direct effect describes direct regulation of a response variable (effect) by a causal variable, while an indirect effect implies that the regulation is mediated through other variables. Hence, SEM is often related to causal modeling (Kenny, 1979). It is philosophically a confirmatory factor analysis, but its application extends to testing alternative a priori models or to model building (Jöreskog, 1993), and can therefore be regarded as blending confirmatory and exploratory analyses (Kline, 2011).

2.2 Model Estimation

The structural equation model framework can be summarized into three matrix equations, two for the measurement model component and one for the path model component (Grace, 2006). For the measurement model component,

$$\mathbf{x} = \Lambda_x \xi + \delta \quad (1)$$

$$\mathbf{y} = \Lambda_y \eta + \epsilon \quad (2)$$

where \mathbf{x} is a $p \times 1$ vector of observed exogenous variables, and it is a linear function of a $j \times 1$ vector of exogenous latent variables ξ and a $p \times 1$ vector of measurement error δ . Λ_x is a $p \times j$ matrix of factor loadings relating \mathbf{x} to ξ . Similarly, \mathbf{y} is a $q \times 1$ vector of observed endogenous variables, η is a $k \times 1$ vector of endogenous latent variables, ϵ is a $q \times 1$ vector of measurement error for the endogenous variables, and Λ_y is a $q \times k$ matrix of factor loadings relating \mathbf{y} to η . Associated with equation 1 and equation 2, respectively, are two variance-covariance matrices, Θ_δ and Θ_ϵ . The matrix Θ_δ is a $p \times p$ matrix of variances and covariances among measurement errors δ , and Θ_ϵ is a $q \times q$ matrix of variances and covariances among measurement errors, ϵ .

The path model component as relationships among latent variables can be written as;

$$\eta = \mathbf{B}\eta + \Gamma\xi + \zeta \quad (3)$$

where is \mathbf{B} a $k \times k$ matrix of path coefficients describing the relationships among endogenous latent variables, Γ is a $k \times j$ matrix of path coefficients describing the linear effects of exogenous variables on endogenous variables, and ζ is a $k \times 1$ vector of errors of endogenous variables. Associated with equation 3 are two variance-covariance matrices: Φ is a $j \times j$ variance-covariance matrix of latent exogenous variables, and Ψ is a $k \times k$ matrix of covariances among errors of endogenous variables. With only these three equations, AMOS is a flexible mathematical framework that can accommodate any specification of a SEM model.

SEM has been typically implemented through covariance structure modeling where the variance-covariance matrix is the basic statistic for modeling. Model fitting is based on a fitting function that minimizes the difference between the model-

implied variance-covariance matrix Σ and the observed variance-covariance matrix S ,

$$\min f(\Sigma, S) \quad (4)$$

where S is estimated from observed data, Σ is predicted from the causal and non-causal associations specified in the model, and $f(\Sigma, S)$ is a generic function of the difference Σ between and S based on an estimation method that follows. As Shipley (2000) concisely stated, causation implies correlation; that is, if there is a causal relationship between two variables, there must exist a systematic relationship between them.

Hence, by specifying a set of theoretical causal paths, one can reconstruct the model-implied variance-covariance matrix Σ from total effects and unanalyzed associations. Bollen (1989) outlined a step-by-step formulation under the mathematical framework, specifying the following mathematical equation for Σ :

$$\Sigma = \begin{bmatrix} \Lambda_y \Lambda (\Gamma \Phi \Gamma + \Psi) \Lambda' \Lambda_y' + \theta_\epsilon & \Lambda_y \Lambda \Gamma \Phi \Lambda_x' \\ \Lambda_x \Phi \Gamma' \Lambda' \Lambda_y' & \Lambda_x \Phi \Lambda_x' + \theta_\delta \end{bmatrix} \quad (5)$$

Where $\Lambda = (I - B)^{-1}$ and in equation 5 the derivation of Σ does not involve the observed and latent exogenous and endogenous variables (i.e. x, y, ξ and η).

Maximum likelihood (ML) is a common method in SEM for estimating parameters. In ML estimation, the algorithm iteratively searches for a set of parameter values that minimizes the deviations between elements of S and Σ (Grace, 2006). This minimization is accomplished by deriving a fitting function, $f(\Sigma, S)$ based on the logarithm of a likelihood ratio, where the ratio is the likelihood of a given fitted model to the likelihood of a perfectly fitting model. The maximum likelihood procedure requires the endogenous variables to follow a multivariate normal distribution, and S to follow a Wishart distribution. Hayduk (1987) described the steps in the derivation and expressed the fitting function F_{ml} as

$$F_{ml} = \log |\Sigma| + \text{trace}(S\Sigma^{-1}) - \log |S| - \text{trace}(SS^{-1}) \quad (6)$$

where $\text{trace}(\)$ refers to the trace of a matrix Σ and S are defined as above. Proper application of equation 6 also requires that observations are independently and identically distributed and that matrices Σ and S are positive definite Hyduk (1987). After minimizing equation 6 through an iterative process of parameter estimation, the final results are the estimated variance-covariance matrices and path coefficients for the specified model.

2.3 Model Assessment

The goal of model assessment is to test the causal implications of a model (Shipley, 2000). There are many criteria to measure the goodness of fit and model validity. A comprehensive listing of indices and criteria to assess model fit are provided in Schumacker and Lomax (2004) and Kline (2011), but four basic fit statistics are summarized here.

(i) Chi square test: The overall model chi-square test based on a test statistic that is a function of the mentioned fitting function F_{ml} in equation 6 as follows:

$$\chi_v^2 = (n - 1)F_{ml} \quad (7)$$

where n is sample size and χ_v^2 follows a chi-square distribution with degree of freedom df_v as defined above.

Subsequently, a p value is estimated and evaluated against a significance level.

The chi-square test is only applicable for an overidentified model, that is, when $df_v > 0$. A just-identified model ($df_v = 0$), for example, a path model representation of a multiple regression, does not have the required degrees of freedom for model testing Shipley (2000). The null hypothesis associated with the test is that there is no difference between model estimates and the data, and the alternative hypothesis is otherwise. Therefore, failure to reject the null hypothesis is the ultimate objective of the modeling process.

Although it may seem to be contrary to the intent of common hypothesis testing in ANOVA, this approach is consistent with the accept-support context where the null hypothesis represents a researcher's belief (Steiger and Fouladi, 1997). Nonetheless, as with common hypothesis testing, failure to reject the fitted model does not prove the specified causal relationships in the model. One should be particularly aware of existing equivalent models, that is, models that have different hypothesized causal relationships but fit the data equally well.

(ii) Root Mean Square Error of Approximation (RMSEA), which is parsimony-adjusted index that accounts for model complexity. The index approximates a non-central chi-square distribution with the estimated non-centrality parameter as

$$\hat{\delta}_v = \max(\chi_v^2 - df_{v,0}) \quad (8)$$

where χ_v^2 is computed from eq.7 and df_v is defined above. The magnitude of $\hat{\delta}_v$ reflects the degree of misspecification of the fitted model. The RMSEA is then defined as

$$RMSEA = \sqrt{\frac{\hat{\delta}_v}{df_{v(n-1)}}} \quad (9)$$

Thus, RMSEA measures the degree of misspecification per model degree of freedom, adjusted for sample size. RMSEA also reflects the view that the fitted model is an approximation of reality, so that RMSEA measures the error of approximation (Raykov and Marcoulides, 2000). Browne and Cudeck (1993) suggested that $RMSEA \leq 0.05$ indicates a close approximation or fit, a value between 0.05 and 0.08 indicates a reasonable approximation, and a value ≥ 0.1 suggests a poor fit.

(iii) Standardized root mean square residual (SRMR), which is relatively easy to compute. Both S and Σ are transformed into correlation matrices, and the residual matrix is the difference between the two. Hence the mean square of the elements in the residual matrix is the SRMR. In general, $SRMR < 0.10$ is considered a good fit of S as an approximation to Σ .

(iv) Goodness of Fit Index (GFI) is a measure of relative amount of variances and covariances jointly accounted for by the model, and it is defined as Jöreskog and Sörbom (1982)

$$GFI = 1 - \frac{\text{trace}(\Sigma^{-1}S - I)^2}{\text{trace}(\Sigma^{-1}S)^2} \quad (10)$$

where I is identity matrix. GFI ranged from 0 to 1.0 with 1.0 indicating the best fit.

Statistical tests for the overall model fit and p values of parameter estimates are less important in SEM than in univariate regression models. One reason is that all parameters are simultaneously estimated in SEM, so the significance of a parameter estimate should be viewed in the context of the whole model. Second, the confirmatory aspect of the model is

weakened if model modification is based on the significance of estimates rather than the theory behind the model structure. Finally, SEM is still a large-sample technique, and hypothesis testing is generally affected by sample size, especially the chi-square test and to a lesser extent RMSEA, SRMR and GFI.

III. DATA ANALYSIS AND RESULT

3.1 Preliminary analysis

It was found that 56.7% of the respondents are female and 43.3% male. From the result the highest respondents are 26-35 years old which is 49.2% followed by 36-45 years old 18.3%, 46-55 years old 15%, 18-25 years old 15% and the lowest ages is 56 years old and above 2.5%. Most of the respondents are married which is 78.3% followed by single which is 21.7%. It is clear that the majority of respondents (48.3%) studied until secondary level followed by Diploma (30.0%), Bachelor (18.3%), Primary (2.5%) and only 0.8% of respondents further their study until master. 40.8 % of respondent's have personal income between RM2001-RM3000 followed by personal income between RM1001-RM2000 which is 34.2 %, personal income between RM3001-RM4000 which is 12.5 %, personal income between RM4001-RM5000 which is 8.3% and only 4.2 % of respondent's have personal income below RM1000.

3.2 Research Tool Reliability & Validity

The study measurement scale was developed by referring to relevant literatures, so to some extent, it has content validity. In order to analyze reliability and validity of data, Cronbach's Alpha was used. The values for service quality, product quality, price fairness, customer satisfaction, trust and purchase intention are 0.954, 0.963, 0.924, 0.962, 0.962 and 0.918 respectively. Nunnally (1978) has indicated reliability coefficient should be greater or equal to 0.7 to be acceptable. Thus, this indicate that all constructs are reliable due to value of Cronbach's Alpha exceed 0.7 are achieved. The value of Construct Reliability (CR) for six constructs are 0.946, 0.962, 0.928, 0.957, 0.963 and 0.923 respectively. This indicates that the entire constructs are reliable since the value is larger than 0.6 to achieve the construct reliability (Bagozzi & Yi, 1998). Moreover, the calculate values of Average Variance Extracted (AVE) for six constructs are 0.816, 0.836, 0.724, 0.847, 0.865 and 0.751 respectively. The values of AVE for those construct are achieve since all the value are greater than 0.5 which recommended by Fornell and Larcker (1981).

3.3 Measurement Model

The pooled measurement model combines all measurement models together and the CFA procedure is performed on all constructs at once. The item-deletion process and new measurement model is run as usual. Based on the initial measurement model (Figure 1), the required level is not achieved since Root Mean Square Error of Approximation (RMSEA) = 0.103 is more than 0.08 (Browne and Cudeck, 1993). The Comparative Fit Index (CFI) = 0.911 and the Tucker-Lewis Index (TLI) = 0.900 which there in a category of incremental fit stated that the cut-off values achieved the required level of acceptance since its values is more than 0.90. (Bentler & Bonet, 1980).

Item reduction process was not executed since all items in respective constructs is above 0.6, (Byrne, B.M, 2010). Thus, the redundant items in the initial measurement model through the Modification Indices (MI) table produced by SEM were examined. As a result the measurement errors namely e18 and e19 is most highly correlated compared to others (52.531) which is greater than 15 and as a result the item CS1 and item CS2 are redundant. So, those items were to be "free parameter estimate" as the according to Byrne, B.M. (2010). The model is re-specified until unidimensionality is achieved for model fitness checking.

The model was re-specified 4 times before achieving the unidimensionality for model fitness checking (Figure 2). In the first re-specification, the measurement errors namely e9 and e10 is most highly correlated compared to others (22.209 > 15) hence SQ1 and SQ2 were found to be redundant hence SQ1 was dropped from the model. As a result the measurement errors namely e26 and e27 is most highly correlated compared to others (19.906 > 15) and as a result the item P12 and item P13 are redundant and those items were to be "free parameter estimate". In the 3rd re-specification P14 was found to have a factor loading of 0.59 < 0.6 and hence was removed from the model. The 4th re-specification involved the measurement errors namely e1 and e2 is most highly correlated compared to others (15.271 > 15) and as a result the item PQ1 and item PQ2 are redundant and those items were to be "free parameter estimate".

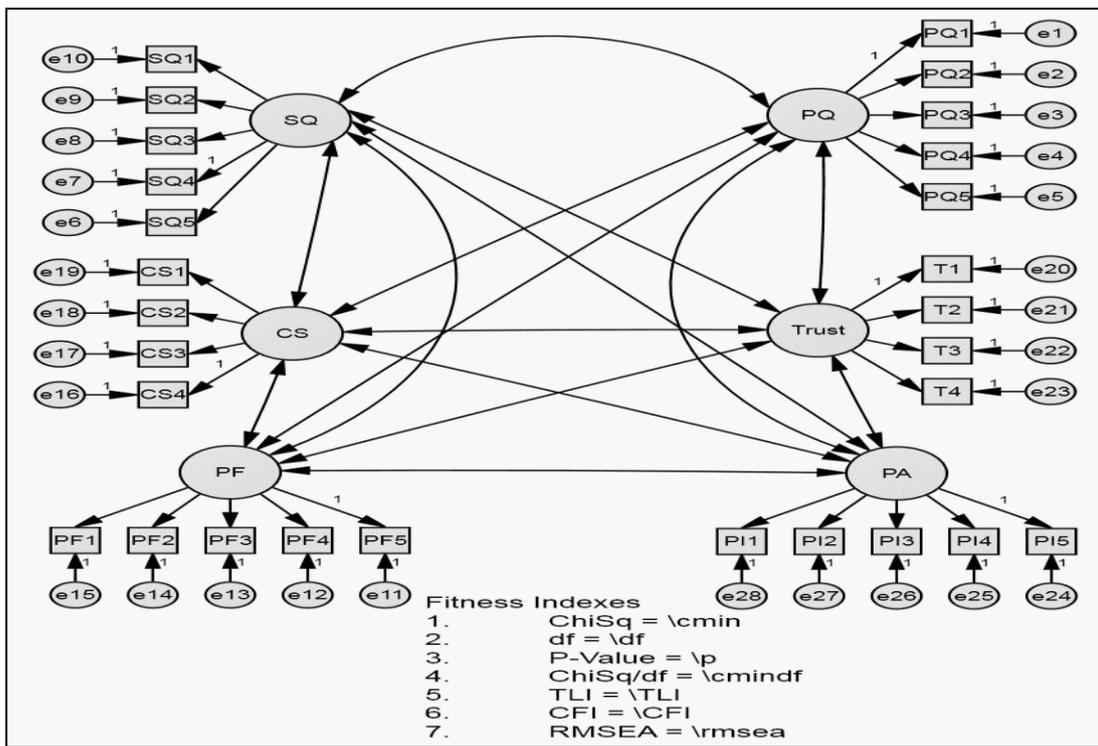


Fig. 1. The Initial Measurement Model

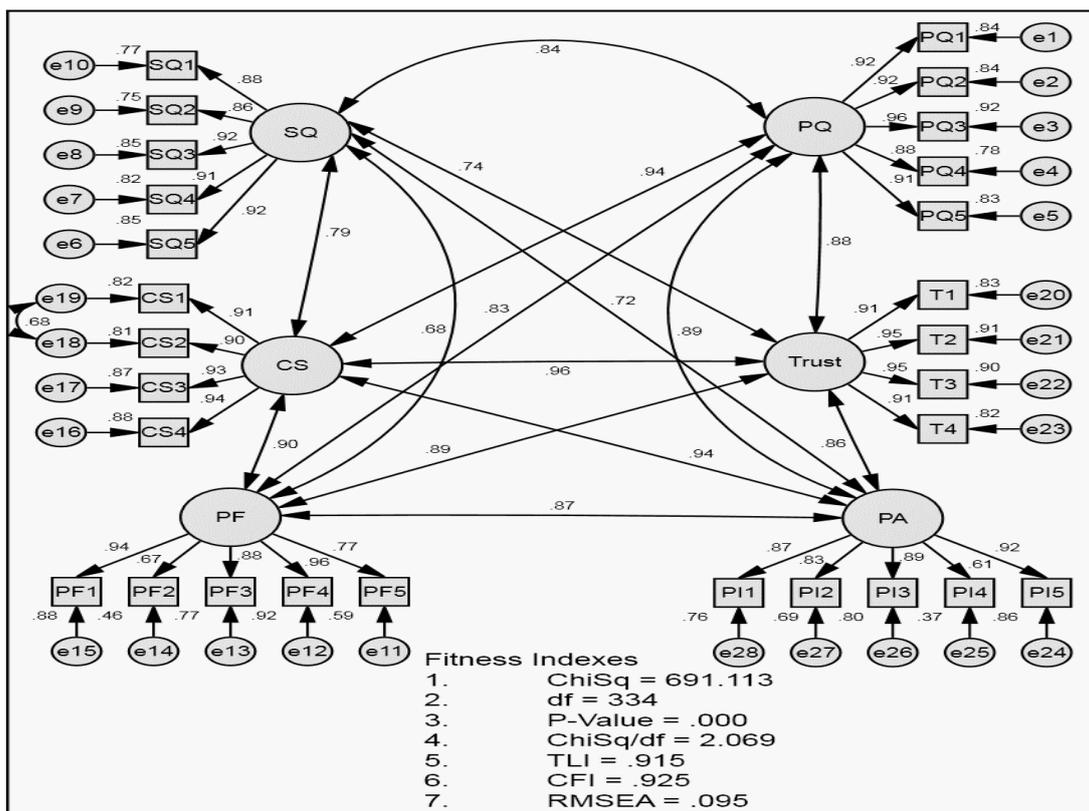


Fig. 2. The Final Measurement Model

3.4 Path Analysis: Mediating Variable

Mediating tests were conducted on CS and T to see whether these variables mediate between exogenous variables (SQ, PQ and PF) and the endogenous variable (PI).

The results (Table 2) indicate that Trust is not a mediating variable. On the other hand, CS completely mediates PQ and PF with PI. However, no mediation occurs between SQ with PI.

TABLE II. THE SUMMARY RESULTS OF MEDIATION TEST

Customer Satisfaction Mediation			Trust Mediation		
Path Analysis	Estimate	p-value	Path Analysis	Estimate	p-value
CS → PA	1.977	0.010	T → PA	-0.829	0.045
SQ → CS	-0.027	0.726	SQ → T	0.051	0.562
SQ → PA	0.005	0.969	SQ → PA	0.005	0.969
PQ → CS	0.692	0.001	PQ → T	-0.298	0.177
PQ → PA	-0.266	0.522	PQ → PA	0.266	0.522
PF → CS	0.329	0.001	PF → T	0.117	0.273
PF → PA	0.231	0.128	PF → PA	0.231	0.128

3.5 Structural Equation Model

The standardized regression weights explained the relationship of the each items with variable. For figure 3, it can be said that when Service Quality goes up by 1 standard deviation Customers Satisfaction goes down by 0.03 standard deviations, Trust goes up by 0.05 but Purchase Intention is unaffected. Next when Product Quality goes up by 1 standard deviation, Customer Satisfaction goes up by 0.67 standard deviation, Trust goes down by 0.28 standard deviation and Purchase Intention also goes down by 0.22. On the other hand, when Price Fairness increase by 1 standard deviation, Customer Satisfaction goes up by 0.36, Trust goes up by 0.13 and

Purchase intention goes up by 0.21 standard deviation. On the next level, as Customer Satisfaction rises by 1 standard deviation, Trust increases by 1.08 while Purchase intention increases by 1.65 standard deviation. Finally, as Trust goes up by 1 Standard deviation, Purchase intention by decreases by 0.7.

It is estimated that Purchase Intentions explains 97% (Estimate R²) of its variance. The items that contribute to Purchase Intentions PI1, PI2, PI3 and PI5 have error variance of 21%, 37%, 27% and 15% respectively. The correlation between latent construct Service Quality and Price Fairness is estimated to be 0.673, it is indicates that the strength of the relationship between the two latent construct is slightly strong correlated. Next, the correlation between latent construct Product Quality and Price Fairness is estimated to be 0.831, it is indicates that the strength of the relationship between the two latent construct is slightly strong correlated. Lastly, the correlation between latent construct Service Quality and Product Quality is estimated to be 0.842, it is indicates that the strength of the relationship between the two latent construct is slightly strong correlated. Then, the further analysis is continued. This is achieved the requirement of discriminant validity which the correlation between each pair of latent independent (exogenous) construct should be less than 0.85 (Byrne, 2010).

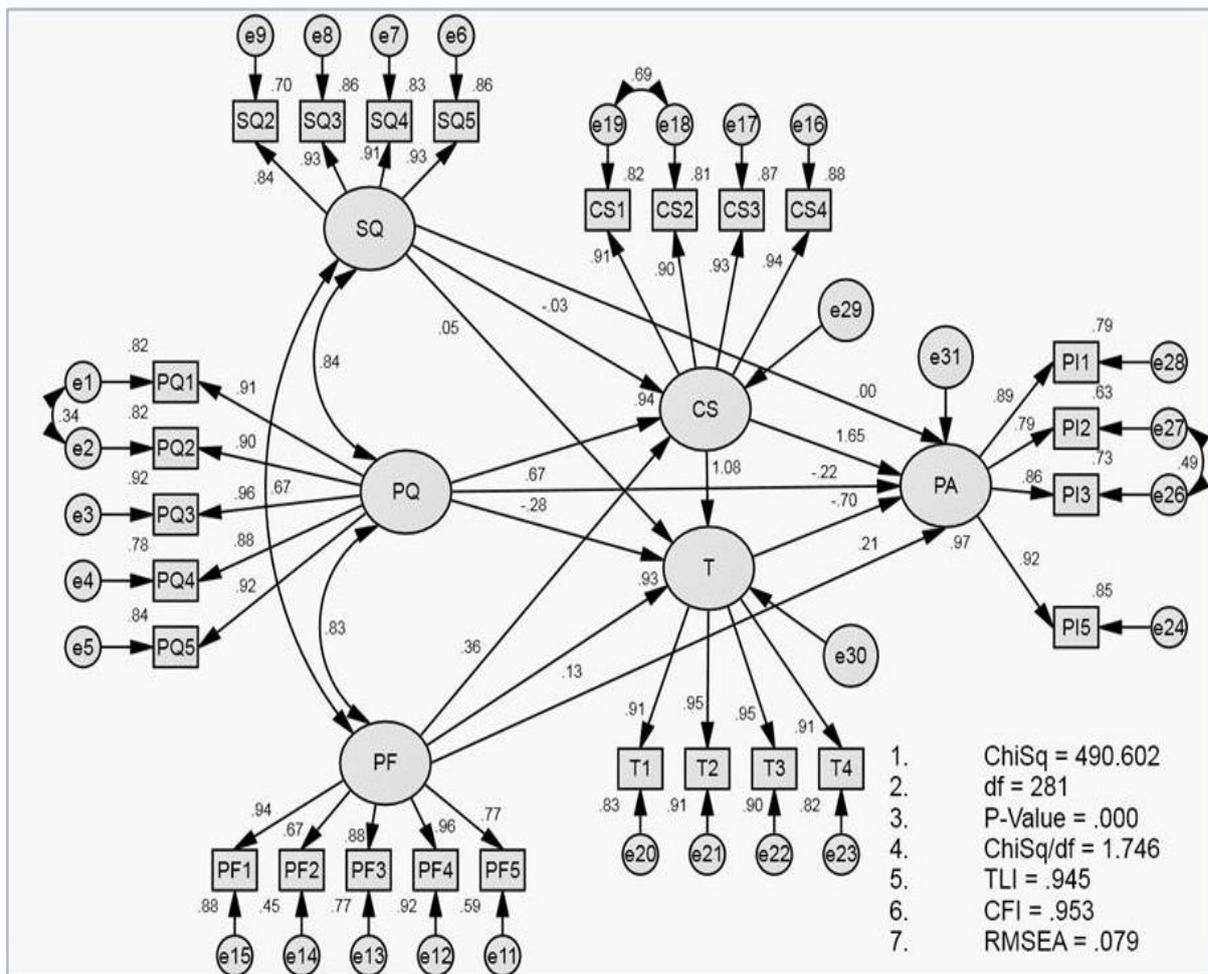


Fig. 3. The standardized regression weights for every path in the model

Based on both Figure 4 and Table 3, it can be concluded that, for every one unit increase in Customer Satisfaction, Trust increases by 1.096 unit and Purchase intention increases by 1.977 units. Next, when Product Quality goes up by 1 unit, so does Customer satisfaction by 0.692. Customer satisfaction would increase by 0.329 with every 1 unit increase of Price Fairness while a 1 unit increase of Trust would decrease Purchase Intention by 0.829 units. The other relationships were found to be insignificant since the p-values were higher than 0.05.

In figure 4 it can be seen that the covariance between Service Quality and Product Quality is estimated to be 2.37, the

covariance for Service Quality and Price fairness 2.12 and the estimated covariance for Product Quality and Price Fairness to be 2.72.

Finally, the overall fitness is assessed using Absolute Fit, Incremental Fit and Parsimonious Fit. RMSEA of the model shows that the model is an absolute fit since $0.079 < 0.08$. CFI and TLI shows a value of 0.953 and 0.945 respectively indicates that the model passed the incremental requirement and lastly a Chisq/df value of 1.746 which is lower than 5.0 proves that the model has also achieved a parsimonious fit. Hence the model is considered the final model in this study.

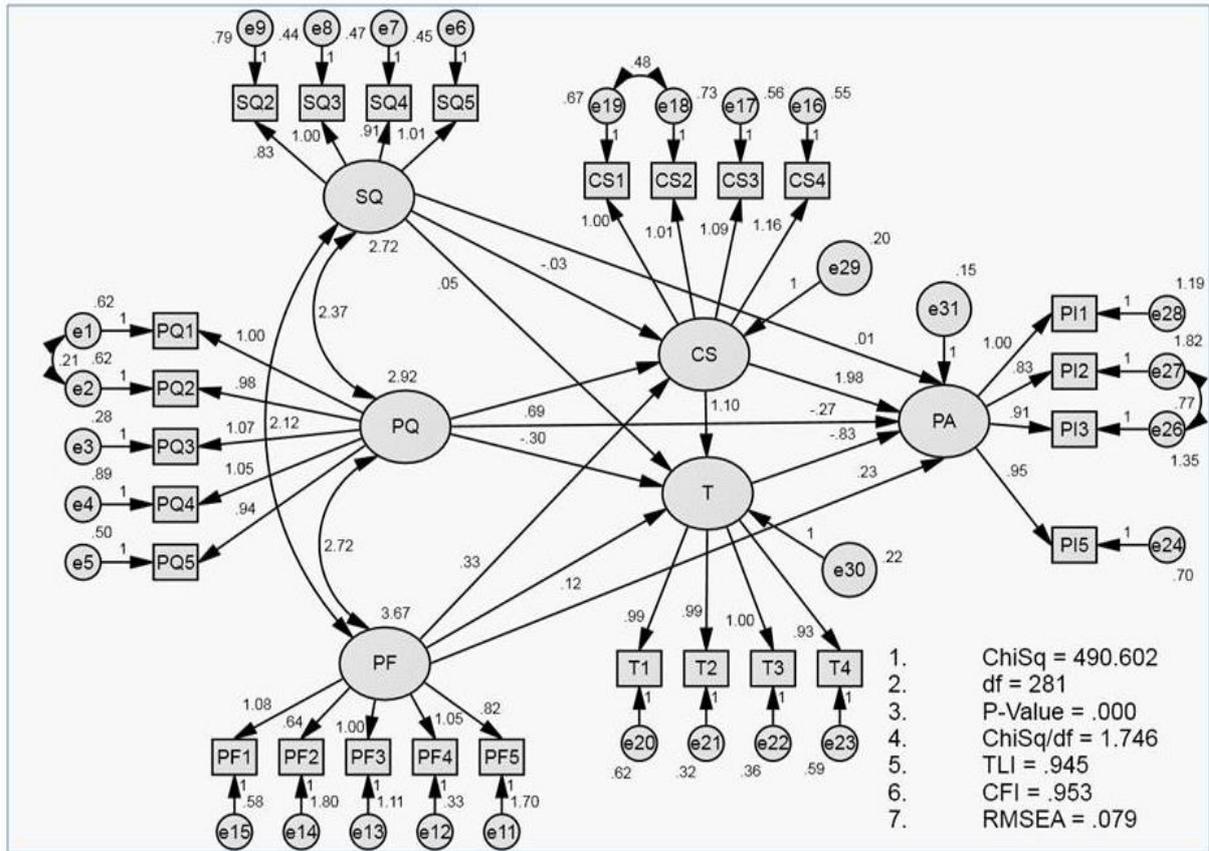


Fig. 4. The unstandardized regression weights for every path in the model

TABLE III. THE PATH COEFFICIENT FOR PAIR OF VARIABLES

Paths	Estimate	p-value	Paths	Estimate	p-value
CS→SQ	-0.027	0.726	T→CS	1.096	***
CS→PQ	0.692	***	PA→CS	1.977	0.01
CS→PF	0.329	***	PA→T	-0.829	0.045
T→PQ	-0.298	0.177	PA→PQ	-0.266	0.522
T→SQ	0.051	0.562	PA→SQ	0.005	0.969
T→PF	0.117	0.273	PA→PF	0.231	0.128

The structural equation models identified in this study are:

- Purchase Intention = 1.98 Customer Satisfaction - 0.83 Trust + e31
- Customer Satisfaction = 0.692 Product Quality + 0.329 Price Fairness + e29
- Trust = 1.096 Customer Satisfaction + e30

The measurement models identified are:

- (i) Service Quality = $0.83SQ2 + SQ3 + 0.91SQ4 + SQ5$
- (ii) Product Quality = $PQ1 + 0.98PQ2 + 1.07PQ3 + 1.05PQ4 + 0.94PQ5$
- (iii) Performance Measurement = $1.08PF1 + 0.64PF2 + PF3 + 1.05PF4 + 0.82PF5$

- (iv) Trust = 0.99T1+0.99T2+T3+0.93T4
- (v) Customer Satisfaction = CS1+CS2+1.09CS3+1.16CS4
- (vi) Purchase Intention = PI1+0.83PI2+0.91PI3+0.95PI5

IV. CONCLUSION

Based on the findings on this research, this study has accomplished several of the objectives regarding factors that influence the purchase intention toward Malaysian made cars in Perlis. The factors are service quality, product quality, price fairness, trust, customer satisfaction and purchase intention. The study has identified that there is no significant direct relationship between service quality, product quality and price fairness toward purchase intention. It was found that only product quality and price fairness leads to customer satisfaction. In turn, customer satisfaction will lead to trust, and finally trust influences the purchase intention. The result slightly varies compared to a previous study by Chin (2011). Meanwhile, there are more factors that will influence customer satisfaction rather than those three factors that are service quality, product quality and price fairness that we mentioned in this research.

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