Research Article

High-Low Involvement Products in Multi-Stage Decision Process Model

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Abstract: The theory of high-low involvement products led consumers to an idea that they needed much time, consideration and efforts to make a choice. It was in opposition with low involvement products that consumers just required a shorter way. A lot of studies supported the idea. This study was different at least in two ways i.e. the decision making used was multiple-stage decision making and proving the duration was no longer the object, instead in which level of the decision making process, a consideration took part. Therefore, the aim of the study was to identify the process of making decision in which the consideration played a role. A sample which consisted of 126 respondents was withdrawn through judgment and convenience technique. Data submitted by questionnaires, employing Likert scale, ranging from 1= completely disagree to 5= completely agree. An Amos 22.0 and SPSS 21.0 were exercised to analyze data. The finding showed for high involvement products, deep deliberation took part on retrieval set and choice set, while long-time consumed in making consideration happened at universal set. On the contrary, for low involvement products shallow deliberation played a role on universal set and short-time consumed in making consideration occurred at choice set.

Key words: Multi-Stage Decision Making, High Involvement Products, Low Involvement Products.

1. Introduction

Consumer decision making is apparently an integral part of marketing. It is supposed as a beneficial knowledge to develop a strategy. By recognizing the way consumers make a choice, marketers can adapt the marketing efforts toward the consumers' preference. In some extent it can be assumed that marketers' fail of developing sales is that they do not understand what consumers like and do not.

Several models of consumer decision making has been developed. Tosdal (1925) (in Robertson, 1974) introduces AIDA which consists of four stages, attract attention, maintain interest, achieve desire and get action. Lavidge & Steiner (1961) (in Robertson, 1974) present a hierarchy of effect model which consists of 6 (six) steps *i.e.* awareness, knowledge, liking, preference, conviction and purchase. Assael (2004) identifies five phases in the decision process *i.e.* problem recognition, search for information, brand evaluation, purchase and post purchase evaluation. Peter & Olson (2005) detect a generic model of consumer problem solving which is consisted of problem recognition, search for alternative solutions, evaluation of alternatives, purchase and post purchase use and reevaluation of chosen alternative. Kotler & Keller (2013) denote a five stages model *i.e.* problem recognition, information search, evaluation of alternatives, purchase decision and post-purchase behavior. Jones (2014) acknowledges 6 (six) stages that are problem recognition, information search, evaluation of alternatives, purchase decision, purchase, post-purchase evaluation. Schiffman & Kanuk (2014) recognize a model which consists of 5 (five) stages *i.e.* need recognition, pre-purchase search, evaluation of alternatives, purchase and post-purchase evaluation. The later models are supposedly initiated by the hierarchy of effect model, and allegedly a renewal of the model.

High involvement products concept suggests consumer not to buy all of a sudden but make a choice through searching brands available and evaluate to get a particular brand or product. It likely takes time, probable compares to other, makes such a plan of preference and in turn defines which the fitness is. It likely refers to unlimited decision making (Assael, 2004). On the contrary, low involvement products concept seemingly does not take much time. It probably does not need seek out a lot of brands and evaluate them. It might be not considered in a couple of times. In some extent, a choice occurs in a minute. Assael (2004) refers the process of choice is limited decision making.

Some studies have been carried out concerning with high-low involvement products. Lastovicka & Gardner (1978) reassure the concept that their finding is in line with prior theory, and suggests a less differentiated and integrative structure for the low involved. Bloemer & Ruyter (1999) apply the high-low concept to determine loyalty. The finding shows that the relationship between satisfaction and loyalty with respect to extended services is moderated by positive emotions in the case of high involvement service settings. Conversely, this type of interaction does not play a role of significance in determining customer loyalty with services in low involvement services.

Radder & Wei (2008) point out a higher awareness of high-involvement product brands than of low-involvement product brands. In addition, advertising plays an important role in the awareness of high involvement products, but seems unimportant in the case of low involvement products. Khare & Rakesh (2011) find that brand functions play a significant role in consumers' purchase behavior in high-involvement products

and advertising plays a significant role in low-involvement product purchase decision. Min,Do and Kun (2012) hit upon that the match rate between the fixation length and the cognitive criteria used in decision-making for the high involvement product is higher than that with the low involvement product.

Lotfizadeh & Lotfizadeh (2015) light on that an ad plays an equal role whether on high or low involvement products. Porral, Vega and Mangin (2018) suggest that positive emotions exert a higher influence on satisfaction in low involvement products, rather than in high involvement products. Jain (2019) reviews the concept of high-low involvement products. She states that consumers do not need to undergo all the stages whether on high or low involvement products. It just depends on the individual consumer and how involved they choose to be in solving the problem or need they have identified. Hameed, Madhavan and Arumugam (2020) encourage that on account of low involvement product, there is an effect of sports celebrity ads on the purchase intention of the customers, and there is no effect on account of perceived risk factor. On the other hand, on account of high involvement product, there is a high effect in the perceived risk factor on diminishing the purchase intention of the customers.

A study concerning with multi-stage model from Kardes *et al.* (1993) version is not easy to find. Many studies applying a multi-stage model are different with the version. For instances Johnson, Busemeyer and Jerome (2001), Bruyn & Lilien (2008); Tamosaitiene & Zavadskas. (2013); Mousavi. Ebrahimnejad. Moghaddam and Amiri. (2013). They likely develop their own model. So, the multi-stage model employed on their studies is different from one to another.

This study employs the Kardes *et al.*'s version by an argument that this version is different from others who emphasize on psychological based. The Kardes *et al.*'s version itself belongs to memory based. The version is in line with theories of an evoked set from Howard & Sheth (in Howard, 1989); two-stage process when make a choice (Alba & Chattopadhyay, 1985; Johnson & Payne, 1985; Alba & Hutchinson, 1987; Hauser & Wernerfelt, 1990; Robert & Lattin, 1991); an idea that stages in the memory based more than two stages (Nedungadi, 1990; Shocker *et al.* 1991; Kardes *et al.* 1993). Therefore, this study is different from others based on several reasons; firstly, this study is based on memory based. How deep and long a consideration happens while making a choice toward whether high or low involvement products? Secondly, this study exercises two research models. Thirdly, the consideration connecting with high and low involvement products is investigated in which stage it happens.

2. Literature Review and Hypotheses

2.1. Multi-Stage Decision Making Model from Kardes *et al.* (1993)

The multi-stage model is encouraged by the stream of memory based decision making, it accordingly consists of universal set, retrieval set, consideration set, and choice. The concept of memory based decision making itself denotes to decision making which deduced from information saved on memory (Lynch & Srull in Kardes, 2002).

The universal set refers to all brands that are available in the market place. The retrieval set consists of the subset of brands in the universal set that the consumer can access from memory. Not all brands that exposed to consumers might be encoded and saved to memory, as a consequence the retrieval set is much smaller than the universal set (Alba & Chattopadhyay, 1985; 1986). The consideration set consists of the subset of brands in the retrieval set that scrutinized carefully on a particular choice occasion. Because consumers may not consider all brands retrieved, the consideration set is often smaller than the retrieval set. Finally, one brand is selected from the consideration set (Fig. 1).

As shown in Fig. 1, not all products available in the market captured and stored in consumers' memory, in which only few successfully retrieved. If particular **product** does not appear in the retrieval set, it will not be emerged in the consideration set. That means it is impossible to be a choice. In other word, a particular product that is not successfully retrieved is irrelevant with consideration and choice. On the other hand, a particular product that appears in the retrieval set does not assure be considered, likewise be chosen. As a consequence, a choice is a particular product that is successfully retrieved and considered.

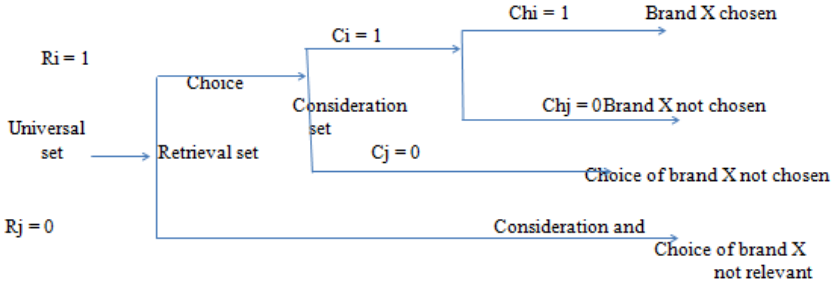

Figure 1: Kardes et al.'s Multi-Stage Model.

Source: Kardes *et al.* Brand Retrieval, Consideration Set, Composition, Consumer Choice, and the Pioneering Advantage. *Journal of Consumer Research*. 20. June. 1993. p. 64

2.2. Hypotheses

Hypotheses that will be exercised in this study are as follows:

H1a:	There is an effect of universal set on retrieval set in high involvement setting
H1b:	There is an effect of universal set on retrieval set in low involvement setting
H2a:	There is an effect of retrieval set on consideration set in high involvement setting
H2b:	There is an effect of retrieval set on consideration set in low involvement setting
H3a:	There is an effect of consideration set on choice in high involvement setting
H3b:	There is an effect of consideration set on choice in low involvement setting
H4a:	There in an effect of deep deliberation on universal set in high involvement setting
H4b:	There in an effect of shallow deliberation on universal set in low involvement setting
H5a:	There in an effect of deep deliberation on retrieval set in high involvement setting
H5b:	There in an effect of shallow deliberation on retrieval set in low involvement setting
H6a:	There in an effect of deep deliberation on consideration set in high involvement setting
H6b:	There in an effect of shallow deliberation on consideration set in high involvement setting
H7a:	There in an effect of deep deliberation on choice in high involvement setting
H7b:	There in an effect of shallow deliberation on choice in low involvement setting
H8a:	There in an effect of long-time consumed on universal set in high involvement setting
H8b:	There in an effect of short-time consumed on universal set in low involvement setting
H9a:	There in an effect of long-time consumed on retrieval set in high involvement setting
H9b:	There in an effect of short -time consumed on retrieval set in low involvement setting
H10a:	There in an effect of long-time consumed on consideration set in high involvement setting
H10b:	There in an effect of short -time consumed on consideration set in low involvement setting
H11a:	There in an effect of long-time consumed on choice in high involvement setting
H11b:	There in an effect of short -time consumed on choice in low involvement setting

3. Research Model

Based on the hypotheses, 2 (two) research models could be developed as follows:

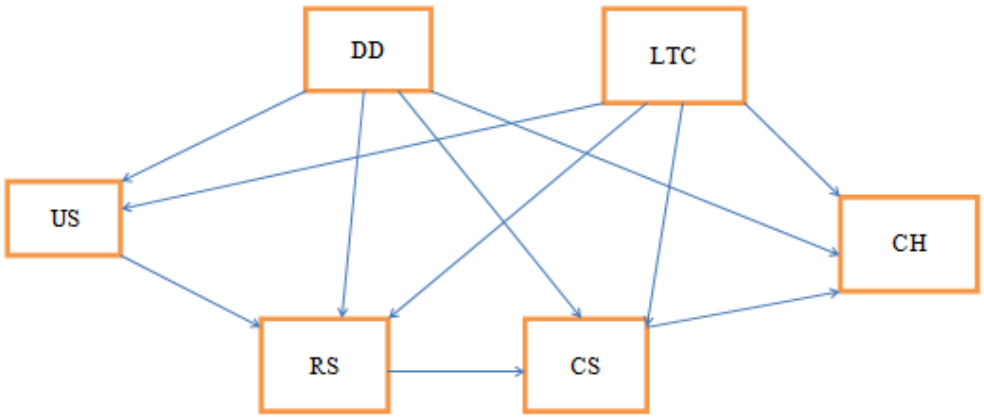

Figure 2a. Research Model in High Involvement Setting.

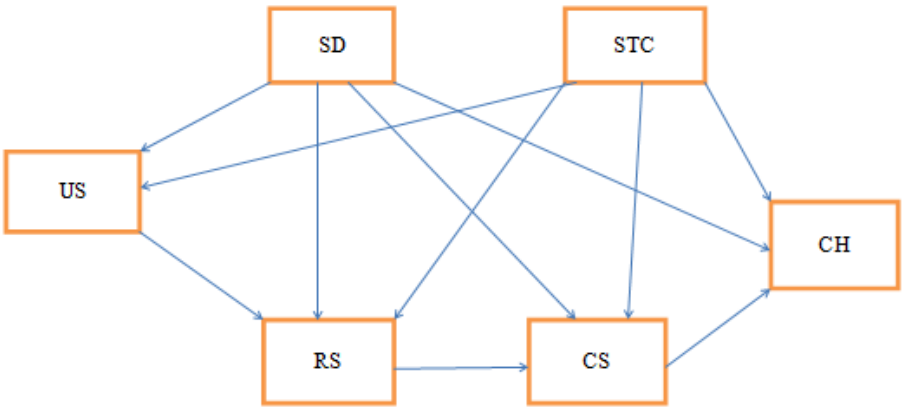

Figure 2b. Research Model in Low Involvement Setting.

US:	Universal Set	DD:	Deep Deliberation
RS:	Retrieval Set	LTC:	Long-time Consumed
CS:	Consideration Set	SD:	Shallow Deliberation
CH:	Choice	STC:	Short-time Consumed

4. Method

A sample consists of 126 respondents is withdrawn using convenience and judgment method (Cooper & Schindler, 2008: 2014).Respondents are those who pursue graduate and post graduate at University of Stikubank Semarang, Central Java, Indonesia. Data submitted by questionnaire utilizing Likert scale ranging from 1= completely not agree to 5= completely agree. While confirmatory factor analysis is in use to identify validity, Cronbach's alpha test is exercised to assess the reliability. Further, data are analyzed by the use of Amos 22.0 and SPSS 21.0.

5. Results

5.1. Confirmatory Factor Analysis (CFA)

Indicators of US, RS, CS and CH whether on high or low involvement setting are similar, sothe result of CFA of each indicator is chosen which is better between high and low involvement setting.

5.1.1. Variable US and RS

Indicators US2, US3, RS1 and RS3 are above the cut-off point. So they are valid (Ferdinand, 2006) (Table 1). Conversely US1 and RS2 are below the cut-off point. Therefore both are not valid.

5.1.2. Variable CS and CH

Indicators CS1, CS2, CS3, CS4, CH2, CH3, and CH4 exceed the cut-off point. So, they are valid (Ferdinand, 2006) (Table 1). On the contrary CH1 is not valid. Since it is under the cut-off point.

5.1.3. Variable DD and LTC

Indicators DD2, DD3, DD4, LTC1, LTC2 and LTC4 are above the cut-off point. So, they are valid (Ferdinand, 2006) (Table 1). On the contrary DD1 and LTC3 are below the cut-off point. Consequently both are not valid.

5.1.4. Variable SD and STC

Indicators SD1, SD2, SD3, STC1, STC2, and STC3 surpass the cut-off point. So, all are valid (Ferdinand, 2006) (Table 1).

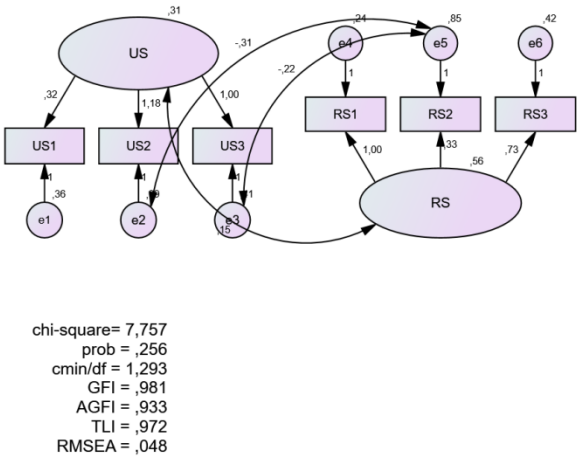

Figure 3: CFA OF US and RS.

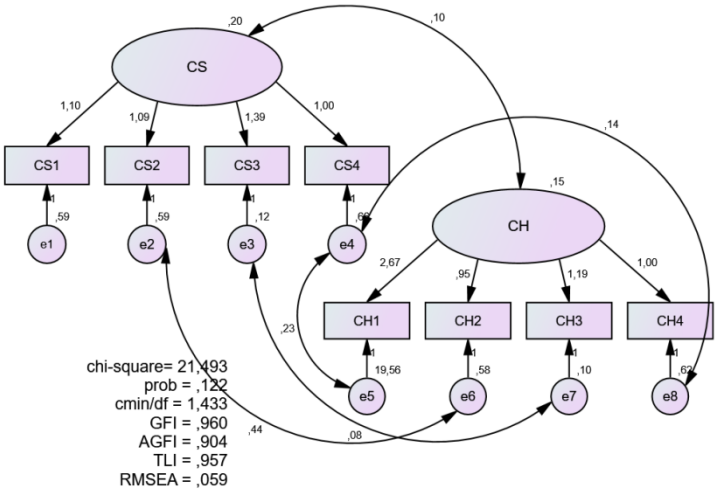

Figure 4: CFA of CS and CH.

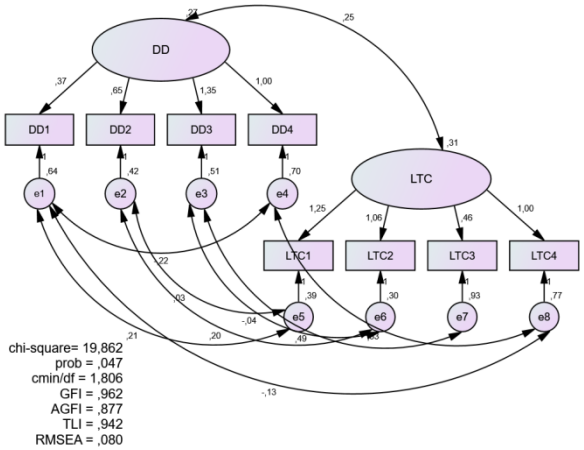

Figure 5: CFA of DD and LTC.

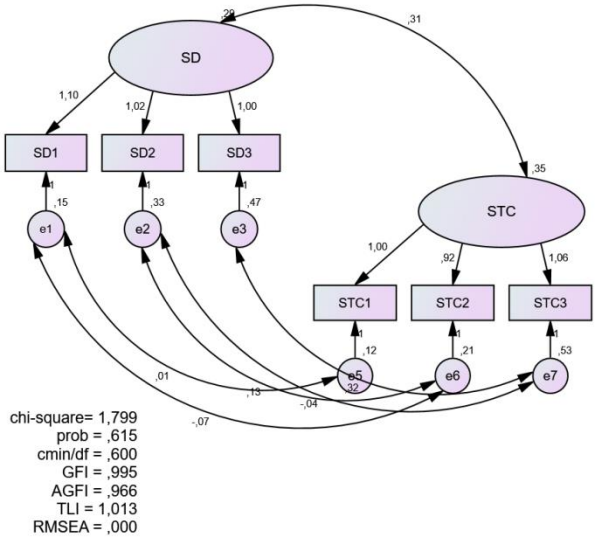

Figure 6: CFA of SD and STC.

Table 1: Validity of US, RS, CS, C, DD, LTC, SD and STC

Indicator	Loading Factor	Cut-Off Point	Justification
US1	0.285	0.4	Not Valid
US2	0.913	0.4	Valid
US3	0.655	0.4	Valid
RS1	0.837	0.4	Valid
RS2	0.261	0.4	Not Valid
RS3	0.641	0.4	Valid
CS1	0.539	0.4	Valid
CS2	0.537	0.4	Valid
CS3	0.876	0.4	Valid
CS4	0.481	0.4	Valid
CH1	0.231	0.4	Not Valid
CH2	0.439	0.4	Valid
CH3	0.824	0.4	Valid
CH4	0.446	0.4	Valid
DD1	0.237	0.4	Not Valid
DD2	0.464	0.4	Valid
DD3	0.701	0.4	Valid
DD4	0.530	0.4	Valid
LTC1	0.741	0.4	Valid
LTC2	0.734	0.4	Valid
LTC3	0.254	0.4	Not Valid
LTC4	0.533	0.4	Valid
SD1	0.832	0.4	Valid
SD2	0.693	0.4	Valid
SD3	0.618	0.4	Valid
STC1	0.862	0.4	Valid
STC2	0.765	0.4	Valid
STC3	0.654	0.4	Valid

Source: Data Analysis

5.2. Test of Reliability

Applying Cronbach's alpha test, the result shows that variables US, RS, CS, LTC, SD and STC have more than 0.6. So they are justified as reliable (Ghozali, 2011). On the other hand, variable CH and DD are not reliable since their score below the cut-off point (Table 2).

Table 2: Reliability of Variables

Variables	Cronbach's α	Cut-Off Point	Justification
US	0.748	0.6	Reliable
RS	0.697	0.6	Reliable
CS	0.645	0.6	Reliable
CH	0.516	0.6	Not Reliable
DD	0.542	0.6	Not Reliable
LTC	0.700	0.6	Reliable
SD	0.740	0.6	Reliable
STC	0.789	0.6	Reliable

Source: Data Analysis

5.3. Goodness of Fit of the Models

5.3.1. High Involvement Products

An initial model is drawn which likely produces a good model. The criteria of goodness of fit model could meet particularly Cmin/df, GFI, AGFI, TLI and RMSEA (Fig. 7).Consequently, this model is worthy of use.

5.3.1. Low Involvement Products

An initial model likely does not generate a good model, since most of indicators do not meet the criteria. Due to modification indices, it is then renovated which likely produces better gauges (Fig. 8). Most of indicators refer to goodness of fit criteria. Therefore, the model is commendable of use.

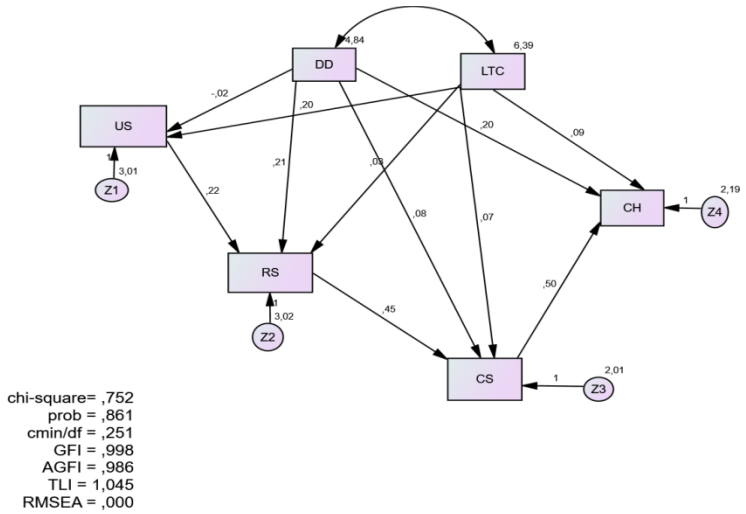

Figure 7: The Model Used in High Involvement Setting.

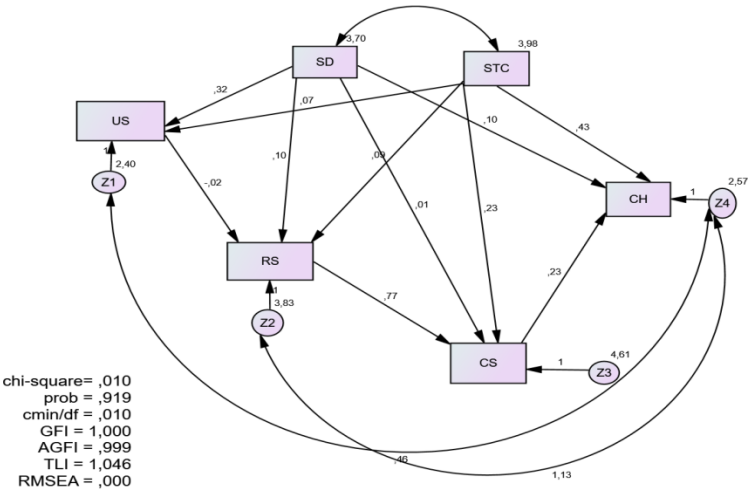

Figure 8: The Model Used in Low Involvement Setting.

5.4. Test of Hypotheses

The influences of LTC to US and DD to RS are significant (p = 0.044 and p = 0.057). Likewise the influences of DD to RS, US to RS and RS to CS (p = 0.057; p = 0.015; p = 0.000). In addition, the influences of DD to CH and CS to CH are also significant (p = 0.042 and p = 0.000). Conversely, the influences of DD to US (p = 0.832); LTC to RS (p = 0.799); DD to CS (p = 0.363); LTC to CS (p = 0.415) and LTC to CH (p = 0.303) are not significant (Table 3).

Table 3: Regression Weight Among Variables (High Involvement Setting)

	Estimate	S.E	C.R	P	Label
US ← DD	-0.024	0.113	-0.212	0.832	Par_1
US ← LTC	0.198	0,098	2.017	0.044	Par_8
RS ← DD	0.215	0.113	1.905	0.057	Par_2
RS ← US	0.218	0.090	2.430	0.015	Par_3
RS ← LTC	0.025	0.100	0.255	0.799	Par_9
CS ← DD	0.085	0.093	0.910	0.363	Par_4
CS ← RS	0.453	0.071	6.354	***	Par_6
CS ← LTC	0.065	0.080	0.815	0.415	Par_10
CH ← DD	0.198	0.097	2.037	0.042	Par_5
CH ← CS	0.498	0.081	6.136	***	Par_7
CH ← LTC	0.086	0.084	1.029	0.303	Par_11

Source: Data Analysis

The influences of SD to US and RS to CS are significant (p = 0.014 and p = 0.000). In addition, the influences of CS to CH (p = 0.000) and STC to CH (p = 0.001) are also significant. On the contrary, the influences of STC to US (p = 0.597), SD to RS (p = 0.574), US to RS (p = 0.885), STC to RS (p = 0.576), SD to CS (p = 0.947), STC to CS (p = 0.194) and SD to CH (p = 0.462) are not significant (Table 4).

Table 4: Regression Weight Among Variables (Low Involvement Setting)

	Estimate	S.E	C.R	P	Label
US ← SD	0.322	0.121	2.458	0.014	Par_1
US ← STC	0.067	0.126	0.528	0.597	Par_8
RS ← SD	0.,095	0.170	0.562	0.574	par_2
RS ← US	-0.016	0.113	-0.144	0.885	par_3
RS ← STC	0.089	0.160	0.559	0.576	par_9
CS ← SD	0.012	0.182	0.066	0.947	par_4
CS ← RS	0.770	0.098	7.849	***	par_6
CS ← STC	0.227	0.175	1.298	0.194	par_10
CH ← SD	0.100	0.136	0.735	0.462	par_5
CH ← CS	0.226	0.061	3.702	***	par_7
CH ← STC	0.428	0.132	3.249	0.001	par_11

Source: Data Analysis

6. Discussion

The significant effects of universal set to retrieval set, retrieval set to consideration set and consideration set to choice in high involvement setting are in accordance with Kardes *et al.*'s theory. Likewise the influence of retrieval set to consideration set and consideration set to choice in low involvement setting are also appropriate with the theory. It means H1a, H2a, H2b, H3a and H3b are supported.

The significant influence of long-time consumed to universal set is in accordance with what hypothesized in high involvement setting. Likewise the significant influences of deep deliberation whether to retrieval set or choice are also in line with what hypothesized in high involvement setting are. So, H5a, H7a and H8a are supported.

The significant effect of short-time consumed to choice is commensurate with what hypothesized in low involvement setting. Similarly, the significant effect of shallow deliberation to universal set. Therefore, H4b, H7b and H11b are supported.

7. Conclusions

The study actually supports the concept of high-low involvement products. In high involvement setting, it is admitted a careful and thoughtful consideration happens. It is likely not easy to choose a particular product. It is manifested by deep deliberation and long-time consumed variables. Likewise, as an opposite, in low

involvement setting is convinced that consideration also happens but it is not deep. It is likely not difficult to make decision. The condition is revealed by shallow deliberation and short-time consumed variables.

The long-time consumed particularly occurs in universal set stage, while deep deliberation takes place in retrieval set stage and choice stage. It means that from beginning consumers take seriously in making decision to choose a particular high involvement product. The shallow deliberation also happens in universal set stage. Similarly the short-time consumed also happen in choice stage. The findings that denote the occurrence of deep deliberation on choice stage in high involvement setting and short-time consumed on choice stage in low involvement setting support further that decision making in high involvement is not easy. Such the case in low involvement setting that making decision is not difficult.

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