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Components of Customer Retention Strategy in Mobile Telephone Industry in Malaysia: Structural Equation Modeling (Sem)

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Abstract

This paper seeks to confirm underlying components of Customer Retention Strategy in mobile phone services. The study adopted structural equation modeling to analyze the factors that constitute customer retention strategy. The study utilized 250 valid questionnaires administered to respondents at the International Islamic University Malaysia, Kuala Lumpur. Random sampling with the basic criteria of respondents being 18 years and above using mobile phone services was adopted. The respondents included University staff academic and non-academic, students of various levels ranging from bachelor?s, through master?s and doctor of philosophy in various faculties and departments. The study found out that relational investment, solidarity, customer trust and satisfaction are key components of Customer Retention Strategy.

Index terms— relational investment, solidarity, confirmatory factor analysis, customer retention strategy, customer trust and satisfaction

1 Introduction

ustomer retention strategy is the policy framework that a company can devise in order to retain its customers for future business transactions. Venu (2010), twenty first century business organizations face multitude of challenges from both internal and external environments in retaining customers. **??**illiams (2011) reiterates that the current business dynamics not only in the US, but also in the rest of the industrial world is complex and volatile. Therefore, in this kind of thorny business environment, it is imperative for companies to retain their customers for foreseeable future. Paulin, et al., **??**1998), said that customer retention is seen in repeat purchases and customer recommendation of the firm's good and/or services for others to use. Malaysian mobile telephone communication industry is equally such competitive industry. There are many mobile telephone companies, including Maxis, Celcom, DiGi and U-mobile. Besides these direct mobile telephone services, the internet services, fixed phone lines and other forms of communication channels have aggravated the level of competition in the industry like elsewhere as well. All this emphasizes the need to retain the available product and/or service consumers, as it may be costly to recruit new customers in such competitive and volatile industry. Therefore, it is imperative for the industry players to be aware of the critical and relevant fundamentals of successful retention of the customers.

Relevant literature suggests some of the following variables that this study has empirically tested.

2 II.

3 Integrity and Flexibility

Integrity is about maintenance of complex multidimensional roles that forms network or relationship **??**Kaufman 1987). Or put in the language of Dwyer and Oh, (1988), role integrity is the participation, expectation as well

as realization of joint decisionmaking, that collaboratively facilitate change. **??**ahir, (2003) indicates that as the relationship between the supplier and the customer grows; empathy will be established resulting in greater loyalty from the customers. While, flexibility is the actors' or parties' readiness to adopt an existing implicit or explicit agreement, to new environmental conditions, (Noordenier et al., 1990) as cited in Bjorn, (2002). It encourages provision for trial and adoption within relationship through modification of the terms of agreement and and focus, in response to unforeseen events and changing conditions . Therefore, the study hypothesis that:

4 1.

H a = There is significant relationship between integrity and flexibility and the customer retention strategy.

5 a) Relational Investment

Relational norms represents the patterns of accepted and expected sentiments and behaviors shared by members of an exchange systems that have the force of social obligation or pressure on members of Year ( )

an exchange system (Axelrod, 1986). Paulin, Perrien and Ferguson (1997) indicate that relational norms also referred to as relational investments has positive effect on clients' satisfaction and judgment of products. The Bjorn (2002) found that in relational marketing, buyers' perception of the suppliers' behaviour have a strong impact on important relationship goals such as parties' satisfaction, trust and intention to switch or not. Therefore, this study hypothesis that: 2a. Ha = There is significant relationship between relational investment and the customer satisfaction and trust.

2b. Ha = There is significant relationship between relational investment and the customer retention strategy.

6 b) Solidarity

The preservation of the relationship between the parties of an exchange system, particularly in a situation(s) in which one partner is in eminent predicament is the concept of solidarity (Kaufman & Stern 1988; Achrol 1997) as cited in (Bjorn 2002). Guinner et al., **??**1998) found that even if the consumers perceive the core services attributes as being less than optimal, they would remain the relationship as long as there is practice of solidarity. Jones et al., (2000) also established an indirect empirical link between solidarity and repurchase intention. This link suggests that, in situation of low customer satisfaction, strong interpersonal relationship (in form of solidarity) positively influences the extent of customers' intention to repurchase. This view seems to suggest that good supplier-customer relationship acts as a barrier to switching. Berry and Parasuraman (1991) also suggest that effective investments into specific relationship increase customers' dependency on the supplier because that raises the costs of switching to alternative and/or competitors. By switching to a competitor, the customer would lose benefits from the relationship-specific investments not readily available from the competitors, or the new alternative supplier(s). Moon-Koo et al., **??**2004) conclude that the interpersonal relationship between the company and its customers can be an important switching barrier. Thus, the study hypothesis that:

7 3.

H a = There is positive relationship between solidarity and the customer satisfaction and trust. c) Distinctive Superior Offer Barriers and the description of the components Jones et al. (2000), defined a switching barriers (Distinctive Superior Offer in this study) as any factor, which makes it difficult or costly for consumers to change product or service providers. The relationship between switching barriers and customer retention Bansal and Taylor (1999), and Lee et al., **??**2001), confirmed that there is positive effect of switching barriers on behaviour intention. **??**orter (1980) and **??**ackson (1985) as cited in Neeru and Patterson (2000), said that the costs and pain of changing the supply source lead to relationship maintenance and saves the relationship from dissolution. Due this study contain mediator variable which customer satisfaction and trust, it hypothesis that there is relationship between the Distinctive Superior Offer and the Customer Retention Strategy according to the existing literature, however, this relationship can be explained by using Customer satisfaction and trust as partial mediator for modeling structure of this study. Therefore the study hypothesis that:

4. H a = There is significant relationship between distinctive superior offer and the customer satisfaction and trust.

8 d) Customer trust and satisfaction

Satisfaction and trust are representing the mediator variable in this study, where, satisfaction is the post-purchase evaluation of service following consumption experience, (Neeru and Patterson, 2000). It is thought to possess both cognitive and effective components (Bitner, 1990; Oliver, 1980; Oliver and Swan, 1989), as cited in Neeru et al., (2000) Cronin and Taylor (1992), and Patterson et al., **??**1997) found that consumer satisfaction has a significant impact on repurchase intention in a range of services. In addition, trust is said to be "social glue", and "social lubricant, Avinandan and Nath (2003), suggest that trust can be looked at as willingness to rely on an exchange partner in whom one has confidence. Morgan and Hunt (1994) argue that trust exists when one party has confidence in an exchange partner's reliability. Neeru et al., (2000), indicate that trust establishes the relationship between client and service provider and argue that service provider may be unable to retain

even those customers who are satisfied if there is no trust among the exchange partners. Therefore, this study hypothesis that:

9 5.

H a = There is significant relationship between customer satisfaction and trust and the customer retention strategy.

10 III.

11 Methodology

This study adopted structural equation modeling (SEM) approach, using the tool analysis of moment structures (AMOS) version 18.0 with maximum likelihood estimation in order to test the above proposed hypotheses. SEM is a multivariate technique that combines multiple regressions with confirmatory factor analysis to simultaneously estimate a series of interrelated dependence relationships. SEM is a widely applied technique in several fields including marketing, psychology, social sciences and information systems (Suki, 2011). Two hundred fifty questionnaires were

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distributed to students and other members of International Islamic University Malaysia (IIUM) community. The questionnaires were designed using 5point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Convenience sampling method was adopted, though with has limitations as the sample is not representative of the total population in Malaysia in this case. The total scale items for the study are 35 as showed in Appendix 1. From the exploratory factor analysis (EFA) results, 26 items were used and six factors were extracted, namely, customer retention strategy (CRS), trust and Satisfaction (TS), solidarity, relational investment (RI), integrity and flexibility (IF), and distinctive superior offer (DSO).

13 IV. Data Analysis and Empirical Results

14 a) Descriptive statistics

The socio-demographic profile of the participants is summarized and presented in the The result of SEM contains two parts, namely, the measurement model and the structural model. The purpose of measurement model is to provide the nature of the relationship between constructs and observed variables. The objective of the measurement is to provide reliability and validity items and explaining the relevance and taping the variance of the item (Schumaker and Lomax, 2010). However, the objective of the structural model is to examine the path strength of the hypothesis and the direction of the relationships among the latent variables (Suki, 2011).

15 c) The Measurement Model

In order to examine the measurement model, the study adopted a confirmatory factor analysis (CFA) using AMOS 18.0. This examination is necessary to test whether the measurement model has a satisfactory level of validity and reliability before proceeding and testing for a significance of the relationships in the structural model **??**Fornell & Larcker, 1981;Ifinedo, 2006). The measurement model results were as shown in the figure 1 below: Convergent validity shows the extent to which indicators of a specific construct converge or have a high proportion of variance in common (Hair et al., 2010). This validity was measured using standardized factor loadings. Factor loadings: the rule of thumb is that the factor should explained not less than 70 percent of the item's variance. In this study therefore, most of the variable have fulfill this minimum requirement except CRS7, TS5, SL5, SL4, SL3, RI5, RI4, RI3, RI2, IF1, DSO2 and DSO1. However, this study suggested that the factor loadings that are less than 60 percent should be dropped from the model. This is due to the fact that, these variables that hold more than 60 percent show some significant as indicated in the existing literature as well as the nature of the data and questionnaire iems involved for investigating this issue was not enough, and the limited of the time for collecting the data. Thus, variables namely CRS7, SL5, RI5, RI4, IF1, and DSO1 have failed to meet the rule of thumb, and therefore were dropped from the model. In addition, the average variance extracted of all constructs have values more than 0.50 as indicate in table 2, above except the Integrity and Flexibility and Distinctive Superior Offer which have value of 0. 380 and 0.315 respectivelly. The factor loadings of construct to observed variables should be above 0.50 (Byrne, 2001 **??**Byrne, , 2006;;Hair et al., 2010). Therefore, the study suggests dropping Integrity, Flexibility and Distinctive Superior Offer from the model.

16 e) Composite Reliability

For testing the construct validity of the measurement model, the composite reliability was conducted to measure the reliability of a construct model. Composite Reliability (CR) is defined as an approach of overall reliability and estimates consistency with the construct itself including the stability and equivalence of the construct (Hair, Black, Babin, Anderson, & Tatham, 2010). The rule of thumb is that a value of 0.70 or greater is deemed

indicative of good scale reliability (Hair et al., 2010). The result of all construct variables is above 0.70 as indicated in table 2, above and this suggests that all construct variables have good reliability except the Integrity & Flexibility and Distinctive Superior Offer with values of 0.493, and 0.406 respectively. This study therefore, suggested dropping these two constructs (Integrity & Flexibility and Distinctive Superior) from the model.

The overall composite reliability result with the value 0.914 indicating that the model is reliable and applicable for further study.

17 f) Discriminant Validity

Discriminant validity shows the extent to which a construct is truly distinct from other constructs (Hair et al., 2010). A commonly used statistical measure of discriminant validity is a comparison of the Average Variance Extracted (AVE) value with correlation squared. The rule of thumb is that the discriminant value between two constructs should be less than the average variance extracted of a specific construct. The square root of the AVE is shown in the table 2 above as 0.728, 0.740, 0.658, 0.609, 0.380, and 0.315, respectively. The result in table 3 bellow indicate no correlations were equal to or greater than the square roots of the AVE indicating, therefore, there was discriminant validity between constructs.

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Volume XV Issue III Version I Year ( ) The structural model was examined using SEM approach in order to test hypotheses that are supported by the existing literature in the first section of this paper. The goodness of fit (GoF) of the model is depicted in the Table 4, below. The indices of fit are normed chisquare/df = 2.095, CFI = 0.945, and RMSEA = 0.066. The overall values provided evidence of a goodness fit of the model. All of the model-fit indices exceed the respective commonly acceptable levels suggested by previous research and rules of thumb. Following the suggested cut-off value, the model exhibited a good fit with the data (Suki, 2011) as compared with rules of thumb in table 4 below. Thus, it was possible to proceed to examine the path coefficients. The construct of trust and satisfaction were included in the model to test their role as mediating variables. The result shows that trust and satisfaction are potential mediating variable. The significance level (?=0.05) was set. The overall results of the square multiple correlation for the structural equations index indicate that the predictors solidarity, relational integrity, trust and satisfaction explain 61.7% of the variance in customer retention strategy as indicated in figure 2 bellow. The rest of 38.3 % is represented by other variables that are not considered in this study. Hypotheses 1 and 4 hypothesize that there are significant relationships between integrity and flexibility, and the trust and customer satisfaction as well as relationship between distinctive superior offer; and trust and customer satisfaction. However, the construct validity test of measurement model revealed that, the integrity and flexibility, and distinctive superior offer constructs are not valid and not sufficient to be in the structure model of the customer retention strategy. Thus, these two hypotheses are not supported for this study. Hypothesis 2 hypotheses that there is significant relationship between relational investment and the customer satisfaction and trust with value of (?1 = -0.170). This indicates that this hypothesis is not supported due the fact that the rule of thumb statistical coefficient of path coefficient between the constructs should be more than 0.20 (Hair et al., 2010). Hypothesis 3 is that, there is significant relationship between relational investment and the customer retention strategy. The result shows that the path coefficient value is 0.293, which is statistically significant. Thus, the hypothesis is supported. Hypothesis 4 assumes that there is significant relationship between solidarity and the customer trust and satisfaction. This hypothesis is supported as its value of 0.591, which is high statistically significant relationship. Thus, this hypothesis is strongly supported. Further, hypothesis 5 hypothesized that, there is significant relationship between customer satisfaction and trust and the customer retention strategy. This hypothesis is supported for its path coefficient is 0.617, which is highly statically significant. The overall results show that relational investment, solidarity and customer trust and satisfaction, explains 62% of Customer Retention Strategy. In other words, the customer retention strategy is significantly influenced by three factors namely, relational investment, solidarity and customer trust and satisfaction.

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V.

20 Conclusion

This study examined the factors that influence customer retention strategy, a concept that ensures business sustainability and continuity.

The study adopted Structural Equation Modeling (SEM) to investigate the factors that influence Customer Retention Strategy in Mobile Telephone Communication Industry in Malaysia, by using AMOS 18.0, a data analyses too. Data was randomly collected from 250 mature mobile telephone users at the International Islamic University in Malaysia (IIUM). The results revealed that solidarity, relational integrity, and customer trust and satisfaction are predictors or key components of Customer Retention Strategy explaining 62% of the variance. These findings are consistent with earlier research of Tahir, (**??**003) and . The study also found out that surprisingly, relational integrity does not lead to customer trust and satisfaction, contrary to findings of Paulin, Perrine and Ferguson (1997) and Bjorn (2002). The implication of this study to management is that when it

comes to strategy design for customer retention, investment in relational norms, and factors that bring about customer trust and satisfaction should be highly considered and practiced. However, we would like to mention some limitations of this this study. First, the respondents of this research have been students mostly yet selected randomly. Secondly, random sample selection could impose demographic limitations on generalizability of results. Thirdly, this study has only explained minimum level of variance in the creation variable leaving about 38% of the variance unexplained. On this basis therefore, we suggest that future research should widen sample scope to accommodate experiences from other occupations other than students or respondents based at a single institutions or geographical location. Future research should try to identify other components of Customer Retention Strategy that constitute the remaining unexplained variance.

21 VI.

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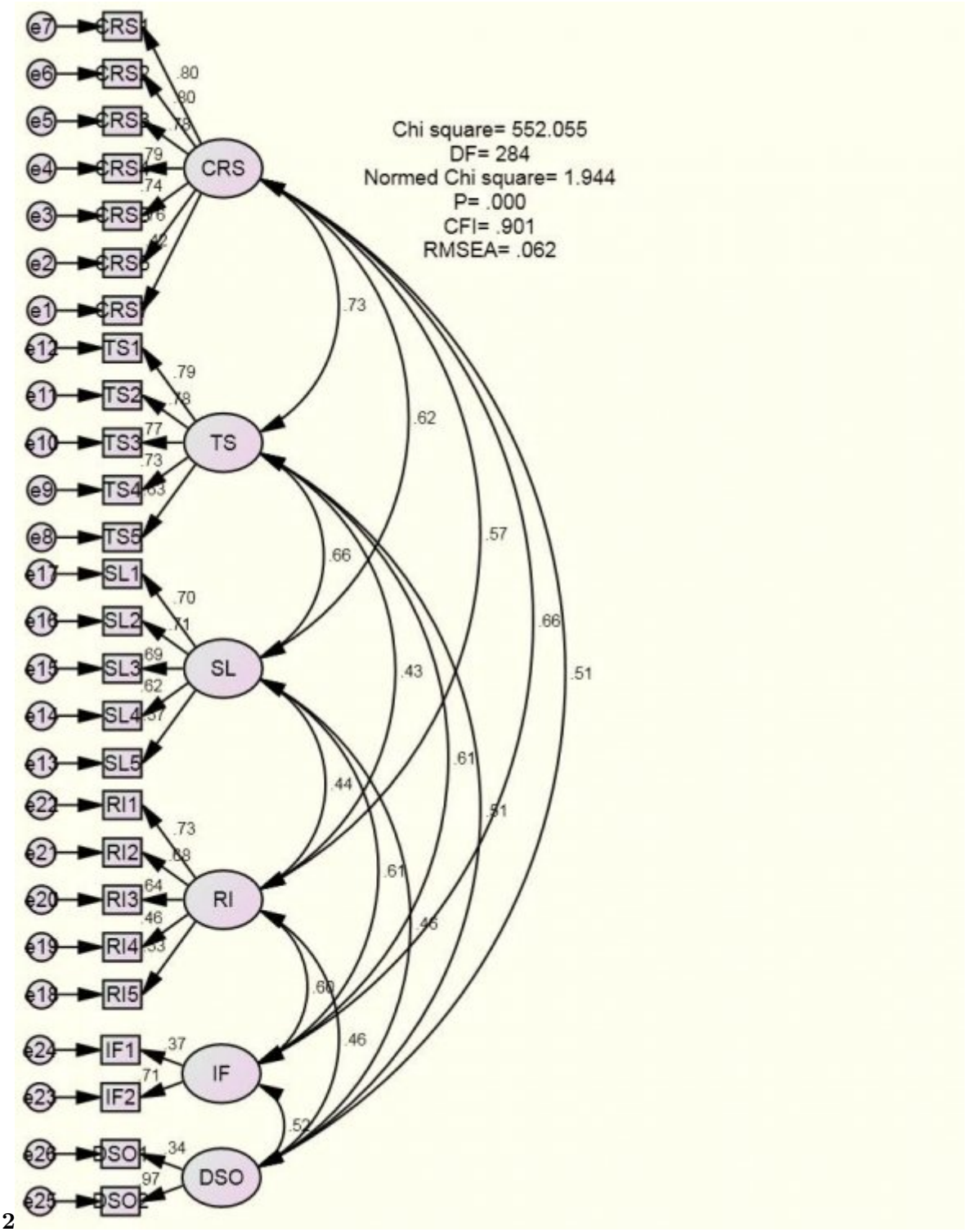
Figure 1: Figure 1 :

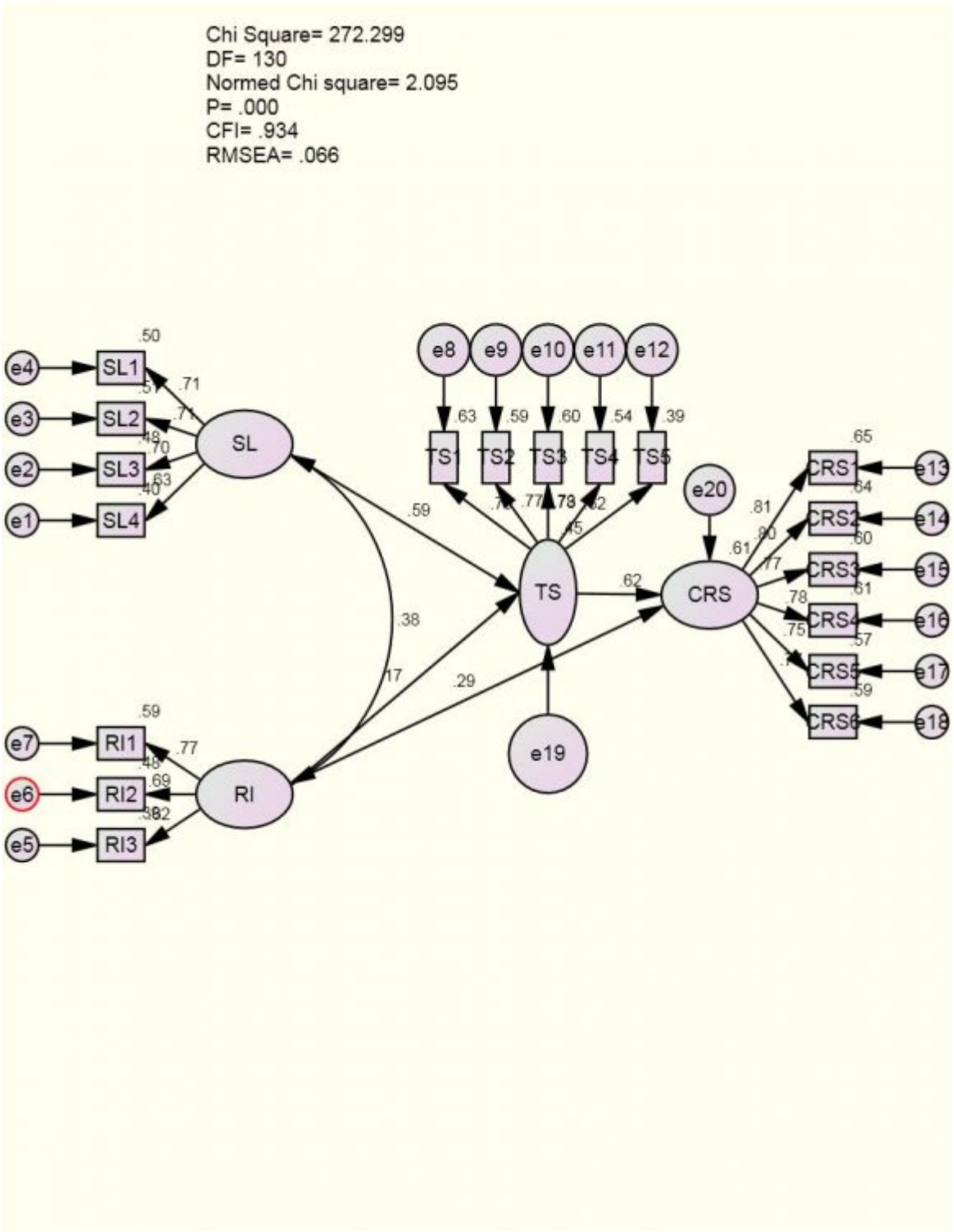
[1] © 2015 Global Journals Inc. (US)

[2] Components of Customer Retention Strategy in Mobile Telephone Industry in Malaysia: Structural Equation Modeling (Sem) © 2015 Global Journals Inc. (US)



2

Figure 2: Figure 2 :


Chi Square= 272.299
DF= 130
Normed Chi square= 2.095
P= .000
CFI= .934
RMSEA= .066
SL
RI
TS
CRS
SL1
SL2
SL3
SL4
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.62

Figure 3:

1

Variable		Frequency	Percent
Gender	Male Femal	138 112	55.2 44.8
	18-30	218	87.2
Age	31-34 35-40	13 8	5.2 3.2
	>-40	11	3.4
	Bachelor	148	59.2
Highest Education Level	Master P.hD	57 19	22.8 7.6
	Others	26	10.4
	U-Mobile	19	7.6
	Maxis	76	30.4
Network	Celcom	86	34.4
	DiGi	68	27.2
	Others	1	0.4
	1< Year	56	22.4
Lengthtime	2-5 Years 6-10 Years	134 37	53.6 14.8
	> 10 Years	23	9.2

b) Structural Equation Modeling

Figure 4: Table 1 :

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Constructs	Items	Standardized Loadings	Composite Reliability	Average Variance Extracted
Customer Retention	CRS1	.805		
Strategy	CRS2	.799		
	CRS3 CRS4	.777 .790	0.885	0.728
	CRS5	.744		
	CRS6	.763		
	CRS7	.423		
Trust and	TS1	.790		
Satisfaction	TS2	.777		

[Note: Components of Customer Retention Strategy in Mobile Telephone Industry in Malaysia: Structural Equation Modeling (Sem) © 2015 Global Journals Inc. (US) 1 22 Global Journal of Management and Business Research]

Figure 5: Table 2 :

3

Construct	CRS	TS	SL	RI	IF	DSO
CRS	1	0.53	0.39	0.32	0.43	0.26
TS	0.53**	1	0.43	0.18	0.38	0.26
SL	0.39**	0.43**	1	0.19	0.38	0.22
RI	0.32**	0.18*	0.19*	1	0.36	0.21
IF	0.43**	0.38**	0.38**	0.36**	1	0.27
DSO	0.26**	0.26**	0.22**	0.21*	0.27**	1

Significance level: * = 0.05, **=0.01, *** = 0.001

Note: Values below the diagonal are correlation estimates among constructs, diagonal elements are construct variance and values above the diagonal are squared correlations

g) The Structural Model

Figure 6: Table 3 :

4

Fit Indices	Accepted Value	Model Value
Absolute Fit Measures		
X2 (Chi-Square)	272.299	
df (Degrees of Freedom)	130	
Normed Chi-Square	< 3	2.095
CFI	> 0.9	0.934
RMSEA	< 0.08	0.066

Figure 7: Table 4 :

5

	Path coefficient		Estimate (?)	S.E.	C.R.	p	Results
TS	<—	SL	.591	.100	6.476	***	Supported
TS	<—	RI	.170	.075	2.212	.027	Not Supported
CRS	<—	TS	.617	.082	8.522	***	Supported
CRS	<—	RI	.293	.078	4.167	***	Supported

Figure 8: Table 5 :

.1 Acknowledgment

We would like to express our sincere appreciation and gratefulness to all our lectures in the Kulliyyah of Economics and Management Sciences, for all their guidance and motivation to conduct this kind of study. Our thanks and appreciations also go to all the respondents of this survey for their efforts and time spent to answer the questionnaire.

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