

Chapter VII

CHAPTER VII

CONSUMER BUYING BEHAVIOURS, CBBE, PRE-PURCHASE BRAND DOMINANCE AND POST-PURCHASE SATISFACTION – A RELATIONSHIP ANALYSIS

The part of the study is to find the relationships between Consumers buying behaviour, various dimensions of customer based brand equity, Pre-purchase Brand Dominance and Post-Purchase Satisfaction. CBBE, refers to the overall effectiveness and value that consumers consign to a particular brand, is a key factor in determining the brand value from a long term perspective. Brand equity is created through organic relationships among the various components that build up the brand. So, it is important to understand the relationship. Such as, Consumer behaviours, pre-Purchase dominance and post purchase satisfaction within the constructs of CBBE in order to determine branding performance and efficient brand management.

Objectives:-IV:- To study the relationship between Consumers buying behaviour, various dimensions of customer based brand equity, Pre-purchase Brand Dominance and Post-Purchase Satisfaction.

PATH ANALYSIS

The study aims to find the causal relationships of Brand Equity Dimensions and Consumer Buying Behaviour on and between Pre-Purchase Brand Dominance and Post-Purchase Satisfaction of the customers buying selected consumer durables. The Brand Equity Dimensions namely, Brand Awareness, Brand Loyalty, Brand Association and Perceived Quality were assumed to influence the Pre-purchase Brand Dominance and Post-purchase Satisfaction of the respondents towards consumer durables. Pre-purchase Brand Dominance is also assumed to be influenced by Consumer Buying Behaviour.

Pre-purchase Brand Dominance and Consumer Buying Behaviour have been hypothesized to influence the Post-purchase Satisfaction of the consumers. The influence of these factors on Post-purchase Satisfaction has been studied with the assumption that Brand Equity Dimensions have both direct and indirect effect on Post-purchase Satisfaction. The hypothesized path analysis model explaining the relationship between these factors and dimensions are shown below.

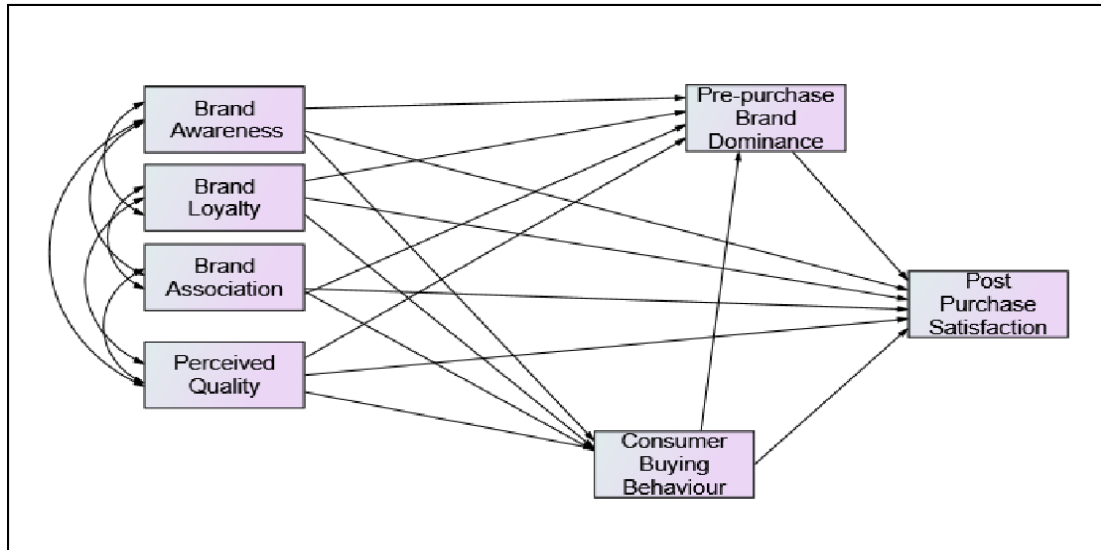


Figure 7.1 Path Model showing relationship between Brand Equity Dimensions, Pre- purchase Brand Dominance, Consumer Buying Behaviour and Post-purchase Satisfaction

The arrows leading from the Brand Equity Dimensions namely Brand Awareness, Brand Loyalty, Brand Association and Perceived Quality measure the direct effects of these factors on Pre-purchase Brand Dominance and Consumer Buying Behaviour factors as well as on Post purchase Satisfaction. The leading arrow from Consumer Buying Behaviour to Pre-purchase Brand Dominance measures the direct effect the former on the later. The direct effects of Pre-purchase Brand Dominance and Consumer Buying Behaviour on Post-purchase Satisfaction were shown by the leading arrows from Pre-purchase Brand Dominance and Consumer Buying Behaviour factors.

The curved double headed arrows between Brand Equity Dimensions assume covariate relationship between these dimensions.

It is also assumed that Brand Equity Dimensions have indirect effect on Post-purchase Satisfaction, that is Pre-purchase Brand Dominance and Consumer Buying Behaviour factors act as mediating variables to measure the indirect effects of Brand Equity Dimensions on Brand Loyalty. The scores of Pre-purchase Brand Dominance, Consumer Buying Behaviour and Post- purchase Satisfaction were used in this model to understand their inter-relationships.

The following specific objectives were framed to develop the path model.

1. To examine how the Brand Equity Dimensions namely, Brand Awareness, Brand Loyalty, Brand Association and Perceived Quality are related to the Pre-Purchase Brand Dominance, Consumer Buying Behaviour and Post-purchase Satisfaction of respondents regarding consumer durables.
2. To examine how the Consumer Buying Behaviour explains Pre-purchase Brand Dominance.
3. To examine the effect of Pre-Purchase Brand Dominance and Consumer Buying Behaviour on Post-purchase Satisfaction.
4. To establish a causal relationship of Brand Equity Dimensions, Pre-Purchase Brand Dominance, Consumer Buying Behaviour and Post-purchase Satisfaction of the consumers.

Once the overall goodness of fit of the model is established, the following hypotheses will be tested.

1. H₀₁. There is a direct positive effect of Brand Equity Dimensions on Pre-Purchase Brand Dominance.
2. H₀₂. There is a direct positive effect of Brand Equity Dimensions on Consumer Buying Behaviour.
3. H₀₃ There is a direct positive effect of Brand Equity Dimensions on Post-purchase Satisfaction of the respondents.
4. H₀₄. There is a direct Positive effect of Consumer Buying Behaviour on Pre-Purchase Brand Dominance
5. H₀₅: There is a direct Positive effect of Pre-Purchase Brand Dominance on Post-purchase Satisfaction.
6. H₀₆: There is a direct Positive effect of Consumer Buying Behaviour on Post-purchase Satisfaction.

7. **Ho7.** There is a mediation effect played by Pre-Purchase Brand Dominance and Consumer Buying Behaviour between Brand Equity Dimensions and Post-purchase Satisfaction of the respondents.

The results of Path Analysis are shown in the model given below explaining the relationship between Brand Equity Dimensions, Pre-Purchase Brand Dominance, Consumer Buying Behaviour and Post-purchase Satisfaction.

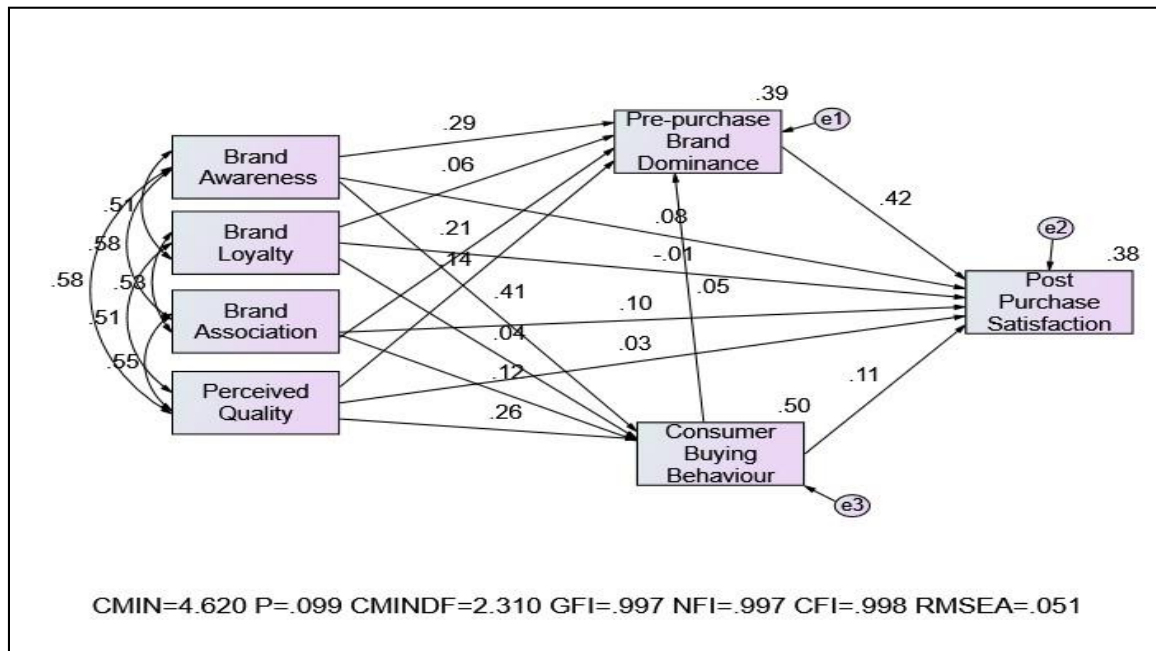


Figure 7.2 Path Model showing relationship between Brand Equity Dimensions, Pre-Purchase Brand Dominance, Satisfaction and Brand Loyalty factors

The above diagram shows the relationship between Brand Equity Dimensions, Pre- Purchase Brand Dominance, Consumer Buying Behaviour and Post-purchase Satisfaction. The path coefficients are standardized regression coefficients. The regression estimates produced by AMOS for Unstandardized regression are given below. The regression coefficients were estimated by Maximum Likelihood method. AMOS ver.20 was used to estimate the path coefficients. The following model fit statistics were used to test the goodness of fit of the model.

CMIN: CMIN given by AMOS is a chi-square statistic, which compares the tested statistics with the theoretical model. A non-significant chi-square value will indicate that the data fits the model well.

CMIN/DF: It is a relative chi-square measure, is an index of how much the fit of data to the model has been reduced by one or more paths. The index having a value of 3 or below 3 says the data best fits the model, whereas a value between 3 and 5 is good.

GFI: The Goodness of Fit Index, explains the proportion of the variance in the sample variance-covariance is accounted for by the model. This should be above 0.90 and below 1 for a good model fit. A value of 1 is considered as saturated model.

NFI: Normed Fit Index, is simply the difference between the chi-square values of two models (default and independent) divided by the chi-square value of independent model. The NFI value being above 0.90 is considered to be good fit.

CFI: The Comparative Fit index uses a similar approach and is said to be a good index which can be used for even small sample. The value above 0.90 is considered to be good fit.

RMSEA: The Root Mean Square Error of Approximation, estimates lack of fit compared to the saturated model. RMSEA value of 0.05 or less indicates good fit and value between 0.05 and 0.08 indicates the model fit is adequate.

The model fit statistics estimated by AMOS for the path model developed are given below.

CMIN	= 4.620 (P>0.05)
DF	= 2
CMIN/DF	= 2.310
GFI	= 0.997
NFI	= 0.997
CFI	= 0.998
RMSEA	= 0.051

The results show that all the goodness of fit indices namely, GFI, NFI and CFI satisfy the criterion value of being above 0.95. The Chi-square value is not significant (P>0.05). Also CMIN/DF value is less than 5, within the admissible limit. The RMSEA value is 0.051 and can be considered as admissible. The developed model shows that all goodness of fit indices are within the recommended limits and it can be inferred that the model fit is good.

The model shown above gives the standardized regression weights of the respective factors. The regression weights show that these coefficients are comparable since they are independent of units of measurement. All the four Brand Equity Dimensions are found to have direct positive effects on both Pre-Purchase Brand Dominance and Consumer Buying Behaviour. However, in the case of Post-purchase Satisfaction, Brand Loyalty has negative effect (-0.01) on Post-purchase Satisfaction and other three dimensions namely, Brand Awareness (0.08), Brand Association (0.10) and Perceived Quality (0.03) have positive effect on Post-purchase Satisfaction.

It is seen from the model that, Pre-Purchase Brand Dominance is influenced by Consumer Buying Behaviour (0.05) with a positive effect.

It is also observed that Pre-Purchase Brand Dominance (0.42) and Consumer Buying Behaviour (0.11) are found to have positive effects on Post-purchase Satisfaction.

The magnitude and direction of relationship between Brand Equity Dimensions, Pre-Purchase Brand Dominance, Consumer Buying Behaviour and Post-purchase Satisfaction are studied in detail with the unstandardized regression weights produced by AMOS which are given below.

Table 7.1

Estimate of path coefficients. Regression Weights for the path variables

Variable To	Path	Variable From	Estimate	S.E.	C.R.	P	Sig
Consumer Buying Behaviour	<---	Brand Loyalty	.069	.070	.979	.328	Ns
Consumer Buying Behaviour	<---	Brand Association	.153	.055	2.793	.005	**
Consumer Buying Behaviour	<---	Perceived Quality	.291	.047	6.166	.0001	**
Consumer Buying Behaviour	<---	Brand Awareness	.338	.035	9.541	.0001	**
Pre-purchase Brand Dominance	<---	Brand Awareness	.294	.052	5.607	.0001	**

Variable To	Path	Variable From	Estimate	S.E.	C.R.	P	Sig
Pre-purchase Brand Dominance	<---	Brand Loyalty	.124	.095	1.303	.193	Ns
Pre-purchase Brand Dominance	<---	Brand Association	.327	.075	4.359	.0001	**
Pre-purchase Brand Dominance	<---	Perceived Quality	.198	.067	2.969	.003	**
Pre-purchase Brand Dominance	<---	Consumer Buying Behaviour	.063	.061	1.044	.297	Ns
Post Purchase Satisfaction	<---	Brand Awareness	.090	.060	1.496	.135	Ns
Post Purchase Satisfaction	<---	Brand Loyalty	-.026	.106	-.248	.804	Ns
Post Purchase Satisfaction	<---	Brand Association	.169	.085	1.994	.046	*
Post Purchase Satisfaction	<---	Perceived Quality	.051	.074	.684	.494	Ns
Post Purchase Satisfaction	<---	Consumer Buying Behaviour	.148	.068	2.185	.029	*
Post Purchase Satisfaction	<---	Pre-purchase Brand Dominance	.468	.050	9.425	.0001	**

** - Significant at 1% level * - Significant at 5% level Ns-Not significant

The estimates shown above are unstandardized regression estimates. The values given above are the regression estimates of the respective independent variables. Standard Errors of respective regression coefficients are given as S.E and Critical ratio is given as C.R, which is the ratio of regression estimate values to S.E. Probability (P) shows which regression coefficients significantly contribute to the dependent variables. **/* under 'Sig.' indicates the respective regression weights are significant at less than 1% or 5% respectively. Ns indicate the regression weights are not significant.

The table shows that, among the Brand Equity Dimensions, Brand Association, Perceived Quality and Brand Awareness have significant effect on Pre-purchase Brand

Dominance factor. The respective regression weights of the Brand Equity Dimensions are positive. Hence the hypothesis **H₀₁** that ‘**There is a direct positive effect of Brand Equity Dimensions on Pre- Purchase Brand Dominance**’ was accepted except for the dimension Brand Loyalty. Brand Loyalty is found to have no significant effect on Pre-Purchase Brand Dominance even though the regression coefficient is positive.

Similarly, it can be seen that, except Brand Loyalty, the remaining three dimensions namely, Brand Association, Perceived Quality and Brand Awareness have significant effect on Consumer Buying Behaviour factor. The respective regression weights of the Brand Equity Dimensions are positive and hence the hypothesis **H₀₂** that “**There is a direct positive effect of Brand Equity Dimensions on Consumer Buying Behaviour**” is accepted except for Brand

Loyalty. Brand Loyalty is found to have no significant effect on Consumer Buying Behaviour even though the regression coefficient is positive.

In the case of Post-purchase Satisfaction it is found that, most of the Brand Equity Dimensions do not have any significant effect on Post-purchase Satisfaction except Brand Association. The regression coefficients of Brand Association, Perceived Quality and Brand Awareness are positive. It is inferred from these results that, the hypothesis, **H₀₃** “**There is a direct positive effect of Brand Equity Dimensions on Post-purchase Satisfaction of the respondents**” is not accepted except for the factor Brand Association.

It is found from the path analysis results that Consumer Buying Behaviour has no significant effect on Pre-Purchase Brand Dominance even though the regression weight is positive. The hypothesis relating this namely, **H₀₄**. “**There is a direct Positive effect of Consumer Buying Behaviour on Pre-Purchase Brand Dominance**” hence is not accepted

However it is seen that the factors Pre-purchase Brand Dominance and Consumer Buying Behaviour are more effective on Post-purchase Satisfaction as these two factors have significant positive effect on Post-purchase Satisfaction at either 5% or 1% level. Hence the hypotheses, “**H₀₅: There is a direct Positive effect of Pre-Purchase Brand Dominance on Post-purchase Satisfaction**” and “**H₀₆: There is a direct Positive effect of Consumer Buying Behaviour on Post-purchase Satisfaction**” were accepted.

These results show that the most of the Brand Equity Dimensions have direct significant effect on Pre-purchase Brand Dominance and Consumer Buying Behaviour. But except Brand Association many of the Brand Equity Dimensions do not have significant effect on Post- purchase Satisfaction.

Table 7.2

Unstandardized Regression Weights for Direct, Indirect and Total Effects

	Brand Equity Dimensions				Consumer Buying Behaviour	Pre-purchase Brand Dominance
	Perceived Quality	Brand Association	Brand Loyalty	Brand Awareness		
Direct Effects						
Consumer Buying Behaviour	.291	.153	.069	.338	---	---
Pre-purchase Brand Dominance	.198	.327	.124	.294	.063	---
Post Purchase Satisfaction	.051	.169	-.026	.090	.148	.468
Indirect Effects						
Consumer Buying Behaviour	---	---	---	---	---	---
Pre-purchase Brand Dominance	.018	.010	.004	.021	---	---
Post Purchase Satisfaction	.144	.180	.070	.197	.030	---
Total Effects						
Consumer Buying Behaviour	.291	.153	.069	.338	---	---
Pre-purchase Brand Dominance	.216	.337	.129	.315	.063	---
Post Purchase Satisfaction	.195	.349	.044	.287	.177	.468

Estimates of Direct Effects

The direct effects are the coefficients associated with the single-headed arrows in a path diagram. In Unstandardized model, the Brand Equity Dimensions namely, Brand

Awareness (0.338), Perceived Quality (0.291), Brand Association (0.153) and Brand Loyalty (0.069) have direct positive effects on Consumer Buying Behaviour. That is, due to the direct effects of Brand Equity Dimensions, increase in the score on perceptions regarding these dimensions will also increase Consumer Buying Behaviour. That is positive perception on brand equities will lead to increase positive perception consumer buying behaviour.

Similarly, the Brand Equity Dimensions namely, Brand Awareness (0.294), Perceived Quality (0.198), Brand Association (0.327) and Brand Loyalty (0.124) have direct positive effects on Pre-purchase Brand Dominance. That is, due to the direct effects of Brand Equity Dimensions, increase in the score on perceptions regarding these dimensions will also increase the Pre-purchase Brand Dominance on the consumers. That is positive perception on brand equities will lead to increase in the level of Pre-purchase Brand Dominance.

Whereas, when Post-purchase Satisfaction is considered, Brand Loyalty (-0.026) is found to have negative effect on Post-purchase Satisfaction. The direct effect of increase in Brand Loyalty is found to decrease the post-purchase satisfaction among the consumers. However, the effect is found to be not significant. The direct effects of Consumer Buying behaviour (0.148) and Pre-purchase Brand Dominance (0.438) indicate that, the regression weights being positive, when these scores increase there will be proportionate increase in the level of post-purchase satisfaction of the customers.

Estimates of Indirect Effects

The above table also explains the indirect effect of each of the column factor of Brand Equity Dimensions on each row factors. The table shows that the indirect effects of all the Brand Equity Dimensions, Perceived Quality (0.018), Brand Association (0.010), Brand Loyalty (0.004) and Brand Awareness (0.021) have positive effect on Pre-Purchase Brand Dominance.

It was seen that Brand Loyalty had a direct negative effect on Post-purchase Satisfaction. But the indirect effect estimates show that Brand Loyalty and other Brand Equity Dimensions also have indirect but positive effect on Post-purchase Satisfaction.

The indirect effect of Consumer Buying Behaviour (0.030) on Post-purchase Satisfaction was also found to have a positive effect.

Table 7.3

Regression models of Brand Equity Dimensions before and after introduction of mediation variables

	Path	Brand Equity Dimensions (Independent)	Before Mediation		After Mediation	
			Estimate	P	Estimate	P
Post-Purchase Satisfaction	<---	Brand Awareness	0.287	**	.090	.135
Post-Purchase Satisfaction	<---	Brand Loyalty	0.044	0.711	-.026	.804
Post-Purchase Satisfaction	<---	Brand Association	0.349	**	.169	*
Post-Purchase Satisfaction	<---	Perceived Quality	0.195	*	.051	.494

** - Significant at 1% level * - Significant at 1% level Ns-Not significant

It is hypothesized, that **Pre-purchase Brand Dominance and Consumer Buying Behaviour have mediation effect between Brand Equity Dimensions and Post-Purchase Satisfaction.** The table given above shows the results of the direct effects of the Brand Equity Dimensions before and after introduction of these mediation variables. It is seen that, except Brand Loyalty, all the other three dimensions namely, Brand Awareness, Brand Association and Perceived Quality have significant effect on Post-purchase Satisfaction. The number of factors significantly influencing Post-purchase Satisfaction are more before mediation when compared after mediation. It is also to be observed that the regression coefficients are comparatively lesser for the Brand Equity Dimensions after the introduction of mediation variables namely Pre- Purchase Brand Dominance and Consumer Buying Behaviour. That is, introduction of mediation variables have significant impact between the relationship of Brand Equity Dimensions and Post-Purchase Satisfaction. Hence the hypothesis H07 that ‘**There is a mediation effect played by Pre-Purchase Brand Dominance and Consumer Buying Behaviour between Brand Equity Dimensions and Post-purchase Satisfaction of the respondents**’ is accepted.

Total Effects - Estimates

The combined direct and indirect effect of each column variable on each row variable is called Total Effect. For example, total effect of Perceived Quality on Post

Purchase Satisfaction is 0.195. This is the sum of the direct effect and indirect effect (0.051+0.144=0.195) it had on Post-Purchase Satisfaction score. The results show that the total effects of all the Brand Equity Dimensions on Post-Purchase Satisfaction are positive.

The total effect of Consumer Buying Behaviour on Post-purchase Satisfaction is also positive.

Table 7.4

Standardized Regression Weights for Direct, Indirect and Total Effects

	Perceived Quality	Brand Association	Brand Loyalty	Brand Awareness	Consumer Buying Behaviour	Pre-purchase Brand Dominance
Direct Effects						
Consumer Buying Behaviour	.260	.119	.039	.410	---	---
Pre-purchase Brand Dominance	.143	.208	.058	.290	.052	---
Post Purchase Satisfaction	.033	.097	-.011	.080	.109	.424
Indirect Effects						
Consumer Buying Behaviour	---	---	---	---	---	---
Pre-purchase Brand Dominance	.013	.006	.002	.021	---	---
Post Purchase Satisfaction	.095	.104	.030	.177	.022	---
Total Effects						
Consumer Buying Behaviour	.260	.119	.039	.410	---	---
Pre-purchase Brand Dominance	.157	.214	.060	.311	.052	---
Post Purchase Satisfaction	.128	.201	.019	.257	.131	.424

The relative contribution of standardized direct, indirect and total effects of each of column variable on the row variables are shown above as the standardized regression weights which are similar to unstandardized regression weights. Except that, these standardized regression weights are free from units of measurements and hence they are comparable. For example, it can be said that the direct effect of Brand Awareness (0.410) on Consumer Buying Behaviour is relatively higher than other Brand Equity Dimensions. The comparisons are made for absolute values omitting the signs. Similar comparisons can be made for other dependent variables also. The effect of Brand Awareness on Pre-purchase Brand Dominance (0.290) is also relatively higher than the other Brand Equity Dimensions. The effect of Brand Association (0.097) is comparatively higher than other dimensions on Post-purchase Satisfaction.

It can also be compared that, Consumer Buying Behaviour (0.109) has more effect on Post-purchase Satisfaction than on Pre-purchase Brand Dominance (0.052).

Brand Equity Dimensions also have indirect effect on Pre-purchase Brand Dominance and Post-purchase Satisfaction. The indirect effect of Brand Awareness (0.021) contributes more to Pre-purchase Brand Dominance compared to other Brand Equity Dimensions. The indirect effect of Brand Awareness is also highest (0.177) on Post-purchase Satisfaction when compared with other Brand Equity Dimensions.

From the standardized total effects, it can be observed that overall, Brand Awareness (0.311) has more effect on Pre-purchase Brand Dominance followed by Brand Association (0.214). The total effect of Brand Awareness (0.257) on Post-purchase Satisfaction is higher among Brand Equity Dimensions. Brand Awareness is the maximum influencing factor on Post-purchase Satisfaction followed by Brand Association (0.201). Consumer Buying Behaviour also contributes to certain extent to Post-purchase Satisfaction.

Summary

Path Analysis was attempted to find the influence of Brand Equity Dimensions namely, Brand Awareness, Brand Loyalty, Brand Association and Perceived Quality on Pre-purchase Brand Dominance, Consumer Buying Behaviour and Post-purchase Satisfaction on selected consumer durables. Further, the effect Consumer Buying

Behaviour on Pre-Purchase Brand Dominance and the effects of both Pre-purchase Brand Dominance and Consumer Buying Behaviour on Post-purchase Satisfaction were also studied. The mediation effects of Pre- Purchase Brand Dominance and Consumer Buying Behaviour between Brand Equity Dimensions and Post-purchase Satisfaction were also studied. The path model developed with these factors was tested for goodness of fit. The fit statistics namely CMIN, GFI, NFI, CFI and RMSEA were employed for the validity of the model. The goodness of fit statistics was within the admissible limits and it was inferred that the model was good.

Finally, the path coefficients were estimated and both direct, indirect and total effects of exogenous and endogenous variables were found out. The unstandardized and standardized regression weights were calculated. The results showed that except Brand Loyalty, other Brand Equity Dimensions, namely Brand Awareness, Brand Association and Perceived Quality had positive significant effect on Pre-purchase Brand Dominance and Consumer Buying Behaviour. Only Brand Association was found to have positive significant effect on Post-purchase Satisfaction. Pre-purchase Brand Dominance and Consumer Buying Behaviour were found to have direct positive effects on Post-purchase Satisfaction and the results were significant at either 5% or 1% level. The effect of Consumer Buying Behaviour on Pre-purchase Brand Dominance was also positive and significant at 5% level.

The introduction of the mediating variables, Pre-purchase Brand Dominance and Consumer Buying Behaviour had significant effect on Post-purchase Satisfaction. The effects of Brand Equity Dimensions on Post-purchase Satisfaction were found to be lesser after the introduction of mediating variables.

The standardized regression coefficients were found out to examine the relative contribution of each factor on the other. It was found that the direct effect of Brand Awareness on Consumer Buying Behaviour was relatively higher than other Brand Equity Dimensions. The effect of Brand Awareness on Pre-purchase Brand Dominance was also relatively higher than other Brand Equity Dimensions. The effect of Brand Association was comparatively higher than other dimensions on Post-purchase Satisfaction. Also, Consumer Buying Behaviour had more effect on Post-purchase Satisfaction than on Pre-purchase Brand Dominance.

Brand Equity Dimensions also had indirect effect on Pre-purchase Brand Dominance and Post-purchase Satisfaction. The indirect effect of Brand Awareness contributed more to Pre- purchase Brand Dominance compared to other Brand Equity Dimensions. The indirect effect of Brand Awareness was also higher on Post-purchase Satisfaction when compared with other Brand Equity Dimensions.

It was observed that overall, Brand Awareness had more effect on Pre-purchase Brand Dominance followed by Brand Association. The total effect of Brand Awareness on Post- purchase Satisfaction was higher among Brand Equity Dimensions. Brand Awareness was the maximum influencing factor on Post-purchase Satisfaction followed by Brand Association. Consumer Buying Behaviour also contributed significantly to certain extent to Post-purchase Satisfaction.