

# CONSUMERS' PERCEPTIONS OF PERSONAL DECISION-MAKING: ITS RELATION TO COGNITIVE DISSONANCE

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## ABSTRACT

The study assesses consumers' perceptions of their personal decision-making ability and process. The empirical analysis was undertaken on a sample of 200 new motor vehicle consumers. The results indicate that the majority of the consumers displayed confidence in the decisions they took, believing they engaged in high quality and correct decision-making and were able to conclude good deals. The majority of consumers indicated that they were not influenced by external others and were not anxious during decision-making, although a significant percentage reported the impact of external influence and anxiety during purchases.

## OPSOMMING

In hierdie studie word verbruikers se waarneming van hulle eie besluitnemingsvermoë en proses geëvalueer. Die empiriese ontleding is uitgevoer op 'n steekproef van 200 eienaars van nuwe voertuie. Dit blyk uit die resultate, dat die meerderheid verbruikers vertroue gehad het in hulle besluitnemingsproses, dat hulle besluite korrek was en dat hulle 'n lonende transaksie beklink het. Die meerderheid het aangedui dat hulle nie beïnvloed is deur eksterne invloede nie en dat hulle nie anstig was tydens die besluitnemingsproses nie, alhoewel 'n betekenisvolle persentasie van verbruikers wel hierdie invloede en angstigheid gedurende die aankoop ervaar het.

Cognition incorporates the mental structures and information processing that individuals undergo during consumer decision-making. Cognition is the process of organising information in our minds to achieve some desired end state. The mind is an active interpreter of incoming information (Perner and Davies, 1991). According to Brewin (1989, p. 380) "cognition is commonly used to denote the representation within an organism of information about itself or its environment or, alternatively, the processes whereby incoming information is categorized, stored, integrated with knowledge that is already present, and subsequently retrieved and used". Cognitive processes include attention, encoding, attribution, thinking, reasoning, knowing, problem solving, memory storage and retrieval, conceptual learning and strategy. Consumer decision-making is a cognitive process, which comprises of those mental activities that determine what is actually done to remove or reduce a tension state caused by the recognition of a need (McNeal, 1982). It is a sequential and repetitive series of psychological and physical activities ranging from problem recognition to post-purchase behaviour (Markin, 1974). Consumers do not function in isolation but are influenced by numerous individual and environmental factors which can collectively be referred to as the 'psychological field' (Engel, Blackwell and Kollat, 1978). The former includes needs and motives, personality, perception, learning, attitude and lifestyle, whilst the latter incorporates culture and subculture, social and reference group influences, family, economic demand factors and the marketing environment. These variables constantly and simultaneously interact and play a leading role in the final outcome of the consumer's choice.

In any purchasing situation individuals absorb information from their external environment and integrate or combine it with their inner needs, motives, perceptions and attitudes. The choice outcome may also be influenced by the past, the act of recalling and personality factors. The past may operate through "learned patterns of behaviour and ways of thinking, many of which are largely unconscious" (Engel, et al., 1978, p. 17-18). In addition to past product experiences, anticipating future consequences of behaviour may also influence the choice outcome in a current act of purchase. A purchase situation may be defined "as a typical pattern of choice possibilities within a given context" (du Plessis, Rousseau and Blem, 1990, p. 45).

The surrounding environment also profoundly influences a person. The consumer often faces family and cultural influen-

ces, peer group pressure, reference groups, economic demands and persuasive advertising. However, despite these and marketing pressures, the decision whether to buy or not in the final purchase situation is an individual one and an important decision consumers have to make (du Plessis et al., 1990). By analysing the internal thought process of consumers as they undergo the process of decision-making, marketers can determine the criteria consumers use in purchase decisions, the dominant influencing variables as well as be able to predict future behaviour.

During the first stage of the decision-making process, the individual perceives a difference between the ideal and the actual state of affairs and therefore, recognises a need. In the second stage, the individual seeks relevant information about potential solutions to the problem from the external environment or activates knowledge from memory. The third stage incorporates an evaluation or judgement of competing alternatives in terms of salient beliefs about relevant consequences and combines this knowledge to make a choice (Peter and Olson, 1987). The act of buying marks the fourth stage that is followed by the final stage called post-purchase evaluation, that is, use and evaluation of the chosen alternative in light of its performance.

The type of decision-making determines the extent of search effort. Increasing levels of purchase involvement is accompanied by accelerating degrees of decision-making ranging from habitual decision-making to limited decision-making to extended decision-making.

Habitual, limited and extended decision-making are respectively associated with minimal, limited and extensive search effort. Irrespective of whether a consumer good or a durable is being purchased, Wiley (1984) believes consumer purchase decisions are the outcome of rational considerations in the fitting of alternative goods and services to consumption goals. The only variation is in the emphasis the individual places on the various stages in the decision-making process. The importance attached by the consumer to each stage will differ in response to the subjective preference of each consumer. Hence, the extent of consumer decision-making will depend on the level of involvement. Product involvement implies that the product is of importance to the consumer's self-identity and it can surface strong attitudes and preferences. Post-decision doubts are most probable when individuals are committed to their decisions because of their psychological significance to them or due to product involvement (Engel and Blackwell, 1982). Hence, the greater the degree of product involvement, the more consumers engage in post-purchase evaluation to as-

sess whether the correct decision was made. In other words, the consumer evaluates the extent to which the selected alternative fulfils prior expectations. The quality of the decision is assessed in accordance with whether the chosen option derived the greatest utility as expected as a result of rational decision-making. If expectations are not met, dissonance, an uncomfortable tension state arises, creating anxiety in the consumer. According to Walters and Bergiel (1989, p. 481), "failure to perform or to perform up to expectations is the most important reason for postpurchase dissonance". Dissonance can best be conceived of as a violation of expectancy. The magnitude of cognitive dissonance is enhanced by the consumer's degree of anxiety experienced during purchases, the individual's level of confidence in the purchase situation and the degree of external influences. According to Stuart (1984) consumer confidence is the interaction and interrelation of many attitudes and expectations and determines willingness to buy. Bell (1967) believes, customers' self-confidence influences persuasiveness as well as dissonance. In addition, some people have "a greater tendency to experience anxiety (a high-anxiety trait) than do others. The higher the tendency to experience anxiety, the more likely the individual will experience post-purchase dissonance" (Hawkins, Coney and Best, 1980, p. 495). Individuals exposed to a condition of highly anticipated dissonance will reflect greater dissonance than those with low anticipated dissonance. Furthermore, dissonance may be externally induced. These dimensions influence purchases and post-purchase behaviour. Hence, it becomes necessary to evaluate consumers' perceptions of their personal decision-making.

#### Statement of the problem

How does the sample of new motor vehicle consumers evaluate their ability to engage in decision-making in general, that is, the correctness and quality of the decisions they make, the level of anxiety experienced during purchases, the level of confidence they have in their purchases and the extent to which their decisions are influenced by externals/others, and to what extent do these dimensions impact on the magnitude of cognitive dissonance experienced?

#### Hypotheses

##### Hypothesis 1

The majority of the consumers sampled are more inclined to believe that they make the right decisions in their lives.

##### Hypothesis 2

The majority of the consumers sampled believe that when making a decision, they do feel uneasy or worry whether or not they have made the right decision.

##### Hypothesis 3

The majority of the consumers sampled believe that when making a decision, they are influenced by persuasion from other people.

##### Hypothesis 4

The majority of the consumers sampled believe that when making a decision on the purchase of consumer durable goods, they often 'get a good deal'.

##### Hypothesis 5

The majority of the consumers sampled believe that, in general, they are confident that they make the right decisions.

##### Hypothesis 6

The dimensions of the study (unconfirmed expectations, anxiety, self-confidence, persuasiveness, confidence) significantly impact on the level of cognitive dissonance experienced.

## METHOD

#### Sample

A sample of 200 new motor vehicle buyers was drawn using the stratified random sampling technique. Only new motor vehicle buyers (within Kwa-Zulu Natal) who concluded their

purchases in one major, reputable and leading motor vehicle manufacturing company and who owned the vehicle for a maximum period of seven months were considered, so as to avoid cognitive intrusion. The sample was proportionately stratified on the basis of four controls or criteria (range of motor vehicle purchased, month of purchases, gender and age of the buyer). Representativeness was achieved by drawing a proportional frequency of consumers in the different ranges of motor vehicles purchased. The motor vehicles purchased were divided into 'bottom of the range' (47.25 % of sample), 'middle of the range' (33.75 %) and 'top of the range' (19 %) on the basis of price. Gender, age and time of purchases served as three further controls, although the impact of the biographical variables is not studied in this paper. The adequacy of the sample was determined on the basis of the Kaiser-Olkin Measure of Sampling Adequacy (0.87062) and the Bartlett Test of Sphericity (21 059.071), which respectively showed suitability and significance. The results indicate, the normality and homoscedasticity preconditions are satisfied.

#### Instruments

The measuring instrument was a self-developed, pre-coded, standardised questionnaire comprising of Sections A and B. Section A relates to Biographical Data and Motor Vehicle Specific Variables. Section B evaluates consumers' perception of their personal decision-making. Five statements relating to the correctness and quality of their decision, their level of anxiety during purchases, the degree of external influence and their level of confidence in their purchase decisions were evaluated, requiring the subject to respond on a 1-5 point scale with two extreme and contrasting anchor points (Table I).

**Table 1**  
Assessing personal decision-making

1. People make many decision in their lives. To what extent do you feel that you have been making right decisions?	ALWAYS RIGHT DECISIONS	1	2	3	4	5	ALWAYS WRONG DECISIONS
2. After a person makes a decision, he/she usually feels uneasy about it. To what extent do you worry whether or not you made the right decision?	DO NOT WORRY AT ALL	1	2	3	4	5	WORRY VERY MUCH
3. A person is subject to various pressures of persuasion from other people when making a decision. To what extent do you feel you are likely to be influenced by persuasion when making a decision?	NOT INFLUENCED AT ALL	1	2	3	4	5	INFLUENCED VERY MUCH
4. To what extent do you feel that in general you get a good deal or a bad deal in buying your consumer durable goods (like cars and clothes)?	VERY GOOD DEALS	1	2	3	4	5	VERY BAD DEALS
5. To what extent do you feel that in general you are confident that you make right decisions.	VERY CONFIDENT	1	2	3	4	5	NOT CONFIDENT AT ALL

Furthermore, Section B also evaluates the extent to which subjects agree or disagree with statements relating to their new motor vehicle purchases in terms of unconfirmed expectations, the level of anxiety experienced, the extent to which

their choice of motor vehicle was congruent with their self-concept, the extent of perceived persuasion of sales personnel, the level of confidence in the purchase and their ability to engage in decision-making. The subjects' views to these thirty seven statements were measured on a 1 – 5 point Likert scale ranging from strongly disagree (1) to strongly agree (5) and were evaluated in terms of their potential to impact on the magnitude of cognitive dissonance experienced by these new motor vehicle consumers (Table II).

**Table 2**  
Instrument measuring dimensions of the study:  
(Unconfirmed expectations, anxiety, congruence with self-concept, persuasibility, level of confidence)

Indicate the extent to which you agree or disagree with the following statements using the following scale:–

- 1 – Strongly Disagree
- 2 – Disagree
- 3 – Neither agree nor disagree
- 4 – Agree
- 5 – Strongly Agree

	1	2	3	4	5
1. The performance of the vehicle I bought fails to meet my expectations.					
2. I have already experienced problems (technical/mechanical/other) with the vehicle I bought.					
3. The vehicle is heavier on fuel consumption than I expected.					
4. The vehicle is not as economical as I thought.					
5. The style of the car needs further improvement.					
6. The car is not as popular as I was initially given to understand.					
7. The vehicle lacks the roominess that I expected of it.					
8. Many aspects of the interior of the car needs redesigning.					
9. I feel the car that I bought is not what I wanted in terms of product features.					
10. I feel the car that I bought does not satisfy my needs.					
11. I wish I had selected an alternative make of car when I was making my decision to purchase.					
12. I feel anxious about the make of car I have selected.					
13. My choice of car has left me discontent.					
14. I wish I could return my car for another make.					
15. When I think of the choice of car made, I feel tense and disappointed.					
16. I felt pressurized into making the correct decision because I consider the purchase of a new car to be an irreversible decision.					
17. I feel uncomfortable about the decision I made.					
18. After purchases, I was worried about the comments of family/friends regarding my choice of car.					
19. I feel that the car I bought is not what I like.					
20. I feel that the car I bought does not coincide with my knowledge, opinions and beliefs.					
21. I feel that the car I bought does not coincide with my self-concept.					
22. I feel that the car I bought does not reflect 'the real me'.					
23. My choice of car does not provide me with a sense of identity.					
24. I feel the car I bought does not reflect my personality.					
25. For fear of making the wrong decision, I have invested a substantial amount of time in evaluating the alternatives to make a choice.					
26. I feel I have been talked into buying a car I do not like.					
27. I feel I have been talked into buying a car for a price I did not want to pay.					
28. I feel the salesperson imposed his/her views onto me.					
29. I feel the salesperson influenced my choice of colour.					
30. I feel the salesperson influenced my choice of style of vehicle.					
31. I felt uneasy when making my purchase decision.					
32. I felt I did not receive the same kind of deal that other purchasers had received.					
33. When choosing amongst the alternatives considered I often felt insecure about my own judgement.					
34. When making my decision, I was reluctant to wear the salesperson down in attempts to get a good deal.					
35. I feel I did not get a good deal.					
36. I lack the experience needed when selecting a car.					
37. I am not sure whether I made the correct decision.					

## Procedure

The mail survey was used and hence, the questionnaires were self-administered. The questionnaire, together with a covering letter indicating the purpose and need for the study, was posted to sample subjects using the Postal Services. Each respondent was contacted telephonically informing them of the arrival of the questionnaire that was already posted. The questionnaires were numbered so as to follow up on non-responses. Those who did not respond within two weeks were again telephoned to remind them of the purpose of the study, so as to ensure a suitable response rate. A self-addressed envelope and stamp was provided so that respondents need not bear a financial cost, thereby increasing the return rate.

## Statistical Analysis

### Validity

The validity of the questionnaire was determined using Factor Analysis. An iterated principal factor analysis was performed using SPSS with an orthogonal Varimax Rotation. Six factors with latent roots greater than unity were extracted from the factor loading matrix. The factor matrix and the percent of total variance explained by each factor are reflected in Table III. Only items with loadings >0.5 were regarded as being significant. Furthermore, when items were significantly loaded on more than one factor only that with the highest value was acknowledged (Table III).

**Table 3**  
Factor analysis: Varimax Rotated factor matrix on the impact of the dimensions of the study on cognitive dissonance

Question	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
1	0.486	0.202	0.203	<b>0.518</b>	0.064	-0.018
2	0.296	0.090	0.111	<b>0.544</b>	0.158	0.107
3	0.090	0.229	0.093	<b>0.800</b>	0.045	0.072
4	0.177	0.333	0.147	<b>0.731</b>	0.057	0.174
5	<b>0.629</b>	0.108	0.292	0.056	0.058	0.211
6	<b>0.678</b>	0.214	0.125	0.122	0.035	0.169
7	<b>0.594</b>	0.094	0.147	-0.006	-0.070	0.283
8	<b>0.689</b>	0.155	0.159	0.129	0.005	0.216
9	<b>0.666</b>	0.279	0.184	0.167	0.048	0.281
10	<b>0.688</b>	0.379	0.243	0.261	0.086	0.024
11	<b>0.611</b>	0.427	0.436	0.193	0.140	0.003
12	0.436	0.325	0.125	0.309	0.070	-0.035
13	<b>0.576</b>	0.513	0.302	0.301	0.104	-0.002
14	0.549	<b>0.570</b>	0.300	0.289	0.088	-0.048
15	<b>0.578</b>	0.544	0.305	0.195	0.107	-0.035
16	0.135	0.306	0.304	0.243	0.179	0.293
17	0.492	0.475	0.350	0.372	0.148	0.018
18	0.159	0.359	0.288	0.143	0.100	0.154
19	0.524	0.319	<b>0.583</b>	0.192	0.065	0.132
20	0.472	0.336	<b>0.627</b>	0.140	0.111	0.147
21	0.463	0.284	<b>0.709</b>	0.093	0.059	0.161
22	0.334	0.289	<b>0.775</b>	0.163	0.014	0.112
23	0.168	0.261	<b>0.768</b>	0.150	-0.051	0.202
24	0.189	0.204	<b>0.843</b>	0.090	0.003	0.181
25	0.068	-0.055	0.091	0.414	-0.017	0.430
26	0.261	0.761	0.296	0.221	-0.064	0.098
27	0.310	<b>0.696</b>	0.213	0.179	0.006	0.159
28	0.364	<b>0.656</b>	0.222	0.202	-0.039	0.234
29	0.136	<b>0.685</b>	0.165	0.034	0.073	0.230
30	0.274	<b>0.730</b>	0.274	0.101	-0.067	0.200
31	0.421	0.397	0.234	0.339	0.148	0.354
32	0.452	0.353	0.120	0.192	0.148	0.452
33	0.310	0.422	0.240	0.182	0.208	0.403
34	0.229	0.260	0.221	0.088	0.113	<b>0.722</b>
35	0.405	0.450	0.125	0.282	0.085	0.424
36	0.229	0.246	0.180	0.017	0.162	<b>0.669</b>
37	0.451	0.466	0.316	0.311	0.084	0.210
1A	0.085	0.036	0.078	-0.064	<b>0.757</b>	-0.064
2A	0.133	-0.139	-0.043	0.061	<b>0.682</b>	0.025
3A	-0.098	-0.056	0.159	0.165	<b>0.652</b>	0.248
4A	-0.028	0.292	-0.010	0.104	<b>0.687</b>	0.115
5A	0.065	0.063	-0.045	0.035	<b>0.820</b>	0.057
Eigen-Value	<b>7.049</b>	<b>6.254</b>	<b>4.889</b>	<b>3.276</b>	<b>2.960</b>	<b>2.726</b>
% of Total Variance	<b>16.783</b>	<b>14.891</b>	<b>11.641</b>	<b>7.799</b>	<b>7.048</b>	<b>6.491</b>



From Table III it is evident that the questionnaire measures 6 factors (eigenvalues are greater than 1). Nine items have significant loadings on Factor 1 and make up 16.783% of the total variance. These items relate to dissatisfaction with the features of the motor vehicle purchased, regret with the choice of alternative selected, discontentment and a state of tension experienced regarding the purchase decision. Factor 1 was therefore, labelled as 'anxiety'.

Six items have significant loadings on Factor 2 and make up 14.891% of the total variance. These items relate to feelings of being 'talked into' buying a motor vehicle that is not liked and which is considered to be overpriced. In addition, these statements express subjects' feelings of being influenced by salespersons' opinions relating to general views, colour and style of the motor vehicle, thereby creating the urge within the buyer to return the motor vehicle purchased. Hence, Factor 2 may be called 'perceived persuasiveness of salesperson'.

Six items load significantly on Factor 3 and these account for 11.641% of the total variance. These items pertain to feelings of incongruence between the motor vehicle selected and the individuals' knowledge, opinions, beliefs, self-concept and personality. They reflect the subjects' concern over the inability of the chosen alternative to reflect their true self and to provide a sense of identity. Factor 3 may therefore, be labelled 'incongruence between choice of motor vehicle and the individual's self-concept'.

Four items have significant loadings on Factor 4 and contribute to 7.799% of the total variance. These items relate to expectations in terms of motor vehicle features, fuel consumption and economy, not being met and include the concern about early technical and mechanical problems being experienced. Therefore, Factor 4 may be labelled as 'unconfirmed expectations'.

Five items load significantly on Factor 5 and account for 7.048% of the total variance. These items evaluate a person's perception of personal decision-making in terms of the correctness and quality of the decision, the level of anxiety experienced during purchases, the degree of external influence and the level of confidence in the purchase decisions. Hence, Factor 5 may be called 'perceptions of personal decision-making'.

Two items have significant loadings on Factor 6 and account for 6.491% of the total variance. These items relate to the subject's reluctance 'to wear the salesperson down' and an expression of personal lack of experience. Factor 6 may thus, be called 'lack of confidence during the decision making process'.

Whilst these 6 factors comprehensively account for 64.653% of the total variance and contribute to the magnitude of cognitive dissonance experienced, the remaining 35.347% may be due to other factors which have the potential to contribute to the magnitude of cognitive dissonance experienced.

#### Reliability

The internal consistency of the questionnaire or the degree of homogeneity among the items was assessed using Cronbach's Coefficient Alpha (Table IV). Due to the multiplicity of the items measuring the dimensions (measured on a 1-5 point Likert scale) the Cronbach's Coefficient Alpha was considered to be the most suitable since it has the most utility of multi-item scales at the internal level of measurement (Cooper & Emory, 1995).

**Table 4**  
**Reliability estimate: Cronbach's coefficient alpha**

Cronbach's Alpha = 0.9607

The closer the value of the Coefficient Alpha to 1, the greater the reliability of the questionnaire. Hence, the Coefficient Alpha of 0.9607 in Table IV indicates the questionnaire is highly reliable and can consistently measure the dimensions of the

magnitude of cognitive dissonance it is designed to measure. In other words, the measuring instrument is capable of consistently reflecting the same underlying constructs. Furthermore, it indicates a high degree of homogeneity amongst the questionnaire items.

#### Descriptive and Inferential Statistics

Descriptive statistics were used to analyse consumers' perceptions of personal decision-making. Frequency analyses were undertaken to enable a more in-depth analysis of consumers' cognitions and behaviours relating to personal decision-making. A multiple regression analysis was undertaken to assess the extent to which the variables in the study (unconfirmed expectations, anxiety, incongruence with self-concept, persuasiveness, extent of confidence, ability to engage in decision-making) have the potential to impact on the magnitude of cognitive dissonance experienced.

#### Limitations of the study

##### Mail Survey

Data was collected using questionnaires that were distributed by mail. Typically mail surveys have a low and slow return rate. However, the process was speeded since the researcher telephoned every subject to confirm receipt of the questionnaire, establish rapport and encourage returns.

##### Geographic region

The sample was made up of motor vehicle purchasers within the geographical confines of Kwa-Zulu Natal to the exclusion of all other regions. Hence, only the client base of dealerships of the concerned manufacturing company within this region had the chance of being included into the study sample.

##### Composition of sample

Only motor vehicle buyers of one manufacturer or manufacturing brand was included in the study. However, analysis were undertaken on different makes, models and ranges of motor vehicles purchased within this auto manufacturing company.

## RESULTS

#### Perception of personal decision-making

Mean analyses were undertaken on the perceptions of respondents about the dimensions of personal decision-making ability (Table V).

**Table 5**  
**Descriptive analyses: Perceptions regarding dimensions of personal decision-making ability**

VARIABLE	MEAN	STANDARD DEVIATION	CONFIDENCE INTERVAL FOR MEAN (95%)
Correctness of Decision	2.245	0.799	2.1343 – 2.3557
Level of Anxiety	2.500	1.089	2.3491 – 2.6509
External influence on the decision-making process	2.315	0.995	2.1770 – 2.4530
Quality of Decision	2.140	0.821	2.0262 – 2.2538
Level of Confidence in decision taken	1.900	0.845	1.7829 – 2.0171

The smaller the value of the mean, the greater the ease reflected in the decision-making process. Therefore, it can be deduced that respondents reflect confidence in the decisions they make (Mean = 1.900), that is, it is closer to 1, thereby depicting 'very confident' and lies within the critical range of 1.7829 to 2.0171.

Consumers perceive themselves to engage in quality decisions and to be able to concur very good deals (Mean = 2.140). Respondents perceive themselves as being able to generally make the right decisions (Mean = 2.245). Consumers did reflect their decision-making in general is influenced by external others, be they family, friends, reference groups or marketing stimuli (Mean = 2.315). Furthermore, consumers reported an average

level of anxiety experienced when engaging in decision-making, that is, the median on a 1 to 5 point scale (Mean = 2.500).

Hence, Table V reflects that consumers are likely to be confident in decisions taken. Furthermore, they believe that they engage in quality decisions, and are sure of the correctness of decisions taken. They do reflect external influence in decision-making and express a level of anxiety experienced when engaging in the process of decision-making in general.

*Dimensions of decision-making and post-purchase decision-making: Impact on the magnitude of cognitive dissonance experienced*  
 Consumers' perceptions regarding the impact of the key dimensions of the study (unconfirmed expectations, anxiety, congruence with self-concept, perceived persuasiveness of salesperson and level of confidence) on the magnitude of cognitive dissonance experienced, were analysed (Table VI).

**Table 6**  
**Descriptive analyses: Dimensions of decision-making and post-purchase decision-making**

VARIABLE	MEAN	STANDARD DEVIATION	CONFIDENCE INTERVAL FOR MEAN (95 %)
<b>Decision-making</b>			
Congruence with self-concept	13.655	5.388	12.908 – 14.401
Perceived persuasibility of salesperson	8.550	3.839	8.0178 – 9.082
Level of confidence	13.550	5.178	12.832 – 14.2677
<b>Post-purchase Decision-making</b>			
Unconfirmed expectations	20.090	7.181	19.094 – 21.085
Level of anxiety	14.000	5.863	13.187 – 14.812

Table VI indicates that the values on the five dimensions (congruence with self-concept

[Mean = 13.655, SD = 5.388]; perceived persuasiveness of salesperson [Mean = 8.550,

SD = 3.839]; level of confidence [Mean = 13.550, SD = 5.178]; unconfirmed expectations [Mean = 20.090, SD = 7.181] and level of anxiety [Mean = 14.000,

SD = 5.863]) fall within the 95% confidence interval and therefore, significantly impact on the decision-making process and on post-purchase evaluations.

The impact of the dimensions of decision-making and post-purchase decision making on the level of cognitive dissonance experienced was also examined. The dimensions studied (unconfirmed expectations, level of anxiety, congruence with self-concept, perceived persuasiveness of salesperson and level of confidence) significantly explain the variance in the level of cognitive dissonance experienced (Table VII).

**Table 7**  
**Multiple regression: The impact of the dimensions of the study on the magnitude of cognitive dissonance experienced**

MULTIPLE REGRESSION					
Multiple R =	0.9957	Significance of R = 0.0000			
Multiple R Square =	0.9914				
Adjusted R Square =	0.9911				
ANALYSIS OF VARIANCE					
SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Regression	5	126213.4009	25 242.6802	4 447.871	0.0000
Residual	194	1100.9941	5.6752		

Table VII indicates that 99.11% of the variance in the magnitude of cognitive dissonance experienced is significantly explained by the dimensions studied (unconfirmed expectations,

level of anxiety, congruence with self-concept, perceived persuasiveness of salesperson and level of confidence). The F-ratio of 4 447.871 (p = 0.0000) indicates that the regression by the R-square (R<sup>2</sup> = 0.9911) is statistically significant. Hence, Hypothesis 6 is supported.

**DISCUSSION**

*Perceptions of personal decision-making*

Respondents evaluated their level of decision-making in general, on the basis of the correctness of their decisions, the level of anxiety experienced when making decisions, the degree of external influence on the decision-making process, the quality of decisions and the level of confidence in the decision taken.

**Table 8**  
**Frequency distribution: Personal decision-making**

VARIABLE AND MAGNITUDE		TOTAL
CONFIDENT IN PURCHASE DECISIONS 45.5%	VERY CONFIDENT IN PURCHASE DECISIONS 35%	80.5%
DECISION-MAKING RESULTS IN GOOD DEALS 48.5%	DECISION-MAKING RESULTS IN VERY GOOD DEALS 21.5%	70%
CORRECT DECISIONS MADE MOST OF THE TIME 54.5%	CORRECT DECISIONS MADE ALL THE TIME 14%	68.5
MORE LIKELY NOT TO BE INFLUENCED BY OTHERS 38%	NOT INFLUENCED BY OTHERS AT ALL 22.5%	60.5%
SPOKE OF FAMILY AND FRIENDS TO OBTAINS FEEDBACK BEFORE MAKING PURCHASE DECISION		46.5%
MORE LIKELY NOT TO BE ANXIOUS IN DECISION-MAKING 37.5%	NEVER WORRY AT ALL ABOUT DECISIONS TAKEN 18%	55.5%
WORRY VERY MUCH DURING THE PROCESS OF DECISION-MAKING		44.5%

Respondents reflected confidence in the decisions they make. This is in support of the frequency analyses (Table VIII), which indicated that 45.5 % of the respondents displayed confidence in their decisions taken and a further 35 % reported that they are very confident about the decisions they take. Hence, the majority of the respondents (80.5 %) displayed confidence in decision-making in general. Therefore, Hypothesis 5 is supported. Bell (1967) proposed, consumers would be more dissonant:

- The more uneasy they were about the purchase decision.
- The more they wondered if they had made the right decision; or
- The more they wondered "if they received the same kind of deal that other purchasers had received" (Oshikawa, 1972, p. 65).

Furthermore, Bell (1967) studied the effects of the associations between self-confidence and persuasiveness upon a consumer's psychological reactions or cognitive dissonance after purchasing a new car. Bell (1967) found that consumers who are high on self-confidence, were high on dissonance if they were easily persuaded in buying their new cars, since being persuaded is contrary to their usual behaviour. Furthermore, Bell (1967) deduced that those who are high on self-confidence experienced very little dissonance. In addition, those low on self-confidence had little dissonance if they were readily persuaded and those with little confidence were highly dissonant if they resisted influence attempts by the salesperson and were not easily persuaded. Bell (1967) substantiated that after completing the purchases the latter begin to have self-doubts. Greenwald (1969) maintains that self-confidence should not increase spreading apart in high-conflict decisions because an uncertain person who lacks justification for a decision seeks additional

justification whereas a confident person need not justify a decision.

Consumers perceive themselves to engage in quality decisions and to be able to concur very good deals (Mean = 2.140). These findings were replicated in the frequency analyses (Table VIII), which showed that 48.5 % of the consumers believe their decision-making results in good deals and a further 21.5 % perceive their deals to be very good. A significant segment (70 %) therefore, reflected their ability to engage in high quality decision-making and to accomplish very good deals. Furthermore, a substantial 88 % of the subjects indicated that they believe they got 'good value for their money' by choosing the make of car they did. Respondents perceive themselves as being able to generally make the right decisions (Mean = 2.245). Sixty eight and a half percent of the consumers felt that they make the correct decisions most of the time (54.5 %), if not all the time (14 %). Hence, Hypotheses 1 and 4 are supported. Bell (1967) found, customers who are high on self-confidence experienced very little dissonance as they made their choices, accepted them and were content with their decisions.

Consumers did reflect their decision-making in general is influenced by external others, be they family, friends, reference groups or marketing stimuli (Mean = 2.315). The frequency analyses (Table VIII) undertaken in this study indicate that 46.5 % of the respondents reflected they spoke to family members and friends to obtain feedback about various makes of cars considered, before making a purchase decision. However, 60.5 % of the respondents indicated that they are more likely not to be influenced (38 %) or are not influenced at all (22.5 %) by others when they engage in decision-making in general. Therefore, Hypothesis 3 is not supported. Ward and Werner (1984, pp. 230 – 231) deduced, dissonance may be externally induced, whereby "pressure is put upon the individual to conform to group standards, creating a dissonance within the individual as his beliefs and perceptions conflict with the demands of his peers". This phenomenon corresponds with Bearden and Etzel's (1982, p. 191) finding of "strong reference group influence for public-luxury product and brand decisions and negligible influence on private-necessity product and brand decisions".

Consumers reported an average level of anxiety experienced when engaging in decision-making, that is, the median on a 1 to 5 point scale (Mean = 2.500). The frequency results (Table VIII) indicate that a combined 55.5 % of the respondents indicated that they are more likely not to be anxious in decision-making (37.5 %) or never worry at all about the decision taken (18 %). Therefore, Hypothesis 2 is not supported. However, the remaining 44.5 % reflected a tendency to worry very much when engaging in decision-making in general. The higher the tendency to experience anxiety, the more likely the individual will experience post-decision dissonance. For example, a person buying a sports car wonders what comments colleagues will make and hence, experiences more dissonance than when buying an ordinary car which is likely not to draw criticism. Furthermore, Cummings and Venkatesan (1976, p. 304) maintain, the level of anxiety increases when "there exists volition and irrevocability of the commitment". Hawkins, et al., (1980) support this viewpoint, maintaining the harder it is to alter the decision, the more likely the consumer is to experience dissonance.

*Dimensions of decision-making and post-purchase decision-making: Impact on the magnitude of cognitive dissonance experienced*

- *Unconfirmed Expectations*

According to Walters and Bergiel (1989: 481) "failure to perform or to perform up to expectations is the most importance reason for postpurchase dissonance". Dissonance can best be conceived of as a violation of expectancy. The findings of this study indicate that unconfirmed expectations significantly impact on the level of cognitive dissonance experienced. Festinger proposed, disconfirmed expectancies will generate dis-

sonance, but with the stipulation that only disconfirmed expectancies for which the person feels responsible will arouse dissonance. Similarly, Wicklund and Brehm (1976: 63) observed in their study, "a negative consequence will increase its potential for creating dissonance to the degree that it is unexpected or disconfirms an expectancy, but only when the person feels responsible for the event". Furthermore, Wicklund and Brehm (1976) maintain, if the consumer perceives performance of the rejected alternatives to be similar to the one selected, dissonance is more likely to result, especially if the selected alternative does not meet expectations.

- *Level of anxiety experienced*

The findings of the study indicate that the level of anxiety experienced during the purchases significantly influences the magnitude of cognitive dissonance experienced. These results are justified by Menasco and Hawkins (1978: 651) who maintain, anxiety may be the outcome of conflict resulting from a choice between mutually exclusive alternatives, such that "the experience of post-purchase dissonance is a form of state anxiety". Folkes (1988: 13) deduced, certain properties of products such as "technological complexity, high price, and newness as well as consumer-related factors such as inexperience with the product and importance attached to the purchase lead consumers to perceive risk, which gives rise to anxiety". Similarly, Hawkins, et al., (1980: 495) deduced, the higher the tendency to experience anxiety, the more likely the individual will experience post-purchase dissonance.

- *Congruence with self-concept*

Aronson (1992: 305) believed "dissonance is greatest and clearest when it involves not just any two cognitions but, rather, a cognition about the self and a piece of our behaviour that violates the self-concept". Wilder (1992) and Cummings and Venkatesan (1976: 25) support Aronson's view that the basic ingredients for dissonance are "(a) volition concerning the choice, (b) irrevocable commitment to the decision (product choice), and (c) importance of the choice to the individual's self-concept". Similarly, Cooper (1992: 321) found, "people experience dissonance largely because of a discrepancy between their self-concepts and the actions that they have been induced to perform in dissonance-generated research settings". Furthermore, Brehm (1992: 315) concluded from a study, if a person were to choose between two alternatives and mistakenly chose the inferior one, "the less the value between the two alternatives, the less implication this mistake would have for the self-concept". Motor vehicle purchases reflect a product class capable of creating product involvement. Traylor (1981) found automobiles are a relatively high ego-involvement product class for many consumers; "they are chosen carefully, are important purchases, and are sometimes thought to reflect the owners' personalities". The results of this study are congruent with the view of these theorists. These results indicate that incongruence of the purchases with the self-concept significantly impacts on the magnitude of cognitive dissonance experienced.

- *Perceived persuasiveness of the salesperson*

Consumers differ in their susceptibility to persuasion. The findings of this study indicate that the perceived persuasiveness of the salesperson significantly influences the magnitude of cognitive dissonance experienced. These results correspond with that of Engel (1963: 55) who found in his study, those who are more easily persuaded will be highly dissonant after the purchase. In this study, like in that of Engel's (1963), consumers reported they have been talked into buying cars they did not like, for prices they did not want to pay. However, Bell (1967) found no association between persuasiveness and dissonance. His explanation for this result is, the customer's self-confidence influences persuasiveness as well as dissonance.

- *Level of confidence*

It is evident from the results of the study that the level of confidence of the motor vehicle buyer impacts of the magnitude of cognitive dissonance experienced. These results are congruent with that of Bell (1967) who undertook a study and



found, consumers would be more dissonant, the more uneasy they were about the purchase decision, the more they wondered if they had made the right decision, or the more they wondered if they received the same kind of deal that other purchasers had received.

Bell (1967) deduced from his study, a consumer's self-confidence has an unusual effect of persuasiveness. Those most confident and those least confident in their car buying ability are most difficult to persuade. However, "those moderately confident are most easily persuaded" (Bell 1967: 453). Consumers who are high in self-confidence are difficult to influence because they have experience in making suitable decisions and have faith in their own judgement. Bell (1967: 12) observed that individuals who are low in self-confidence are difficult to persuade because "their precariously-held self-esteem causes them to react defensively against influence attempts".

It can therefore, be concluded from this study that dissonance arousal is a direct function of unconfirmed expectations, level of anxiety, incongruence of the product with the self-concept, perceived persuasiveness of salesperson and level of confidence.

### Recommendations

The goal of all marketing effort is to achieve maximum profitability and consumer satisfaction. These objectives can only materialise by developing effective marketing strategies via a proper analysis and evaluation of consumers and their behaviour and cognitions as they operate in the marketplace. Since dissonance disrupts the equilibrium or consistency within the consumer, marketers in the motor vehicle industry may take the opportunity to help consumers seek relief from such doubt by adopting strategies to provide supporting information:

- Provide additional product information and suggestions for product care and maintenance through brochures and advertising.
- Provide warranties or guaranties to reduce post-purchase doubt.
- Ensure good service and immediate follow-up on complaints to provide post-purchase support.
- Advertise reliable product quality and performance of motor vehicle to reassure recent buyers of product satisfaction. Advertising needs to be careful not to exaggerate the positive features of a product. Promotional messages and salespersons need to create realistic expectations.
- Train salespersons so that they adopt the right degree of persuasion without being overbearing and are able to pacify the anxious consumer.
- Adopt effective advertising and after-sales efforts. Companies need to design certain advertisements for recent purchasers which help to reduce dissonance, or to bolster confidence in the correctness of their purchase decision.
- Follow-up after the purchase with direct contacts to confirm the customer understands how to use the product features and to ensure satisfaction.
- Immediately after concluding the transaction, present the motor vehicle buyer with a service book incorporating a congratulatory message and service instructions. Also, a post-purchase letter and telephone calls may be particularly effective.
- Immediately after the conclusion of the deal, introduce the new motor vehicle purchaser to the Service Manager as a way of assuring continuous and efficient service in the future.
- Incentives such as, free rubber mats, should be given.

The findings of this paper contribute to the understanding of consumer behaviour in terms of consumers' own perceptions of their decision-making ability, an understanding of which is important in choosing market segments, positioning products, making effective marketing mix decisions and providing sufficient and reliable information to enhance the quality of decision-making and to make consumers more confident in their purchase decisions. This will positively influence their perception of the correctness and quality of the deci-

sion made and reduce post-purchase dissatisfaction, thereby encouraging repeat purchases and loyalty.

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