This chapter deals with the methods and procedures followed in this study and looks at the profile of the participants. The survey method is adopted here as fairly large quanta of data had to be collected and this data was collected from three different geographical locations, Bangalore, Hyderabad and Kochi. In this chapter, the advantages and limitations of adopting the survey method is briefly discussed. The profile of the participants, the sampling techniques used, measurement scales and the logic of using these measurement tools are also discussed here. Finally the statistical techniques to analyze the data collected too are discussed.

### 5.1 Sampling Design

Sampling is the process of selecting some units from a population of our interest area, so that by studying the sample, we may fairly generalize our results back to the population from which they are chosen [Gupta and Kapoor (1987)]. The first activity in any sampling process is to identify the population that is matching with the theoretical profile and is accessible for data collection.
Population in this study is defined as “executives working in the corporate sector in major cities in South India”. Here executives mean persons working mostly in middle and lower level of management cadre. Indian corporate sector has two main components- companies in government promoted or public sector and private sector. Private corporate sector comprises all non-government financial/non-financial corporate enterprises and co-operative institutions [Goyal (1988)]. A large number of such companies have pan India presence and many of them have multinational operations. Major cities specified in our definition are the metros in south India namely Bangalore, Hyderabad and Kochi. Younger executives were targeted during the study as younger age group is more susceptible to the influence of media and peers.

Though South India has a number of cities such as Chennai, Bangalore, Hyderabad, Kochi, Coimbatore, Mysore, Vishakhapatnam, Thiruvananthapuram etcetera, we limited our study to Kochi, Bangalore and Hyderabad. Kochi is selected as it is a fast growing city known for an indulgent population. Moreover all the initial exploratory and pilot studies were carried out in Kochi. We had to make the choice of the other two places from among Chennai, Bangalore and Hyderabad as the study was decided to be limited to South India. These three cities are rather close in their population base with Chennai having a population of 9 million, Bangalore 8 million and Hyderabad having 7 million and are the most prominent business and commercial destinations in the southern part of our country [International Council for Local Environment Initiatives (ICLEI 2011)]. Bangalore is considered to be one among the most prominent cities noted for high consumption lifestyles while Hyderabad is not far behind [Mitra (2008)]. Both these cities have a highly cosmopolitan
population. Chennai though a bigger city was not taken up as it had a comparatively more conservative and tradition bound life style.

In this study the total population size cannot be correctly estimated and hence it is difficult to conduct a fool proof probability sampling. So the sample size was estimated from the variance for materialism values measured using Richins and Dawson’s scale \((m = 49.94, \text{SD} = 10.41)\) which had the highest variance among the different variables under consideration. The sample size was estimated using the formula \(n = (1.96 \times \text{SD})^2 / H^2\), and it was estimated 95% confidence level and \(+1\) accuracy level of materialism and the sample estimated value was 416.

### 5.2 Sampling Process

This study has adopted a survey method for data collection, using a structured questionnaire. The data was collected from the executives working in leading firms in the three metro cities in South India, Bangalore, Hyderabad and Kochi. The firms included in the survey were selected randomly from the list of leading employers of youth who are engineers, MBAs and other qualified professionals. We have selected Bangalore, Hyderabad and Kochi as they happened to be the home for a large number of Information technology based companies and other new generation businesses.

We adopted a multi stage sampling procedure, first deciding on the geographical locations and then the organizations. During the first stage the decision on the locations where the study is to be carried out was made. Based on which we decided on the three cities mentioned earlier. Afterwards we selected fifteen companies each from these three cities. These companies were selected randomly from the sample frame comprising the list of companies which carried out placements in leading business schools in these cities.
Companies which carried out campus placements in leading business schools were taken as our sample frame as all these organizations were leading corporate entities and major employers of professionally qualified persons. The data was collected from the persons who were present on that particular day when the data collection activity was carried out.

Accessibility was an issue faced by this researcher as getting permission to collect data from many organizations in information technology (IT), banking and financial services, IT Enabled Services Sector (ITES) etcetera was quite procedural, circuitous and difficult. As the researcher could not get required permissions from some of these organizations, questionnaire schedules were finally circulated only in thirty five organizations. Questionnaires (see Annexure IV) were distributed to the employees present on a particular day and collected back after the completion on the same day. Only one or two organizations could be covered during a day. These questionnaires were cross checked for completeness and the correctness of their responses and only such response sheets were taken up for further analysis. Though two hundred and eighty questionnaires were distributed in fourteen organizations in Kochi, the researcher could get back only 216 valid samples from this (77% return rate). Similarly two hundred and forty questionnaires were given to executives working in twelve organizations in Bangalore from which the researcher got back 191 valid samples (79.6% return rate). One hundred and eighty questionnaires were circulated among employees of nine organizations in Hyderabad and the researcher could get back only 136 valid samples (75.6% return rate). Thirteen questionnaires were discarded for being incomplete. This left us with 530 valid samples.
5.3 Why Survey Method is used?

The survey method is one of the most common approaches used in social sciences, especially when it is required to evaluate empirically the interrelations of concepts sociological and psychological in origin. The major advantage of the survey method is that it allows social researchers to collect data on attitudinal and behavioral factors in order to investigate the existence of relationship between various sociological and psychological variables [Kerlinger and Lee (2000), Kinner and Taylor (1996)].

According to Kerlinger and Lee (2000), the survey research method enables the researchers to collect efficiently a great deal of information from a large population. This matches with our study requirements as we had to collect sample based data of a large population. Compared to experimental research method, survey method provides more realism and hence its external validity is higher [Roberts (1999)]. This method conforms to the specifications of scientific research as it is logical, deterministic and specific [Hart (1987)]

There exist a number of limitations to survey based methodology and one limitation pointed out by Kerlinger and Lee (2000) is the fact that social scientists do not have direct control over the independent variables because the manifestation of these variables cannot be manipulated. Hence the investigators cannot come to the conclusion that certain independent variable has caused changes in certain dependent variables even if there is statistically significant relation between these variables. There can be issues related to respondent selection and also the fact that there could be intervening variables which are not included in the questionnaire. Dillman (1991) points out the measurement errors happening and errors in the phrasing of the questionnaire.
In-spite of all these limitations the survey method is often employed by researchers to test their causal models. According to Marsh (1982), a causal model can be tested by survey data, if the model is built on in-depth review of literature, a solid theory based out of rigorous thinking, logical clarity and argumentation. A linear structural equation modeling is being used to fit the different pre-constructed causal models to the marketing survey data with the help of tools like AMOS [Kwak et al. (2002), Randall et al. (2002), Tromsdorff (1984)].

The questionnaire for this study was formulated on the basis of logical reasoning that has evolved from the literature study taken up and also based on the feedback and results drawn from the exploratory work [Thomas et al. (2011), Thomas and Wilson (2011)]. As this study has intended to collect both attitudinal and factual data regarding consumption related beliefs, attitudes and associated psychological parameters, the survey method is the most appropriate. Another factor that favors survey method is the fact that the questionnaire used for this survey was too lengthy to be administered by either telephonic or personal interview.

5.4 The Profile of Respondents

Middle income group or the middle class are mostly the salaried employees popularly known in India as the ‘service classes’. They have a regular income, which comes after tax deductions and also after the adjustments to take care of any loan based liabilities. This means that they have a certain fixed disposable income to meet their various needs throughout the month. Hence they are the most vulnerable group in terms of materialism and social pressure factors. Adopting a high consumption lifestyle can bring in financial strain much faster when compared to the rich lot.
As predominant section of working executives belongs to the middle class, by default the primary target group considered for this study is the middle income group. The focus was on the behavior of the professionally qualified and the well educated people from middle class backgrounds, who are employed in the executive cadre of leading organizations. The age of such executives can range from early twenties to late fifties. As far as possible we have tried to focus on the youth segment (20-40 age groups) as they are the most gullible to advertising messages and more susceptible to upward social comparisons and peer group influence [Yovovich (1995)]. Moreover we have seen a considerable increase in the salaries of this group in many new industry segments where these professionally qualified or well educated youth are finding employment. The organizations covered are mainly from sectors such as information Technology (IT) and Information Technology Enabled Services (ITES), Advertising, Media, Entertainment and Telecom, Banking and Financial Sector, Consumer Goods Marketing and Sales.

To summarize, this study is based on 530 samples collected from Kochi (210; 40%), Bangalore (188; 35%) and Hyderabad (132; 25%). As mentioned earlier all respondents were working in the management cadre of leading organizations. 356 (67%) of the respondents were males and 174 were females. 57.2% of them were married and 62% of the married had their spouses also working. As envisaged in the study design to focus more on youth, 56.8% of the sample belonged to 20-30 age group and 31.5% belonged to the 30-40 age group. Only 11.7% belonged to the older groups (6.9 % in the 40-50 age group and 4.8% in the 50-60 age group). 65% of the target group had professional qualifications and among the rest 14% were post graduate degree holders and 21% were just graduates. Only 19% of the respondents
belonged to senior level positions while 81% of the respondents were having jobs at the middle (53.5%) and junior levels (27.5%).

5.5 Instruments

This study uses three different scales to measure the different constructs which are crucial to the conceptualizations proposed. Scaling is the process of measuring quantitative aspects of subjective or abstract concepts. It is the method of assigning numbers or symbols to some attitudes of an object (Kumar 2005). Scaling involves developing a continuum based on which measured objects are located.

One of the fundamental issues while developing or while using a scale is the question, how can one ensure that the scale is really measuring, what it is supposed to measure? This is largely determined by the question, which aspects of the situation or issue should be included in the scale when seeking to measure an attitude. Establishing the validity and reliability of the instrument is crucial in considering the effectiveness of any scale.

There are three types of validity. The first is content and face validity, which is primarily based on the logical link between the questions and the objectives of the study. Each question or item on the scale must have a logical link with the objective. The second is concurrent and predictive validity. When a scale is developed as an indicator of some observable criterion, the scale validity can be investigated by observing how good an indicator it is [Moser and Karlton (1989)]. The concurrent and predictive validity is established by suitable comparisons. It is usually possible to express predictive validity in terms of the correlation coefficient between the predicted status and criterion. Such a coefficient is called a validity coefficient.
The third is the construct validity which is a more sophisticated technique for establishing the validity of an instrument. It refers to the degree to which inferences can legitimately be made from the operationalizations in a study to the theoretical constructs on which these operationalizations are based. It is determined by ascertaining the contribution of each construct to the total variance observed in a phenomenon [Kumar (2005)].

The conventional psychometric theory distinguishes three types of reliability [Cronbach (1947), Guilford and Fruchter (1973)]. They are - 1) Alternate forms of reliability, 2) Internal consistency reliability (also known as ‘consistency’) and 3) Test-retest reliability (or stability). The alternate forms of reliability address the question whether alternative or other versions of tests produce equivalent results. The test-retest reliability considers the stability in the respondent’s attitude whether the respondents give different answers to the same question when administered over different occasions.

Internal consistency reliability is assessed by examining item-test correlation, where correlation of each individual item is tested with the total test score. An overall index of the internal consistency is provided by Cronbach’s alpha coefficient value [Cronbach (1951)] which is based on a weighted average of the item-test correlations. According to Nunnaly (1978) the minimum acceptable alpha level is 0.50. Churchill (1979) is of the opinion that the minimum requirement for such reliability is 0.60.

5.5.1 Measurement of Materialism – Richins and Dawson’s Scale

Based on the predominant usage in various international studies, the researcher considered the two major scales for measuring materialism. They are Richins and Dawson’s (1992) material value scale and Belk’s Materialism scale [Belk (1984), Ger and Belk (1990)]. Belk’s scale has been tested in the
United States, Turkey, France [Ger and Belk (1990)], Denmark, Romania [Ger and Belk (1999)], Niger [Wallendorf and Arnold (1988)] and Brazil [Evrad and Boff (1988)]. The problem with Belk’s scale is that most studies failed to have high reliability in terms of Cronbach alpha coefficient, which was often below 0.60 for individual component scale, though overall score reached 0.60 [Yang (2006)].

Generally speaking Richins and Dawson’s materialism value scale has achieved better reliability in comparison with Belk’s materialism scale. This scale has been applied and tested in many countries and cultures including New Zealand [Watson (1998)], Brazil [Evrad and Boff (1998)], Thailand [Webster and Beatty(1997)], China [Eastman et al. (1997), Sirgy et al. (1998), Zhou et al. (2002)], Mexico [Eastman et al. (1997)], Turkey, Canada and Australia [Sirgy et al. (1998)]. Mick’s (1996) two studies obtained a score of 0.88 and 0.85 for Richins and Dawson’s overall scale. Shrum et al. (2003) reported the overall reliability as 0.84. Overall reliability score reported by Watson (1998) from New Zealand was 0.83 and in China the Zhou et al. (2000) recorded 0.68 values for the overall scale.

During the exploratory work undertaken [Thomas et al. (2011)] a comparative evaluation of these two scales was carried out. It was found that a higher reliability factor of Cronbach alpha value of 0.701 was noted for Richins and Dawson’s scale as compared to the alpha value for Belk’s scale, which was only 0.408. A very low correlation (Pearson correlation value 0.194, p < 0.01) between the materialism values measured using Richins and Dawson’s material value scale and Belk’s materialism scale too was observed.

Mishra and Mishra (2011) used both Richins and Dawson’s (1992) and Belk’s (1984) materialism scales in a survey conducted in Bhubaneswar and
Cuttack and found Cronbach alpha value of 0.641 for Richins and Dawson’s scale while they got only 0.254 alpha value for Belk’s scale. Findings from their study indicated that Richins and Dawson’s scale exhibits more construct validity with Indian consumers. More over materialism as a social value is a finding having more congruence with the conceptualizations of this study. Considering all these factors, it was decided to use Richins and Dawson’s scale for this study.

Richins and Dawson (1992) consider materialism a consumer value that becomes so central to individuals that it starts to control their lives. According to Richins (2004), material value scale is developed to measure “the importance ascribed to the ownership and acquisition of material goods in achieving major life goals or desired states”. The scale consists of eighteen items and the items are scored on a five point Likert scale format from ‘strongly agree’ to ‘strongly disagree’ to measure the below listed three components of materialism.

The first scale ‘possession defined success’ has six items measuring the degree a person attaches to various possessions or material objects as indicators of success. The second scale consists of seven items dealing with ‘acquisition centrality’ which measure the focus an individual has towards consumption or how crucial is the acquisition behavior in an individual’s life. The third scale, ‘acquisition as the pursuit of happiness’ has five items which measures the degree of the belief that consumption lead to happiness.

The material value score can range from 18 to 90 and higher scores indicate higher levels of materialism. According to the scale developers, this instrument can be appropriately used to examine the global conceptualization of materialism. Richins and Dawson (1990) used three samples of students (n = 448, 191 and 194) in the preliminary tests. Later they used four consumer samples (n = 144, 250, 235 and 205) for reliability and validity checks as part
of the scale development. Then a sample of 58 students was used to assess test–retest reliability.

During the scale development activity mentioned above, the reliability value alpha coefficients obtained from the sample of college students ranged from 0.74 to 0.78 for the ‘possession defined success’ factor, 0.71 to 0.75 for ‘acquisition centrality’ factor and 0.73 to 0.83 for ‘pursuit of happiness’ factor. The alpha coefficient for the overall scale ranged from 0.80 to 0.88. The test-retest reliability coefficient values, over a three week interval (n = 58), was 0.82; 0.82 and 0.86 for the success, centrality and happiness factors and 0.87 for the overall scale. The mean scores reported based on the scale development activity by the authors, Richins and Dawson (1992) were, 14.27 (SD = 3.9) for success factor, 19.47 (SD = 4.07) for centrality factor and 13.07 (SD = 3.93) for happiness component. The mean value reported for overall materialism score was 46.83 (SD = 9.43).

The alpha reliability coefficient obtained for this study for the overall materialism scale was 0.777. Individual component Cronbach alpha values were 0.739, 0.648 and 0.707 for success, centrality and happiness factors respectively. The mean value of scores were 17.31 (SD = 4.41) for success factor, 19.55 (SD = 4.36) for centrality factor and 14.58 (SD = 3.85) for happiness factor and 51.43 (SD = 10.51) for overall materialism score and all these results are well within acceptable limits.

### 5.5.2 Measurement of Self-Esteem – Rosenberg’s Self-Esteem Scale

Rosenberg’s self-esteem scale (1965) is the most widely used measurement of self-esteem [Grey-Little et al. (1997)] which Rosenberg (1979) defined as one’s attitude toward the self. Though the scale was originally designed as a Guttman scale, it is now commonly scored as a Likert
scale and consists of ten statements regarding the feelings about one-self. Each of these ten statements is scored on a four point scale ranging from strongly agree to strongly disagree. A global self-esteem score is derived by cumulating the scores on each item and the scores can range from 10 to 40. Rosenberg (1979) reported a test-retest reliability of $r = 0.85$.

Rosenberg’s self-esteem (RSE) scale has been used more often than any other scale to measure self-esteem and the literature provides enough evidences for this [Mayhew and Lembers (1998), Kernis et al. (2000), Carlson et al. (2000)]. Reliability of Rosenberg’s self-esteem scale has been adequately demonstrated in a number of studies. McCarthy and Hoge (1982) reported Cronbach alpha value of 0.77 for this scale. Robins et al. (2001) reported alpha coefficients of 0.88; Vispoel et al. (2001) got alpha coefficient value of 0.92 and Meek (2007) reported an alpha value of 0.88 while using Rosenberg Scale.

Robins et al. (2001) found that Rosenberg’s self-esteem scale measures showed strong convergent validity with the Single Item Self-Esteem (SISE) scale across genders and ethnicities. They reported correlations ranging from 0.72 to 0.76 for these two scales during six administrations. Rosenberg’s self-esteem scale has been correlated with Texas Social Behavior Inventory, but the correlations reported were slightly weaker as 0.58 and 0.62 [Robins et al. (2001)]. Bagley et al. (1997) come out with evidences to show acceptable construct validity for the scale. During the exploratory study conducted by this researcher too, a reliability value of 0.77 was obtained [Thomas et al. (2011)].

5.6 Developing a Scale for Measuring the Social Pressure to Consume

This study has identified four different factors which act as major contributors of social pressure to consume, namely internalization of what is projected through television media, interpersonal and peer group influence,
Chapter 5

upward social comparisons and attitude to debt or attitude towards availing credit. The social pressure scale is a combination of the four different sub-scales. We have added a fifth component which is a measure of the level to which the individual will succumb to social pressure.

The first activity in this scale development task was to develop a large list from which a pre-test version of the scale can be developed. This large pool of fifty eight items have been basically drawn from Rossiter’s (1977) scale for ‘attitude toward television advertising’ (10 items), Bearden et al. (1989) scale for ‘consumer susceptibility for interpersonal influence’ (12 items), Lennox and Wolfe’s (1984) scale for ‘attention to social comparison information’ (ATSCI -13 items) and Lea and others (1995) scale for ‘consumer attitudes to debt’ (17 items). The remaining six items were statements which were indicators of social pressure taken from the scale used in the pilot study which showed scale validity. Finally a scale of 33 items was developed from this inventory which was put to test.

The pretesting of the 33 item scale was conducted on a sample comprising 73 working executives, having the mean age of 37 (SD 6.3) in Kochi. Findings from this pre-testing exercise were helpful in developing the twenty item social pressure scale which was used in this study.

5.6.1 Measurement of the Attitude towards Television Programs or Commercials

This study employed the seven item scale developed by Rossiter (1977) to check children’s attitude to television advertising as a reference scale for developing this subscale. Different versions of this scale have been used in different studies to check the impact of television viewing in the development of materialism (Mishra and Mishra 2011). Rossiter (1977) reported a Cronbach
alpha value of 0.69 from the original test development activity and a test-retest reliability of $r = 0.67$. The original scale used a four point agreement scale with verbally and visually cued response boxes as it was designed for children.

Mishra and Mishra (2011) used this scale with a sample of 252 adults surveyed from the twin cities of Cuttack and Bhubaneswar and reported an alpha value of 0.434. Further investigation by them showed that item three of the Rossiter scale, “television commercials tell only the good things about a product, they do not tell you bad things”, had the lowest item-to-total correlations and on deleting this item, Cronbach alpha was found to be 0.502. As we noticed low reliability alpha values we included all the seven items in our developmental scale.

During the pretesting carried out by this researcher, the reliability alpha score reported for this seven item component scale was 0.625. On deeper analysis it was observed that there were four items which were giving lower correlations. These items were deleted, after finding that their ability to evaluate the susceptibility of the television viewer to internalize the values promoted in various programs or advertisements, to be low. It was earlier noted that television media has been observed to be biased in projecting a rich and affluent life style through its programs and advertisements. The revised scale, after deletion of the four items had an alpha value of 0.861.

The three items that were retained were

- “TV advertisements tell the truth”,
- “Most TV commercials are not very interesting and I don’t spend much time watching them” (reverse scored),
- “The products advertised on TV are the best products to buy”
All these items matched with our construct on whether customers do get into internalizing what is projected through the television media and are borrowed from Rossitter’s (1977) scale. Item six of the scale used for test development namely, “you can always believe what the celebrities say about the products they endorse” was matching with the construct, but was dropped because of the low item-to-total correlation factor.

5.6.2 Measurement of Interpersonal and Peer Group Influence

The scale to measure consumer susceptibility to interpersonal influence developed by Bearden et al. (1989) is a very popularly used scale and it is used as the basis for developing this component of the social pressure scale. Bearden et al. (1989) consider consumer susceptibility to interpersonal influence as a general trait that varies across individuals. The construct is defined as the “need to identify with or enhance one’s image in the opinion of those people considered significant through the acquisition and use of products and brands, the willingness to conform to the expectation of others regarding purchase decisions and the tendency to learn about products or services by observing others or seeking information from others” [Bearden et al. (1989)]. Burnkrant and Cousineau (1975) and Deutsch and Gerard (1955) reported that the above defined construct is multi dimensional as both normative (utilitarian and value expressive) influences and informational influences are given due consideration.

This scale consists of twelve items, each operationalized as a Likert seven point rating scale ranging from strongly agree to strongly disagree. Eight items are based on normative influences while other four are based on informational influences. Bearden et. al. (1989) during the first administration of this scale with a sample of 220 adults got a Cronbach alpha value of 0.82 for the informational influence factor and 0.88 for normative factor. Test-retest
exercise was conducted on a sample of 35 subjects and alpha values of 0.75 and 0.79 were recorded for the two factors. The Validity measures carried out showed good correlation existing between these two factors and Social Comparison values were measured using (ATSCI) attitude to social comparison information scale.

Compared to informational influence, normative factors such as utilitarian influence and value expressive functions play a stronger influence in molding consumption behavior. Evidence for this can be found in the work by Calder and Burnkrant (1977), where they stated that individuals higher in susceptibility to normative influences end up in buying products which they feel will fetch approval of important referents. With this in mind we have given more importance to the normative items in the original scale by Bearden et al. (1989). From the informational influence section only the first item of Bearden’s scale, “I often consult other people to help me choose the best alternative available from a product class”, was retained. From the eight normative factor items, item eight, “when buying products, I generally purchase those brands that I think others will approve of”, was dropped as the author feels that this study is more concerned with consumption of status products. The information content of this item can be captured through the item “if other people can see me using a product, I often purchase such brands which they expect me to buy”.

These seven items became the sub component for interpersonal and peer group influence in the 33 item social pressure scale for pretesting. On pretesting the alpha value observed was 0.610. Investigation showed that the two items, “I rarely buy latest fashion items until I am sure that my friends approve of them” and “when buying products, I generally buy brands that I
think others will approve of”. On dropping these, the remaining five item scale had an alpha value of 0.79.

The following five items became the peer pressure sub-component scale for measuring susceptibility to interpersonal and peer influence.

- I often consult other people to help me choose the best alternatives in any product class.
- If I want to be like someone, I often try to buy the same brands that they buy.
- I often try to identify with my friends and others by purchasing the same products and brands they purchase.
- If other people can see me using a product, then I will buy such brands which they expect me to buy.
- When I buy the same brands that my friends have, I feel closer to them.

5.6.3 Measurement of Vulnerability to Social Comparison

Attention to social comparison information (ATSCI) scale was developed by Lennox and Wolfe (1984) to assess the extent to which one is aware of the reactions of others to one’s behavior and how concerned or how sensitive is the individual to the nature of those reactions. These individuals give higher importance to what other people think about them and look for clues about the nature of other’s reactions toward them. ATSCI is a thirteen item scale scored on a five point format ranging from “always false” to “always true”. During the developmental exercise Lennox and Wolfe (1984) could establish its reliability with Cronbach alpha value of 0.83 (n = 224 students). Bearden and
Rose (1990) examined ATSCI using four student samples and reported alpha estimates of 0.85, 0.83, 0.88 and 0.89.

The social comparison related construct which we consider a contributor of materialism deals with “the upward comparisons which the individuals do get into, and which instill in such people an urge for acquiring more material possessions, force them to engage in acquiring more material possessions and stir up a higher consumption behavior” [Frank (2005), Royo (2007)]. Through this component scale we look for the vulnerability factor in individuals to enter into upward social comparison activity.

Attention to social comparison scale [Lennox and Wolfe (1984)] has a lot of commonalities in its construct with the susceptibility to interpersonal influence. So the author looked for items from the scale matching to attention to upward comparison in the scale and decided to borrow the following four items after minor adaptations. This four item scale became the ‘vulnerability to social comparison’ as a component of the 33 item test scale. On pre-testing this sub scale had a Cronbach alpha value of 0.731 for reliability.

These four items comprise the scale for measuring susceptibility to social comparison:

- “When I am uncertain how to act in a social situation, I look to others for clues
- “I regularly keep buying things that are of latest fashion”
- “I tend to pay a lot of attention to what others have and also what they wear”
- “I usually tend to adopt the lifestyles and behavior of others with whom I interact”
5.6.4 Measurement of the Attitude to Debt

Lea et al. (1995) looked at the attitude to debt as “a psychological variable that captures how consumers feel about debt and what they believe are the appropriate uses of debt”. These general attitudes are said to have undergone a great change toward a greater acceptance of debt as a part of the consumer driven society. Attitude to debt scale by Lea et al. (1995) is a seventeen item scale that was scored on a seven point Likert format, ranging from “strongly agree” to “strongly disagree”.

Lea et al. (1995) did the scale development work by first formulating a 30 item scale which was pretested with a sample of 583 adult consumers in England. Based on this they developed the final scale in the present form of 17 items which was again tested with 464 adults. Cronbach alpha values for the developmental scale and the final scale from the mentioned tests were 0.83 and 0.77.

From this original scale, we took nine items with minor modifications, which after detailed introspection we felt would evaluate the consumer attitude towards availing debt or usage of credit instruments to pursue their materialistic intentions. Some items deleted from the original scale were mostly on the basis of the Indian cultural factors which were more conservative and tradition bound in comparison with the culture prevalent in western nations [Banerjee (2008), Banerjee and Miller (2004)]. As the targeted response group was more of young employees, the question related to borrowing to meet children’s needs also was deleted. Here the focus is more on the propensity of the consumer to resort to debt to fuel his high consumption oriented, acquisition needs.

Based on such analysis, the following nine items were shortlisted, “It is a good idea to have something now and pay for it later”, “Being in debt is
never a good thing”, “It is important to plan ahead before buying expensive items”, “It is very easy now to get credit cards or consumer finance to buy consumer durables”, “Borrowed Money should be repaid as early as possible”, “It is important to live within one’s means”, “Taking out a loan is a good thing because it allows you to enjoy life”, “Buying on credit has become very common these days” and “Using credit is an essential part of today’s life style”.

This nine item scale was included in the attitude to debt part of the 33 item social pressure scale for pretesting. Based on the pretest carried out on 73 working adults in Kochi, a reliability alpha value of 0.646 was recorded. Six items from this showed low item-to-total correlations. On dropping these items there was substantial improvement in the reliability factor with Cronbach alpha value of 0.85. These three items which became a part of the attitude to debt scale for this study are:

- It is a good idea to have something now and pay for it later.
- There is nothing wrong about taking a loan as it allows you to enjoy life.
- Availing credit has become an essential part of today’s life style.

5.6.5 Scale for Measuring Social Pressure to Consume

The scale is developed to measure the level of social pressure of the respondents. In this study the Social Pressure construct is the sum total of different societal pressures on an individual that drives him to high consumption behavior and materialistic tendencies. They are the attitude to television media, interpersonal and peer influence, upward social comparisons and attitude to debt or attitude towards availing credit. Based on this we had developed a 12 item scale which was used in the pilot study. We selected items which showed significant scale validity.
The six items included in the test scale of 33 items were, “models that come in TV commercials are very beautiful and I wish I was like them”, “I am more concerned with the utility of a product and not much bothered whether it creates an impression on other people”, “I always voice my opinion even if it is against the opinion of the majority of the group members”. To this we added three more items, “I celebrate birthdays, anniversaries and such other events just because it is common practice”, “membership in prestigious clubs or social groups is important for a person like me” and “there is nothing wrong in borrowing money to celebrate festivals (Diwali / Ramzan / Navaratri / Christmas)” as an indicator of social pressure. On pre-testing this scale, we got a reliability alpha value of 0.72. However, the item “I always voice my opinion even if it is against the opinion of the majority of the group members” was found to have low item-to-item correlation. On deletion of this item, the reliability alpha value improved to 0.80.

The five item scale used as the measure of social pressure to consume is:

- Models that come in TV commercials are all beautiful and I wish I was like them.
- I am more concerned about the utility of a product and not much bothered whether it creates an impression on other people.
- I celebrate birthdays, anniversaries and such other events just because it is common practice.
- Membership in prestigious clubs or social groups is important for a person like me.
- There is nothing wrong in borrowing money to celebrate festivals (Diwali / Ramzan / Navaratri / Christmas).
5.7 Pilot Study

To test the questionnaire, a pilot study was conducted in Kochi with a sample consisting of 48 working executives, majority of them holding professional degrees. Mean age of the sample was 35.1 (SD 8.69) and mean income was Rs. 60,697.92 (SD 15,192.96). Through this exercise the author found out that the results were matching with the major presumptions developed on the basis of the earlier mentioned exploratory research activities which have led to this thesis. This pilot work helped in finalizing the questionnaire used in this study, by incorporating the required amendments based on the findings from the survey and the feedbacks collected from the respondents.

5.8 Data Analysis

The data collected from 530 respondents were analyzed with the help of statistical packages. Reliability alpha values were calculated through the multi item scales used in the study, such as Richins and Dawson’s (1992) materialism scale, Rosenberg’s (1995) self-esteem scale and the newly developed social pressure scale. As construct validity tests are carried out in Indian studies for self-esteem and materialism scales no validity tests were repeated. Item-wise ‘Z test’ was carried out for the ‘social pressure’ scale to ensure its validity [Marques de Sa’ (2007)].

Pearson correlations were calculated to examine the relationship between materialism, self-esteem and social pressure [Chambers and Skinner (2003)]. Pearson correlations were also worked out between materialism, social pressure, television viewing, peer influence, social comparisons and attitude to credit. Confirmatory factor analysis with structural equation modeling was conducted for estimating the fitness of materialism and its factors with social pressure and its factors.
Confirmatory factor analysis is a type of structured equation modelling which deals specifically with measurement models for establishing relationship between observed measures and indicators such as test scores or scale values and also with latent variables or factors. A fundamental feature of confirmatory factor analysis is that it is hypothesis driven [Brown (2006)]. The researcher has to specify the number of factors and give an indication of the pattern of factor loading. He must have a firm prior sense, based on past evidence from literature and theory of factors that exist in the data. In this study the hypothesized model is shown in fig. 4.4, where we attempt to estimate the relationship between materialism and its component factors with materialism and its factors.

Further in many studies in the social research domain, the researchers need to have measures with good reliability and validity that are appropriate for the use across diverse population. Development of psychometrically sound measures is an expensive and time consuming process and often the researchers are constrained on both these factors. This forces them to use the existing measurement scales. But the major problem in using such measures is that such measures will have to be examined for their appropriateness with respect to the new population. Confirmatory factor analysis can be used in such a situation to examine whether the original structure of the measure works well with this new population [Brown (2006)].