

# **A study of the sense of well-being and perceived quality of life of people in Gujarat**

A Thesis submitted to Gujarat Technological University

for the Award of

**Doctor of Philosophy**

in

**MANAGEMENT**

by

**Rajesh Handa**

[119997392025]

under supervision of

**Prof. (Dr.) Girish Chandra Maheshwari**



**GUJARAT TECHNOLOGICAL UNIVERSITY  
AHMEDABAD**

[July – 2018]

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AHMEDABAD**

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## **ABSTRACT**

This study examined the perceived quality of life (well-being) of people in Gujarat state, with 785 respondents. It investigated the overall life satisfaction of people with the help of “satisfaction with life scale” (Dinner et al.). Semantic differential scale (Campbell et al.) has used to measure sense of well-being in terms of positive affect and negative affect. Factors were extracted by doing an exploratory factor analysis of scores of semantic differential scale. Means of factors were compared with overall life satisfaction score. Decision Tree method has used for classification of overall life satisfaction score of people with different demographic and socio-economic variables. Parametric tests used like One-sample t-test, Independent sample t-test, One Way ANOVA for Identifying the relationship between Perceived Quality of Life (PQoL) and variables (demographic, socio-economic and geographical area) like gender, age, education, marital status, income and area of residence. The study found that people of Gujarat were somewhat satisfied with their overall Quality of life; also their PQoL has varied with age, marital status and income level. Exploratory factor analysis was used to identify underlying construct (factors) of Quality of life in Gujarat, then after by applying multiple regression analysis, a model has revealed which shows the relationship between Overall Quality of life and different factors (domains of life satisfaction). Finally, Covariance Based Structural Equation Modeling (CB-SEM) has used to validate the model. Construct validity, Convergent validity and Discriminant validity has validated.

**Keywords:** Quality of Life, Overall Life satisfaction, Domains of Life Satisfaction, Perceived Quality of Life, Covariance Based Structural Equation Modelling (CB-SEM).

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Rajesh Handa

PhD Scholar

Gujarat Technological University

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## **List of Abbreviation**

|         |  |
|---------|--|
| CB-SEM  | Covariance Based Structural Equation Modeling          |
| CFA     | Confirmatory Factor Analysis                           |
| GDP     | Gross Domestic Product                                 |
| GNH     | Gross National Happiness                               |
| GSDP    | Gross State Domestic Product                           |
| HDI     | Human Development Index                                |
| HDR     | Human Development Report                               |
| HRQOL   | Health-Related Quality of Life                         |
| OECD    | Organization for Economic Co-operation and Development |
| PLS-SEM | Partial Least Square. Structural Equation Modeling     |
| PQOL    | Perceived Quality of Life                              |
| QOL     | Quality of Life  |
| UNDP    | United Nations Development Programmes                  |
| NFI     | Normed Fit Index.                                      |
| TLI     | Tucker–Lewis Index.                                    |
| CFI     | Comparative Fit Index.                                 |
| AGFI    | Adjusted Goodness of Fit Index.                        |
| GFI     | Goodness of Fit Index.                                 |
| RMSEA   | Root Mean Square of Error Approximation.               |

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 INTRODUCTION**

### **1.2 RESEARCH PROBLEM**

### **1.3 RATIONAL OF THE STUDY**

### **1.4 OBJECTIVES AND RESEARCH HYPOTHESIS**

### **1.5 NOMINAL DEFINITIONS**

### **1.6 CONCLUSION**

### 1.1 INTRODUCTION

Human beings are in search of well-being (Happiness) since the advent of men & women on this planet always putting efforts to improve it. They find happiness through different ways: like a spiritual seeker such as Gautam Buddha, Swami Vivekananda, Rajneesh Osho, Dalai Lama, etc., and some of the human beings are relating happiness with the wealth (materialism) and start running in the race of accumulation of wealth. Not only human beings, but countries are also running in the ace of making more and more wealth as it is considered a source of happiness. The whole world focuses on the attainment of economic well-being. Economic well-being is measured in GDP (Gross Domestic Product) growth rates, the resultant majority of the countries of the world are measuring the well-being of nations in term of GDP growth rates. This has led to the classification of the world into three categories; underdeveloped nations, developing nations, and developed nations. The people of the developed nations are considered as a happy person in comparison with the rest of the two.

Somewhere in this race of wealth accumulation, the people as well as nations start ignoring their basic needs, i.e., feeling of satisfaction or happiness. In 1972, Bhutan had introduced the concept of Gross National Happiness (GNH) and started measuring well-being in terms of GNH instead of GDP. The GNH Index includes nine domains:

- a) Psychological well-being;
- b) Health.
- c) Education.
- d) Time use.
- e) Cultural diversity and resilience.
- f) Good governance.
- g) Community Vitality.
- h) Ecological diversity and resilience.
- i) Living standards.

GNH attracted the attention of the whole world and put a question on the method of measuring the quality of life. In 1990, the UN launched its Human Development Report with Human Development Index (HDI). Education, Health, and Quality of Life were the three components of the Human Development Index (HDI) and accordingly assessment of

human well-being across the world was done. Objective indicators were used in measuring well-being. A few years ago, World Happiness Report (2012), introduced by United Nations Sustainable Development Solutions Network, which was a good example of measuring the quality of life through a subjective well-being approach. Now, the World has considered happiness as the proper measure of social progress and the goal of public policy. On World Happiness Day, March 20, World Happiness Report 2017 was released publicly.

Researchers like Edward F. Diener, Robert A. Cummins, Martin Seligman, Ulrich Schimmack and Bruno S. Frey has introduced the world to the concept of subjective well-being (Happiness) and its measurement. This study is also based on a subjective approach to measuring well-being or quality of life of people in Gujarat. Gujarat is considered as one of the fastest growing and prosperous states of the country. As we compared HDI ranking then it comes out that Gujarat (HDI Ranking- 11, 2015) is far behind in the state called Kerala (HDI Ranking -1, 2015). On the other hand, Gujarat has better GDP data compared to Kerala, (nominal GSDP report-2017). These facts raised the question over the quality of life in Gujarat. This study has explored the overall quality of Life of people in Gujarat and also expounded on the domains of life satisfaction, which affects the quality of life.

### **1.2 RESEARCH PROBLEM**

The study is focused on measuring subjective well-being or perceived quality of life of people in Gujarat. By literature review, we came to know that Quality of life varies with different age groups and classes (adolescent, university students, working class, non-working class, senior citizens, etc.). This study is restricted up to examine the perceived Quality of life of people in Gujarat. The study has focused on only working persons, specifically who are doing jobs with an age group of 26 to 55 years, income level INR 1.2 lakhs to INR12 lakhs per annum, education level with minimum S.S.C. Pass, either married or unmarried and lives in urban or rural areas of Gujarat. Respondents from tribal areas of Gujarat are not included in this study. The study is based on the following key variables such as life satisfaction, subjective well-being and quality of life. The influence of demographic and socioeconomic factors (age, gender, income, education, and area of residence) on the key variables has been studied.

This study mainly finds out solutions to certain questions: 1) what is the overall life satisfaction of people in Gujarat. Thus the people of Gujarat are satisfied with their overall life satisfaction? 2) Whether overall Life-satisfaction varies with their demographic (age, gender, marital status) and socioeconomic variables (education, income, locality of residence). 3) Whether the quality of life remains the same in all four geographic zones/areas of Gujarat. 4) Whether the quality of life remains the same in urban and rural areas of Gujarat? 5) What are the factors (domains) which affect the quality of life of people in Gujarat? Also, what are the weights of these factors in terms of their impact on overall quality of life? Besides this, this study also tries to explore the sense of well-being of people in Gujarat. Thus, whether there is any difference between a sense of well-being (positive affect & negative affect) of people, which are highly satisfied compared, moderately satisfied and dissatisfied people?

This study is based on Diener's (1999) theory of subjective well-being, where three components of subjective well-being have stated; a) positive and negative affect, b) life satisfaction, and c) satisfaction with specific domains. Key outputs of the study are 1) research design framework, 2) Life-domain satisfaction scale, and 3) findings of the study, i.e. a brief but clear idea about the factors which affecting quality of life of people in Gujarat has explored.

### **1.3 RATIONAL OF THE STUDY**

Like most of the other countries in the world, India also depends on the objective indicators to measure growth and particularly gives more weight to GDP growth rate to examine the well-being of people in India. Yes, the USA and other developed nations did the same, but their public welfare policies and budgets are made in consideration with many other parameters. At the India GDP growth rate has projected throughout the year and its impact has measured by socioeconomic surveys, resultant economic budgets and public welfare policies are a frame out. Besides India is one of the fastest growing economies and the largest democracy in the world. However, after 70 years of independence, approx. 1/3 population lives in below poverty line and the rest are also having moderate to a poor quality of life as per HDI ranking (Rank- 131, HDR-2016). India's HDI ranking is just ahead of the countries like Bhutan, Bangladesh, Pakistan,

Nepal, Myanmar and Afghanistan in SAARC countries. The country like Srilanka (Rank- 73, HDR-2016) and the Maldives (Rank- 105, HDR-2016) having far better HDI ranking than India. Even in worse cases Iraq (Rank- 121, HDR-2016) and Vietnam (Rank- 115, HDR-2016) having better HDI ranking than India. Richer become rich and the poor become poorer because of weak socioeconomic policy frameworks in India. According to Global Wealth Report 2016, compiled by Credit Suisse Research Institute expounded that India is the second most unequal country in the world with the top one percent of the population owning nearly 60% of the total wealth.

The subjective approach to measuring well-being is based on people's self-report judgment/assessment of life events. On the other side, an objective approach is based on a quantitative measurement of standard of living. Hence, an objective approach is comparatively less informative. Also, people participation is comparatively very less; resultant an actual problem will never come out and a gap between economic growth and public welfare increases. The only mediator between economic growth and the well-being of people is the policy framework of the nation. In India socioeconomic surveys conducted every year, where objective indicators of quality of life played a significant role and people self-report life judgments had got less space in it. Even countries like U.A.E (Rank- 42, HDR-2016) realized the importance of focusing on policy formation by considering subjective measurements of quality of life of people. Ohood bint Khalfan Al Roumi is the Minister of State for Happiness in the new UAE Cabinet; In February 2016, she said that the new ministry aims to promote the UAE's plans, programmes, and policies to promote the happiness of the UAE society.

The subjective approach to measuring well-being is a multi-dimensional measure, where the quality of life has been assessed at 360 degrees. In India also, we have a strong need to put more focus on the subjective approach of measuring the well-being of people. This study is an attempt to demonstrate the methodology of measuring subjective quality of life/happiness of people where people's self-report judgment about their quality of life reveals areas where the government needs to put a focus on and accordingly public welfare policies need to be crafted. Subjective approach is not only more informative, but also gives many useful solutions for various human development issues.

In India, a single standardized measurement of quality of life is used, irrespective of people belonging to the different socioeconomic class, genders, age groups, geographical areas, etc. Resultant the public welfare policies give support to only a few particular groups of people and a large number of people deprive of any kind of welfare measure. It not only creates differences in the welfare of people, but it also increases the gap among different social classes in society. In a subjective well-being approach, first categorized people into groups and accordingly factors have been decided to assess their quality of life. Subjective well-being approach will play a significant role to reduce the differences of well-being among various groups of Indian society and resultant uniform growth may take place. To make India as an ideal country, where all age group people, from children to senior citizen lives happily, all income level people lives a happy life, etc. The implementation of a subjective approach to measuring the well-being of people is much needed.

If we relate the Maslow's hierarchy of needs theory with an objective approach and subjective approach of measuring well-being, then we found that an objective approach is restricted up to assess only lower level needs like physiological needs, which is its biggest limitation. On the other side, a subjective approach can measure human needs of each level like physiological needs, safety needs, social need to higher level needs like self-esteem need and self-actualization needs. So we can conclude that the subjective approach of measuring the quality of life is a complete measure of assessing the well-being of people.

### **1.4 OBJECTIVES AND RESEARCH HYPOTHESIS**

#### **Objectives**

The study seeks to examine the sense of well-being /happiness in the Gujarat state. Specifically, it attempts to:

- I. Assess the overall life satisfaction of people.
- II. Study the sense of well-being among highly satisfied people, moderately satisfied people, and poorly satisfied people.
- III. Examine whether the perceived quality of life varies with demographic and socioeconomic variables like sex, age, marital status, education status, income level and residential area.

- IV. Ascertain the relationship between overall life satisfaction and different domains of life satisfaction, and
- V. Comparing the life satisfaction with selected people of towns and villages in the State of Gujarat.

### **Research Hypothesis**

1. People are not neutral towards their perceived quality of life.
2. There is a significant difference in perceived quality of life of males and females.
3. There is a significant difference in perceived quality of life of people with different age groups.
4. There is a significant difference in perceived quality of life of people with different educational status.
5. There is a significant difference in perceived quality of life of people with different marital status.
6. There is a significant difference in perceived quality of life of people with different income groups.
7. There is a significant difference in perceived quality of life of people of Central-Gujarat, South-Gujarat, Saurashtra, and North-Gujarat.
8. There is a significant difference in perceived quality of life of the people of rural and urban Gujarat.
9. There is a significant relationship between overall life satisfaction and different domains of life satisfaction.

## **1.5 NOMINAL DEFINITIONS**

### **People**

The members of a particular nation, community, or ethnic group.

### **Quality of Life**

World Health Organization QOL Group (1994) defined Quality of Life as an individual's perception of his/her position in life in the context of the culture and value systems in which he/she lives and in relation to his/her goals, expectations, standards and concerns. It

is a broad-ranging concept, incorporating in a complex way the person's physical health, psychological state, level of independence, social relationships, and their relationship to salient features of their environment.

### **Well-being**

The state of being comfortable, healthy or happy.

### **Subjective Well-being**

Schimmack et al.(2008) defined well-being as preference realization which can be measured with an affective and cognitive measure.

### **Life Satisfaction**

Life satisfaction is an overall assessment of feelings and attitudes about one's life at a particular point in time ranging from negative to positive. It is one of three major indicators of well-being: life satisfaction, positive affect, and negative affect. Hedonic level or balance refers to the pleasantness minus unpleasantness of one's emotional life (Diener, 1984).

### **Overall Quality of Life**

Overall quality of life is a composite assessment of the quality of the social, economic and physical environments.

## **1.6 CONCLUSION**

This chapter introduces readers to this study by drawing a broad picture where the concern of this study has shown and describes how this study touches crucial elements of the society. Also, Researcher portrays his thinking and understanding of the societal issue and try to give it solution. Research problem identification is a major contribution of this chapter. The outlook of the research problem has picturized and then narrows it down to the specific research question. A research question on which the whole study is put focuses on. The rationale of the study has discussed in this chapter, where the need of this

study and its contribution has shown which justifies its meaningfulness to the society. As per a systematic study, Research question gets fractioned into points and accordingly to Research objectives are a frame out. Research hypothesis which are probable solutions of the research questions and which are going to be tested is get formulated in this chapter. Nominal definitions of the key terms are mentioned in this chapter. Overall, this chapter gives a preview of the research topic, its origin and its contribution to the society. A review of the literature chapter follows this chapter in the study.

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

#### **2.1 INTRODUCTION**

#### **2.2 BRIEF OF RELATED STUDIES**

#### **2.3 SUMMARY OF REVIEW OF LITERATURE**

#### **2.4 RESEARCH GAP**

#### **2.5 CONCLUSION**

## **2.1 INTRODUCTION**

This chapter deals with the review of the literature, which is relevant to the subject matter of the thesis. The word 'review' means to summarize the broad content of the research article or study and also indicates clearly any linkage with other studies in the field. The principal purpose of the literature review is to establish the academic and research area which is of relevance to the subject of the research (Oliver, 2016). It seeks to lay the foundation for the current study. It sets the thesis within a research context consisting of relevant research studies and other analyses of related ideas.

## **2.2 BRIEF OF RELATED STUDIES**

This part of the study reviewed 101 research papers. Selection of research papers is on the basis of a) relevance to the current study and b) published in reputed International Journal/database. Research extracts, suggestions and conclusions of national and international studies have given a base for the current study. Also, it has contributed to achieving fundamental clarity about the study and helped in many ways like the selection of key variables, measurement scales (Questionnaire), statistical methods, etc.

Abdel-Khalek (2010) examined the associations between Quality of Life, Subjective Well-being and Religiosity in Arabic, Muslim. A convenience sample of 224 Kuwait University undergraduates aged between 18 to 28 years was studied. A researcher found that there was a significant and positive correlation between QoL, SWB, and religiosity. Also, religiosity was suggested to be a salient component and a contributing factor to QOL.

Alcala and Carmen (2011) examined the quality of life of 100 respondents from Purok Matahimik (Isla) in Barangay Cottat, Lucena City. Respondents were female, married, approximately 40 years old and housewife. They measured the respondent's life satisfaction in seven domains: community services, public safety & security, work life, family life and relationships, leisure, self- development and satisfaction. They found a high level of satisfaction in respondents, also respondents scored high in domains; Family life and relationships, Material possession and consumption, Public safety and security.

Ali et al. (2009) examined the Quality of Life of people in Amman, Jordan. It was found that among domains of life satisfaction, health ranked higher compared to city profile and transportation. Domain as equity and satisfaction with local government-sub-domains of community participation impacted more Quality of Life compared to sub-domain as working conditions under the domain of economy. Economy stood in rank one, while community participation ranked ninth in order of preference.

Amao (2014) studied the well-being of the poor residential neighbourhood. The researcher explored the problems that had influenced poor neighbourhoods; poverty, the growth of the informal sector and housing shortage. A researcher found that poor residential neighbourhoods had a negative impact on respondents. The study found that a majority of the respondents were poor and employed in the informal sector. The study suggested that urban renewal and slum upgrading programmes were the methods to make improvement in the socioeconomic conditions of the respondents.

Angur et al. (2015) examined the value of subjective and objective indicators of neighbourhood quality of life. Both types of indicators are found to be significantly correlated with resident evaluations of overall neighbourhood quality. Subjective indicators of neighbourhood conditions were more highly correlated to overall neighbourhood quality (also subjective), than being objective indicators of neighbourhood conditions. Researchers suggested that both types of indicators have value for decision makers.

Anzilli, Facchinetti, and Mastroleo (2013) investigated eight indicators: material Well-being (income, consumption, and assets), health, education, personal activities, work, political participation, social relations, and environment. They had introduced a macro fuzzy inference system that has "Well-being" as a final output of the aggregation of eight sub-indexes. Each sub-index was the final output of other fuzzy inference systems. They concluded that environmental and health along with the other six variables might produce the aggregated evaluation of wellbeing.

Biswas-Diener and Diener (2001) investigated the quality of life of 83 people in the slums of Calcutta (now called Kolkata), India. They had conducted in-depth interviews. The respondents belonged to three groups: those living in slum housing, sex workers (prostitutes) residing in brothels, and homeless individuals living on the streets. Their mean

score of overall quality of life was negative, but mean ratings of satisfaction with specific domains were positive. Researchers concluded that the slum dwellers of Calcutta were generally experienced a poor sense of life satisfaction, but relatively more satisfied than our estimate. It might be because of a strong association with social relationships.

Biswas-Diener and Diener (2006) examined the quality of life of 186 homeless people in Calcutta (now called Kolkata), India, California, and a tent camp in Portland (Oregon). Mean of the life satisfaction rating of both American samples was negative, but positive for the pavement dwellers in Calcutta (now Kolkata). It was found that satisfaction with self-related domains were positive otherwise material related satisfaction domains were negative. Social factors and basic material needs were identified as the most significant indicators of the overall subjective well-being of the homeless.

Biswas-Diener, Diener, and Lyubchik (2015) examined the quality of life of Bhutan. They compared 11 nations with Bhutan on 4 domains – Psychological, Social, Environmental, and Income and Material wellbeing. They found mixed results of Bhutan's wellbeing. Researchers found that Bhutan scores high on environmental wellbeing and Social Wellbeing. On the other side scores very low in terms of overall psychological well-being.

Bourke and Geldens (2007) examined the subjective wellbeing of 91 young people (aged 16-24) of rural centre in south-east Australia. They found that factors as relationships, psychological dimensions and personal issues in family and 'pressure' impacted their well-being. They found that the Deiner et al. satisfaction with life scale was an appropriate measure of young people's well-being, but for measurement of health, sociology of youth and psychological approaches to young people's wellbeing, there was a need to incorporate a variable to make the measure more holistic of subjective well-being of young people.

Brajša-Žganec, Ivanović, & Lipovčan (2011) investigated the association between personality traits, social desirability and subjective well-being. The sample size was of 392 students (195 females and 197 males), aged 19 to 26 years. They found that personality, specifically extraversion, emotional stability and conscientiousness had a high association with subjective well-being. Intellect significantly showed positive affect and agreeableness

predicted a significant indicator of the absence of negative affect. Social desirability had a significant relationship with all three subjective well-being components.

Brown, Woolf, and Smith (2008) examined the determinants of subjective well-being using data from the 2008 New Zealand General Social Survey. Indicators included: health status, particularly mental health status, unemployment, income and social relationships. Each of the indicators had a strong significant impact on life satisfaction. Mental health and physical health both show the expected relationship between increases in life satisfaction with an increase in health status, but the relationship was stronger for mental health. Unemployment and not owning one's home both had a negative coefficient, while household income had a positive coefficient. The social/community relationship and safety/security variables all had significant negative coefficients. The picture for education was mixed. Neither the school nor vocational qualification measures had a significant relationship with life satisfaction. Sex, being female, was positively correlated with life satisfaction, although the coefficient was small.

Camfield, Chaudhury, and Devine (2006) examined the wellbeing in Bangladesh; data were collected from six sites (two rural, two semi-urban and two urban sites from two different Districts) in Bangladesh. The main criteria used to select respondents for the Quality of Life study were gender, age (18-44 and 45+), religious affiliation (85 percent were Muslim and 15 percent Hindu), and socioeconomic status. Structured interviews (n = 68), the Person Generated Index (n = 22, urban sample only) and focus group discussions (n = 240) were conducted. Life domains were studied like employment, health, education. They found that besides Bangladesh considered poorly developed county in the world, but their people enjoys levels of happiness the same as was found in many developed nations.

Cantarero, Potter, and Leach (2007) examined the key indicators affecting the elderly population's perception of Quality of Life (QoL) in two rural Nebraska communities--Crete and Schuyler. The sample size was 46 respondents aged 60 years or more. Researchers examined the quality of life by evaluating the perception of current health, Access to public transportation, Housing satisfaction, neighbourhood conditions, safety, perceived support from friends, access to basic services, finances and stress. They found that a majority of the elderly were satisfied. Also, stress was found to be negatively related to Quality of life. They also used a sense of community index to measure the quality of life.

They found elders' perception of the sense of community in their town and their overall sense of satisfaction was positively correlated and elders are satisfied with the sense of community in their town.

Chan et al. (2004) investigated the quality of life of Chinese older persons in Hong Kong with a sample size of 1,616 aged 60 or above. A researcher had conducted a multi-stage study carried out between 1999 and 2001 with an objective to develop an instrument to measure the quality of life. The researcher developed the overall QoL scale had a Cronbach's alpha of 0.72 with its domains ranging from 0.65 to 0.77 which indicated a high degree of statistical reliability. The name of the scale as suggested was 'Hong Kong Quality of Life for Older Persons Scale' - abbreviated as 'HKQoLOCP'.

Chavda and Rai (2015) examined the impact of culture and gender on the well-being of adolescents. The sample consisted of 180 adolescents belonging to Vernacular and Convent schools of Ahmedabad City of Gujarat (India). Overall Well-being Scale developed by Dr. Ashok Kalia and Anita Deswal was used to investigate the physical, emotional, social and school well-being of adolescents. They found that there was a significant difference between culture and well-being in adolescents. Also, gender had a significant impact on the well-being of adolescents.

Chen and Davey (2009) examined the quality of life in Zhuhai City (South China) by conducting a survey of 449 respondents. There were four objectives: (1) to judge overall life satisfaction of residents, (2) Comparing findings with Hong Kong and Macau study, (3) to investigate the equivalence of the International well-being Index (IWI) and (4) to study the applicability of the Theory of Homeostasis Wellbeing. The study found that a moderate level of personal (PWI score = 64.4.) and national (NWI score = 57.4) wellbeing was consistent with recent findings from Hong Kong and Macau.

Cramer, Torgersen, and Kringlen (2004) studied the well-being of common people with a sample of 2066 individuals between 18 and 65 years old. They developed seven sub-indexes. Good somatic health, living in a stable relationship with a partner, preferably married, in a less densely populated area, having a good education, a good income and being a younger female was the indicators of global quality of life. However, seven sub-

indexes were related to different socio-demographic variables. Age was found to be negatively related to different sub-indexes.

Das (2008) examined the quality of life (QOL) in the city of Guwahati, Assam. The survey was conducted in the area under the jurisdiction of the Guwahati Municipal Corporation (GMC) at the household level. The researcher studied the physical, social and economic environment. It had found that both objective and subjective conditions were the important dimension of QOL. But the correlation between objective and subjective QOL was not strong enough. Further added, satisfaction of traffic conditions was the lowest among all satisfaction indicators.

Dasgupta and Majumdar (1996) studied the perceived quality of life of people of Calcutta (now called Kolkata), India, with a sample size of 400. They found that socioeconomic status was not significantly related to perceived quality of life. They found that people of 21-35 years and 56 years or older were comparatively more satisfied than the people of 36-55 years age group. The sex difference was found insignificant. They examined the association between overall life satisfaction on 13 domains of life satisfaction (i.e., health, family life, local government administration, life in India, self-development, work life, material possession, health care quality, spiritual life, social life and central government administration). Out of these 13 domains, satisfaction with self-development, family life, material possession, and local government administration was found significant.

Diener and Seligman (2002) studied 222 undergraduates. Researchers compared the upper 10% of very happy people with average and very unhappy people. They found that the very happy people were highly social and had stronger romantic and other social association than less happy people. They were more extroverted, more agreeable, and less neurotic and scored lower on several psychopathology scales of the Minnesota Multiphasic Inventory. Compared with the less happy people, the happiest people have not significantly participated in religious activities. Healthy social relations were required for happiness.

Diener and Suh (1997) re-examined the strengths and weaknesses of the various approaches of measuring the quality of life. It was concluded that social indicators and subjective well-being measures were necessary to evaluate social and economic indicators also needed which was favoured by policymakers. They opined that each approach to

measuring the quality of life was essential and contain information that was not contained by other measures.

Dobewall et al. (2012) studied the role of personality traits in happiness and life-satisfaction of self-other agreement. Self-reports on the subjective well-being (SWB) measure and the NEO Personality Inventory-3 were obtained from 1,251 Estonians aged between 18 and 86 years. Result of subjective well-being measure was showed significant to self-other agreement,  $r = .55$  ( $p = .000$ ). The study explored that when a respondent measured someone's happiness or life-satisfaction, his/her rating was influenced by the personality of that person. In addition, self-reported subjective well-being reflects, what other people think about his/her personality.

Dost (2006) examine the quality of life of 700 university students of Hacettepe University. A study demonstrated that there was no significant difference in the subjective well-being levels of male and female students. There were significant differences in the subjective well-being levels of the students according to their perceived economic level, perceived attitude of parents, satisfaction with physical appearance, religious belief, and locus of control. The results revealed that subjective well-being levels of students from middle and higher economic statuses were higher than those in the low economic status. Students with perceived democratic parental attitude reported higher levels of subjective well-being than those with overly protective and avoidant parents. Subjective well-being level of students who were satisfied with their physical appearance was higher than those who weren't satisfied with their physical appearance. In addition, subjective well-being levels of students who reported having religious beliefs higher than those who did not have any religious beliefs. Finally, compared to students with an external locus of control, those with an internal locus of control had higher levels of subjective well-being.

Dunning et al. (2006) investigated the quality of life of 2000 people of Saskatoon, Saskatchewan, Canada. The study examined as to whether the factors that explained the low quality of life does remain the same for men and women. It was found that men and women were very similar in: (1) their QoL ratings, (2) neighbourhood QoL ratings. It was found that (1) separation/widowhood was the significant predictor of poor QoL, (2) Negative perception about community security issues was associated with deterioration in perceived neighbourhood quality of life. Qualitative analysis explored that there was the

difference in perception of men and women about general areas such as safety and neighbourhood supports.

Epley and Menon (2008) developed a new methodology of measuring the quality of life at the local and state level that combined heterogeneous indicators from various fields, such as economics, social, and health, into one total measurement. This technique might be used to compare one region to another or compare one metro area with its own performance over time.

Eroglu (2012) examined the subjective well-being of university students in a comparative way. The study included 240 students (120 foreign; 120 Turkish) of Selcuk University. Decision Making Styles Questionnaire, Subjective Well-Being Questionnaire and Personal Information Form were used. A researcher found that the subjective well-being levels of university students from different cultures differentiated at significant levels.

Fleche, Smith, and Sorsa (2012) studied the wellbeing in OECD countries based on self-reported life satisfaction surveys in a pooled regression over time and countries, at the country level and the OECD average. They found that apart from income, the state of health, not being unemployed and social relationships was specifically important for wellbeing with only some differences across countries. It was found that cultural differences were not major drivers of differences in life satisfaction. Correlations between the rankings of measures of life satisfaction and other indicators of well-being such as the Human Development Index and better Life Index were also relatively high.

Fu et al. (2006) examined the quality of life of the population of aged 40-59 years-old in Taiwan and Australia (278 Australians and 398 Taiwanese men and women). The result proved that country of residence had a significant effect on quality of life with differences seen between midlife Australian and Taiwanese men and women. They found that midlife of Australian men and women had a better quality of life than midlife Taiwanese men and women. Midlife of women was enjoying a better quality of life compared to midlife of men in both Australia and Taiwan. It was found that Midlife Australian men were more dissatisfied with their sleep and rest and more dissatisfied with their sexual activities in compared to midlife Australian women.

Fuentes and Rojas (2001) examined the relationship between subjective and economic well-being in Mexico. They studied the association of demographic, social, and economic variables on subjective well-being in Mexico. It was found that there was no strong association between income and well-being. They found a positive correlation between economic well-being (socioeconomic status) and subjective well-being (happiness). However, this positive relationship was weak and a large part of human happiness remains unanswered. The relationship between income and the sense of basic need satisfaction was also examined. It was found that subjective well-being was positively correlated with the sense of basic need satisfaction but not with income.

Groenland (1990) examined the quality of life of Dutch people with a sample size of 1187. The sample included four groups: People on welfare (N- 483), Employed (N- 291), Unemployed (N- 112) and Disabled (N- 301). The researcher found that indicators of socioeconomic well-being contribute significantly to the prediction of happiness. It was concluded that socioeconomic characteristics of well-being might be highly associated with the quality of life of people on social security.

Gupta and Sharma (1998) studied how to assess the quality of life. They examined a sample of 455 Indian working women. They found that the family life was a critical indicator of one's quality of life. Further added they said the family life quality was a support for better work motivation, commitment and overall work performance.

Gutierrez (2005) examined the relationship among the Big Five personality dimensions, demographic variables (sex, age and relationship status), and subjective well-being. The survey included 236 nursing professionals. Regression analysis showed personality had a critical association with subjective well-being, especially through Extraversion and Neuroticism. There was a positive association between Openness to experience and the positive and negative components of affect. Likewise, demographic variables (sex, age and relationship status) were found to be differentially associated with the different elements of subjective well-being.

Haq (2008) examined the quality of life of Punjab in Pakistan. A researcher found that quality of life was considered poor in one area than in other areas. It was noticed that the majority of the districts and Tehsils from the north and central Punjab was better in terms

of quality of life. On the other side, regions like west and south Punjab were identified as experiencing poor quality of life.

Haq (2009) examined the objective indicators versus subjective perceived well-being of people in Pakistan. Wellbeing was studied in four domains: education, health, living conditions and economic situation. The author had given weight to the education domain in assessing the human wellbeing. It was found those objective indicators of education: literacy rate, net primary enrollment and gender equality in education were positively associated with subjective perception in education facilities. A researcher found that the economic status was the key variables of the households and communities to determine their subjective perception of well-being. The result showed that differences were found in objective wellbeing among districts of Pakistan.

Hsieh (2015) examined the quality of life of the people of America. The researcher studied 10 domain satisfaction variables; family life, health, neighbourhood, friendships, life in the United States, community, non-work (leisure/hobbies), housing, a standard of living, and savings (finances). A researcher found that the relationship between global life satisfaction and the sum of domain satisfaction scores did not remain constant across groups of different domain importance rating patterns. On an average, respondents were most satisfied with family life, while least satisfied with the financial situation.

Hudders and Pandelaere (2011) examined the subjective well-being of 584 Dutch-speaking, Belgium students. A study explored the relations between luxury consumption, materialism and cognitive and affective subjective well-being by structural modelling. A researcher found that materialistic consumers were more interested to consume luxury goods than less materialistic. Luxury consumption boosts their positive mood, lowered down negative mood and helped to increase satisfaction with life. A study found that materialistic consumers engaged more in luxury consumption than less materialistic consumers, but also got more benefit out of it.

Hussien and Heshmat (2009) investigated the factors of happiness and life satisfaction of people in Egypt. They found that old people, the unemployed and men were unhappy. There was a positive association between happiness and income level, and physical health and life satisfaction. Further added, higher education had no significant effect on the

happiness level. The study concluded with a suggestion to some policymakers that might increase people's happiness and life satisfaction.

Hutchinson et al. (2004) examined the key indicators of psychological well-being in the Caribbean country, Jamaica. The sample consisted of 2580 respondents of which 1601 were women and 979 men. Interviews were conducted on young adults aged 15–50 years as part of a sexual decision-making survey in Jamaica. The mean age was 29.7 years (standard deviation of 9.2 years). Satisfaction with life was predicted by younger age, marital status and employment. They suggested that a health variable was more important for psychological well-being while social circumstances were more significant for satisfaction with life. There were important gender differences in the mediation of psychological well-being as well as age differences in the variables associated with satisfaction with life. Women had lower levels of psychological well-being and satisfaction with life.

Inoguchi and Fujii (2009) studied the quality of life of 1003 respondents (502 males, 501 females) of 20-69 years of the age group in Japan. They grouped sixteen specific life domains into three life spheres; material, post-material, and public. It was found that Japanese people were highly satisfied with the post-material sphere of life and poorly satisfied with the public sphere of life like the condition of the environment and the welfare system. Further, added the public life domain had no significant effect on the quality of life, while friendships and spiritual life from the post-material sphere of life had a significant impact. It was found that educational attainment and household income had no significant impact on subjective well-being. Finally, being married and satisfaction with marital life was found as a most powerful and significant variable impacting the quality of life in Japan.

Jongudomkarn and Camfield (2005) examined the quality of life of the Thais. Indicators were studied like family relations, health, money, occupation, and housing. Family relationship was the most critical indicator for all groups. People were very much concerned with their health, largely due to the inconvenience and cost of illness, and aware of the psychological impact on other areas of their lives. All groups were concerned with money to experience the good life, and lack of it, was a problem for all age groups.

Everyone needed to buy their own house. People in semi-urban areas were the only one who concerned about the appearance and size of hose.

Karlsson et al. (2013) examined the quality of life of Roma people, in West Sweden. Data was collected through interviews. The data were analyzed qualitatively using a phenomenological hermeneutic approach. The respondents mainly understood the concept of Health as "being healthy" and "feeling good". Important indicators of respondent's life where health, education, social support from family and friends, freedom and security, and the extent of involvement in society. A researcher found that the Roma people perceived their health and life situation as good, despite their poor situation and discrimination.

Keng and Hooi (1995) investigated the quality of life of the people of Singapore. They studied the relationship between quality of life and demographic characteristics of respondents. They found that there were no significant relationships between life satisfaction and demographic characteristics. Singaporeans were more conscious about being healthy and live a happy family life. A study found that people of Singapore were generally very satisfied with family life and life in Singapore as a whole.

Kennedy and Kanthamani (1995) proposed a model showing a causal relationship between religious commitment and well-being. The model suggested that the religious commitment influences a person's sense of meaning in life, which, in turn, influences well-being. The model also suggested that the transcendent experiences can affect religious commitment, which then influences meaning in life and well-being.

Keyes, Shmotkin, and Ryff (2002) studied the sample of 3,032 Americans aged 25–74. Researchers found that the related-but-distinct status of subjective well-being (SWB) and psychological well-being (PWB). The probability of optimal well-being (high SWB and PWB) increased as age, education, extraversion, and conscientiousness increased and as neuroticism decreased. Compared with adults with higher SWB than PWB, adults with higher PWB than SWB were younger, had more education and showed more openness to experience.

Khan, Shirazi, and Ahmed (2011) examined the relationship between spirituality and life satisfaction between male and female among adolescent students. A sample of 80 students from Aligarh Muslim University was studied. The sample included both male and female in equal number. A researcher found that spirituality was a positive significant predictor of life satisfaction and there was a positive correlation between spirituality and life satisfaction, also there was a significant difference between male and female students in spirituality and life satisfaction.

Kusago (2008) studied the life satisfaction of people and economic growth in Japan after the World War II. They realized the differences in GDP and HDI. The study had used secondary data about people's life satisfaction collected by the government of Japan every three years from 1978 to 2002. The study found that demographic and socioeconomic characteristics like age, gender, marital status, house ownership, income level and educational attainment were impacted by people's life satisfaction levels.

Larson (1978) examined the life satisfaction of older Americans with life domains: level of education, occupational status, marital status, availability of transportation, housing, and nonamorous forms of social interaction. The research concluded that the health was strongly linked to well-being, then after socioeconomic factors and degree of social interaction. Marital status and living standard of people's was also linked to well-being. Age, sex, race, and employment were found to be insignificant. The researcher further added that negative life situation like poor health and low income were linked to poor well-being.

Leelakulthanit and Day (1992) studied the satisfaction level of people of Thailand, with 500 respondents of aged 21 years or above lives in Bangkok Metropolitan area. They investigated the overall life satisfaction and various domains of their lives. They found Thai people were somewhat happy with their overall life satisfaction and became more satisfied with personal domains of life compared to environmental domains of life. Further added, two significant factors of quality of life are economic well-being and better education. The rank orders of domains of life from most satisfied to least satisfied was spiritual life, family life, self, personal health, social life, work life, material possessions, purchase and consumption of goods and services, recreation, health care, life in Thailand, the Thai government, and Bangkok administration.

Lever (2000) developed a valid and reliable instrument to measure Quality of Life among the inhabitants of Mexico City. This study was implemented in two stages. In the first, 18 neighbourhoods in Mexico City and its surroundings were randomly selected, and the voluntary participation of 320 inhabitants of those neighbourhoods was included. The sample for the second stage was composed of 768 subjects from Mexico City, male and female, from four socioeconomic levels and two age groups i.e. 21 to 35 and 36 to 50 years of age.

Liao (2008) studied the correlation between objective indicators and subjective perception of quality life in a ranking of cities in Taiwan. The Quality of life was examined in seven domains: medical services, domestic finances, work, education, leisure, public safety, and environmental quality. He found that there was no significant correlation between objective indicators and subjective perceptions, besides Education and Environmental Quality. Environmental Quality indicators (air pollution and garbage) were positively correlated with subjective satisfaction with a residential environment. But unexpectedly, higher levels of literacy and educational attainment were negatively correlated with satisfaction with the educational system.

Liao, Fu, and Yi (2005) examined the subjective quality of life in Taiwan and Hong Kong and appeared that two Chinese societies differ on societal and individual levels. Taiwan and Hong Kong, two Chinese societies that shared their cultural heritage, but have different social and political systems. A sample size of 1222 for Taiwan and 1044 for Hong Kong was used in the study. They found that for both societies; Life-satisfaction at the societal level affects the respondents' quality of life. They concluded that the perception of socioeconomic conditions in the larger society contributed to the variation in happiness and satisfaction with personal life. A higher level of satisfaction with overall social and economic conditions enhances residents' happiness and perceived the quality of personal life. They suggested that by improvement in social, economic, and political conditions will lead to increase the quality of life at the individual level.

Liu (1974) developed a systematic methodology for assessing social, economic, political, and environmental indicators to reflect the quality of life in the U.S. Nine indicators, including Individual Status, Individual Equality, Living Conditions, Agriculture, Technology, Economic Status, Education, Health and Welfare and State and Local

Governments were compiled from more than 100 variables for 50 states and the District of Columbia. Based primarily on 1970 data, QOL indexes were generalized and the states were rated.

Lloyd and Auld (2002) examined the relative importance of selected place and person-centered leisure attributes in predicting the quality of life. The study tested a set of objective and subjective indicators that people are most concerned with their leisure lives. Overall, it was found that the person-centered leisure attribute, leisure satisfaction, was the best predictor of quality of life. Place centered attributes failed to influence the quality of life. Further analysis revealed that people who engage in social activities more frequently and who are more satisfied with the psychological benefits they derive from leisure, experience higher levels of perceived quality of life.

Loewe et al. (2013) examined the quality of life of Chilean workers. With a sample size of 530, the causal effect of seven life domain satisfaction and subjective well-being were studied. Life domains: satisfaction with health, financial situation, social relationships, one's self-worth, leisure-time, family, and work. It was found that the financial situation was the strongest predictor of overall life satisfaction of workers, with a regression weight of .36. Satisfaction with family, work, and health had regression weights of .25, .14, and .14, respectively. There were no significant effects of one's self-worth, leisure-time, and social relationships on life satisfaction.

Maditinos, Papadopoulos, and Prats (2013) examined the quality of life in Greece with a sample size of 353 respondents. They studied the relationship between the free time slot with the Perceived Quality of Life (QoL) and the Satisfaction with Life (SwL). They revealed that the paid labour was a very critical factor in explaining the perceived QoL, followed by the active leisure and to a lesser degree by the passive leisure. A researcher found that the satisfaction of life influenced more from the perceived QoL and less by time allocation and leisure.

Malik, Shukla, and Bhat (2015) examined the sensitiveness among the sample wards of Srinagar city towards their quality of life. Environmental quality was analyzed objectively based on facts and figures. A researcher found that overall environmental quality was "Fair" in the sample wards of Srinagar city. "Poor" in the wards of Mukhdoom Sahib, Bud

Dal, & Khonmoh housing facility & density of persons per room were “poor” in Mukhdoom Sahib, Bud Dal & Khonmoh while resting of the wards with "fair" to good condition. There was a variation in the perception on rating the environmental quality by the residents in the sample households eight wards depict their perception in “high” category Mukhdoom Sahib, Bud Dal, Khonmoh, Batmaloo, Maharaj Ganj, AlooichiBagh, Malik Agan, Barbarshah. More than 38 % of the population was not aware whether to participate in any development programme to solve environmental problems in the city. This was mainly because people were not well aware of the quality of environment its management & conservation. These areas were either congested or poor areas of the city & at the same time govt. authorities are not up to date to provide the basic amenities.

Mastekaasa and Moum (1984) examined the perceived quality of life and its relationship with socio-demographic variables in Norway. They studied that the regional differences at the county level in Norway had an impact to the subjective well-being of individuals, even when the effects of individual-level, sociodemographic variables were removed. Contextual analyses explored that the relationship between education and QoL was positive and moderately strong in affluent counties, near zero or negative in economically poorest areas.

Michalos (2004) studied health-related quality of life of 8076 undergraduates in Korea. First, 56% of the variance was explained by health indicator in the overall happiness of respondents. Then, using the Multiple Discrepancies Theory, 51% of the variation in satisfaction with one's own health scores was explained with 76% for a sample of Finnish females and 72% for Korean males. The researcher concluded that people were satisfied with their own health, the potential predictors assembled in MDT which gave better results as compared to any other method.

Michalos and Orlando (2006) examined the Quality of life of students of the University of Northern British Columbia from 1998 to 2005 with a sample size of 3407. They studied life domain like satisfaction with family relations and university-related variables like satisfaction with UNBC instructors on some global quality-of-life variables like life satisfaction. They found that the combination of the life domain variables and the university-related variables were insignificant to judge life satisfaction of students. The

most powerful university-related variable was the students' satisfaction with their instructors.

Michalos and Zumbo (1997) investigated about the relationship between public services and quality of life of the people of Prince George, British Columbia, Canada in 1997. The researcher studied correlations among perceived satisfaction, perceived value for money, use, spending preferences and demand and by using multiple regression analysis, 66% variance explained in life satisfaction scores, 57% of the variance in satisfaction with the quality of life scores and 37% of the variance in happiness scores. The researcher concluded that a Bottom-Up model was better than the Top-Down model.

Mingtao (2010) examined the quality of life of the people of Germany with a sample size of 2870 respondents. The researcher found that Happiness varies significantly from life satisfaction by regression analysis and life satisfaction can be judged better by controllable, non-psychological variables than happiness. Household income was a significant influence on people's happiness. Unemployed people showed lower life satisfaction and there were significant interaction effects between unemployed statuses and household income suggest that unemployed people, those in actively seeking for jobs, with a certain amount of household income, reported higher life satisfaction compared to other people.

Moller (2007) used a general survey (N=26'000) to find determinants of satisfaction and dissatisfaction of South Africans in relation to their material living standards. Results suggested that the improved living standards afforded to many black South Africans under democracy were few to be associated with increases in life satisfaction. Political factors continue to play an important role in shaping subjective well-being.

Moller and Schlemmer (1983) examined the quality of life of socioeconomically and socio-politically divided society of South Africa. The researcher investigated the perceptions of well-being among white, Indian and black residents of Durban, South Africa. This study found that there were big differences in the social circumstances of the three groups, also highlighted the materially underprivileged situation of Blacks than Whites and Indians.

Mookherjee (1997) studied the General Social Survey data of the National Opinion Research Centre of 10-years (1982-1991) and examined the relationship between marital status and gender to a perception of well-being. The result found that marriage increases the perception of well-being for both men and women. Married women showed higher satisfaction than men.

Mukherjee (1981) investigated the role of value systems and life goals in quality of life in India in consideration of societal structural variations and the existing socioeconomic conditions. The researcher puts more focus on the methodology of studying the quality of life in any society instead of substantial findings.

Narayana (2009) examined the indicators and variables in the construction of education index in the Human Development Index (HDI) at the global, national and 18 sub-national human development reports in India since 1990. There was non-comparability of measurement of the education indicators and variables. The researcher concluded that that vertical and horizontal comparability of HDI may not be possible in India. Measurement of the education variables was highly diversified between global, national and sub-national HDRs, and between sub-national HDR. The diversity of measurement was highest in enrollment ratio variable.

Neuendorf (2000) examined the quality of life of 321 respondents from a metropolitan area in U.S. Researcher studied six indicators of quality of life (metro area, neighborhood, job, family, personal life, and nation). A study found that the sense of humour had a significant association with to Quality of Life perceptions of the people, while a state of depression was strongly associated with Quality of Life reports regarding family, job, and personal life. The results were reported with underlying consideration of psychological differences of an individual in assessing perceptions of quality of life.

Oluwaye (1990) examined the quality of life of rural women of eleven villages of Oyo State of Nigeria with a sample size of 308. The study focused on (a) respondent's awareness about "quality of life", (b) indicators of good quality of rural life in Nigeria, and (c) comparison of the quality of life with the previous generation. The study found that the ability to have plenty of children, good health, wealth and good personality were the

indicators of quality of life in rural areas. Respondents perceived a sense of satisfaction with their present conditions of quality of life compared to the last generation.

Ozcan, Boke, and Kara (2008) examined Life Satisfaction of Household and Individual of Turkish. Their study was based on data of Life Satisfaction of 2006 Study; Households and Individuals were surveyed by Turkish Statistical Institute (TUIK). They studied general (over-all) happiness and happiness in different domains: health and social security, education, worklife and income, individual security and justice services, personal environment and personal support networks. They found that higher income and having a job are two crucial determinants of happiness. Male and married people were happier than singles and females. Less educated people were happier than university educated people. In addition, they noticed that there was not a big difference between developing and developed countries when it comes to determinants of happiness.

Ozmete (2011) examined the life satisfaction as a cognitive component of subjective well-being of a sample of 108 women and men with a measurement of life satisfaction. A researcher found that mean ratings of life satisfaction were generally positive. Men perceived that their life was more satisfied compared to women. Men felt better about their future; they perceived that they were more fulfilled and better satisfied with their life compared to women. Further added, men have a greater sense of well-being about the direction in which their life is headed and they felt a better sense of harmony within themselves compared to women.

Park (2009) examined the quality of life of 1,023 respondents of Korea. It was found that their lives were highly modernized and digitalized without being much globalized. Despite the modernization and digitalization of their lifestyles, ordinary people still prioritized materialistic values more than post-materialistic values, and they remain least satisfied in the material life sphere. A study explored that their positive assessments of their standard of living and marriage were the most critical indicators on the quality of life they perceived.

Plagnol and Scott (2009) studied data from the British Household Panel Survey (BHPS), an annual longitudinal study that was started in 1991 with a sample size of 40,248. They investigated whether the quality of life was stable over the life course or do they vary with

age and between genders? The study found that quality of life does not remain stable over the life course. A difference in the quality of life between men and women takes place and its changes with time. They concluded that people's perceived quality of life is linked with important life events, such as the birth of a first child and retirement. They identified that at later stages of life, both men and women mention health as being an important part of their own quality of life, however, at young ages, family and finances were priorities for both genders.

Rodgers and Converse (1975) examined the quality of life of respondents on the basis of fifteen domains of their lives. The two indexes had generated from the analysis, the Index of Well-being and the Index of Domain Satisfaction. These indices had examined relation to a variety of demographic and situational variables, including age, indicators of socioeconomic status, employment status, and size of a community. Researchers concluded that both of these indices create valid indicators of the perceived overall quality of life.

Rojas (2004) examined the quality of life of 579 people in Mexico. A study explored the relationship between Life satisfaction and the seven domains of life satisfaction. A researcher found that satisfaction in the family domain, satisfaction with spouse, children, and the rest of family, satisfaction with Economic and Personal domains were significant for life satisfaction. The economic domain included satisfaction with housing and living condition, financial solvency, and income, while the Personal domain included satisfaction to engage in personal hobbies and interests, in recreational activities and personal growth. The health and job domains were also found significant. In addition, a study found that education was a very critical variable in explaining overall life satisfaction.

Royo and Velazco (2006) examined the Quality of life of the Thais. It was found that objective indicator; food shortages, chronic ill health and wealth had a significant impact on household's happiness and domain satisfaction in Thailand. People's perception of the economic position of the household was the key indicator of overall happiness and domain satisfaction. All household head characteristics were not significant for every domain. Like, age is only positively significant for satisfaction with family's housing and the family's income. Gender and marital status were not significant variables for any life domain. Years of education had a positive significance for satisfaction with children's education, family's health care and income. Larger numbers of educated household heads

were more satisfied with their income which signals a direct and strong relationship between human capital and income.

Ruta, Camfield, and Donaldson (2006) studied the Sen's (the 1980s) capability theory of quality of life by taking a view of health care and re-defined quality of life as a gap between desired and actual capabilities. They introduced a cognitive homeostasis to justify a curvilinear relationship between resources, capabilities, and quality of life. They found that the spirituality, loss of a partner, chronic pain, etc. as indicators of quality of life.

Ryff and Keyes (1995) studied the psychological well-being that included 6 indicators of wellness; Autonomy, Environmental Mastery, Personal Growth, Positive Relations with Others, Purpose in Life and Self-Acceptance. Data gathered a sample of adults (N = 1,108), aged 25 and older, who participated in telephone interviews. Comparison of the theory-based indicators of well-being with other frequently used measures indicated moderate to strong associations between two scales (Self-Acceptance and Environmental Mastery) and single- and multi-item scales of happiness, life satisfaction, and depression. However, the remaining four dimensions of well-being (Positive Relations with Others, Purpose in Life, Personal Growth, and Autonomy) showed mixed or weak relationships with these prior indicators.

Sawatzky, Ratner, and Chiu (2005) investigated; (a) whether there was empirical support for a relationship between spirituality and quality of life, (b) about the strength of this relationship and (c) to expound critical indicators affecting this relationship. The study found that a relationship between spirituality and quality of life was of  $R^2 = 0.27$ .

Schimmack (2008) examined the similarities and differences between cognitive and affective measures of wellbeing. He had created a composite subjective measure of wellbeing by combining average domain satisfaction, life-satisfaction, and affect balance. The weights of cognitive indicators were assigned slightly more than the affect balance measure, but the results would be quite similar if both components were weighted equally. He found that strong predictors (e.g., unemployment) produced consistent correlations with all measures, although the effect size varied slightly. In contrast, weak predictors (e.g., gender) produced inconsistent results.

Schneider (1975) examined intercity comparisons of objective and subjective measures of well-being based on data from the U.S. Census and from other governmental agency reports. A researcher found that the level of well-being of cities, as described by objective social indicators alone, apparently tells us nothing about the 'welfare' or the 'life quality' actually experienced by individuals living in those cities. While intercity comparisons of life conditions based on objective social indicators may alert us to inequalities or injustices in the distribution of an important aspect of well-being. The researcher suggested that objective social indicators cannot be taken as direct measures of the welfare or the quality of life actually experienced by individuals.

Selim (2008) studied the quality of life in Turkey. World Values Survey (WVS) was conducted to explore the factors affecting individual happiness and life satisfaction. A researcher found that middle education had a negative impact on life satisfaction among females and the upper education level was insignificant to the life satisfaction.

Shin and Rutkowski (2003) examined the quality of life of North-Korean people. They studied the data collected by two sets of national sample surveys in 1981 and 2001. They found that North-Korean people felt highly dissatisfied than they were 20 years ago. They also felt that in last 20 years the domains of health, education, work, and the community had changed for the better, while the domains of leisure, the government, and the country had changed for the worse. North-Koreans found dissatisfied from the domains of income and housing. A study found that North-Koreans were highly dissatisfied with the elected democratic government than they did about the military regime of 20 years ago.

Shu and Zhu (2009) examined lifestyles, value priorities, satisfaction with life domains, and subjective well-being in China using a national sample of 2,000 men and women aged 20-69. They conceptualized subjective well-being as a multidimensional and multilevel phenomenon and measured it in terms of happiness, enjoyment, and accomplishment. They also hypothesized that it has to be shaped by a multitude of forces, including demographic characteristics, lifestyles, value priorities, and satisfaction with various life domains. They found that the Chinese people were having a high level of satisfaction with their interpersonal, material, and nonmaterial life domains, their positive assessments of their relative living standards, and their high rate of successful marriage was having direct positive influences on subjective well-being.

Silva, Keulenaer, and Johnstone (2012) studied the impact of contextual and individual factors on satisfaction with the environmental quality and life satisfaction. Data from OECD and non-OECD countries collected was used for the study. They concluded that actual and perceived environmental quality had a significant impact on life satisfaction.

Sing (2009) examined the quality of life of 1,000 respondents of Hong Kong. It was found that a high attraction towards materialistic attainment was negatively affecting their quality of life. Negative results found under public life sphere, which included the natural environment, the social welfare system, and the democratic system. A researcher found that access to digital communication devices helped Hong Kong people to perceive a higher quality of life.

Somarriba and Pena (2009) examined the cross-comparison among three methodologies for assessing the welfare and quality of life in the European Union (EU). This study was helpful in the view that, the European Union had immersed in a deep transformation process and with deep cultural, economic and social inequalities. Therefore, a study of the quality of life and well-being of its people could play a critical role in exploring the differences.

Somarriba, Pena, and Bernardo (2008) examined the determinants of quality of life at European level with the European Survey of Quality of Life. People of 18 year or more and resident adults in the countries were considered in a study (N=26,000). They found that demographic variables as age and sex were significant. Women and young people were comparative more satisfied. Level of labour satisfaction was found significant. Good job supports a better quality of life. Health & education variable found insignificant. They found that a correlation between satisfaction in the life is greater for the subjective variables than the objective variables. Income variable was significant.

Sores and Peto (2015) studied the factors which affected the quality of life. A sample size of 804 local respondents at tourist destinations of Hajdúszoboszló (Hungary) was considered for the study. They found factors such as earnings, employment, health and relationships play significant roles in determining life satisfaction. The majority of respondents were dissatisfied with their lives. The highest satisfied category was the age

group 15-24 with 67%. The least satisfied category was the age group of 40-54 with 70% of those who found their present conditions far from being ideal.

Stevenson and Wolfers (2008) studied the "Easterlin paradox" which suggests that there was no link between a society's economic development and its average level of happiness. They proved that a clear association between levels of subjective well-being and GDP per capita across countries. They explored that the average relationship was found consistent across many data sets and a similar relationship between subjective well-being and income was observed within countries. Further, added that there was a relationship between changes in subjective well-being and income over time within countries, economic growth associated with rising happiness.

Tambyah et al. (2009) studied the quality of life of 1,038 respondents in Singapore. It was found that most of Singaporeans were happy and enjoyed life, although they did not perceive a high level of accomplishment. Good health, a comfortable home, a job, time with family and having enough to eat emerged as key priorities in life. It was found that the Singaporeans were highly satisfied with their marriages, family life, friendship, housing, and public safety; their perceptions of their overall quality of life were mostly influenced by their relationships with others and their satisfaction with their homes.

Tiliouine (2007) investigate the impact of physical health on the wellbeing of 2,909 people of Algeria in 2004. A researcher found significant differences between the two groups (Healthier and non-healthier) in feelings of pain, anxiety and level of normal sleep. The results explored the small difference in the Personal Wellbeing Index score was in favour of the healthier group. Moreover, the healthier group showed significantly higher satisfaction with marriage, friendship and family relationships.

Tiwari (2009) examined the Quality of Life of 102 rural households in Dhar district of Madhya Pradesh in India. Household heads from three income categories of households—those below the poverty line, marginal and 'comfortable'; non-poor households were interviewed using semi-structured methods. It was expanded that rural respondents tend to judge their situations with better-off people within a visible local context. However, their views on what causes poverty to appear to be informed by the broader debates at the

regional and national levels. Awareness of political and national issues observed amongst the respondents.

Tsai et al. (2013) examined the applicability of the spiritual indicators in GNH, which mainly evolved in Bhutan, in Taiwan in a comparison of their religion. Although both the countries shared some commonalities in religious participation level, they proposed to consider the multi-religious behaviour in Taiwan for the applicability. The adjustment of indicators to present the influence of multi-religious impacts, avoid the bias of Buddhism as well. They suggested that the Taiwan government must adopt the impact of how religious pursuit influences wellbeing while measuring the happiness in Taiwan.

Viswanathan and Sharma (2013) examined that whether high assertive women managers have better subjective well-being (SWB) or not. Sixty women managers from the IT, ITES and manufacturing sectors were included in the study. Rathus Assertiveness Schedule (RAS) and Subjective Well-Being Inventory were (SUBI) administered. The sample was split into low and high assertiveness groups, and they were compared with each of the 11 dimensions of SWB. A researcher found the high assertiveness group scored significantly higher on the dimensions of general well-being; positive, expectation, achievement, congruence, confidence in coping, and family group support. Scores on the deficiency in social contacts and the general well-being negative were higher in the low assertiveness group.

Wahl et al. (2004) studied the quality of life of the Norwegian population by associating socio-demographic and health variables. 1893 was the sample size of aged 19-81. It was found that women were having a better quality of life than men. People with higher levels of education were found to be enjoying a better quality of life. Married and employed showed the high quality of life. People suffering from diseases had significant poor relationship indicating the importance of health on quality of life.

Wills (2007) examined the domains of subjective well-being (SWB) and a global measure of satisfaction with life as a whole (SWLS) in three major cities- Bogota (N=830) of Colombia, Belo-Horizonte (N=600) of Brazil and Toronto (N= 605) of Canada. Individuals of 18 years aged or more were included. The personal and National Well-being indexes were applied and validated in these cities. Cities were chosen have similar

democratic institutions, but different cultures and standard of living. Significant differences were found across cities in the three indexes as well as significant interaction effects with demographic variables. Researcher proposed that Individual evaluation of subjective well-being was determined by a dispositional factor, context and cultural values. Three additional domains of subjective well-being were suggested; 1) Satisfaction with spirituality and religiosity. 2) Social status and Cultural Diversity.

Wood, Rhodes, and Whelan (1989) examined the sex differences in well-being. Women were found to report greater happiness and life satisfaction than men. The sex difference was explained in terms of men's and women's social roles i.e. (The female vs. male) gender role specified greater emotional responsiveness. Furthermore, past role-related experiences provide women with appropriate skills and attitudes. Women's vs. men's greater well-being was also found to hold for married but not for unmarried. For both sexes, the married state vs. unmarried was associated with favourable well-being, but the favourable outcomes proved stronger for women than men. Given that most respondents were married, the overall sex difference in well-being can be attributed to respondents' marital status.

Yao et al. (2009) examined the quality of life of 1,006 people of Taiwan. A researcher found that people were used modern utilities and digital media. Signs of materialistic achievement had present, still, they concerned more about physical security and financial safety than personal growth. Irrespective of demographic characteristics, the people of Taiwan like other Confucian publics, was very satisfied with the interpersonal life sphere and poorly satisfied with the public life sphere. It was found that contribution of material and nonmaterial life domains was comparatively higher than interpersonal and public domains.

Zhang (2010) studied the quality of life of 1600 respondents from eight typical cities representing different developmental levels in China. It was found that most of the respondents were highly satisfied with their overall life satisfaction. People from different cities had differences in their perceptions about overall life satisfaction. But the difference was not due to changes in developmental levels. It was found that characteristics like income had a significant impact on residents' satisfaction with QoL, while gender, age, education and marriage had no significant impact. Domains like health, working status and family life were the most significant indicators of overall life satisfaction.

Zullig (2005) investigated the relationship between perceived life satisfaction and health-related quality of life (HRQOL) in South Carolina, USA. The sample size was 4914 adolescents aged 13-18 years. A study had examined perceived life satisfaction by six domains (self, family, friends, living environment, school, and overall) and HRQOL-Health-Related Quality of Life (self-rated health). The researcher concluded that there was a strong relationship between poor physical health and perceived life satisfaction.

### 2.3 SUMMARY OF REVIEW OF LITERATURE

In this part of a study, key elements of related studies (Literature) have shown in summary form, so it will be easy for readers as well as for researchers to make a comparison of variables and other elements of related studies. Findings and conclusions of related studies were discussed in the former part of the study under the brief of related studies, but to formulate Research Gap it was an essential and systematic way to cross-comparison of related studies. Research Gap follows this part, where the research gap will be identified after careful comparative analysis of related studies. Review of Literature table was divided into certain columns as per the requirement of research gap analysis.

**Table: 2.1 Review of literature**

| Sr. No | Author       | Year | Title of The Research  | Respondents  | Sample Size | Place  | Variables Studied   |
|--------|--------------|------|--|--|-------------|--------|---|
| 1      | Abdel-Khalek | 2010 | Quality of life, subjective well-being, and religiosity in Muslim college students | Kuwait University undergraduates aged between 18 to 28 years | 224         | Kuwait | 1. General Quality of life, 2. General health, 3. Physical, Psychological, 4. Social, Environment, 5. Total Quality of life, 6. Subjective Wellbeing, 7. Physical health, 8. Mental health, 9. Happiness, Satisfaction, 10. Religiosity, 11. General religiosity, & 12. Religious |

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|   |                     |      |   |  |     |  |  |
|---|---------------------|------|---|--|-----|--|--|
|   |                     |      |   |  |     |  | belief.  |
| 2 | Alcala and Aldovino | 2011 | Sense of well-being and perceived quality of life in Purok Mathimik (isla), barangay cotta, Lucena city | Female, married, Age of nearly 40 year old and housewife | 100 | Purok Matahimik (Isla) in Barangay Cottat, Lucena City | Domains of life satisfaction: 1.Community services, 2. Public safety and security, 3. Material possession, 4.Consumption, 5.Work life, 6.Self-development, 7. satisfaction, 8.Family life, and 9. Relationship & Leisure as an activity.   |
| 3 | Ali et al.          | 2009 | Quality of life in cities: setting up criteria for Amman-Jordan   | Experts  | 33  | Amman (Jordan)   | Overall Quality of Life, Domains: 1.City profile referring to community composition, 2. Community participation, 3.Culture and recreation, economy, 4.Education, 5. Environment, 6. Health, 7. Housing, 8. Infrastructure and public services, 9. Means of transportation, and 10. Security for life and property. |
| 4 | Amao                | 2014 | Quality of life of poor residential neighbourhoods in Oshogbo, Nigeria                                  | Poor residential neighbourhood                           | 500 | Oshogbo (Nigeria)                                      | 1. Gender, 2.Age, 3. Marital status, 4. Income status, and 5.Quality of house.   |

|   |                                    |      |  |  |      |                         |  |
|---|------------------------------------|------|--|--|------|-------------------------|--|
| 5 | Angur et al.                       | 2015 | Congruence among objective and subjective quality-of-life (QoL) indicators | Households   | 3000 | Flint (Michigan-U.S.A.) | 1. Satisfaction with neighbours, 2. Satisfaction with Home, 3. Satisfaction with Aesthetic Quality, 4. Satisfaction with Security against Crime, 5. Satisfaction with Government and Community Service, 6. Satisfaction with Racial Mix of Neighbourhood, and 7. Satisfaction with Educational System. |
| 6 | Anzilli, Facchinetti and Mastroleo | 2013 | “Beyond GDP”: a fuzzy way to measure the country wellbeing                 | Fuzzy Methodology                                      |      |                         | 1. Material Well-being (income, consumption, assets), 2. Health, education, 3. Personal activities and work, 4. Political participation, 5. Social relations, 6. Environment, and 7. Insecurity (economic and physical).   |
| 7 | Biswas – Diener and Diener         | 2001 | The subjective well-being of the homeless, and lessons for happiness       | People lives in the slums aged age from 15 to 70 years | 67   | Kolkata (India)         | 1. Life Satisfaction, 2. Material Domains, 3. Social Domains, 4. Self-related Domains, and 5. Positive and negative affects: Affection, Joy, Anger, Sadness, Guilt, Worry and Pride.   |

REVIEW OF LITERATURE

|    |                                     |      |  |                              |                                      |                               |  |
|----|-------------------------------------|------|--|------------------------------|--------------------------------------|-------------------------------|--|
| 8  | Biswas-Diener and Diener            | 2006 | Sen and the art of quality of life maintenance: towards a working definition of quality of life. | Homeless people              | 186                                  | Kolkata (India)               | 1. Quality of Life, 2. Income, 3. Social relationship, 4. Religious and spiritual beliefs, 5. Political participation, and 6. Life events.   |
| 9  | Biswas-Diener, Diener and Lyubchik  | 2015 | Wellbeing in Bhutan  | Individuals                  | 38580 (164 Nations)<br>Bhutan (1000) | Bhutan                        | 1. Psychological wellbeing, 2. Social wellbeing, 3. Environmental wellbeing, and 4. Income and Material wellbeing  |
| 10 | Bourke and Geldens                  | 2007 | Subjective wellbeing and its meaning for young people in a rural Australian center               | young people (aged 16-24)    | 91                                   | Rural center in Australia     | 1. Subjective wellbeing, 2. Satisfaction with life, 3. Relationships, 4. Emotional/psychological dimensions, 5. Personal dimensions, 6. Physical dimensions, and 7. Structural Issues. |
| 11 | Brajša-Žganec, Ivanović, & Lipovčan | 2011 | Personality traits and social desirability as predictors of subjective                           | Students aged 19 to 26 years | 392                                  | University of Zagreb, Croatia | 1. Gender, 2. Life satisfaction, 3. Positive affect, 4. Negative affect, 5. Extraversion, 6. Agreeableness, 7. Conscientiousness,  |

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|----|--------------------------------------|------|---|--------------------------------------|------|--|---|
|    |                                      |      | well-being  |                                      |      |  | 8.Emotional stability,<br>9.Intellect, and 10.Social desirability.  |
| 12 | Brown,<br>Woolf and<br>Smith         | 2008 | The determinants of subjective wellbeing in New Zealand: an empirical look at New Zealand's social welfare function     | People aged 15 years and above       | 8721 | New Zealand                                    | 1. Personality and genetic factors, 2. Demographic factors: gender, age, health and education, 3.economic and work factors, 4.social life and community relationships, and 5.safety and security.   |
| 13 | Camfield,<br>Chaudhury and<br>Devine | 2006 | Relationships , happiness and well-being: insights from Bangladesh  | People with age of 21 years or above | 330  | Bangladesh                                     | 1.Age, 2.Gender, 3.Occupation, 4.Socio-economic status, and 5.Overall Life Satisfaction   |
| 14 | Cantarero,<br>Potter and<br>Leach    | 2008 | Perceptions of quality of life, Sense of community, and life satisfaction among elderly resident in Schuyler and Crete, | People aged 60 years or more         | 46   | Rural Nebraska communities- Crete and Schuyler | 1.Perception of current health, 2.Access to public transportation, 3.Housing satisfaction, 4.Perception of neighborhood conditions, 5.Perception of safety, 6.Perceived support from friends, 7.Access to basic services, 8.Finances, and 9.Stress. |

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|----|----------------|------|---|--|------|---------------------|---|
|    |                |      | Nebraska.   |  |      |                     |   |
| 15 | Chan et al.    | 2004 | Constructing a quality of life scale for older Chinese people in Hong Kong (HKQoLOCP)                           | Individuals aged 60 or above                     | 1616 | China               | 1. Subjective well-being, 2. Health, 3. Interpersonal relations, 4. Achievement-recognition, 5. Finance, and 6. Living condition.   |
| 16 | Chavda and Rai | 2015 | Well-being of adolescents in context of culture and gender: an empirical analysis                               | adolescents                                      | 180  | Ahmedabad (Gujarat) | 1. Culture, 2. Gender, and 3. Well-being  |
| 17 | Chen and Davey | 2009 | Subjective quality of life in Zhuhai city, south china: a public survey using the international wellbeing index | Individuals of age group of 18 years to 70 years | 449  | Zhuhai City (China) | 1. Gender, 2. Age, 3. Educational level, 4. Marital status, 5. Length of residency, 6. Life as a whole, 7. Standard of living, 8. Health Life, achievement, 9. Personal relationships, 10. Personal safety, 11. Community connection, 12. Future security, 13. PWI score, 14. Economic situation, 15. State of the environment, 16. Social conditions, 17. Government, 18. Business, 19. National |

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|    |                                |      |   |                                 |      |                         | security, and 20 NWI score.   |
| 18 | Cramer, Torgersen and Kringlen | 2004 | Quality of life in a city: the effect of population density | Individuals aged 18 to 65 years | 2065 | Oslo                    | 1. Age, 2. Education, 3. Income, 4. Married today, 5. Living with partner, 6. Somatic health, 7. Population density, 8. Subjective well-being, 9. Self-realisation, 10. Contact with friends, 11. Support if ill, 12. Absence of negative life events, 13. Relation to family of origin, and 14. Neighbourhood quality.   |
| 19 | Das                            | 2008 | Urban quality of life: a case study of Guwahati             | Households                      | 379  | Guwahati, Assam (India) | 1. Satisfaction from health facility in locality, 2. Satisfaction from welfare service by local administration, 3. Satisfaction from availability of parks and green areas, 4. Satisfaction from cost of living, 5. Satisfaction from own economic condition, 6. Satisfaction from conditions of housing, 7. Satisfaction from sense of personal security, 8. Satisfaction from level of environmental pollution in city, and 9. Satisfaction |

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|    |                       |      |   |                                      |     |   | from condition of traffic.   |
| 20 | Dasgupta and Majumdar | 1996 | Sense of well-being and perceived quality of life in Calcutta | People with age of 21 years or above | 400 | Kolkata (India)                         | 1. Overall Life satisfaction,<br>2. Demographic variables (Age, Gender & Income), and 3. Domain of life satisfaction: satisfaction with self-development, family life, material possession, local government administration.   |
| 21 | Diener and Seligman   | 2002 | Very happy people   | College students (Undergraduates)    | 222 | University of Illinois (Chicago-U.S.A.) | 1. Satisfaction with life,<br>2. Global self-reported affect balance, 3. Informant affect balance, 4. Daily affect balance, 5. Memory event recall balance, 6. Trait self-description, 7. Interview suicide measure, 8. Self-rating of relationships, 9. Peer rating of target relationships, 10. Daily activities, 11. Self-report affect intensity, and 12. Big five personality type. |
| 22 | Diener and Suh        | 1997 | Measuring quality of life: economic, social and               | Meta-analysis                        |     | U.S.A., Japan & France                  | 1. Life satisfaction, 2. Unemployment, and Health.   |

|    |                 |      |   |                                     |      |  |   |
|----|-----------------|------|---|-------------------------------------|------|--|---|
|    |                 |      | subjective indicators   |                                     |      |  |   |
| 23 | Dobewall et al. | 2012 | Self-other agreement in happiness and life-satisfaction: the role of personality traits | People aged between 18 and 86 years | 1251 | Estonian Genome Center (University of Tartu - Estonia) | 1. Subjective Wellbeing, 2. Anxiety, 3. Angry, 4. Hostility, 5. Depression, 6. Self-Consciousness, 7. Impulsiveness, 8. Vulnerability, 9. Warmth, 10. Gregariousness, 11. Assertiveness, 12. Activity, 13. Excitement Seeking, 14. Positive Emotions, 15. Fantasy, 16. Aesthetics, 17. Feelings, 18. Actions, 19. Ideas, 20. Values, 21. Trust, 22. Straightforwardness, 23. Altruism, 24. Compliance, 25. Modesty, 26. Tender-Mindedness, 27. Competence, 28. Order, 29. Dutifulness, 30. Achievement Striving, 31. Self-Discipline, and 32. Deliberation. |
| 24 | Dost            | 2006 | Subjective well-being among university students   | university students                 | 700  | Hacettepe University                                   | 1. Gender, 2. Satisfaction with Physical Appearance, 3. Locus of Control, 4. Perceived Economic Status, 5. Perceived Parental Attitude, and   |

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|    |                 |      |  |              |          |                                 |  |
|----|-----------------|------|--|--------------|----------|---------------------------------|--|
|    |                 |      |  |              |          |                                 | 6.Religious Belief.  |
| 25 | Dunning et al.  | 2006 | A gender analysis of quality of life in Saskatoon, Saskatchewan                    | Individuals. | 968 & 90 | Saskatoon, Saskatchewan, Canada | 1. Gender, 2. Neighborhood quality of life, 3.Age, 4.Marital status, 5.Children under 18 in household, neighborhood SES, 6.Feeling a part of neighborhood, 7.Level of comfort in participating in neighborhood projects, 8.Comfortable calling on neighbours in a crisis, 9.Volunteers in organizations, 10.Community security, 11.Human services, 12.Community services, 13.Micro quality of environment, and 14. Macro quality of environment. |
| 26 | Epley and Menon | 2008 | A method of assembling cross-sectional indicators into a community quality of life | Census       |          | U.S.A.                          | 1. Crime Sector, 2.Health Sector, 3.Employment Sector, 4.Education Sector, and 5. Recreation.  |

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|----|-------------------------|------|---|------------------------------|-----------------------------------|---------------------------|--|
| 27 | Eroglu                  | 2012 | Examination of university students' subjective well-being: a cross-cultural comparison                                      | Students                     | 240                               | Selcuk University, Turkey | 1. Nationality, 2. Gender, and 3. Subjective wellbeing.  |
| 28 | Fleche, Smith and Sorsa | 2012 | Exploring determinants of subjective wellbeing in OECD countries: evidence from the world values survey                     | Adults                       | 92338                             | OECD countries            | 1. Income, 2. Health, 3. Employment status, 4. Education, 5. Environment, 6. Personal activities, 7. Community, Governance, 8. Life satisfaction, and 9. Individual Control.   |
| 29 | Fu et al.               | 2006 | The relationship between country of residence, gender and the quality of life in Australian and Taiwanese midlife residents | Individuals aged 40-59 years | 278 Australians and 398 Taiwanese | Taiwan and Australia      | 1. Gender, 2. Country of Residence, 3. Physical Health, 4. Psychological Health, 5. Social Health, 6. Environmental Health, 7. Social Health plus respected by others, and 8. Environmental Health plus able to get desired things to eat. |

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|    |                   |      |   |  |      |        |   |
|----|-------------------|------|---|--|------|--------|---|
| 30 | Fuentes and Rojas | 2001 | Economic theory and subjective well-being: Mexico   | Individuals  | 339  | Mexico | <ol style="list-style-type: none"> <li>1. Demographic and</li> <li>2. Social Variables: education, age, gender, civil status, religion and participation in church,</li> <li>3. health, 4. working situation and nature of job.</li> <li>5. Economic Variables: current household income, former economic level, future income expectations and perception of material needs concern for the family's economic situation, house ownership, and 6. Subjective well-being.</li> </ol> |
| 31 | Groenland         | 1990 | Structural elements of material well-being: an empirical test among people on social security | People on welfare, Employed, Unemployed & Disabled | 1187 | Dutch  | <ol style="list-style-type: none"> <li>1. Income, 2. Minimum Income, 3. Satisfaction, Financial evaluation,</li> <li>4. Cantril indicator,</li> <li>5. Affective evaluations, and 6. Future Financial.</li> </ol>   |
| 32 | Gupta and Sharma  | 1998 | Measuring quality of family life  | Working women                                      | 455  | India  | <ol style="list-style-type: none"> <li>1. Family life and</li> <li>2. Quality of Life.</li> </ol>   |

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|    |           |      |  |                       |       |                   |  |
|----|-----------|------|--|-----------------------|-------|-------------------|--|
| 33 | Gutierrez | 2005 | Personality and subjective well-being: big five correlates and demographic variables | Nursing professionals | 236   | Madrid (Spain)    | 1. Sex, 2.Age, 3.Relationship status, 4.Neuroticism, 5.Extraversion, 6.Openness, 7.Agreeableness, 8.Conscientiousness, 9.Positive affect, 10.Negative affect, and 11. Affect balance.  |
| 34 | Haq       | 2009 | Measuring human wellbeing in Pakistan: objective versus subjective indicators        | Households            | 73953 | Punjab (Pakistan) | Domains of Life satisfaction Objective: 1.education, 2.health, living conditions and 3.economic situation. Subjective: 4.Education, 5.Health, 6.Public safety, 7.Household's economic status, and 8.Community economic status. |
| 35 | Haq       | 2008 | Variation in quality of life within Punjab: evidence from MICS, 2007-08              | Households            | 91280 | Pakistan          | Domains of Life satisfaction: 1.Health, Education, 2.Child Protection, 3.Environment, and 4.Socio-economic development.  |

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|    |                        |      |   |  |      |                         |  |
|----|------------------------|------|---|--|------|-------------------------|--|
| 36 | Hsieh                  | 2015 | Domain importance in subjective well-being measures   | Individuals of 18 years of age and older | 2164 | U.S.A                   | 1.Gender, 2.Race, 3.Education, 4.Marital status, 5.Employment, 6.Resident Location, 7.Family income, 8.Age, 9.Housing, Community, 10.Finances, Leisure/hobbies , 11.Family life ,12.Friendships, 13.Health, Government,14. Job, 15.Organizations, 16.Marriage, 17.Religious faith, 18.Neighbourhood, 19. Life in US, and 20. Standard of living. |
| 37 | Hudders and Pandelaere | 2011 | The silver lining of materialism: the impact of luxury consumption on subjective well-being | Dutch-speaking, Belgium students         | 584  | Flemish part of Belgium | 1. Sex, 2.Age, 3.Luxury, 4.Materialism, 5.Positive affects, 6.Negative affects, and 7.Life satisfaction.   |

|    |                     |      |  |                               |      |         |   |
|----|---------------------|------|--|-------------------------------|------|---------|---|
| 38 | Hussien and Heshmat | 2009 | Determinants of happiness and life satisfaction in Egypt "An empirical study using the world values survey - Egypt 2008" | Individuals aged 18 or above  | 3050 | Egypt   | <ol style="list-style-type: none"> <li>1. Demographic Indicators (Education level, Illiteracy, No. of children, Nationality, Gender, Marital status, Being the household head, Age),</li> <li>2. Work and employment,</li> <li>3. Overall Life satisfaction,</li> <li>4. Social relations between individuals of the society,</li> <li>5. Gender discrimination,</li> <li>6. National aspects (aims of the country in the coming ten years ),</li> <li>7. Political and institutional indicators,</li> <li>8. Environment,</li> <li>9. Economic indicators, and</li> <li>10. Place of residence.</li> </ol> |
| 39 | Hutchinson et al.   | 2004 | Social and health determinants of well-being and satisfaction in Jamaica   | Young adults aged 15–50 years | 2580 | Jamaica | <ol style="list-style-type: none"> <li>1. Age,</li> <li>2. Education,</li> <li>3. Union status,</li> <li>4. Employment status,</li> <li>5. Religiosity,</li> <li>6. Church Attendance,</li> <li>7. Well-being, self-esteem,</li> <li>8. Satisfaction with life, and</li> <li>9. Health status.</li> </ol>   |

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|    |                           |      |  |                              |                |                 |  |
|----|---------------------------|------|--|------------------------------|----------------|-----------------|--|
| 40 | Inoguchi and Fujii        | 2009 | The quality of life in japan   | Individuals aged 20-69 years | 1003           | Japan           | 1. Happiness, 2.Enjoyment, 3.Achievement, 4.Overall quality of life, 5.Gender, 6.Age, 7.Marital status, 8.Education, 9.Household 10.Income, 11.Community size, 12.Life styles, 13.Value priorities, 14.Housing, 15.Standard of living, 16.Household income, 17.Education, 18.Work, 19.Health, 20.Friendships, 21.Marriage, 22.Family life, 23.Leisure, 24.Spiritual life, 25.Neighbours, 26.Public safety, 27.Condition of environment, 28.Welfare system, and 29.Democratic system. |
| 41 | Jongudomkarn and Camfield | 2005 | Exploring the quality of life of people in north eastern and southern Thailand | Households                   | 1000           | Thailand        | 1. Age, 2.Gender, 3.Religion, 4.Geographical area, 5.Locality, 6.Life Domain Satisfaction: Family relations, Health, Money, Assets, Occupation, and Accommodation.   |
| 42 | Karlsson et al.           | 2013 | The meaning of health, well-being,   | Roma People aged 18–         | 27 Qualitative | Västra Götaland | 1. Health perception, 2.Being employed 3. Having an education,   |

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|----|------------------------|------|---|---------------------------------|------------|---|--|
|    |                        |      | and quality of life perceived by roma people in west Sweden                 | 64 years                        | Interviews | (Sweden)                                | 4. Social support from family and friends, 5. freedom and security, 6. The extent of involvement in society, 7. Well-being, and 8. Quality of Life.  |
| 43 | Keng and Hooi          | 1995 | Assessing quality of life in Singapore: an exploratory study                | Individuals aged 15 to 54 years | 329        | Singapore                               | 1. Sex, 2. Age group, 3. Ethnic group, 4. Marital status, 5. Educational status, 6. Personal income, 7. Household Size, 8. Residential type, 9. Overall life satisfaction, 10. Family life, 11. Life in Singapore, 12. Personal health, 13. Living environment, 14. Material possessions, 15. Health care services, 16. Acquisition & consumption of goods, 17. Social life, 18. Self-development, 19. Working life, 20. Mass media, 21. Leisure, and 22. School life. |
| 44 | Kennedy and Kanthamani | 1995 | Empirical support for a model of well-being, meaning in life, importance of | People aged 16 to 89 years      | 182        | Prince George, British Columbia, Canada | 1. Importance of Religion to Well-Being, 2. Transcendent Experiences to Well-Being, and 3. Transcendent Experiences to Meaning in  |

|    |                          |      |  |                              |                   |                                  |  |
|----|--------------------------|------|--|------------------------------|-------------------|----------------------------------|--|
|    |                          |      | religion, and transcendent experiences   |                              |                   |                                  | Life.  |
| 45 | Keyes, Shmotkin and Ryff | 2002 | Optimizing well-being: the empirical encounter of two traditions                                     | Individuals aged 25–74 years | 3032              | U.S.A.                           | 1. Age, 2. Gender, 3. Education Status, 4. Marital Status, 5. Race, Life satisfaction, 6. Positive affect, 7. Negative affect, 8. Self-acceptance, 9. Positive relations, 10. Personal growth, 11. Purpose in life, 12. Environmental mastery, and 13. Autonomy. |
| 46 | Khan, Shirazi and Ahmed  | 2011 | Spirituality and life satisfaction among adolescent in India   | Students                     | 80                | Aligarh Muslim University, India | 1. Gender, 2. Spirituality, and 3. Life satisfaction.  |
| 47 | Kusago                   | 2008 | Japan's development: what economic growth, human development and subjective well-being measures tell | Individuals aged 15 or above | 7519, 3437 & 4159 | Japan                            | 1. Age, 2. Gender, 3. Marital status, 4. Job status, 5. House ownership, Income, and 6. Life satisfaction.   |

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|----|------------------------|------|--|--|---------------|-------------------------|---|
| 48 | Larson                 | 1978 | Thirty years of research on the subjective well-being of older Americans   | Individuals aged 60 or older   | Meta-analysis | U.S.A.                  | 1. Health, 2.physical disability, 3.Socioeconomic variables, 4.Age, 5.Race, 6.Sex, 7.Employment, 8.Marital status, 9.Transportation, 10.Housing, 11.Social activity, and 12.Subjective Well-Being.  |
| 49 | Leelakulthanit and Day | 1992 | Quality of life in Thailand  | People with age of 21 years or above                                 | 500           | Bangkok city (Thailand) | Domains of Life satisfaction: 1.Life in general, 2. Family, 3.Self, 4.Material possession, 5. Work, 6. Social life, 7.Personal health, 8.Thailand gov. Life in Thailand, 9.Healthcare, 10.Recreation, 11.Consumption, 12.Spiritual life, and 13.Bangkok Administration. |
| 50 | Lever                  | 2000 | The development of an instrument to measure quality of life in Mexico city | 20 to 35 and 36 to 50 years of age for first stage, Second stage: 21 | 320 & 768     | Mexico City (Mexico)    | 1.Socio-economic Level, 2.General Quality of Life, 3.Couple relationship, 4.Family relationships, 5.Work, Children, 6.Economic well-being, 7.Personal development, 8.Self-image, 9.Health and   |

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|    |      |      |  | to 35 and 36 to 50 years of age |      |        | physical well-being, 10.Sociability, 11.Social area, 12.Recreational activities, 13.Close friends, 14.Housework, Environment, 15. Emotional losses, 16.Moral aspect, 17.Religious aspect, 18.Personal expression and creativity, and 19. Personal Knowledge. |
| 51 | Liao | 2008 | Parallels between objective indicators and subjective perceptions of quality of life: a study of metropolitan and county areas in Taiwan | Citizens of age 20 or older     | 4070 | Taiwan | 1. Medical Service, 2.Domestic Finances, 3.Work, Education, 4.Leisure, 5.Public safety, and 6.Environment quality.   |

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|----|-----------------|------|--|----------------------------|----------------------------------|--------------------|--|
| 52 | Liao, Fu and Yi | 2005 | Perceived quality of life in Taiwan and Hong Kong: an intra-culture comparison | Person aged above 20 years | Taiwan (1222) & Hong Kong (1044) | Taiwan & Hong Kong | <ol style="list-style-type: none"> <li>1. Age, 2. Gender,</li> <li>3. Marital Status,</li> <li>4. Educational Level,</li> <li>5. Working status,</li> <li>6. Personal income,</li> <li>7. Health, 8. Perceived fairness, 9. Social satisfaction, 10. Overall societal satisfaction,</li> <li>11. Satisfaction with economy, 12. Satisfaction with security,</li> <li>13. Satisfaction with government,</li> <li>14. Satisfaction with mandatory education,</li> <li>15. Optimism about the society, 16. Optimism about the economy, and</li> <li>17. Optimism about the politics.</li> </ol> |
| 53 | Liu             | 1974 | Quality of life indicators: a preliminary investigation                        | Secondary data             |                                  | U.S.A.             | <ol style="list-style-type: none"> <li>1. Individual Status,</li> <li>2. Individual Equality,</li> <li>3. Living Conditions,</li> <li>4. Agriculture Production,</li> <li>5. Technological Development,</li> <li>6. Economic Status,</li> <li>7. Education,</li> <li>8. Health and Welfare,</li> <li>9. State and Local Governments,</li> <li>10. Overall SEPE Index, and</li> <li>11. Personal Income Per</li> </ol>  |

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|    |                                   |      |   |                                   |     |  | Capita.   |
| 54 | Lloyd and Auld                    | 2002 | The role of leisure in determining quality of life: issues of content and measurement                   | Individuals aged 15 years or more | 571 | Brisbane city in Queensland, Australia | 1. Gender, 2. Age, 3. Socioeconomic status, 4. Marital status, 5. Household composition, 6. Perceptions of environmental quality, 7. Satisfaction with leisure resources, 8. Satisfaction with natural resources, 9. Satisfaction with cultural resources, 10. Satisfaction with man-made resources, and 11. Quality of Life. |
| 55 | Loewe et al.                      | 2013 | Life domain satisfactions as predictors of overall life satisfaction among workers: evidence from Chile | Workers                           | 530 | Chile                                  | 1. Age, 2. Marital status, 3. Education, 4. Occupation and 5. Life Domains satisfaction: Health, Finance, Social Self, Leisure, Family, and Work.   |
| 56 | Maditinos, Papadopoulos and Prats | 2013 | The free time allocation and its relationship with the perceived quality of life (QoL) and satisfaction | Individuals                       | 353 | Greece                                 | 1. Physical Health, 2. Mental Health, 3. Satisfaction with Life, 4. Sleep (hours / week), 5. Paid labour, 6. Unpaid household labour, 7. Personal care, 8. Leisure, 9. Mass Media leisure, 10. Computer use, 11.  |

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|    |                        |      | with life (SWL)   |            |     |                       | Mental leisure, 12.Cultural leisure, 13.Social leisure, 14.Passive leisure, and 15.Active leisure.  |
| 57 | Malik, Shukla and Bhat | 2015 | Spatial variation in the perception of urban residential environmental, quality of life in Srinagar city (j &k) | Households | 711 | Srinagar city (India) | 1. Housing facility by ward, 2.Distribution of disease by ward, 3.Distribution of diseases by prevalence of certain diseases in sample areas, 4.Density of persons per room in sample households, 5.Built up of Srinagar city, 6.Perception of Residents Annoyed by Noise Pollution, 7.Perception of Residents Annoyed by Water Pollution, 8. Perception of Residents Annoyed by Crowding, 9.Perception of Residents Annoyed by Litter, 10.Perception of Residents on Total Environmental Pollution of Sample Households, 11.Resident's awareness & participation to environmental Problems, and 12. Level of Literacy. |

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|----|---------------------|------|---|--------------------------------------|------|--------|---|
| 58 | Mastekaasa and Moum | 1984 | The perceived quality of life in Norway: regional variations and contextual effects | Individuals of 15 to 64 years of age | 1005 | Norway | <ol style="list-style-type: none"> <li>1. Education, 2.Age,</li> <li>3.Income, 4.Marital status,</li> <li>5.Sex, 6.Household size,</li> <li>7.Degree of Urbanization, and Overall Quality of Life.</li> </ol>   |
| 59 | Michalos            | 2004 | Social indicators research and health-related quality of life research              | Undergraduates                       | 8076 | Korea  | <ol style="list-style-type: none"> <li>1. Happiness on health,</li> <li>2.Happiness on worries,</li> <li>3.Happiness on social support, 4.Happiness on domain satisfaction,</li> <li>5.Mental Health, 6.Social Functioning, 7. Social Support Index ,8.Fair Treatment Index,</li> <li>9.Physical age identity,</li> <li>10.Difficulties with housing costs, 11.Personal worries, 12.Living area,</li> <li>13.Retail store access,</li> <li>14.Ideal age preference,</li> <li>15.Friendships, 16.Present age, 17.Self-esteem,</li> <li>18.Accomplishing in life now, 19.Local government officials,20. Family relations, 21.Opportunities to socialize.</li> </ol> |

|    |                      |      |                                   |                     |      |                           |  |
|----|----------------------|------|-----------------------------------|---------------------|------|---------------------------|--|
| 60 | Michalos and Orlando | 2006 | A note on student quality of life | University students | 3407 | Northern British Columbia | <ol style="list-style-type: none"> <li>1.Life satisfaction,</li> <li>2.Happiness, 3.Satisfaction with quality of life,</li> <li>4.Satisfaction with standard of living,</li> <li>5.Subjective well-being,</li> <li>6.Satisfaction with housing, 7. Satisfaction with family relations,</li> <li>8.Satisfaction with friendships, 9.Satisfaction with recreation,</li> <li>10.Satisfaction with financial security,</li> <li>11.Satisfaction with self-esteem, 12.Satisfaction with instructors,</li> <li>13.Satisfaction with course offerings, 14.Satisfaction with student services,</li> <li>15.Satisfaction with library services,</li> <li>16.Satisfaction with food services, 17.Satisfaction with fitness services,</li> <li>18.Satisfaction with bookstore services,</li> <li>19.University useful preferred work,</li> <li>20.University useful any work, 21.Age, and 22. Academic credits earned.</li> </ol> |
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| 61 | Michalos and Zumbo | 1997 | Public services and the quality of life   | Individual aged 18 to 88 years | 715   | Prince George, British Columbia, Canada | <ol style="list-style-type: none"> <li>1. Happiness,</li> <li>2.Satisfaction with life as a whole, satisfaction with the quality of life, 3. Satisfaction with Local Government Officials,</li> <li>4.Satisfaction with Provincial Government Officials, 5.Satisfaction with Federal Government Officials, and</li> <li>6.Satisfaction with All Government Officials.</li> </ol> |
| 62 | Mingtao            | 2010 | A microeconomic analysis of happiness and life satisfaction: a statistical study in Germany           | Individuals aged over 15 years | 2870  | Germany                                 | <ol style="list-style-type: none"> <li>1. Age, 2.Gender,</li> <li>3.Education status,</li> <li>4.Marital status,</li> <li>5.Subjective General health, 6.Employment status, 7. Social meet,</li> <li>8.Religiosity, 9.Household income, 10.Number of rooms household have,</li> <li>11.Satisfaction of Life, and12.Happiness.</li> </ol>   |
| 63 | Moller             | 2007 | Satisfied and dissatisfied South Africans: results from the General Household Survey in international | Households                     | 26000 | South Africa                            | <ol style="list-style-type: none"> <li>1. Race, 2.Overall Life satisfaction, 3.Domains: Housing, 4.Infrastructure, Service delivery,</li> <li>5.Ownership, 6.Education, 7.Livelihoods, and</li> <li>8.Poverty.</li> </ol>  |

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|----|----------------------|------|--|----------------------------------|-------|--------------|---|
|    |                      |      | comparison   |                                  |       |              |   |
| 64 | Moller and Schlemmer | 1983 | Quality of life in south Africa: towards an instrument for the assessment of quality of life and basic needs | People (Whites, Indian, Black)   | 409   | South Africa | 1.Overall life satisfaction, 2.Average satisfaction among all salient aspects of life as chosen by respondents (group priorities), 3.Average satisfaction with subtle issues in life not necessarily recognised as important by individual and 4.Average satisfaction with all salient aspects of major life domains and criteria : nutrition, religion, identity, social relationships, health, family, leisure and recreation, participation, self , neighbourhood issues, education, physical security, transport, housing, employment and work, financial and social security, rural ties, wages, and prices, race relations. |
| 65 | Mookherjee           | 1997 | Marital status, gender and perception of well-being  | Individuals aged 18 to 89 years. | 12168 | U.S.A.       | 1. Perception of well-being, 2.Marital status, 3.Gender, 4.Race, and 5. Financial status.   |

|    |           |      |   |        |                      |                 |   |
|----|-----------|------|---|--------|----------------------|-----------------|---|
| 66 | Mukherjee | 1981 | On the quality of life in India: an exploratory survey  | People | 143                  | Kolkata (India) | 1.Livelihood categories, 2.Family organization, caste affiliation, 3.Education, 4.Sex, 5.Age, 6.Religion, 7.Ethnicity, 8.General Quality of Life, 9.Personal Career, 10.Life at work, 11.Family life, 12.Neighbourhood conditions,13. Network of family and neighbourhood, 14. Recreation and leisure, 15.Personal wellbeing, 16.Appreciation of a peaceful, and 17.Happy and progressive life. |
| 67 | Narayana  | 2009 | Education, human development and quality of life: measurement issues and implications for India |        | HDR (UN DP)-HDI data | India           | 1. Education index, 2.Human Development Index (HDI), 3.Physical Quality of Life Index (PQLI), 4. Literacy rate, and 5. Gross enrolment ratio.   |
| 68 | Neuendarf | 2000 | Perceptions of quality of life and affective characteristics: an urban examination              | Adults | 321                  | U.S.A.          | 1. Age, 2.Education, 3.Gender, 4.Income, 5.Marital Status, 6.Political Ideology, 7.Political Party Affiliation, 8.Race/Ethnicity, 9.Media Use, 10.New Technology  |

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|    |                      |      |  |  |                                    |                      |   |
|----|----------------------|------|--|--|------------------------------------|----------------------|---|
|    |                      |      |  |  |                                    |                      | Adoption, 11.Public Opinion, 12.Affective Filters, and 13.Quality of Life.  |
| 69 | Oluwaye              | 1990 | Determinants of quality of rural life in Nigeria: the women's view                         | Rural Women  | 308                                | Oyo State of Nigeria | 1. Age, 2.Educational level, 3.Income per month, 4.Occupation, 5.Quality of rural life, 6. Many children, 7. Educated (good quality) children, 8.Good housing, 9.Wealth, 10.Good personality (good social relationships), and 11. Motor (vehicle) ownership, and 12. Good health. |
| 70 | Ozcan, Boke and Kara | 2008 | The determinants of the perception of happiness and quality of life amongst Turkish people | Households and Individuals                           | 2140 households & 5304 individuals | Turkey               | 1. Sex, 2.Age, 3.Marital status, 4.Education status, 5.Employment status, 6.Environment of Life, 7.Health Status, and 8. Future outlook.  |
| 71 | Ozmete               | 2011 | Subjective well-being: a research on life satisfaction as cognitive component of           | Individuals aged 18 to 54 years attending in English | 108                                | London (Britain)     | 1. Gender and 2.Life - satisfaction.  |

|    |                   |      |  |  |       |         |   |
|----|-------------------|------|--|--|-------|---------|---|
|    |                   |      | subjective well-being  | Language Education Programmed in London          |       |         |   |
| 72 | Park              | 2009 | The quality of life in South Korea   | People aged below 14 years to 65 years and above | 1023  | Korea   | 1.Gender, 2.Age, 3.Marital status, 4.Education, Income, 5.Community, Lifestyles, 6.Needs, Happiness, 7.Enjoyment, Achievement, 8.Housing, Friendships, 9.Marriage, 10.Standard of living, 11.Household income, 12.Health, Education,13. Job, 14.Neighbours, 15.Public safety, 16.Environment, 17.Welfare system, 18.Democratic system, 19.Family life, 20.Leisure, and 21.Spiritual life. |
| 73 | Plagnol and Scott | 2009 | What matters for well-being: individual perceptions of quality of life before and after important life | Households                                       | 40248 | England | 1. Age, 2.Gender, 3.Health, 4.Family, 5.Finance, 6.Happiness, 7.Friends, 8.Leisure, 9.Home comforts and 10.Employment.  |

|    |                      |      | events   |                                      |      |        |   |
|----|----------------------|------|--|--------------------------------------|------|--------|---|
| 74 | Rodgers and Converse | 1975 | Measures of the perceived overall quality of life  | Household (18 years of age or older) | 2164 | U.S.A. | <ol style="list-style-type: none"> <li>1. Friendly-lonely,</li> <li>2. Enjoy-life, 3. Easy-hard,</li> <li>4. Overall life satisfaction,</li> <li>5. Interesting-boring, 6. Free-tied down,</li> <li>7. Happiness, 8. Full-empty,</li> <li>9. Hopeful-discouraging,</li> <li>10. Worthwhile-useless,</li> <li>11. Rewarding-disappointing,</li> <li>12. Brings best-no chance,</li> <li>13. Enjoyable-miserable,</li> <li>14. Health, Savings, 15. Job, Education,</li> <li>16. Standard of living, 17. Life in United States,</li> <li>18. Marriage,</li> <li>19. Community, 20. Family life, Housing, 21. Non-working time, and</li> <li>22. Friendships, Neighborhood.</li> </ol> |
| 75 | Rojas                | 2004 | The complexity of well-being a life satisfaction conception and a domains-of-life approach | Individuals                          | 579  | Mexico | <ol style="list-style-type: none"> <li>1. Life satisfaction,</li> <li>2. Health, 3. Economic,</li> <li>4. Job, 5. Family,</li> <li>6. Friendship, 7. Personal, and 8. Community.</li> </ol>   |

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|    |                              |      |   |   |      |                 |   |
|----|------------------------------|------|---|---|------|-----------------|---|
| 76 | Royo and Velazco             | 2006 | Exploring the relationship between happiness, objective and subjective well-being: evidence from rural Thailand | Households                                      | 4315 | Thailand        | 1. Age, 2.Gender, 3.No. of family members, 4.No. of childrens, 5.Health, Education, 6.Housing, Food, 7. Relationship, 8.Wealth, and 9.Long term shocks  |
| 77 | Ruta, Camfield and Donaldson | 2006 | Making the best of a bad situation: satisfaction in the slums of Calcutta                                       | People age from 18 to 75 years .Living in slums | 20   | Kolkata (India) | 1.Age, 2.Gender, 3.Income, 4.Housing, 5.Satisfaction With Life, 6.Satisfaction With Memory Balance, 7.Material Satisfaction, 8.Income Satisfaction, 9.Housing Satisfaction, 10.Food Satisfaction, 11.Social Satisfaction, 12.Family Satisfaction, 13.Romantic Satisfaction, 14.Friendship Satisfaction with Self, 15.Morality Satisfaction, 16.Intelligence Satisfaction, and 17.Satisfaction with Physical Appearance. |

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|    |                           |      |  |                                      |       |                  |  |
|----|---------------------------|------|--|--------------------------------------|-------|------------------|--|
| 78 | Ryff and Keyes            | 1995 | The structure of psychological well-being revisited                          | People with age of 25 years or above | 1108  | U.S.A.           | 1. Age, 2. Gender, and 3. Domains of Life satisfaction: Self-Acceptance, Environmental Mastery, Positive Relations, Purpose in Life, Personal Growth and Autonomy.   |
| 79 | Sawatzky, Ratner and Chiu | 2005 | A meta-analysis of the relationship between spirituality and quality of life |                                      |       |                  | Meta-analysis  |
| 80 | Schimmack                 | 2008 | Measuring wellbeing in the SOEP  | Households                           | 18196 | Berlin (Germany) | 1. Average domain satisfaction (DS), 2. Life satisfaction judgment (LS), 3. Affect balance (AB), 4. Subjective wellbeing measures (SWB), 5. Neuroticism, 6. Unemployment, 7. Disability, 8. Divorce, 9. Widowhood, 10. Gender, 11. Birth Year, and 12. Income. |

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|    |           |      |  |                              |      |        |  |
|----|-----------|------|--|------------------------------|------|--------|--|
| 81 | Schneider | 1975 | The quality of life in large American cities: objective and subjective social indicators | Census                       |      | U.S.A. | <ol style="list-style-type: none"> <li>1. Satisfaction with Job,</li> <li>2.Satisfaction with Home,</li> <li>3.Satisfaction with Money and Income, 4.Personal Efficacy, 5. Satisfaction with Level of Services, 6. Citizen Competence, 7. Government Distrust, 8. Constructed Measure of Total Life Satisfaction. 9. Income, wealth and employment,</li> <li>10.Environment,</li> <li>11.Health, 12.Education,</li> <li>13.Participation and alienation, and 14.Social disorganization.</li> </ol>                 |
| 82 | Selim     | 2008 | Life satisfaction and happiness in turkey  | Individuals aged 15 or above | 6338 | Turkey | <ol style="list-style-type: none"> <li>1.Life satisfaction,</li> <li>2.Happiness, 3.Gender,</li> <li>4.Age, 5.Marital status,</li> <li>6.No. of children,</li> <li>7.Educational level,</li> <li>8.Type of employment,</li> <li>9.Importance of Religion,</li> <li>10.Importance of family,</li> <li>11.Importance of friend,</li> <li>12.Importance of leisure time,13. Importance of politics, 14. Importance of work, 15.Political orientation, 16.Trust to the people, and 17.Proud of nationality.</li> </ol> |

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|    |                                |      |  |                              |        |                             |  |
|----|--------------------------------|------|--|------------------------------|--------|-----------------------------|--|
| 83 | Shin and Rutkowski             | 2003 | Subjective quality of Korean life in 1981 and 2001 | People aged 20 or older      | 1215   | North-Korea                 | 1. Happiness, 2.Enjoyment, 3.Satisfaction, Accomplishment, and 4.Life domain: Health, Education, Leisure, Marriage, Family, Children, Friendship, Income, Housing, Work, Government, Community, Life in Korea.   |
| 84 | Shu and Zhu                    | 2009 | The quality of life in china                       | Individuals aged 20-69 years | 2000   | China                       | 1. Gender, 2. Age, 3.Education, 4.Marital status, 5.Household income, 6.Employment, 7.Urban/rural resident, and 8.Life domain satisfaction: Personal life, Interpersonal life, Material life, Nonmaterial life, Public life, Subjective wellbeing: Happiness, Enjoyment, Accomplishment, Value priorities and Lifestyle. |
| 85 | Silva, Keulenaer and Johnstone | 2012 | Environmental quality and life satisfaction        | People aged 15 or older      | 150000 | OECD and non-OECD countries | 1. Gender, 2.Age, Education, 3.Health status, 4.Employment status, 5.Income, and 6.Satisfaction with air quality.  |
| 86 | Sing                           | 2009 | The quality of life in                             | Hong Kong                    | 1000   | Hong Kong                   | 1.Gender, 2.Age, 3.Educational attainment,   |

|    |                    |      |   |                                     |  |                     |   |
|----|--------------------|------|---|-------------------------------------|--|---------------------|---|
|    |                    |      | Hong Kong   | residents aged 20 years to 69 years |  |                     | <p>4.Household annual income, 5.Marital status, 6.Religion, 7.Overall Quality of life, 8.Education, 9.Job, 10.Health, 11.Family life, 12.Friendship, 13.Marriage, 14.Neighbours, 15.Standard of living, 16.Household Income, 17.Housing, Leisure, 18.Spiritual life, 19.Public safety, 20.Environment, 21.Welfare system, 22.Democratic system. 23. Personal life sphere, 24.Interpersonal life sphere, 25.Material life sphere, and 26.Non-material life sphere.</p> |
| 87 | Somarriba and Pena | 2009 | Synthetic indicators of quality of life in Europe | HDI Ranking                         |  | European Union (EU) | <p>1. Satisfaction with standard of living, 2.Happiness, 3. Life satisfaction, 4.Home satisfaction, 5.Social life satisfaction, 6.Income, 7.Job satisfaction, 8.Health system satisfaction, 9. Living satisfaction area, 10.Health satisfaction, and 11.Life expectancy at birth, 12.Unsafely,</p>  |

|    |                              |      |   |                           |       |        |   |
|----|------------------------------|------|---|---------------------------|-------|--------|---|
|    |                              |      |   |                           |       |        | 13.Trust people, 14. Life Expectancy at the age of 65, 15.Family satisfaction, 16.School life expectancy, 17.Employment, 18.Education satisfaction, 19.Leisure time, 20. Trust in judicial system, 21.Inequality, and 22.Distance to school, stress.  |
| 88 | Somarriba, Pena and Bernardo | 2008 | Quality of life and subjective welfare in Europe: an econometric analysis | People of 18 year or more | 26000 | Europe | 1. Age, 2. Gender, 3.Satisfaction with the job, 4.Socio-economic status, 5.Satisfaction with the house, 6. Problems with the accommodation, shortage of space, 7.Satisfaction with one's education, 8. Age of ended education, 9.Level of education, 10.Satisfaction with the standard of living, 11.Income, 12.Difficulties in making ends meet, 13.Satisfaction with one's health, 14.Chronic illness, 15.Satisfaction with the family,16.Trust in people, 17.Satisfaction with social life, 18.Number of children,19. Marital Status, 20.Activity in a |

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|----|-----------------------------|------|--|-------------------------------|-----------|---------------------|---|
|    |                             |      |  |                               |           |                     | charitable organization,<br>21.Absence green and<br>recreative zones, and<br>22.Air pollution.  |
| 89 | Sores and<br>Peto           | 2015 | Measuring<br>subjective<br>quality of life   | Adult                         | 804       | Hungry              | 1. Age, 2.Gender,<br>3.Marital Status, 4.Income<br>level, 5.Regular exercises,<br>6.Personal relationships, 7.<br>Workplace atmosphere, 8.<br>Income, 9.Presence of<br>thermal waters, 10.Public<br>security, 11.Infrastructure,<br>12.Family, 13.Jobs and<br>employment possibilities,<br>14.Comfort and physical<br>state of homes,15.<br>Availability of health<br>services, 16.Political<br>atmosphere, and 17.<br>Traveling. |
| 90 | Stevenson<br>and<br>Wolfers | 2008 | Economic<br>growth and<br>subjective<br>well-being:<br>reassessing<br>the Easterlin<br>paradox | People<br>aged 15<br>or older | 3800<br>0 | 44<br>Countrie<br>s | 1. Real GDP per Capita,<br>2.Life satisfaction and<br>3.Happiness.  |

|    |                |      |                                  |                                   |      |           |   |
|----|----------------|------|----------------------------------|-----------------------------------|------|-----------|---|
| 91 | Tambyah et al. | 2009 | The quality of life in Singapore | Individuals aged 15 years or over | 1038 | Singapore | <p>1.Gender, 2.Age, 3.Education, 4.Household income, 5.Marital status, Religion, 6.Lifestyles, 7.Digital life, 8.Global life, 9.Spirituality, 10.Value priorities, 11.Having, 12.Relating, Being, 13.Personal domains, 14.Standard of living, 15.Household income, 16.Health, Education, 17.Job, 18.Interpersonal domains, 19.Housing, 20.Friendships, , 21.Marriage, 22.Neighbours, 23.Family life, 24.Leisure, 25.Spiritual life, 26.Public domains, 27.Public safety, 28.Environment, 29.Welfare system, and 30.Democratic system.</p> |
|----|----------------|------|----------------------------------|-----------------------------------|------|-----------|---|

|    |           |      |  |                             |      |         |  |
|----|-----------|------|--|-----------------------------|------|---------|--|
| 92 | Tiliouine | 2007 | Health and subjective wellbeing in developing countries: the case of Algeria | Healthier and non-healthier | 2909 | Algeria | <p>1. Age, 2. Gender, Education, 3. Marital status, 4. Income, 5. Standard of living, 6. Health, 7. Life achievements, 8. Personal relationships, 9. Personal security, 10. Belongingness to the society, 11. Future security, 12. Neighborhood , 13. Friendship , 14. Housing , 15. Marriage, 16. Scientific culture, 17. Literature and Artistic culture, 18. Religious culture , 19. Family, relationships, 20. Use of spare time , 21. Own personality, 22. Extent of personal optimism, 23. Physical appearance, 24. Health factors, 25. Degree of daily, 26. Physical pain, 27. Degree of daily, 28. Anxiety, 29. Degree of daily, and 30. Normal sleep.</p> |
|----|-----------|------|--|-----------------------------|------|---------|--|

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|    |             |      |   |                  |     |                        |   |
|----|-------------|------|---|------------------|-----|------------------------|---|
| 93 | Tiwari      | 2009 | Poverty and wellbeing at the 'grassroots' - how much is visible to researchers? | Rural households | 102 | Madhya Pradesh (India) | 1. Poverty and<br>2. Wellbeing.                               |
| 94 | Tsai et al. | 2013 | Applicability of gross national happiness index to Taiwan                       | Individuals      | 950 | Taiwan                 | 1. Psychological Well-being, 2. Education, and<br>3. Culture. |

|    |                        |      |  |  |      |        |  |
|----|------------------------|------|--|--|------|--------|--|
| 95 | Viswanathan and Sharma | 2013 | Subjective well-being in high assertive women managers   | Women manager aged 23–56 years and working in the information technology (IT), information technology-enabled services (ITES), and Manufacturing sectors | 60   | India  | <p>1.General well-being positive, 2.Expectation-achievement congruence, 3.Confidence in coping, Transcendence, 4.Family group support, 5.Social support, 6.Primary group concern, 7.Inadequate mental mastery, 8.Perceived ill-health, 9.Deficiency in social contacts, and General well-being negative.</p> |
| 96 | Wahl et al.            | 2004 | Quality of life in the general Norwegian population, measured by the quality of life scale (QoL-N) | Norwegian population aged 19-81 years  | 1893 | Norway | <p>1. Age, 2.Gender, 3.Educational status, 4.Marital status, 5.Work, and 6.Health condition.</p>   |

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|    |                         |      |   |                                    |      |                               |  |
|----|-------------------------|------|---|------------------------------------|------|-------------------------------|--|
| 97 | Wills                   | 2007 | Subjective well-being in cities: individual or collective? A cross cultural analysis          | Individuals aged 18 years or older | 2035 | Brazil and Toronto of Canada. | 1.Standard of living, 2.Health, 3.Achievement in Life, 4.Personal relationships, 5.Safe, 6.Feeling part of community, 7.Future security, 8.Economic situation, 9.State of Environment,10. Social conditions, 11.Government, 12.Business, and 13. Local security.                 |
| 98 | Wood, Rhodes and Whelan | 1989 | Sex differences in positive well-being: a consideration of emotional style and marital status | Marrieds                           | 103  | Texas (U.S.A.)                | 1. Age, 2. Marital status, 3.Happiness, 4.Life satisfaction, 5.Positive affect, and 6.General evaluation.  |
| 99 | Yao et al.              | 2009 | The quality of life in Taiwan   | Individuals aged 20 to 69 years    | 1006 | Taiwan                        | 1.Age, 2.Gender, 3.Education, 4.Marital status, 5.Monthly household income, 6.Personal health, 7.Medical care, 8.Job, education, 9.Successful at work, 10.Being famous, 11.Winning over others, 12.Expressing personality/ talents, 13. Interpersonal: family, good with others, |

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|-----|-------|------|--|---|------|-----------------|---|
|     |       |      |  |   |      |                 | <p>raising children; material),<br/>         14. Eat 15.Comfortable home, 16.Nice things, 17.Income, and 18.Dressing up, 19. Nonmaterial: enjoying pastimes, appreciating art/culture, being devout, and 20.public-life: living without fear of crime, contributing to community/ society, freedom, government, community, and environment.</p> |
| 100 | Zhang | 2010 | <p>Urbanites' life satisfaction research in China: a case study of quality of life in eight cities</p> | <p>Individuals of age group of 25 years to 55 years</p> | 1600 | Cities of China | <p>1. Gender, 2.Age, 3.Educational level, 4.Marital status, 5. Health, 6.Working status, 7.Family life, 8.Self-development, 9.Material possession and consumption, 10.Social communication, 11.Public service and policy, and 12.Leisure and entertainment.</p>   |

|     |        |      |  |                              |      |                     |   |
|-----|--------|------|--|------------------------------|------|---------------------|---|
| 101 | Zullig | 2005 | Adolescent health-related quality of life and perceived satisfaction with life | adolescents aged 13-18 years | 4914 | South Carolina, USA | 1.Race, 2.Gender, 3.Self-rated health, 4.Physical health days, 5.Mental health days, 6.Activity limitation days, 7.Satisfied with family, 8.Satisfied with friends, 9.Satisfied with school, 10.Satisfied with environment, and 11.Satisfied with overall life. |
|-----|--------|------|--|------------------------------|------|---------------------|---|

## 2.4 RESEARCH GAP

The funnel method (Hofstee, 2006) was implemented for writing research gap of the study. While several studies have addressed different approaches to measuring quality of life of people e.g., a) Objective approach (e.g., Narayana, 2009), b) Subjective approach e.g., Dasgupta and Majumdar, 1996), c) Mixed approach (e.g., Haq, 2009), etc., and unit of analysis studied by researchers were e.g., university students, adult with different age group, elder people (having age group 60 years or more), homeless people, households, etc. This study focuses on a subjective approach of measuring the quality of life of people of Gujarat with attention to people who are doing jobs and belongs to an age group of 25 to 55 years.

In India, subjective well-being approach of measuring the quality of life is a comparative new area of research, due to which large scope of work is present e.g., perceived quality of life can be a measure of people with different age groups, socio-economic class, states, cities, whole countries, etc. Perceived Quality of Life model where a relationship of overall quality of life with different variables is described has not established as per review of selected research papers. In practically, where developed nations are working on Happiness measurement or Subjective well-being approach, In India, even in economically sound states like Gujarat, Government of Gujarat still measuring the well-being of people by using objective indicators of Human Development Index. No concrete presence of

subjective measures of Quality of Life has found in literature as per Indian context. The study was inspired by the work of Dasgupta and Majumdar (1996) where a good attempt had made to measure subjective quality of life of people of Kolkata but the model of Quality of life was not validated in that research. This was the one of the gaps identified for the research. Therefore in this research Structural Equation Modeling technique will be used and the model of perceived quality of life will be validated to fulfil such gap.

After reviewing all selected research papers, like research by Leelakulthanit and Day (2011), Liao, Fu, and Yi (2005), Somarriba, Pena, and Bernardo (2008) and Biswas – Diener and Diener (2001), it was clearly identified that a subjective assessment of well-being of people was based on Hierarchical model of happiness given by Diener, Scollon, and Lucas (1999). Where subjective well-being has four components a) Positive affect, b) Negative affects, c) Overall all Life satisfaction and d) Domains of Life satisfaction. In the study, the same hierarchical modal of happiness was used but with changes in variables which were in the context of Gujarati culture. Diener, Diener, and Diener (1995) identified that at the cultural level there is a positive relationship between individualism and subjective well-being.

Variables of subjective well-being were studied under selected researches. A difference of variables in researches took place in developed, developing and poor nations were clearly noticed. Common variables of subjective well-being in context of developing countries and Indian cultural context were identified, which also used by other researches. These selected variables were taken for the study e.g., age, gender, marital status, education level, income level, Overall Life satisfaction, Positive and Negative affects and Domains of Life satisfaction. The Gap in a selection of variables was also realized. Certain important variables were absent in previous researches e.g., people having a residence in the urban or rural area. Therefore, such variables added in the study like Location of residence which adds value to the study by comparing the rural and urban quality of life. Geographical location of residential area was also added in the study to compare the quality of life of four regions of Gujarat state.

Diener, Lucas, Oishi, and Suh (2002) found that happy individuals were more likely to weight the worst domains in their life heavily. Thus, domains of life satisfaction can provide unique information about a person's overall well-being. Domains of life satisfaction may important for a researcher to find out the effect of well-being in a

particular area. Researchers, who work with a particular relevant group like students, elderly people, etc., have chosen the domains accordingly. Quality of life domains as notified in previous researches were e.g., satisfaction with self-development, family life, material possession, and local government administration (Dasgupta and Majumdar,1996), satisfaction with income, social relationship, religious and spiritual beliefs, political participation, life events (Biswas-Diener and Diener,2006), general quality of life, personal career, life at work, family life, neighbourhood conditions, network of family and neighborhood, recreation and leisure, personal well-being, appreciation of a peaceful, happy and progressive life (Mukherjee, 1981), etc. There are many domains has identified which were not studied in Indian context by past researchers. Such domains identified were; satisfaction with material possession, spirituality, physical health, government, environment and work life. Therefore, the purpose of this study was to determine the effects of these domains on overall life satisfaction of people.

After reviewing selected research papers it was also found that statistical analysis did by researchers had used tests; parametric tests like t-tests, z-tests, One Way ANOVA, Multiple Regression Analysis, Logistic regression, etc. non-parametric tests like Chi-square test, etc. Multivariate tests like factor analysis, etc. But to validate the conceptual model or to evaluate the structural relationship between measured variables and latent constructs, use of validity test like Structural Equation Modelling was missing, particularly in Indian researches (e.g., Dasgupta & Majumdar, 1996). Such gaps will be removed in the study by applying appropriate statistical tests.

## **2.5 CONCLUSION**

This chapter works as a backbone of the study. As we know a research is a systematic way of finding a solution to the problem. This chapter adds value in terms of by adding a deductive approach to smoothing the research topic, starting from a wide scope to narrow down the scope of the research. This chapter explored many dimensions, which was helpful to understand the problem in-depth. A careful study of literature helps to decide the variables of the study. Research gaps have given space to the study into the existing literature and open opportunity to contribute. Another major contribution of this chapter was it has given an idea of how to conduct research in terms of selection of research methodology in comparison with other researchers. Subjective evaluation of the quality of

life in India (Gujarat) is a challengeable task in terms of decision regarding selection of variables and research design (sampling techniques and sample size determinations) which can justify this study. More or less after this chapter, research topic becomes crystal clear and research design was visible. This chapter worked as a case study of many related research problems, due to which pathway of this study may smoothly be constructed and it provided help in the decision of selection of research tools & techniques like Questionnaire design, scales of measurements, statistical tests, etc. Last but not least, as the topic of the study associated with a new era of measuring the well-being of people and this concept is still new for the Indian society, because of this chapter it becomes familiar to a researcher. This chapter worked as a sailor who takes this study towards its goal. A research methodology chapter follows this chapter in the study.

# **CHAPTER 3**

## **RESEARCH METHODOLOGY**

**3.1 INTRODUCTION**

**3.2 RESEARCH DESIGN**

**3.3 VARIABLES UNDERSTUDY**

**3.4 OPERATION DEFINITIONS**

**3.5 CONCEPTUAL FRAMEWORK**

**3.6 PILOT STUDY**

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### 3.1 INTRODUCTION

This chapter is a spirit of the study, in other words, it works as a roadmap where details mentioned regarding the plan or blueprint of the study. The previous chapter presented a review of the literature to highlight the gaps in research. This chapter presents the variables of the study, operational definition, conceptual framework, pilot study, sampling design, research tools and statistical design. This chapter is the most critical part of the study where a clear, complete and systematic way of conducting the research has been stated. At each stage, clear reasons and an adequate justification have been given for the way in which study was conducted; starting from the selection of variables for the study of the limitations of the study. This chapter is a mix of knowledge and art of designing a research plan. Whole framework or plan of research was discussed in a sequential order so that research may meet its objectives.

### 3.2 RESEARCH DESIGN

Characteristics of this study are: study having a clear research question, the research process is formal and structure, an objective of the research is testing the specific hypothesis and examine the relationship between and among selected variables, larger sample size (785 respondents), Data analysis is Quantitative in nature. Finding and results are conclusive, Finding used as input into decision making. Hence, this study has a conclusive research design, where both descriptive research and causal research design is part of it.

### 3.3 VARIABLES UNDERSTUDY

**Variable selection for the study:** Variables are derived from a literature review. It was stated in a literature gap analysis that this study having objectives to fulfil gaps present in selected research. Variables are taken from selected researches like Dasgupta and Majumdar (1996), Leelakulthanit and Day (1992), etc. Classification is done by using concepts to club together. The variables intend to test are as follows.

**Demographic & Socioeconomic variables:** Gender, Age, Educational status, Marital status, Income status, Location of residence (Urban/ Rural), Location of residence (Geographic zone).

**Key Variables:**

1. Overall Life satisfaction
2. Positive and Negative affect:
  - a. Enjoyable - Miserable
  - b. Interesting-Boring
  - c. Active -Inactive
  - d. Happy -Unhappy
  - e. Meaningful-Meaningless
  - f. Worthwhile-Useless
  - g. Rewarding-Disappointing
  - h. Easy -Hard
  - i. Relaxed -Tightened up
  - j. Full of fun -No fun at all
  - k. Comfortable -Uncomfortable
3. Domains of Life-satisfaction;
  - a. Government satisfaction
  - b. Material possession satisfaction
  - c. Environmental quality satisfaction
  - d. Work life satisfaction
  - e. Spirituality satisfaction
  - f. Physical health satisfaction

**3.4 OPERATIONAL DEFINITIONS**

**People:** In this study ‘People’ refers to the persons who are doing a job, aged 26 or above, but not exceeding 55 years and residing in Gujarat State with, at least for 5 years at the same place (Village / Town / City).

**Overall Life Satisfaction/ Perceived Quality of Life:** In this study 'Overall life satisfaction' refers to happiness, a satisfaction of the people in their lives and their achievements in life. It is assessed by using The Life Satisfaction Scale is given by Diener, E., Emmons, R. A., Larsen, R. J., and Griffin, S. (1985).

**Positive and Negative affect:** Positive affect refers to the extent to which one feels active, enthusiastic, alert, etc., whereas negative affect is a dimension of distress and unpleasurable engagement (Diener, Suh, Lucas and Smith, 1999). It is assessed by Semantic Differential Scale.

**Domains of Life satisfaction:** Well-being relates to the life satisfaction in work, family, marriage, leisure, health, and finances (Diener, Suh, Lucas and Smith, 1999).

**Lowe Income Group:** Persons belong to a minimum income level of ₹ 1.2 lakhs per annum and not exceeding ₹ 2.5 lakhs per annum.

**Middle Income Group:** Persons belong to a minimum income level of ₹ 2.51 lakhs per annum and not exceeding ₹ 6 lakhs per annum.

**Higher Income Group:** Persons belong to a minimum income level of ₹ 6.01 lakh per annum and not exceeding ₹ 12 lakhs per annum.

**Rural:** According to Census 2011 Report, the basic units of rural areas are the revenue village.

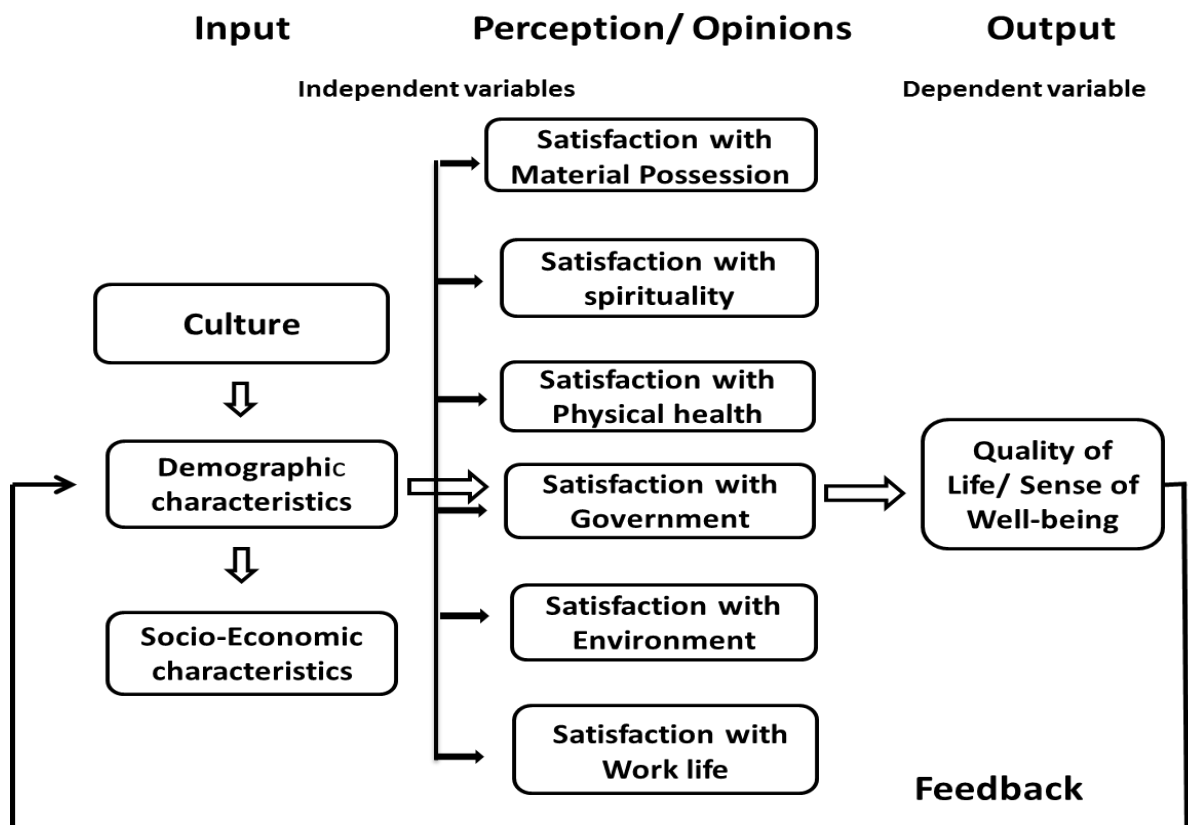
**Urban:** According to census 2011 report, constituents of urban areas are statutory towns, Census towns and, Out Growths.

### 3.5 CONCEPTUAL FRAMEWORK

The conceptual framework which is used here is inspired from a system Model of Quality of Life by The University of Oklahoma School of Social Work. Overall quality of life is a composite assessment of the quality of the social, economic and physical environments.

Nine domains have been used to assess the external and internal conditions of overall quality of life. Six of them found significant and shows strong linear association with the overall quality of life. Six Domains of Life Satisfaction are Satisfaction with Material Possession, Satisfaction with spirituality, Satisfaction with Physical Health, Satisfaction with Government, Satisfaction with Environment and Satisfaction with Work Life. The quality of life of each domain was assessed by several indicators, which were then combined to create an overall quality of life.

**Fig. 3.1 Conceptual framework**



### 3.6 PILOT STUDY

The pilot study was carried on to ascertain the variables and research design of the research. A PILOT study was conducted in Ahmedabad City in Gujarat state, with a 400 adult (aged 26-55years) sample. It investigated first the relation between variables (demographic and socioeconomic characteristics) and perceived quality of life and then the

relation between domain satisfaction and perceived quality of life. Both descriptive and causal research design has used. The survey instrument measures the residents' life satisfaction in 10 domains: satisfaction with government, Infrastructure, Work-life, Material possession, Relationships, Self-development, Physical health, Environmental quality, Children's education and Recreation activity. EFA, Multiple Regression analysis, PLS-SEM and CB-SEM techniques were used to predict perceived life-satisfaction of people in Ahmedabad city. A discussion with respondents also was conducted to give a brief about research topics to them and their suggestions were incorporated regarding the usefulness and other aspects of the study. Results and conclusions of the pilot study were used to finalize the questionnaire and research design.

### 3.7 SAMPLING DESIGN

**Universe or Target population of the study:** The universe/target population of the study includes all persons aged 26 years and above and range up to 55 years and living in the rural or urban areas of Gujarat for more than 5 years at the same place (Village / Town/ City).

Inclusion criteria:

- 1) The study has included only those persons who are doing a job.
- 2) The study has included the persons belongs to an age group of 26-55 years;
- 3) The study has included the persons with a minimum educational qualification of S.S.C.
- 4) The study has included the persons belonging to a minimum income level of ₹ 1.2 lakh per annum but, maximum income not exceeding ₹ 12 lakhs per annum.
- 5) The study has included those persons who are either married or unmarried.
- 6) The study has included both men and women.
- 7) The study has included respondents from both urban and rural areas.

Exclusion criteria:

- 1) The study has excluded the physically and mentally challenged persons.
- 2) The study has excluded the persons residing in tribal areas due to the inconvenience on approaching them.

**Sampling frame:** As per study requirement, no appropriate sampling frame was present. To prepare such type of source list/ sampling frame at a state level is also not possible under time and resource constraint.

**Sampling method: Quota sampling method** was used for the study, which is a non-probability sampling method. Quotas were decided in a proportion of the sample as similar to the composition of the population (Bajpai 2017).

A Census of India 2011 was taken as a base to decide the sample in the exact proportion of the distributed population. Approx. 57% percent of the population lives in rural areas and 43 % percent of the population in the urban areas of Gujarat. Approx. 60% percent of the urban population lives in the cities (Municipal Corporation's area). A total population of Gujarat was divided into four zones of Gujarat; Central Gujarat, North Gujarat, Saurashtra and South Gujarat. Their proportions in respective zones are 37% in Central Gujarat, 17% North Gujarat, 29% Saurashtra and 17% in South Gujarat.

Here, four major cities were selected (Ahmedabad, Vadodara, Rajkot and Surat), One Notified Area (Gandhinagar), 5 towns (Palanpur, Surendranagar, Gandhidham. Palitana and Nadiad ) and 22 villages of Gujarat (Denap, Rajpur, Tavadia, Sojitra, Dodhiya, Beraja, Panvi, Mesvan, Rampur, Vadala, Gudel, Khada, Vansal, Nar, Nikol, Rampura, Kareli, Kavi, Karjan, Rander, Abrama, Tarsadi). Details of the sample collection, analysis as explained in figure 3.2.

**Method of data collection:** Survey method was used for data collection. Different modes of a survey were conducted; a) Personal Interviews, b) Office Interviews, c) Self-Administered Questionnaire and d) Mail Survey.

**Sample size determination:** The Cochran formula allows calculating an ideal sample size given a desired level of precision, desired confidence level, and the estimated proportion of the attribute present in the population. Cochran's formula is considered especially appropriate in situations with large populations.

$$N = \frac{z^2(pq)}{e^2}$$

Where;

N = the sample size.

z = standard error associated with the chosen level of confidence.

p = estimated percent in the population

q = 100 - p

e = the amount of precision or allowable error in the sample estimate of the population.

**Source:** Bartlett, J. et al. (2001). *Organizational Research: Determining Appropriate Sample Size in Survey Research*.

95% level of confidence is used, so  $z = 1.96$ . Next, the  $p = q = 50\%$  situation is customarily assumed as it is the worst possible case of variability. Let's take a  $\pm 3.5\%$  sample error.

Using the sample size formula, the sample size, n, is calculated as follows.

Sample size computed with  $p = 50\%$ ,  $q = 50\%$ , and  $e = 3.5\%$

$$N = \frac{1.96^2(0.5*0.5)}{0.035^2}$$

$$N = \frac{3.84(0.25)}{0.001225} = \frac{0.96}{0.001225} = 784 \text{ (rounded up).}$$

**Source:** Burns, Veeck, and Bush (2017), *Marketing Research*, pp.276.

- The Sample size for the study was determined by two parameters; a) supervisor as well as expert's advice and b) by considering resource and time limitation.
- Initially, a sample of 1000 responded was shortlisted but after the data cleaning process, 785 respondents constituted for this study.

Sampling framework has described by tables and charts as mentioned below.

**Table 3.1 Sample collections in North-Gujarat**

| North- Gujarat ( Ss =132) |                  |          |          |              |
|---------------------------|------------------|----------|----------|--------------|
| Urban (Town) - 57         |                  | Rural-75 |          |              |
| Municipal Corporation- 30 | Municipality -27 | District | Taluka   | Village      |
| Gandhinagar (30)          | Palanpur (27)    | Mahesana | Visnagar | Denap (20)   |
|                           |                  | Mahesana | Kadi     | Rajpur (20)  |
|                           |                  | Patan    | Sidhpur  | Tavadia (20) |
|                           |                  | Patan    | Chanasma | Sojitra (15) |

**Table 3.2 Sample collections in Central-Gujarat**

| Central-Gujarat ( Ss =290) |                  |           |           |              |
|----------------------------|------------------|-----------|-----------|--------------|
| Urban (Town) - 125         |                  | Rural-165 |           |              |
| Municipal Corporation- 109 | Municipality -16 | District  | Taluka    | Village      |
| Ahmedabad (85)             | Ankleshwar (16)  | Anand     | Khambhat  | Gudel (21)   |
| Vadodara (24)              |                  | Anand     | Tarapur   | Khada (21)   |
|                            |                  | Anand     | Umret     | Vansol (21)  |
|                            |                  | Anand     | Petlad    | Nar (21)     |
|                            |                  | Kheda     | Kapadvanj | Nikol (20)   |
|                            |                  | Kheda     | Kapadvanj | Rampura (20) |
|                            |                  | Bharuch   | Jambusar  | Kareli (20)  |
|                            |                  | Bharuch   | Jambusar  | Kavi(21)     |

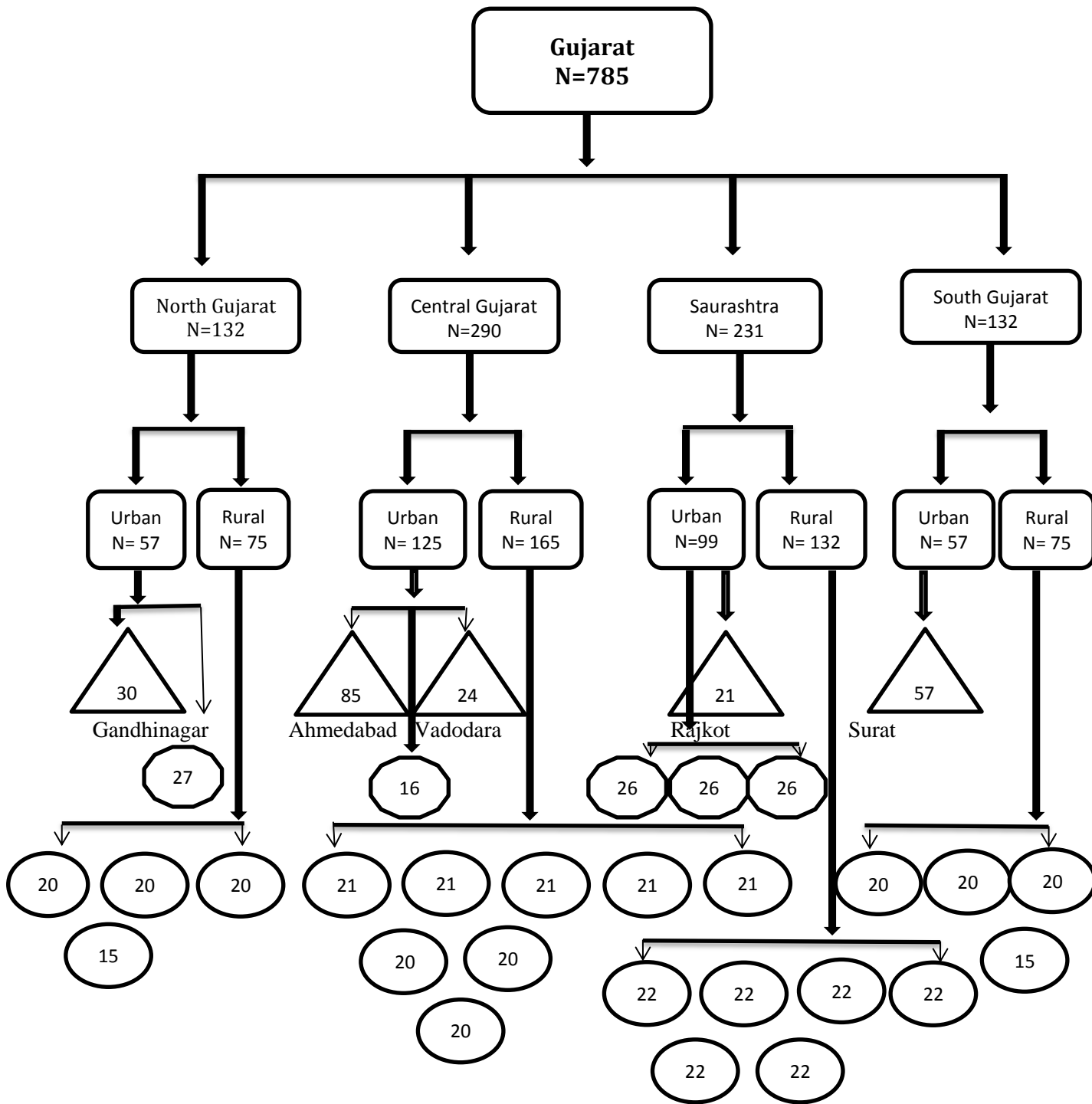
**Table 3.3 Sample collection in Saurashtra**

| Saurashtra ( Ss =231)     |                    |           |                |              |
|---------------------------|--------------------|-----------|----------------|--------------|
| Urban (Town) - 99         |                    | Rural-132 |                |              |
| Municipal Corporation- 21 | Municipality -78   | District  | Taluka         | Village      |
| Rajkot (21)               | Surendranagar (26) | Jamnagar  | Jamnagar       | Dodhiya (22) |
|                           | Gandhidham (26)    | Jamnagar  | Jamnagar       | Beraja (22)  |
|                           | Palitana (26)      | Junagadh  | Visavadar      | Panvi (22)   |
|                           |                    | Junagadh  | Keshod         | Mesvan (22)  |
|                           |                    | Amreli    | Kunkavav Vadia | Rampur (22)  |
|                           |                    | porbandar | Porbandar      | Vadala (22)  |




**Table 3.4 Sample collection in South-Gujarat**

| South- Gujarat ( Ss =132) |                  |          |           |              |
|---------------------------|------------------|----------|-----------|--------------|
| Urban (Town) - 57         |                  | Rural-75 |           |              |
| Municipal Corporation- 57 | Municipality -00 | District | Taluka    | Village      |
| Surat (57)                |                  | Surat    | Kamrej    | Karjan (20)  |
|                           |                  | Surat    | Olpad     | Rander (20)  |
|                           |                  | Navsari  | Jalalpore | Abrama(20)   |
|                           |                  | Navsari  | Navsari   | Tarsadi (15) |

Fig. 3.2 Sampling framework



**Symbols**

- City (Municipal Corporation Area) = 
- Town (Municipality Area) = 
- Village (Gram Panchayat) = 

### 3.8 RESEARCH TOOLS

#### **Life satisfaction scale**

The Life Satisfaction Scale of Diener, E., Emmons, R. A., Larsen, R. J., and Griffin, S. (1985) has been used in the study. A 5-item scale was designed to measure global cognitive judgments of one's overall life satisfaction. Participants expressed how much they disagreed or agreed with each of the 5 items using 7-point scales that range from 1 strongly disagree to 7 strongly agree. Test-retest reliability coefficient (Cronbach's alpha value) of this scale in the present sample was found to be as high as **0.681**.

#### **Semantic differential scale**

Campbell et al. (1976) designed a scale using "Semantic Differential Technique." With the help of 17 bi-polar adjectives they solicited from people how do they feel about their present life. The current study has modified the same scale and used 11 bipolar adjectives for measuring how they feel about their present life. Test-retest reliability coefficient (Cronbach's alpha value) of this scale in the present sample was found to be as high as **0.886**.

#### **Life-domain satisfaction scale**

A sense of wellbeing was assessed by using the "life domain satisfaction scale." Initially, 38 statements (variables) were drafted, but later on, at the model validation stage, it was reduced to 20 variables which give six latent factors. A seven-point scale (from strongly disagree to strongly agree) has been used to measure satisfaction with each domain. Test-retest reliability coefficient (Cronbach's alpha value) of this scale in the present sample was found to be as high as **0.884**.

### 3.9 STATISTICAL DESIGN

Analysis of the collected data was subjected by statistical methods using M. S. Excel: 2010, SPSS (Statistical Package for Social Sciences): 21 and AMOS: 21 software. Tables and charts used for presentation of statistical method output are for clear understanding and to derive inferences.

- I. The scores of the Semantic Differential Scale were subjected to exploratory factor analysis with varimax rotation to determine the underlying latent factors of one's Quality of Life. Ratings of satisfaction with life scale were further classified into groups. Compare means, method has been used to compare means of factors of semantic differential scale and means of classified groups.
- II. Classification methods like Tree Segmentation Method have been used for data mining and better graphical segmentation of the sample of overall life satisfaction with different demographic and socioeconomic variables. The Tree Segmentation technique gives an idea to the reader that how the whole sample has segmented.
- III. General characteristics of the sample in terms of age, gender, marital status, education, income, residence and other key variables were identified by calculating descriptive statistics such as mean and percent.
- IV. The Likert's scale has been used for data measurement. Normality of data was assumed. Parametric tests like one sample t-test, Independent sample t-test; One Way ANOVA has been used for hypothesis testing.
- V. Multiple regression analysis was used to predict the relationship between overall life satisfactions with six domains of life satisfaction.
- VI. Confirmatory factor analysis was used to confirm the reliability and validity of the Perceived Quality of Life (PQoL) model.

### **3.10 LIMITATIONS OF THE STUDY**

The present study targets persons only from two areas i.e., rural and urban areas of Gujarat, as such the findings cannot be generalized to tribal areas of Gujarat and also persons residing all over India. The study is restricted up to persons who are doing a job with a certain age group, income group, and education status. Advance aged people were excluded from the sample as they were non-earners/ unemployed.

Three scales have been used: a) Satisfaction with life scale; b) Semantic differential scale; and c) Life domain satisfaction scale. The whole study examines the Subjective Well-Being of people in Gujarat, following the theory of Diener et al. (1999).

### **3.11 CONCLUSION**

In this chapter, the practical way in which the whole research project was organized has discussed. To conduct this research in a systematic way a proper justification and supportive arguments added in each sub-parts of the study, so that the reader, as well as examiners, may understand the spirit behind each move of the research. This chapter was divided into many subparts: research design, variables under study, operational definitions, conceptual framework, pilot study, sampling design, research tools, statistical design and limitations of the study. Here, both theoretical and practical aspects of the conduct of the research were discussed in order to achieve sense and simplicity. The discussion starts with how the epistemological stance which has been adopted provides a link between the aims and the practical methodological issue of collecting data. An epistemological approach was used which consists of the assumptions regarding the study, concerning the nature of the knowledge which is as valid in order to resolve the research question.

# **CHAPTER 4**

## **RESULTS**

### **4.1 INTRODUCTION**

### **4.2 RESULTS OF COMPARE MEANS**

### **4.3 RESULTS OF TREE SEGMENTATION**

### **4.4 RESULTS OF HYPOTHESIS TESTING**

### **4.5 RESULTS OF CONFIRMATORY FACTOR ANALYSIS**

### **4.6 CONCLUSION**

## 4.1 INTRODUCTION

In this chapter, different data analysis strategies and statistical tests were discussed. The data analysis is one of the important chapters of this study and one of the most critical parts where statistical tests have been used. Selection of the appropriate statistical tests was the biggest challenge of this part. Here, both logical and artistic minds were used to give proper justification to each part of the data analysis. Sequence of tests was carefully designed as per the requirement of analysis of data. The chapter has been divided into many subparts as per the results of different statistical test.

The normality of the data was verified which is the prime requirement before applying any statistical test. The normality of the data was tested through data visualization like Histogram and P-P plot test (Hair Jr., Black, Babin, and Anderson, 2015). Shapiro Wilk Test was also applied. According to Central Limit Theorem, higher sample size leads to achieve normality (Black, 2013). Mostly Parametric tests were used because 1) data were collected on an interval scale, 2) normality of data was assumed and 3) parametric tests are more powerful (Cooper et al., 2012) for qualitative analysis. Results of statistical tests were presented in sequence to meet the objectives of the study.

## 4.2 RESULTS OF COMPARE MEANS

Result of overall life satisfaction through life satisfaction scale is as shown in Table: 4.1.

**Table 4.1 Descriptive statistics of overall life satisfaction**

|                           | N   | Mean   | Std. Deviation |
|---------------------------|-----|--------|----------------|
| Overall Life Satisfaction | 785 | 5.1070 | .86559         |
| Valid N                   | 785 |        |                |

The sample data was classified into three groups on the basis of the life satisfaction scale ratings as shown in Table: 4.2.

**Table 4.2 Classified groups based on overall life satisfaction**

|                      | Frequency | Percent | Cumulative Percent |
|----------------------|-----------|---------|--------------------|
| Highly satisfied     | 161       | 20.5    | 20.5               |
| Moderately satisfied | 476       | 60.6    | 81.1               |
| Poorly satisfied     | 148       | 18.9    | 100.0              |
| Total                | 785       | 100.0   |                    |

Three groups were classified namely: a) highly satisfied group, b) moderately satisfied group, and c) poorly satisfied group. Classification was done on the basis of methodology (Dasgupta and Majumdar, 1996) mentioned as under.

On the basis of Mean and Standard Deviation of the Life satisfaction ratings (ratings given by respondents on life satisfaction scale) the total sample was classified in to three groups: a) highly satisfied (whose life satisfaction rating  $>$  Mean + Standard deviation), b) moderately satisfied (Whose life satisfaction rating  $>$  Mean - Standard deviation but less than Mean + Standard deviation), and c) poorly satisfied (Whose life satisfaction rating  $<$  Mean - Standard deviation).

### Exploratory Factor Analysis: Semantic Differential Scale

The study was initiated with a view to understand as to what constitutes the quality of life. For this Semantic differential scale was subjected to Exploratory Factor Analysis with Varimax rotation to determine the underlying attributes of one's Quality of life. This was done with a view to explain the power of the attributes in helping us to rank the variables.

**Table 4.3 KMO and BARTLETT'S test**

|  |                    |             |
|--|--------------------|-------------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | <b>.889</b> |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 4688.152    |
|  | df                 | 55          |
|  | Sig.               | <b>.000</b> |

KMO is the measure of sampling adequacy and used to examine the appropriateness of data. The KMO = **0.889** > 0.7 implies that the sample data is good for factor analysis. Significance level for Bartlett's Test of Sphericity = 0.000 < 0.05 (5% level of significance) indicates that factor analysis is useful for reduction of data. The KMO as well as Bartlett's Test yielded very good results. So, Factor Analysis was considered appropriate.

The initial and final communalities were obtained as given in Table 4.4. It is desirable that extracted factors explain minimum 50% of the variance of each of the variables (Hair Jr. et. al., 2015). Here, all communalities > 0.5 means that, extracted factors explain more than

**Table 4.4 Initial and final communalities**

|             | Initial | Extraction |
|-------------|---------|------------|
| Enjoying    | 1.000   | .612       |
| Interesting | 1.000   | .645       |
| Active      | 1.000   | .659       |
| Happy       | 1.000   | .672       |
| Meaningful  | 1.000   | .665       |
| Worthwhile  | 1.000   | .640       |
| Rewarding   | 1.000   | .544       |
| Easy        | 1.000   | .646       |
| Relaxed     | 1.000   | .808       |
| Full of Fun | 1.000   | .657       |
| Comfortable | 1.000   | .659       |

Extraction Method: Principal Component Analysis.

50% of the variance for each of the variables and so extraction of factors was appropriate (Brace, Kemp, and Snelgar 2006).

**Table 4.5 Correlation matrix of eleven variables**

|             | Enjoying | Interesting | Active | Happy | Meaningful | Worthwhile | Rewarding | Easy | Relaxed | Full of fun | Comfortable |
|-------------|----------|-------------|--------|-------|------------|------------|-----------|------|---------|-------------|-------------|
| Enjoying    | 1.00     | .663        | .483   | .556  | .508       | .574       | .523      | .308 | .289    | .494        | .320        |
| Interesting | .663     | 1.00        | .500   | .667  | .606       | .525       | .444      | .348 | .273    | .432        | .252        |
| Active      | .483     | .500        | 1.00   | .609  | .584       | .516       | .468      | .104 | .079    | .285        | .159        |
| Happy       | .556     | .667        | .609   | 1.00  | .614       | .544       | .488      | .323 | .280    | .434        | .321        |
| Meaningful  | .508     | .606        | .584   | .614  | 1.00       | .644       | .495      | .284 | .253    | .402        | .280        |
| Worthwhile  | .574     | .525        | .516   | .544  | .644       | 1.00       | .615      | .349 | .267    | .462        | .306        |
| Rewarding   | .523     | .444        | .468   | .488  | .495       | .615       | 1.00      | .367 | .384    | .478        | .354        |
| Easy        | .308     | .348        | .104   | .323  | .284       | .349       | .367      | 1.00 | .671    | .498        | .475        |
| Relaxed     | .289     | .273        | .079   | .280  | .253       | .267       | .384      | .671 | 1.00    | .583        | .647        |
| Full of fun | .494     | .432        | .285   | .434  | .402       | .462       | .478      | .498 | .583    | 1.00        | .586        |
| Comfortable | .320     | .252        | .159   | .321  | .280       | .306       | .354      | .475 | .647    | .586        | 1.00        |

In table 4.5, Variables had good correlation coefficients among them; this was a good indication of factorability (Brace et. al., 2006). Data were fit for factor analysis.

**Table 4.6 Total variance explained**

| Component | Initial Eigenvalues |               |               | Extraction Sums of Squared Loadings |               |               | Rotation Sums of Squared Loadings |               |               |
|-----------|---------------------|---------------|---------------|-------------------------------------|---------------|---------------|-----------------------------------|---------------|---------------|
|           | Total               | % of Variance | Cumulative %  | Total                               | % of Variance | Cumulative %  | Total                             | % of Variance | Cumulative %  |
| 1         | 5.411               | 49.188        | 49.188        | 5.411                               | 49.188        | 49.188        | 4.251                             | 38.642        | 38.642        |
| 2         | <b>1.795</b>        | <b>16.318</b> | <b>65.507</b> | <b>1.795</b>                        | <b>16.318</b> | <b>65.507</b> | <b>2.955</b>                      | <b>26.864</b> | <b>65.507</b> |
| 3         | .653                | 5.934         | 71.441        |                                     |               |               |                                   |               |               |
| 4         | .587                | 5.341         | 76.781        |                                     |               |               |                                   |               |               |
| 5         | .561                | 5.101         | 81.883        |                                     |               |               |                                   |               |               |
| 6         | .449                | 4.084         | 85.967        |                                     |               |               |                                   |               |               |
| 7         | .372                | 3.380         | 89.347        |                                     |               |               |                                   |               |               |
| 8         | .349                | 3.173         | 92.520        |                                     |               |               |                                   |               |               |
| 9         | .328                | 2.984         | 95.504        |                                     |               |               |                                   |               |               |
| 10        | .254                | 2.312         | 97.816        |                                     |               |               |                                   |               |               |
| 11        | .240                | 2.184         | 100.000       |                                     |               |               |                                   |               |               |

Extraction Method: Principal Component Analysis.

Initial Eigen values: Eigen value for each component in the table is a variance of the component/factor extracted (Hair Jr. et al. 2015).

Component 1 explains **49.188%** and Component 2 explains **16.318%** of the variance. The variance explained by both the factors = **65.507 %**.

In the above table, **65.507 %** of the variance is explained by two factors extracted which were quite good.

**Table 4.7 Rotated component matrix**

|             | Component    |             |
|-------------|--------------|-------------|
|             | Exhilarating | Relaxing    |
| Active      | <b>.810</b>  |             |
| Meaningful  | <b>.797</b>  |             |
| Happy       | <b>.791</b>  |             |
| Interesting | <b>.774</b>  |             |
| Worthwhile  | <b>.757</b>  |             |
| Enjoying    | <b>.733</b>  |             |
| Rewarding   | <b>.633</b>  |             |
| Relaxed     |              | <b>.894</b> |
| Comfortable |              | <b>.796</b> |
| Easy        |              | <b>.784</b> |
| Full of fun |              | <b>.707</b> |

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 3 iterations.

A factor loading matrix for extracted factors had mentioned in Table 4.7. Factor loadings are the correlation coefficients between variables and factors. Good factor loadings were observed in Table 4.7. Approx. all factors had loading more than 0.7, which was a quiet good sign. Higher factor loading shows a strong association between variable and factor.

**Labelling Factors:** Factors were labelled by considering higher values of factor loadings. The combination of attributes under factor: 1 named as **“Exhilarating”** and under the factor: 2 named as **“Relaxing”**. New dimensions were named as; **exhilarating** and **relaxing**.

### Compare Means

Compare means statistical method was applied by comparing means of three classified groups (Refer Table: 4.2); 1) highly satisfied, 2) moderately satisfied and 3) poorly satisfied group by means of factors extracted from semantic differential scale ratings (Refer Table: 4.7). Result of compare means as shown in Table: 4.8.

**Table 4.8 Compare means of three classified groups**

|                     | Perceived Quality of Life |                      |                  |       |
|---------------------|---------------------------|----------------------|------------------|-------|
|                     | Highly satisfied          | Moderately satisfied | Poorly satisfied | Total |
| <b>Exhilarating</b> |                           |                      |                  |       |
| <b>Enjoying</b>     | 6.37                      | 5.71                 | 4.74             | 5.66  |
| <b>Interesting</b>  | 6.24                      | 5.57                 | 4.95             | 5.59  |
| <b>Active</b>       | 6.54                      | 5.82                 | 5.37             | 5.89  |
| <b>Happy</b>        | 6.52                      | 5.83                 | 5.07             | 5.83  |
| <b>Meaningful</b>   | 6.25                      | 5.65                 | 4.95             | 5.64  |
| <b>Worthwhile</b>   | 6.24                      | 5.55                 | 4.87             | 5.56  |
| <b>Relaxing</b>     |                           |                      |                  |       |
| <b>Rewarding</b>    | 6.17                      | 5.36                 | 4.72             | 5.40  |
| <b>Easy</b>         | 5.50                      | 4.53                 | 4.13             | 4.65  |
| <b>Relaxed</b>      | 5.34                      | 4.67                 | 3.93             | 4.67  |
| <b>Full of fun</b>  | 5.78                      | 5.08                 | 4.23             | 5.07  |
| <b>Comfortable</b>  | 5.54                      | 4.96                 | 3.83             | 4.87  |

As shown in Table: 4.8, highly satisfied group (Overall life satisfaction) predominantly scores high on both factors 1 (Exhilarating) and 2 (Relaxing). Their orientation towards life is positive. They live life with a sense of well-being like Enjoying, Interesting, Active, Happy, Meaningful, Worthwhile, Rewarding, Easy, Relaxed, Full of Fun and Comfortable. Moderately satisfied group (Overall life satisfaction) shows the same pattern like highly satisfied one, but in comparative lessor degree. Dissatisfied group (Overall life satisfaction) also shows the same pattern like first two, but in comparative poorest degree.

### 4.3 RESULTS OF TREE SEGMENTATION

What factors influence overall life satisfaction?

To give an answer of this question, Tree classification method was used. The Tree segmentation method used for graphical representation of data mining (Rao, 2016). To get an idea about key variables which help in identifying segments. The iterative process works with repeated application of Chi-square test between target variable Y and each one of the different predictor variables. The Predictor variable which gives the smallest p-value provides the basis for the first partition from the root node.

**Dependent variable:** Sample data were classified into three groups on the basis of the life satisfaction scale ratings as shown in Table: 4.2. P.98. Three Groups were: highly satisfied group, moderately satisfied group and poorly satisfied group.

**Independent variables:** Individual's Gender, Age, Education, Marital status, Income, Residence (zones of Gujarat) and Residence (rural-urban).

1. Gender: Male, Female.
2. Age: 26–35 years, 36-45 years and 46 -55 years.
3. Education: Postgraduate, Graduate, Undergraduate.
4. Marital status: Unmarried, Married.
6. Annual income: ₹ 1.2- ₹ 2.5 lakhs, ₹ 2.51- ₹ 6 lakhs, ₹ 6.01- ₹ 12 lakhs.
7. Residence: Geographical zones.
8. Residence: Village, Town.

∴ **CHAID (Chi-square Automatic Interactive Detection)** algorithm was used for classification. Tree segmentation model summary as shown in Table: 4.9.

CHAID is a combination of heuristic as well as statistical methods, which examines relationships between many categorical predictor variables and categorical target variables. It applies the Chi-square test of independence, also called contingency table, between the target variable and each of the predictor independent variable using the multi-way cross tab table.

**Table 4.9 Tree classification model summary**

|                                |  |
|--------------------------------|--|
| Growing Method                 | CHAID  |
| Dependent Variable             | swcoding   |
| Independent Variables          | Gender, Age, Education, Marital status, Income, Residence3(zones), Residence2(rural-urban) |
| Validation                     | None   |
| Maximum Tree Depth             | 3  |
| Minimum Cases in Parent Node   | 100  |
| Minimum Cases in Child Node    | 50   |
| Independent Variables Included | Income, Gender   |
| Number of Nodes                | 5  |
| Number of Terminal Nodes       | 3  |
| Depth                          | 2  |

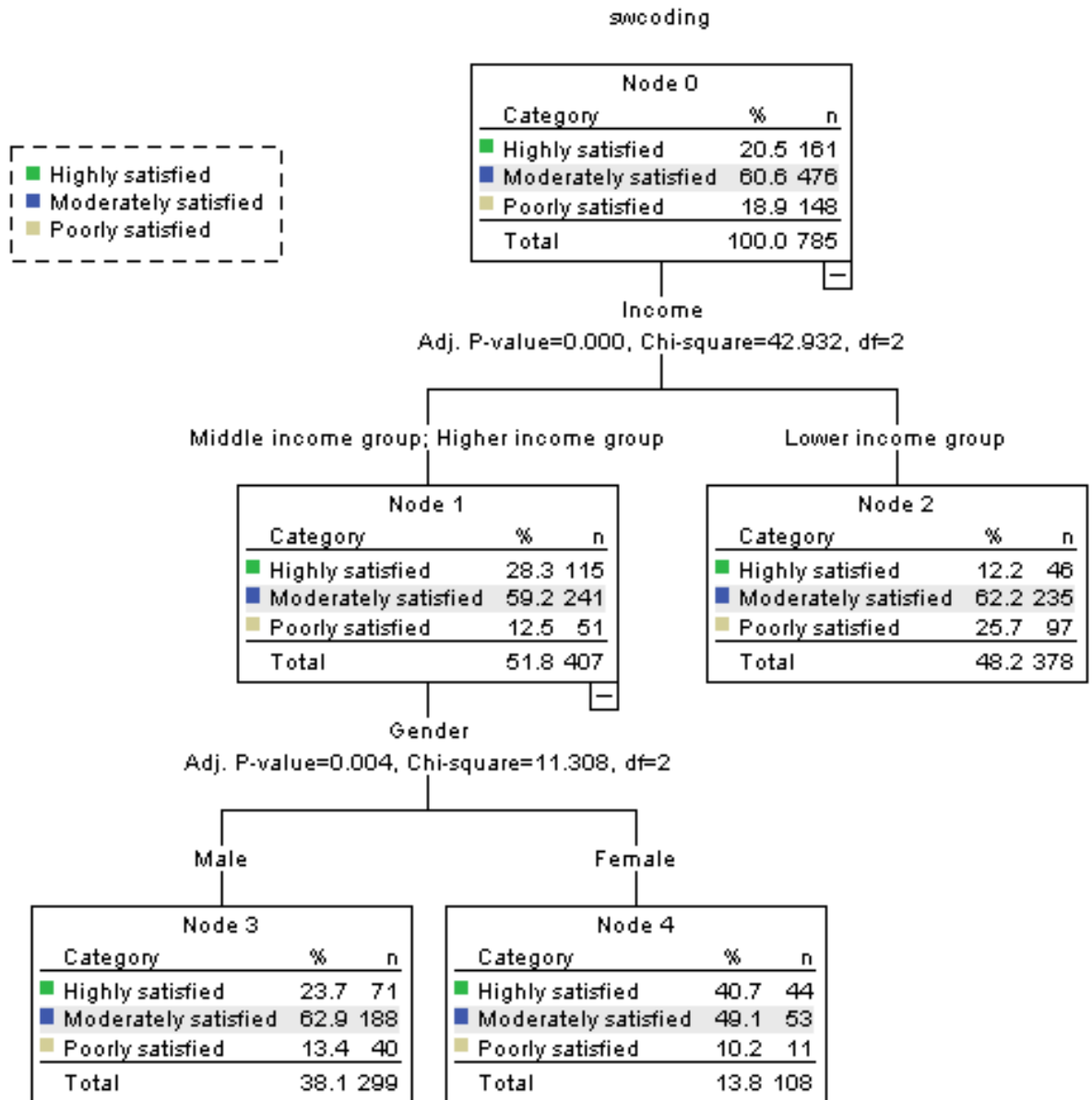
**How the Algorithm works:** The algorithm starts with a target variable, usually taking up values of 1 or 0. It starts with a base node called the root node (node 0) in CHAID. The root node gives the response rate as well as the total size of the sample being considered in the database (Rao, 2016).

Thereafter the Chi-square test of Independence is carried out multiple times, every time the two variables considered in the cross-tab are target variable and each of all the other variables in the database. The variable having the largest Chi-square value is selected, which is associated with the smallest level of p-value. The tree split from the root node based on the variable.

A node, which only has branches coming out, is the root node and any node which only has branches coming in is called terminal node. A node which has branches coming out and leading to other nodes is called parent node and the nodes which follow the parent node is called child node. After the tree has grown, each terminal node may be considered as a candidate to be a target market, provided the response rate (response percentage) of this terminal node is greater than the response percentage of the root node.

Tree segmentation graph as shown in Figure: 4.1

**Fig. 4.1 Tree classification**



**Interpretation:** Node 0 became the parent node to child Nodes 1 and 2. Nodes 3 and 4 became the terminal Nodes. Annual income and gender are the most significant variables in deciding factor of overall life satisfaction of individuals. Node 1: Individuals belong to middle income group and higher income group are mostly either highly satisfied or moderately satisfied with their overall life satisfaction. Further split of Node 1 into Node 3 and Node 4, based on the gender of the respondents. It reveals that females are comparatively highly satisfied in their overall life satisfaction than males. Node 2:

Individuals who belong to lower income group are mostly either moderately satisfied or dissatisfied in their overall life satisfaction.

As an indicator of model fit CHAID provides a risk estimate (Rao 2016). The risk estimate was computed as follows:

$$\text{The hit ratio (p)} = \frac{\text{number of individuals correctly classified}}{\text{total number of individuals in the sample}}$$

The risk estimate,  $q = 1 - p$ .

$$\text{Standard error of the risk} = \sqrt{\frac{p*(1-p)}{n}}$$

**Table 4.10 Risk estimate of Tree classification model**

| Estimate | Std. Error |
|----------|------------|
| .394     | .017       |

Growing Method: CHAID, Dependent Variable: swcoding

**Risk estimate and its standard error:** It is a measure of the tree's predictive accuracy. The risk estimate is the proportion of cases incorrectly classified after adjustment for prior probabilities and misclassification costs. Here, percentage of risk on prediction accuracy was 39.4% (Refer Table: 4.10 & Table: 4.11).

**Table 4.11 Classification, percentage correctly classified**

| Observed                  | Predicted        |                      |                  |                 |
|---------------------------|------------------|----------------------|------------------|-----------------|
|                           | Highly satisfied | Moderately satisfied | Poorly satisfied | Percent Correct |
| Highly satisfied          | 0                | 161                  | 0                | 0.0%            |
| Moderately satisfied      | 0                | 476                  | 0                | 100.0%          |
| Poorly satisfied          | 0                | 148                  | 0                | 0.0%            |
| <b>Overall Percentage</b> | <b>0.0%</b>      | <b>100.0%</b>        | <b>0.0%</b>      | <b>60.6%</b>    |

Growing Method: CHAID

Dependent Variable: swcoding

#### 4.4 RESULTS OF HYPOTHESIS TESTING

1.  $H_0$ : People are neutral towards their perceived quality of life.

$H_1$ : People are not neutral towards their perceived quality of life

**Table 4.12 One-sample t-test statistic description of people's perceived quality of life**

|    | N   | Mean          | Std. Deviation | Std. Error Mean |
|----|-----|---------------|----------------|-----------------|
| SW | 785 | <b>5.1070</b> | .86559         | .03089          |

**Table 4.13 One-sample t-test result of people's perceived quality of life**

|    | Test Value = 4 |     |                 |                 |   |        |
|----|----------------|-----|-----------------|-----------------|---|--------|
|    | t              | df  | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |        |
|    |                |     |                 |                 | Lower                                     | Upper  |
| SW | 35.832         | 784 | <b>.000</b>     | 1.10701         | 1.0464                                    | 1.1677 |

**Interpretation:** Here, p-value **0.000** < **0.05**. So, we reject the null hypothesis. The alternate hypothesis is accepted. People are not neutral towards their perceived quality of life.

As shown in Table: 4.12, Mean value = 5.1070 which shows people were somewhat satisfied toward their perceived quality of life.

2.  $H_0$ : There is no significant difference in perceived quality of life of males and females

$H_1$ : There is a significant difference in perceived quality of life of males and females

**Table 4.14 Statistics description of perceived quality of life of males and females**

|    | Gender | N   | Mean   | Std. Deviation | Std. Error Mean |
|----|--------|-----|--------|----------------|-----------------|
| SW | Male   | 579 | 5.0656 | .83104         | .03454          |
|    | Female | 206 | 5.1699 | 1.02670        | .07153          |

**Table 4.15 Independent samples t-test result of perceived quality of life of male and females**

|    |                             | Levene's Test for Equality of Variances |              | t-test for Equality of Means |         |                 |                 |                       |   |        |
|----|-----------------------------|---|--------------|------------------------------|---------|-----------------|-----------------|-----------------------|---|--------|
|    |                             | F                                       | Sig.         | t                            | df      | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |
|    |                             |   |              |                              |         |                 |                 |                       | Lower                                     | Upper  |
| SW | Equal variances assumed     | 16.591                                  | <b>.000*</b> | -1.450                       | 783     | .147            | -.10427         | .07191                | -.24544                                   | .03690 |
|    | Equal variances not assumed |   |              | -1.313                       | 305.818 | <b>.190**</b>   | -.10427         | .07943                | -.26058                                   | .05204 |

**\*Interpretation:** Sig. value **0.000 < 0.05**, condition of homogeneity of variances is not satisfied.

**\*\*Interpretation:** Here, p-value **0.190 > 0.05**. So, we accept the null hypothesis. There is no significant difference in perceived quality of life of males and females.

3.  $H_0$ : There is no significant difference in perceived quality of life of people with different age groups.

$H_1$ : There is a significant difference in perceived quality of life of people with different age groups.

**Table 4.16 Test of homogeneity of variances of perceived quality of life of people with different age groups**

| Levene Statistic | df1 | df2 | Sig.        |
|------------------|-----|-----|-------------|
| .358             | 2   | 782 | <b>.699</b> |

**Interpretation:** Sig. value **0.699** > **0.05**, condition of homogeneity of variances is satisfied.

**Table 4.17 One Way Anova of perceived quality of life of people with different age groups**

|                | Sum of Squares | df  | Mean Square | F     | Sig.        |
|----------------|----------------|-----|-------------|-------|-------------|
| Between Groups | 8.542          | 2   | 4.271       | 5.769 | <b>.003</b> |
| Within Groups  | 578.870        | 782 | .740        |       |             |
| Total          | 587.411        | 784 |             |       |             |

**Interpretation:** Here, p-value **0.003** < **0.05**. So, we reject the null hypothesis. The alternate hypothesis is accepted. There is a significant difference in perceived quality of life of people with different age groups.

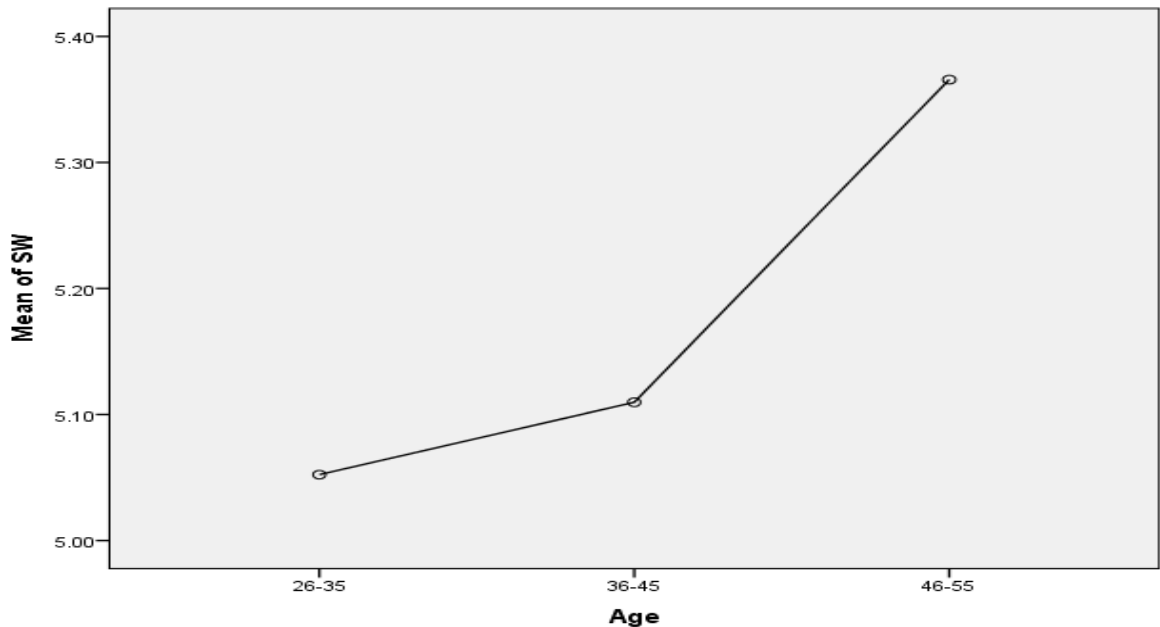
**Table 4.18 Tukey test result of perceived quality of life of people with a different age groups**

| Age   | N   | Subset for alpha = 0.05 |               |
|-------|-----|-------------------------|---------------|
|       |     | 1                       | 2             |
| 26-35 | 505 | <b>5.0523</b>           |               |
| 36-45 | 175 | <b>5.1097</b>           |               |
| 46-55 | 105 |                         | <b>5.3657</b> |
| Sig.  |     | .807                    | 1.000         |

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 174.233.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

**Fig. 4.2 Means of perceived quality of life of people with different age groups**



**Interpretation:** As per table 4.18 and fig. 4.2, Mean value of life satisfaction ratings of People in the age group 46-55 years was higher in comparison to Mean value of life satisfaction ratings of people of age group 26-35 years and 36-45 years, So it clearly shows that people of age group 46-55 years were more satisfied with their quality of life compared to people of age group 26-35 years and 36-45 years.

4.  $H_0$ : There is no significant difference in perceived quality of life of people with different educational status.

$H_1$ : There is a significant difference in perceived quality of life of people with different educational status.

**Table 4.19 Test of homogeneity of variances of perceived quality of life of people with different educational status**

| Levene Statistic | df1 | df2 | Sig.        |
|------------------|-----|-----|-------------|
| 2.923            | 2   | 782 | <b>.054</b> |

**Interpretation:** Sig. value **0.054** > **0.05**, condition of homogeneity of variances is satisfied.

**Table 4.20 One Way Anova of perceived quality of life of people with different educational status**

|                | Sum of Squares | df  | Mean Square | F     | Sig.        |
|----------------|----------------|-----|-------------|-------|-------------|
| Between Groups | 3.506          | 2   | 1.753       | 2.348 | <b>.096</b> |
| Within Groups  | 583.905        | 782 | .747        |       |             |
| Total          | 587.411        | 784 |             |       |             |

**Interpretation:** Here, p-value **0.096** > **0.05**. So, we accept the null hypothesis. There is no significant difference in perceived quality of life of people with different educational status.

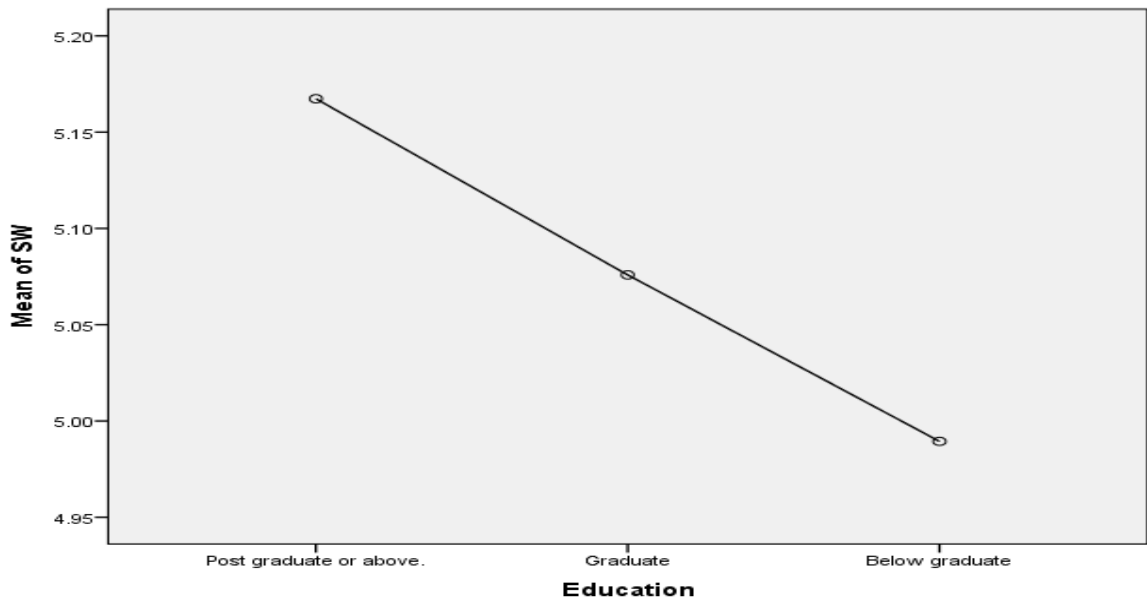
**Table 4.21 Tukey test result of perceived quality of life of people with different educational status**

| Education Status       | N   | Subset for alpha = 0.05 |
|------------------------|-----|-------------------------|
|                        |     | 1                       |
| Below graduate         | 132 | <b>4.9894</b>           |
| Graduate               | 261 | <b>5.0759</b>           |
| Postgraduate or above. | 392 | <b>5.1673</b>           |
| Sig.                   |     | .084                    |

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 214.927.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

**Fig. 4.3 Means of perceived quality of life of people with different educational status**



**Interpretation:** As per Table 4.21 and Fig. 4.3, Mean values of life satisfaction ratings of Individuals with different education status were comparative same. No significant difference found. There was no difference in the quality of life of people with different education status.

5.  $H_0$ : There is no significant difference in perceived quality of life of people with different marital status.

$H_1$ : There is a significant difference in perceived quality of life of people with different marital status.

**Table 4.22 Group statistics of perceived quality of life of people with different marital status**

|    | Marital status | N   | Mean          | Std. Deviation | Std. Error Mean |
|----|----------------|-----|---------------|----------------|-----------------|
| SW | Unmarried      | 211 | <b>4.8948</b> | .85173         | .05864          |
|    | Married        | 574 | <b>5.1850</b> | .85825         | .03582          |

**Table 4.23 Independent sample t- test of perceived quality of life of people with different marital status**

|                             | Levene's Test for Equality of Variances |              | t-test for Equality of Means |         |                 |                 |                       |   |         |
|-----------------------------|---|--------------|------------------------------|---------|-----------------|-----------------|-----------------------|---|---------|
|                             | F                                       | Sig.         | t                            | df      | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |         |
|                             |   |              |                              |         |                 |                 |                       | Lower                                     | Upper   |
| Equal variances assumed     | .409                                    | <b>.523*</b> | -4.209                       | 783     | <b>.000**</b>   | -.29023         | .06896                | -.42559                                   | -.15487 |
| Equal variances not assumed |   |              | -4.224                       | 376.781 | .000            | -.29023         | .06871                | -.42534                                   | -.15512 |

**\*Interpretation:** Sig. value **0.523** > **0.05**, condition of homogeneity of variances is satisfied.

**\*\*Interpretation:** Here, p-value **0.000** < **0.05**. So, we reject the null hypothesis. The alternate hypothesis is accepted. There is a significant difference in perceived quality of life of people with different marital status. By comparing mean scores as shown in Table: 4.22, it was found that perceived qualities of life of married are higher than unmarried.

6.  $H_0$ : There is no significant difference in perceived quality of life of people with different income groups.

$H_1$ : There is a significant difference in perceived quality of life of people with different income groups.

**Table 4.24 Test of homogeneity of variances of perceived quality of life of people with different income groups**

| Levene Statistic | df1 | df2 | Sig.        |
|------------------|-----|-----|-------------|
| 1.463            | 2   | 782 | <b>.232</b> |

**Interpretation:** Sig. value **0.232** > **0.05**, condition of homogeneity of variances is satisfied.

**Table 4.25 One Way Anova perceived quality of life of people with different income groups**

|                | Sum of Squares | df  | Mean Square | F      | Sig.        |
|----------------|----------------|-----|-------------|--------|-------------|
| Between Groups | 33.876         | 2   | 16.938      | 23.929 | <b>.000</b> |
| Within Groups  | 553.535        | 782 | .708        |        |             |
| Total          | 587.411        | 784 |             |        |             |

**Interpretation:** Here, p-value **0.000** < **0.05**. So, we reject the null hypothesis. The alternate hypothesis is accepted. There is a significant difference in perceived quality of life of people with different income groups.

**Table 4.26 Tukey test result perceived quality of life of people with different income groups**

| Income Group        | N   | Subset for alpha = 0.05 |               |
|---------------------|-----|-------------------------|---------------|
|                     |     | 1                       | 2             |
| Lower income group  | 378 | 4.8989                  |               |
| Middle income group | 310 |                         | <b>5.2581</b> |
| Higher income group | 97  |                         | <b>5.4351</b> |
| Sig.                |     | 1.000                   | .107          |

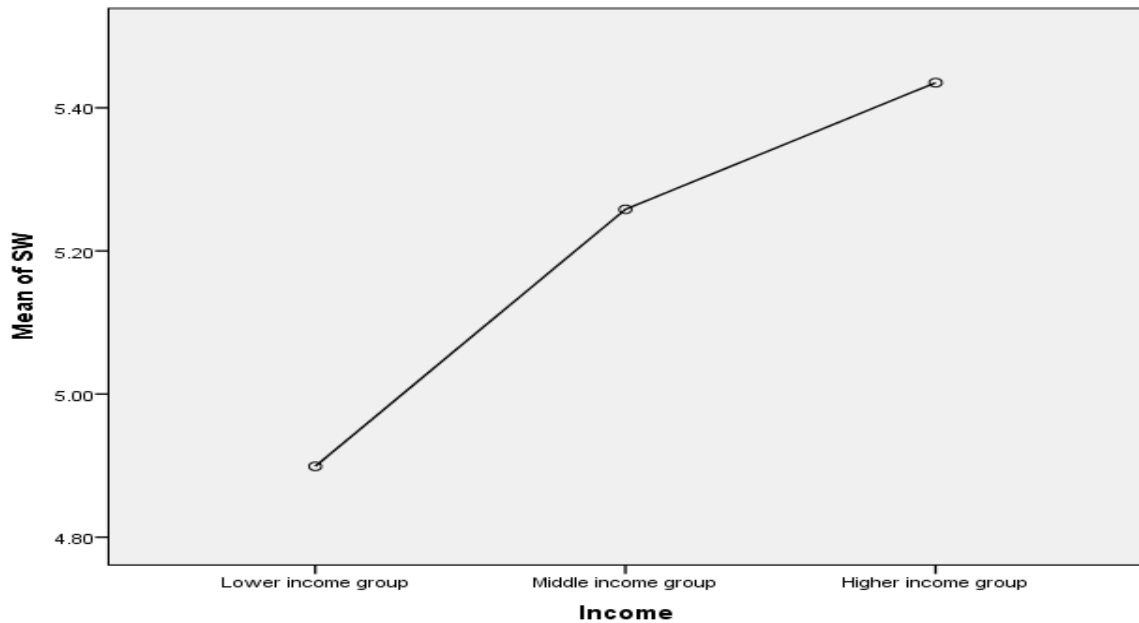
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Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 185.407.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

**Fig. 4.4 Means of perceived quality of life of people with different marital status**



**Interpretation:** As per table 4.26 and fig. 4.4, Mean values of life satisfaction ratings of people of higher and middle income groups were higher in comparison to Mean value of life satisfaction ratings of people of lower income group. So, it was clearly shown that individuals with higher and middle income groups were more satisfied with their quality of life compared to people of lower income group.

7.  $H_0$ : There is no significant difference in perceived quality of life of people of Central-Gujarat, South-Gujarat, Saurashtra and North-Gujarat.

$H_1$ : There is a significant difference in perceived quality of life of people of Central-Gujarat, South-Gujarat, Saurashtra and North-Gujarat.

**Table 4.27 Test of homogeneity of variances of perceived quality of life of people of Central-Gujarat, South-Gujarat, Saurashtra and North-Gujarat**

| Levene Statistic | df1 | df2 | Sig.        |
|------------------|-----|-----|-------------|
| 3.548            | 3   | 781 | <b>.014</b> |

**Interpretation:** Sig. value **0.014** < **0.05**, condition of homogeneity of variances is **not satisfied**.

**Table 4.28 One Way Anova of perceived quality of life of people of Central-Gujarat, South-Gujarat, Saurashtra and North-Gujarat**

|                | Sum of Squares | df  | Mean Square | F    | Sig.        |
|----------------|----------------|-----|-------------|------|-------------|
| Between Groups | 2.082          | 3   | .694        | .926 | <b>.428</b> |
| Within Groups  | 585.329        | 781 | .749        |      |             |
| Total          | 587.411        | 784 |             |      |             |

**Interpretation:** Here, p-value **0.428** > **0.05**. So, we accept the null hypothesis. There is no significant difference in perceived quality of life of people of Central- Gujarat, South-Gujarat, Saurashtra and North-Gujarat.

∴ As the Levene test of Homogeneity of Variances is not satisfied (Refer Table: 4.27).  
Test result of One Way ANOVA is not reliable.

**Table 4.29 Tukey test result of perceived quality of life of people of Central-Gujarat, South-Gujarat, Saurashtra and North-Gujarat**

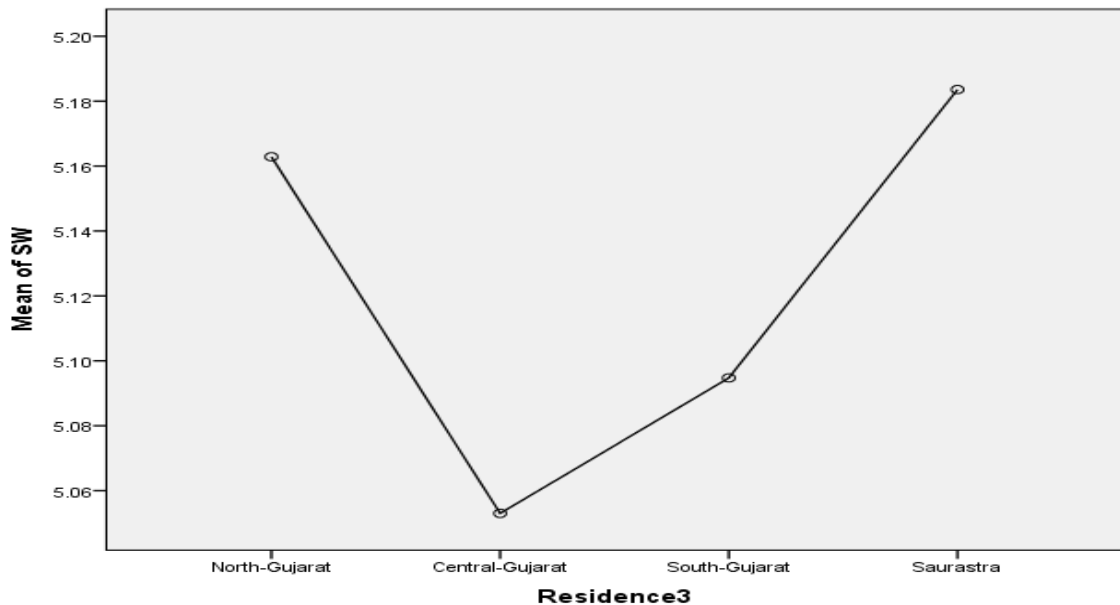
| Residence       | N   | Subset for alpha = 0.05 |
|-----------------|-----|-------------------------|
|                 |     | 1                       |
| Central-Gujarat | 283 | <b>5.0530</b>           |
| South-Gujarat   | 228 | <b>5.0947</b>           |
| North-Gujarat   | 140 | <b>5.1629</b>           |
| Saurashtra      | 134 | <b>5.1836</b>           |
| Sig.            |     | .486                    |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 177.580.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

**Fig. 4.5 Means of perceived quality of life of people of Central- Gujarat, South-Gujarat, Saurashtra and North-Gujarat**



**Interpretation:** As per table 4.29 and fig. 4.5, Mean values of life satisfaction ratings of the people of Central-Gujarat, South-Gujarat, Saurashtra and North-Gujarat were nearly same. No significant difference found. It was found that the perceived quality of life of people of Central-Gujarat, South-Gujarat, Saurashtra and North-Gujarat were same.

8.  $H_0$ : There is no significant difference in perceived quality of life of people of rural and urban Gujarat.

$H_1$ : There is a significant difference in perceived quality of life of people of rural and urban Gujarat.

**Table 4.30 Group statistics of perceived quality of life of people of rural and urban Gujarat**

| Residence | N   | Mean          | Std. Deviation | Std. Error Mean |
|-----------|-----|---------------|----------------|-----------------|
| Rural     | 447 | <b>5.0881</b> | .89924         | .04253          |
| Urban     | 338 | <b>5.1320</b> | .81963         | .04458          |

**Table 4.31 Independent sample t- test of life of people of rural and urban Gujarat**

|                             | Levene's Test for Equality of Variances |              | t-test for Equality of Means |         |                 |                 |                       |   |        |
|-----------------------------|---|--------------|------------------------------|---------|-----------------|-----------------|-----------------------|---|--------|
|                             | F                                       | Sig.         | t                            | df      | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |
|                             |   |              |                              |         |                 |                 |                       | Lower                                     | Upper  |
| Equal variances assumed     | 2.839                                   | <b>.092*</b> | -.702                        | 783     | <b>.483**</b>   | -.04381         | .06241                | -.16633                                   | .07871 |
| Equal variances not assumed |   |              | -.711                        | 756.251 | .477            | -.04381         | .06162                | -.16477                                   | .07715 |

**\*Interpretation:** Sig. value **0.092 > 0.05**, condition of homogeneity of variances is satisfied.

**\*\*Interpretation:** Here, p-value **0.483 > 0.05**. So, we accept the null hypothesis. There is no significant difference in perceived quality of life of the people of rural and urban Gujarat.

9. Ho: There is no significant relationship between overall life satisfaction and different domains of life satisfaction.

H<sub>1</sub>: There is a significant relationship between overall life satisfaction and different domains of life satisfaction.

### Exploratory Factor Analysis

The Life Domains Satisfaction scale was subjected to Exploratory Factor Analysis with Varimax rotation to determine the underlying attributes of Overall Life Satisfaction.

**Table 4.32 KMO and Bartlett's test**

|  |                    |             |
|--|--------------------|-------------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | <b>.838</b> |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 9133.654    |
|  | df                 | 190         |
|  | Sig.               | <b>.000</b> |

KMO is a measure of sampling adequacy and used to examine the appropriateness of data (Brace et al. (2006). KMO = **0.838** > 0.7 implies that sample data was good for factor analysis (Brace et al. (2006). Significance level for Bartlett's Test of Sphericity = 0.000 < 0.05 (5% level of significance) indicates that factor analysis is useful for reduction of data.

The KMO as well as Bartlett's Test yielded very good results. So, Factor Analysis was considered appropriate to apply.

The initial and final communalities were obtained as follows (Table 4.33):

**Table 4.33 Communalities**

|       | Initial | Extraction |
|-------|---------|------------|
| LDS2  | 1.000   | .582       |
| LDS3  | 1.000   | .686       |
| LDS4  | 1.000   | .763       |
| LDS5  | 1.000   | .572       |
| LDS6  | 1.000   | .811       |
| LDS7  | 1.000   | .920       |
| LDS8  | 1.000   | .829       |
| LDS12 | 1.000   | .724       |
| LDS14 | 1.000   | .682       |
| LDS15 | 1.000   | .763       |
| LDS16 | 1.000   | .792       |
| LDS17 | 1.000   | .833       |
| LDS18 | 1.000   | .870       |
| LDS19 | 1.000   | .765       |
| LDS29 | 1.000   | .548       |
| LDS30 | 1.000   | .666       |
| LDS31 | 1.000   | .757       |
| LDS36 | 1.000   | .730       |
| LDS37 | 1.000   | .873       |
| LDS38 | 1.000   | .825       |

Extraction Method: Principal Component Analysis.

It is desirable that extracted factors explain minimum 50% of the variance of each of the variables (Hair Jr. et al., 2015). Here, all communalities  $> 0.5$  means that, extracted factors explain more than 50% of the variance for each of the variables and so extraction of factors is appropriate.

Correlation matrix as shown in Table: 4.34, Data is fit for factor analysis.

**Table 4.34 Correlation matrix of initial pool of constructs**

|       | LDS<br>16 | LDS<br>17 | LDS<br>18 | LDS<br>19 | LDS<br>2 | LDS<br>3 | LDS<br>4 | LDS<br>5 | LDS<br>6 | LDS<br>7 | LDS<br>8 | LDS<br>36 | LDS<br>37 | LDS<br>38 | LDS<br>29 | LDS<br>30 | LDS<br>31 | LDS<br>14 | LDS<br>15 | LDS<br>12 |
|-------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| LDS16 | 1.00      | .759      | .748      | .681      | .240     | .182     | .195     | .224     | .387     | .421     | .403     | .236      | .238      | .211      | .247      | .193      | .202      | .308      | .474      | .384      |
| LDS17 | .759      | 1.00      | .812      | .692      | .204     | .189     | .205     | .175     | .353     | .335     | .322     | .222      | .214      | .230      | .223      | .152      | .218      | .232      | .395      | .276      |
| LDS18 | .748      | .812      | 1.00      | .779      | .210     | .158     | .205     | .176     | .349     | .408     | .381     | .215      | .228      | .219      | .256      | .212      | .217      | .232      | .356      | .273      |
| LDS19 | .681      | .692      | .779      | 1.00      | .150     | .129     | .149     | .158     | .316     | .349     | .358     | .175      | .182      | .222      | .245      | .218      | .182      | .219      | .349      | .312      |
| LDS2  | .240      | .204      | .210      | .150      | 1.00     | .510     | .530     | .357     | .269     | .220     | .160     | .157      | .153      | .183      | .061      | .070      | .046      | .180      | .251      | .286      |
| LDS3  | .182      | .189      | .158      | .129      | .510     | 1.00     | .620     | .447     | .206     | .179     | .158     | .191      | .241      | .246      | .165      | .102      | .057      | .156      | .235      | .276      |
| LDS4  | .195      | .205      | .205      | .149      | .530     | .620     | 1.00     | .586     | .318     | .284     | .183     | .270      | .272      | .284      | .219      | .112      | .094      | .197      | .224      | .275      |
| LDS5  | .224      | .175      | .176      | .158      | .357     | .447     | .586     | 1.00     | .324     | .311     | .240     | .221      | .249      | .220      | .198      | .197      | .101      | .163      | .308      | .393      |
| LDS6  | .387      | .353      | .349      | .316      | .269     | .206     | .318     | .324     | 1.00     | .821     | .680     | .277      | .299      | .238      | .171      | .114      | .159      | .225      | .251      | .312      |
| LDS7  | .421      | .335      | .408      | .349      | .220     | .179     | .284     | .311     | .821     | 1.00     | .832     | .315      | .346      | .292      | .174      | .127      | .128      | .225      | .263      | .309      |
| LDS8  | .403      | .322      | .381      | .358      | .160     | .158     | .183     | .240     | .680     | .832     | 1.00     | .226      | .250      | .210      | .100      | .143      | .109      | .188      | .277      | .304      |
| LDS36 | .236      | .222      | .215      | .175      | .157     | .191     | .270     | .221     | .277     | .315     | .226     | 1.000     | .704      | .626      | .207      | .108      | .140      | .164      | .213      | .190      |
| LDS37 | .238      | .214      | .228      | .182      | .153     | .241     | .272     | .249     | .299     | .346     | .250     | .704      | 1.00      | .816      | .283      | .167      | .203      | .234      | .230      | .199      |
| LDS38 | .211      | .230      | .219      | .222      | .183     | .246     | .284     | .220     | .238     | .292     | .210     | .626      | .816      | 1.00      | .311      | .144      | .203      | .236      | .248      | .203      |
| LDS29 | .247      | .223      | .256      | .245      | .061     | .165     | .219     | .198     | .171     | .174     | .100     | .207      | .283      | .311      | 1.00      | .344      | .470      | .247      | .287      | .195      |
| LDS30 | .193      | .152      | .212      | .218      | .070     | .102     | .112     | .197     | .114     | .127     | .143     | .108      | .167      | .144      | .344      | 1.00      | .559      | .235      | .324      | .216      |
| LDS31 | .202      | .218      | .217      | .182      | .046     | .057     | .094     | .101     | .159     | .128     | .109     | .140      | .203      | .203      | .470      | .559      | 1.00      | .233      | .208      | .130      |
| LDS14 | .308      | .232      | .232      | .219      | .180     | .156     | .197     | .163     | .225     | .225     | .188     | .164      | .234      | .236      | .247      | .235      | .233      | 1.00      | .564      | .496      |
| LDS15 | .474      | .395      | .356      | .349      | .251     | .235     | .224     | .308     | .251     | .263     | .277     | .213      | .230      | .248      | .287      | .324      | .208      | .564      | 1.00      | .618      |
| LDS12 | .384      | .276      | .273      | .312      | .286     | .276     | .275     | .393     | .312     | .309     | .304     | .190      | .199      | .203      | .195      | .216      | .130      | .496      | .618      | 1.00      |

In table 4.34, Variables having good correlation coefficients among them, this is a good indication of factorability (Brace et al., 2006). A good correlation among variable induces factors formations and also gives higher factor loadings. By above table, it clearly visualizes that the data are appropriate to proceed for further step of the factors extraction process.

**Table 4.35 Total variance explained**

| Component | Initial Eigenvalues |               |               | Extraction Sums of Squared Loadings |               |               | Rotation Sums of Squared Loadings |               |               |
|-----------|---------------------|---------------|---------------|-------------------------------------|---------------|---------------|-----------------------------------|---------------|---------------|
|           | Total               | % of Variance | Cumulative %  | Total                               | % of Variance | Cumulative %  | Total                             | % of Variance | Cumulative %  |
| 1         | 6.468               | 32.341        | 32.341        | 6.468                               | 32.341        | 32.341        | 3.266                             | 16.328        | 16.328        |
| 2         | 2.239               | 11.194        | 43.535        | 2.239                               | 11.194        | 43.535        | 2.626                             | 13.130        | 29.458        |
| 3         | 1.878               | 9.388         | 52.923        | 1.878                               | 9.388         | 52.923        | 2.547                             | 12.734        | 42.192        |
| 4         | 1.771               | 8.854         | 61.777        | 1.771                               | 8.854         | 61.777        | 2.471                             | 12.353        | 54.545        |
| 5         | 1.419               | 7.097         | 68.874        | 1.419                               | 7.097         | 68.874        | 2.105                             | 10.523        | 65.067        |
| <b>6</b>  | <b>1.216</b>        | <b>6.082</b>  | <b>74.956</b> | <b>1.216</b>                        | <b>6.082</b>  | <b>74.956</b> | <b>1.978</b>                      | <b>9.888</b>  | <b>74.956</b> |
| 7         | .679                | 3.397         | 78.352        |                                     |               |               |                                   |               |               |
| 8         | .665                | 3.323         | 81.675        |                                     |               |               |                                   |               |               |
| 9         | .485                | 2.423         | 84.099        |                                     |               |               |                                   |               |               |
| 10        | .481                | 2.405         | 86.504        |                                     |               |               |                                   |               |               |
| 11        | .414                | 2.070         | 88.574        |                                     |               |               |                                   |               |               |
| 12        | .398                | 1.992         | 90.565        |                                     |               |               |                                   |               |               |
| 13        | .369                | 1.846         | 92.411        |                                     |               |               |                                   |               |               |
| 14        | .301                | 1.504         | 93.915        |                                     |               |               |                                   |               |               |
| 15        | .294                | 1.469         | 95.384        |                                     |               |               |                                   |               |               |
| 16        | .266                | 1.329         | 96.713        |                                     |               |               |                                   |               |               |
| 17        | .228                | 1.142         | 97.855        |                                     |               |               |                                   |               |               |
| 18        | .179                | .894          | 98.749        |                                     |               |               |                                   |               |               |
| 19        | .145                | .726          | 99.475        |                                     |               |               |                                   |               |               |
| 20        | .105                | .525          | 100.000       |                                     |               |               |                                   |               |               |

Extraction Method: Principal Component Analysis.

Initial Eigenvalues: Eigenvalues for each component in the table is a variance of the component/factor extracted.

Component 1 explains **32.341%**, Component 2 explains **11.194%**, Component 3 explains **9.388%**, Component 4 explains **8.854%**, Component 5 explains **7.097%** and Component 6 explains **6.082%** of the variance. The variance explained by all six the factors = **74.956 %**.

In the table above, **74.956 %** of the variance is explained by six factors, which is quite good and thus 6 factors were extracted.

**Table 4.36 Rotated component matrix**

|       | Component               |                                  |                            |                              |                        |                           |
|-------|-------------------------|----------------------------------|----------------------------|------------------------------|------------------------|---------------------------|
|       | Government satisfaction | Material Possession satisfaction | Environmental satisfaction | Physical Health satisfaction | Work-life satisfaction | Spirituality satisfaction |
| LDS18 | <b>.892</b>             |                                  |                            |                              |                        |                           |
| LDS17 | <b>.880</b>             |                                  |                            |                              |                        |                           |
| LDS19 | <b>.838</b>             |                                  |                            |                              |                        |                           |
| LDS16 | <b>.808</b>             |                                  |                            |                              |                        |                           |
| LDS4  |                         | <b>.841</b>                      |                            |                              |                        |                           |
| LDS3  |                         | <b>.810</b>                      |                            |                              |                        |                           |
| LDS2  |                         | <b>.732</b>                      |                            |                              |                        |                           |
| LDS5  |                         | <b>.680</b>                      |                            |                              |                        |                           |
| LDS7  |                         |                                  | <b>.900</b>                |                              |                        |                           |
| LDS8  |                         |                                  | <b>.867</b>                |                              |                        |                           |
| LDS6  |                         |                                  | <b>.838</b>                |                              |                        |                           |
| LDS37 |                         |                                  |                            | <b>.896</b>                  |                        |                           |
| LDS38 |                         |                                  |                            | <b>.871</b>                  |                        |                           |
| LDS36 |                         |                                  |                            | <b>.823</b>                  |                        |                           |
| LDS14 |                         |                                  |                            |                              | <b>.788</b>            |                           |
| LDS15 |                         |                                  |                            |                              | <b>.784</b>            |                           |
| LDS12 |                         |                                  |                            |                              | <b>.771</b>            |                           |
| LDS31 |                         |                                  |                            |                              |                        | <b>.856</b>               |
| LDS30 |                         |                                  |                            |                              |                        | <b>.785</b>               |
| LDS29 |                         |                                  |                            |                              |                        | <b>.668</b>               |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 6 iterations.

**Labelling Factors:** Factors were labelled by considering higher values of factor loadings. As shown in Table: 4.36, Factors were labelled as under: the combination of attributes under factor: 1 named as “Government satisfaction”, under factor: 2 named as “Material Possession satisfaction”, under factor: 3 named as “Environmental satisfaction”, under factor: 4 named as “Physical health satisfaction”, under factor: 5 named as “Work life satisfaction” and under factor: 6 named as “Spirituality satisfaction”.

**Table 4.37 Exploratory factor analysis showing factor loadings and reliability**

| Item No. | Questions  | Factor Loading | Factor Name & Reliability                                       |
|----------|--|----------------|---|
| LDS18    | I am satisfied with central government position on civil rights.   | .892           | Government satisfaction<br>Cronbach's $\alpha = 0.919$          |
| LDS17    | I am satisfied with international relation policies with neighbor countries of central government.                                       | .880           |   |
| LDS19    | I am satisfied with central government policies to solve the problems like unemployment, poverty, inflation, corruption, terrorism, etc. | .838           |   |
| LDS16    | I am satisfied with internal economic policies of central government (like Interest rates, Income tax slab, etc.).                       | .808           |   |
| LDS4     | I am satisfied with my clothing, accessories & jewelry.  | .841           | Material Possession satisfaction<br>Cronbach's $\alpha = 0.800$ |
| LDS3     | I am satisfied with my vehicle.  | .810           |   |
| LDS2     | I am satisfied with my furniture and appliances at home.   | .732           |   |
| LDS5     | I am satisfied with my saving & investment.  | .680           |   |
| LDS7     | I am satisfied with quality of air in my village/town/city.  | .900           | Environmental satisfaction<br>Cronbach's $\alpha = 0.912$       |
| LDS8     | I am satisfied with greenery in my village/town/city.  | .867           |   |
| LDS6     | I am satisfied with weather in my village/town/city.   | .838           |   |
| LDS37    | I feel sufficient energy/stamina to live full life.  | .896           | Physical Health satisfaction<br>Cronbach's $\alpha = 0.879$     |
| LDS38    | I feel sufficient body mobility/speed to live full life.   | .871           |   |
| LDS36    | I feel free from disease/ disorder.  | .823           |   |
| LDS14    | I am satisfied with working hours & timings.   | .788           | Work Life satisfaction<br>Cronbach's $\alpha = 0.791$           |
| LDS15    | I am satisfied with my career growth.  | .784           |   |
| LDS12    | I am satisfied with personal income.   | .771           |   |
| LDS31    | I had felt paranormal/spiritual experience.  | .856           | Spirituality satisfaction<br>Cronbach's $\alpha = 0.718$        |
| LDS30    | I am associated with Guru.   | .785           |   |
| LDS29    | I am working on self-discovery.  | .668           |   |

As shown in Table: 4.37 factors loading of each item and Internal Consistency (Reliability) of factors had shown. According to Hair Jr. et. al., (2015), factor loadings  $\pm .50$  or greater are considered practically significant and loadings exceeding 0.70 are considered indicative of well-defined structure. Here, most of all factors loading of six factors were greater to 0.7 and good internal consistency (All six's  $\alpha > 0.7$ ).

### Multiple Regression analysis

Extracted factors (table 4.37) were domains of life satisfaction. To test the hypothesis no. 9 (pp.119) Multiple regression analysis technique was applied, where Overall life satisfaction taken as dependent variable and these domains of life satisfaction work as domains of life satisfaction.

**Table 4.38 Variables entered/removed**

| Model | Variables Entered   | Variables Removed | Method |
|-------|---|-------------------|--------|
| 1     | Spirituality satisfaction, Work-life satisfaction, Physical health satisfaction, Environmental satisfaction, Material possession satisfaction, Government satisfaction <sup>b</sup> | .                 | Enter  |

a. Dependent Variable: Overall Life satisfaction

b. All requested variables entered.

**Table 4.39 Regression model summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .592 <sup>a</sup> | .350     | <b>.345</b>       | .70047                     | <b>1.871</b>  |

a. Predictors: (Constant), Spirituality satisfaction, Work life satisfaction, Physical health satisfaction, Environmental satisfaction, Material possession satisfaction, Government satisfaction

**Interpretation:** The Adjusted  $R^2$  value tells us that our model accounts for **34.5%** of variance explained which indicate it is a respective model as per social science research. Standard error of model is **0.70047**. This is the standard deviation of actual values of Y about the estimated Y values.

**TABLE 4.40 One way ANOVA test result**

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.                    |
|-------|------------|----------------|-----|-------------|--------|-------------------------|
| 1     | Regression | 205.674        | 6   | 34.279      | 69.862 | <b>.000<sup>b</sup></b> |
|       | Residual   | 381.737        | 778 | .491        |        |                         |
|       | Total      | 587.411        | 784 |             |        |                         |

a. Dependent Variable: Overall Life satisfaction

b. Predictors: (Constant), Spirituality satisfaction, Work life satisfaction, Physical health satisfaction, Environmental satisfaction, Material possession satisfaction, Government satisfaction

**Interpretation:**  $p < .05$  the model is significant. So, we reject the null hypothesis. The alternate hypothesis is accepted. There is a significant relationship between overall life satisfaction and different domains of life satisfaction.

**Table 4.41 Coefficients of regression model**

| Model                            | Unstandardized Coefficients |            | Standardized Coefficients | t       | Sig.  | Collinearity Statistics |       |
|----------------------------------|-----------------------------|------------|---------------------------|---------|-------|-------------------------|-------|
|                                  | B                           | Std. Error | Beta                      |         |       | Tolerance               | VIF   |
| (Constant)                       | 5.107                       | .025       |                           | 204.272 | .000  |                         |       |
| Government satisfaction          | .168                        | .025       | .194                      | 6.721   | .000* | 1.000                   | 1.000 |
| Material possession satisfaction | <b>.351</b>                 | .025       | .406                      | 14.047  | .000* | 1.000                   | 1.000 |
| Environmental satisfaction       | .111                        | .025       | .129                      | 4.448   | .000* | 1.000                   | 1.000 |
| Physical health satisfaction     | <b>.223</b>                 | .025       | .257                      | 8.906   | .000* | 1.000                   | 1.000 |
| Work life satisfaction           | .133                        | .025       | .153                      | 5.299   | .000* | 1.000                   | 1.000 |
| Spirituality satisfaction        | .176                        | .025       | .203                      | 7.037   | .000* | 1.000                   | 1.000 |

**Interpretation:** All predictors variable's \*p values are less than .05. So, all predictor variables are significant.

#### **Regression Equation:**

The Generalized equation (Gujarati, Porter and Guasekar, 2012, pp. 203.) is

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \varepsilon$$

Where

$Y$  = dependent variable.

$X_i$  = independent variables (the explanatory variables or regressors).

$\beta_0$  = a constant, the value of  $Y$  when all  $X$  values are zero.

$\beta_i$  = the slope of the regression surface (The  $\beta$  represents the partial regression coefficient associated with each  $X_i$  .

$\varepsilon$  = an error term, normally distributed about a mean 0 (For purposes of computation, the  $\varepsilon$  is assumed to be 0 (Cooper and Schindler, 2010).

The impact of sense of well-being in term satisfaction with the different domains of life was investigated by estimating the following regression model

$$PQoL = \beta_0 + \beta_1 DOL_1 + \beta_2 DOL_2 + \beta_3 DOL_3 + \dots + \beta_n DOL_n + \varepsilon$$

Where,

**PQoL** = Perceived Quality of Life

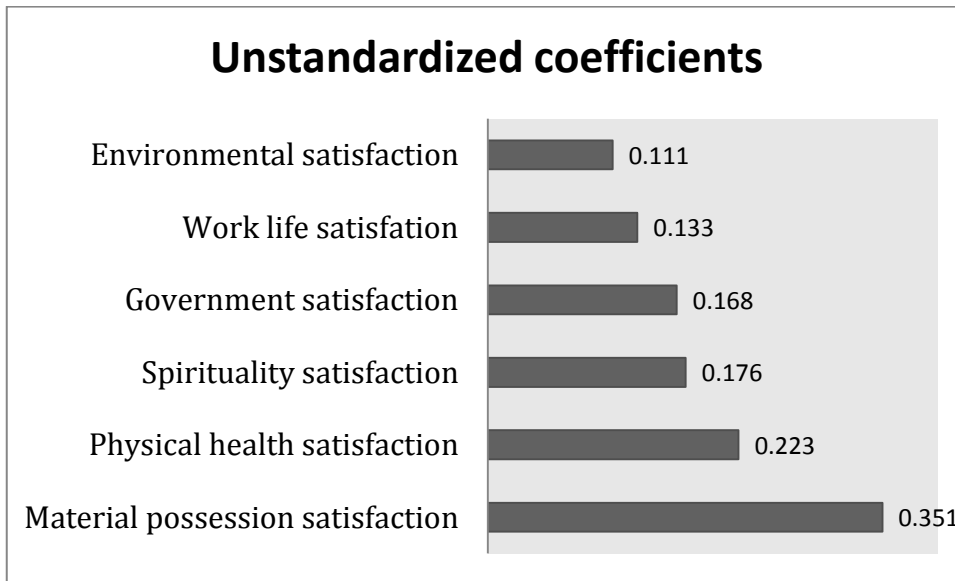
**DOL<sub>i</sub>** = Satisfaction with an <sup>i</sup><sup>th</sup> Domain of Life; i= 1, 2, 3, 4, 5 & 6.

( eg. **i =1** = Government satisfaction, **i = 2**= Material possession satisfaction, **i = 3** = Environmental satisfaction, **i = 4**= Physical health satisfaction, **i = 5** = Work life satisfaction, **i = 6**= Spirituality satisfaction).

The column headed “**B**” shows the unstandardized regression coefficients for the equation in Table 4.41. The Ordinary Least Square (OLS) equation may construct as

$$PQoL = 5.107 + 0.168 \text{ (Government satisfaction)} + \\ 0.351 \text{ (Material possession satisfaction)} + 0.111 \text{ (Environmental satisfaction)} + \\ 0.223 \text{ (Physical health satisfaction)} + 0.133 \text{ (Work life satisfaction)} + \\ 0.176 \text{ (Spirituality satisfaction)}.$$

∴ The unstandardized coefficient, for each predictor variable shows the predicted increase in the value of the criterion variable for a 1 unit increase in that predictor (while controlling for the other predictors).

**Fig. 4.6 Unstandardized coefficients of predictor's variables**

In Table 4.41, reveals that all six domains of life satisfactions were significant. About weightage of these domains of life satisfaction on overall life satisfaction of respondents, Material Possession Satisfaction and Physical Health Satisfaction were more influential, followed by Spirituality Satisfaction, Government Satisfaction, Work life Satisfaction and Environmental Satisfaction (Fig. 4.6).

#### **Assumption Check of Regression Analysis**

According to Gujarati et al. (2012), regression equation should satisfy following assumptions:

1. The mean of residuals is **zero**.
2. Residuals are **normally distributed**.
3. Error (Residual) variances are constant (**Homoscedascity**).
4. There is **no Multicollinearity**.
5. There is **no autocorrelation**.

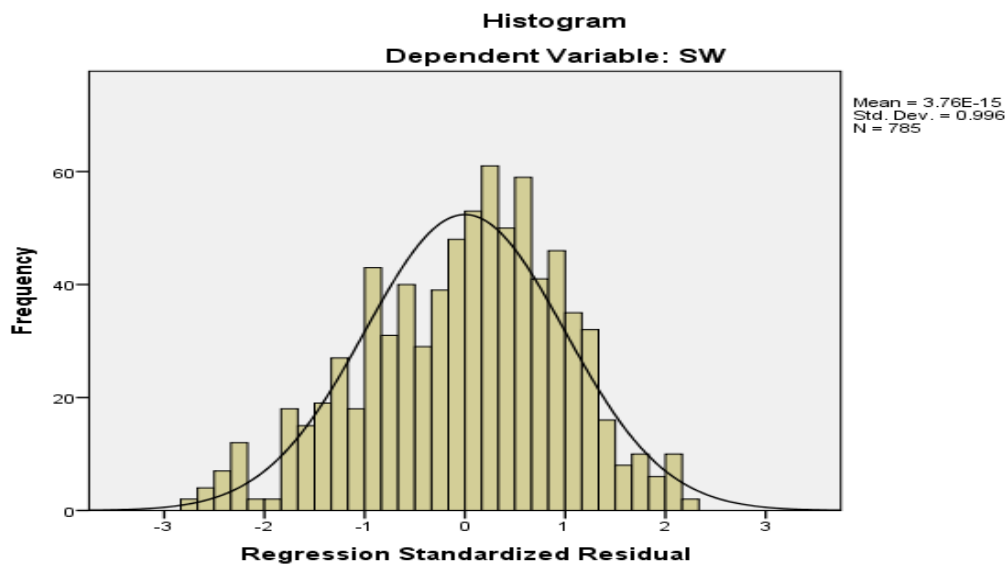
**Table 4.42 Residuals statistics**

|                      | Minimum  | Maximum | Mean        | Std. Deviation | N   |
|----------------------|----------|---------|-------------|----------------|-----|
| Predicted Value      | 3.3431   | 6.3083  | 5.1070      | .51219         | 785 |
| Residual             | -1.89480 | 1.51812 | .00000      | .69779         | 785 |
| Std. Predicted Value | -3.444   | 2.345   | .000        | 1.000          | 785 |
| <b>Std. Residual</b> | -2.705   | 2.167   | <b>.000</b> | .996           | 785 |

a. Dependent Variable: SW

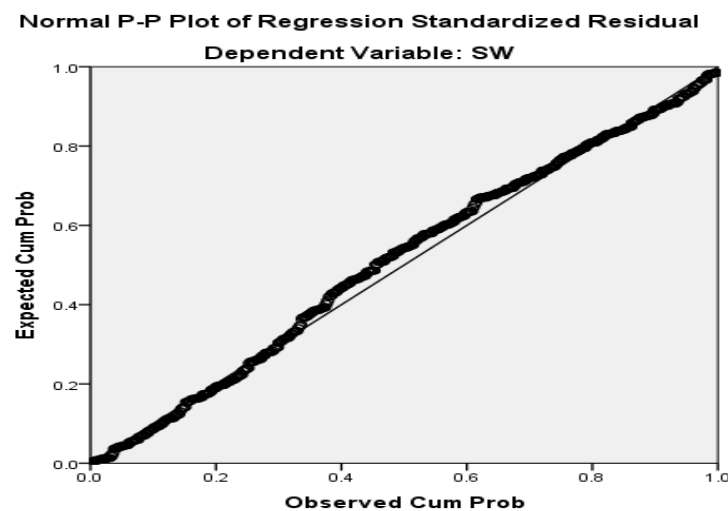
In table 4.42, Mean value of residuals is **zero**.

**Fig. 4.7 Histogram**



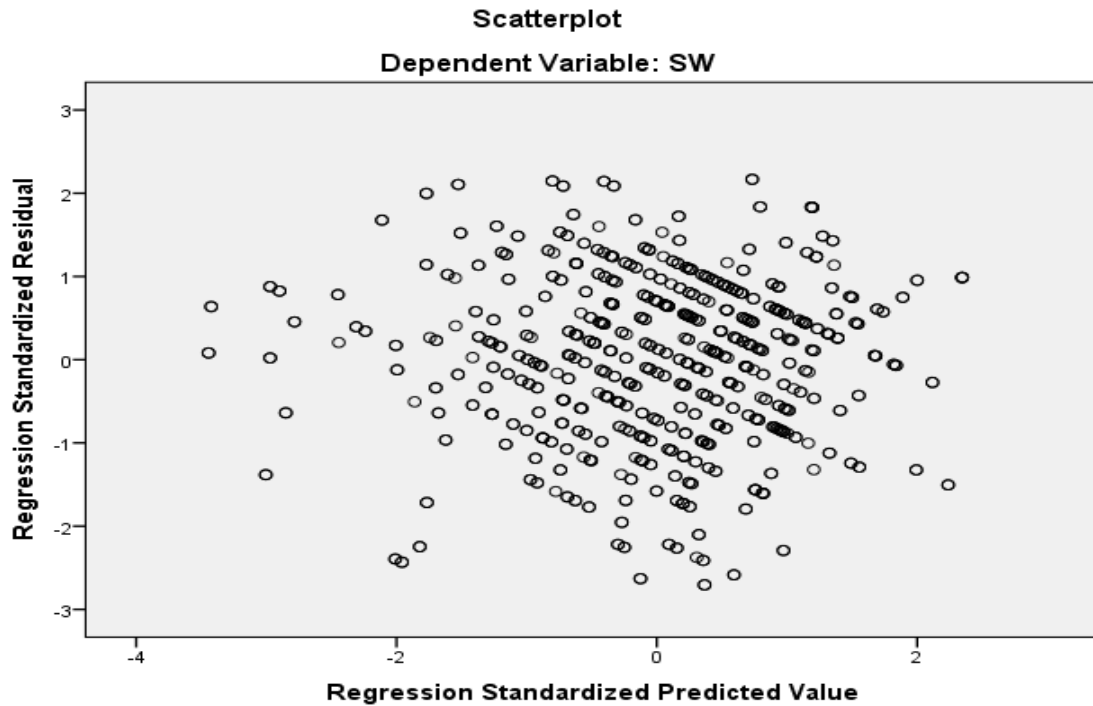
In fig. 4.7, it is found that residuals are normally distributed by constructing Bell shape.

**Fig. 4.8 Normal p-p plot**



In fig. 4.8, it is found that Residuals are formed straight regression line, which indicates they are normally distributed.

**Fig. 4.9 Scatterplot**



In fig. 4.9, No pattern was found, errors (residuals) are having constant, variance also called Homoscedascity (Field, 2006).

Multicollinearity check: All predictors variable's tolerance values greater than 0.2 and VIF values less than 5 (Field, 2006). There is no sign of multicollinearity found (Refer Table: 4.41).

Durbin Watson value is **1.871** (Ref. Table 4.39).

Durbin Watson table value: Models with an intercept (from Savin and White, 1977) at 5% significance points of dL and dU, T= 800. K=6; **DL 1.87126, DU 1.89641**

Durbin Watson value of our regression equation is under DL and DU limit of Durbin Watson table; hence null hypothesis is accepted, the residuals from an ordinary least-square regression has **no autocorrelation** at 5% significance level, T=800 and K=6 (Field 2006).

∴ K is the number of regressor excluding the intercept and T= Sample size.

Basic assumptions/conditions check in a given regression analysis:

1. Mean of residuals is **zero**: condition satisfied (Refer Table: 4.42).
2. Residuals are **normally distributed**: condition satisfied (Refer Figure: 4.7 & 4.8).
3. Error (Residual) variances are constant (**Homoscedascity**): condition satisfied (Refer Figure: 4.9).
4. There is **no Multicollinearity**: condition satisfied (Refer Table: 4.41).
5. There is **no autocorrelation** ( $\therefore$  Durbin Watson value **1.871** as per Table: 4.39).

All assumptions of regression line were satisfied. So, we can accept the model.

#### 4.5 RESULTS OF CONFIRMATORY FACTOR ANALYSIS

**Confirmatory factor Analysis:** Validation of the Structural model (Byrne, 2001).

**Unidimensionality:** This requirement was achieved by item-deletion procedure of low factor loading items and cross loading items (Hair Jr. et. al., 2015), Refer Table: 4.43.

**Table 4.43 Deleted items**

| ITEM No. | Question  | Construct                        |
|----------|---|----------------------------------|
| LDS 1    | I am satisfied with my house.   | Material Possession satisfaction |
| LDS 13   | I am satisfied from relations with coworkers.   | Work life satisfaction           |
| LDS 20   | I am satisfied with my village/ town/ city growth (Expansion).                                | Government satisfaction          |
| LDS 21   | I am satisfied with number of bridges/ over bridges/ under bridges in my village/ town/ city. | Government satisfaction          |
| LDS 28   | I feel inner peace/harmony.   | Spirituality Satisfaction        |
| LDS 32   | I feel close to God/supreme power.  | Spirituality Satisfaction        |

**Reliability:** The two parameters of reliability check are:

- 1) The Average variance Extracted: AVE values should be greater than 0.50 (Hair Jr. et. al., 2015). For this study, it is achieved. Refer to Table 4.45.
- 2) Composite Reliability: CR values should be greater than 0.60 (Hair Jr. et. al., 2015). For this study, it is achieved. Refer to table: 4.45.

**Validity:** it is measured through four parameters:

- 1) Convergent validity: The Convergent validity of the measurement model has confirmed when all values of AVE is greater than 0.50. The items that are indicators of a specific construct should converge or share a high proportion of variance in common, known as convergent validity (Hair Jr. et. al., 2015). For this study, it is achieved. Refer to Table 4.45.

- 2) Construct Validity: The Construct validity for the measurement model has confirmed when all fitness Indexes meet the desired level of acceptance (Byrne, 2001). Construct validity is the extent to which a set of measured items actually reflects the theoretical latent construct those items are designed to measure (Hair Jr. et. al., 2015). For this study, it is achieved. Refer to Table 4.46.
- 3) Discriminant Validity: The Discriminant validity has confirmed when all redundant items are either deleted or constrained as a “free parameter”. Discriminant validity is the extent to which a construct is truly distinct from other construct (Hair Jr. et. al., 2015). For this study, it is achieved. Refer to table: 4.47.
- 4) Nomological Validity and Face Validity: Construct should have Nomological validity and Face validity (Hair Jr. et. al., 2015). Nomological validity is achieved. Refer to table: 4.47. Face validity had confirmed at the time of instrument (Life Domain Satisfaction Scale) development.

CFA results of this study suggest that the measures were reliable and valid. We may conclude the model fit was good and may now look at the estimates and their level of significance.

**Table 4.44 Standardized regression weights and significance level of six domains of life satisfaction**

|  | Standardized Estimate | Standard error | Critical ratio | p-value |
|--|-----------------------|----------------|----------------|---------|
| Government Satisfaction→ QOL           | 0.687                 |                |                |         |
| Material Possession Satisfaction → QOL | 0.548                 | 0.055          | 10.296         | ***     |
| Environmental Quality →QoL             | 0.592                 | 0.087          | 11.769         | ***     |
| Work life Satisfaction→ QoL            | 0.72                  | 0.065          | 11.007         | ***     |
| Spirituality satisfaction → QoL        | 0.482                 | 0.086          | 8.865          | ***     |
| Physical health Satisfaction→ QoL      | 0.514                 | 0.061          | 10.422         | ***     |

P values of all six links were found significant ( $p < 0.05$ ). The p- value for the link, individual p-value is presented as \*\*\* indicating that the link is highly significant. The result of structural equation model analysis proved that there is an association between

overall life satisfaction and different domains of life satisfaction (Ref. Table 4.44). Standardised regression weights are shown in Figure 4.10.

**Fig. 4.10 Standardized regression weights of six domains of overall life satisfaction**



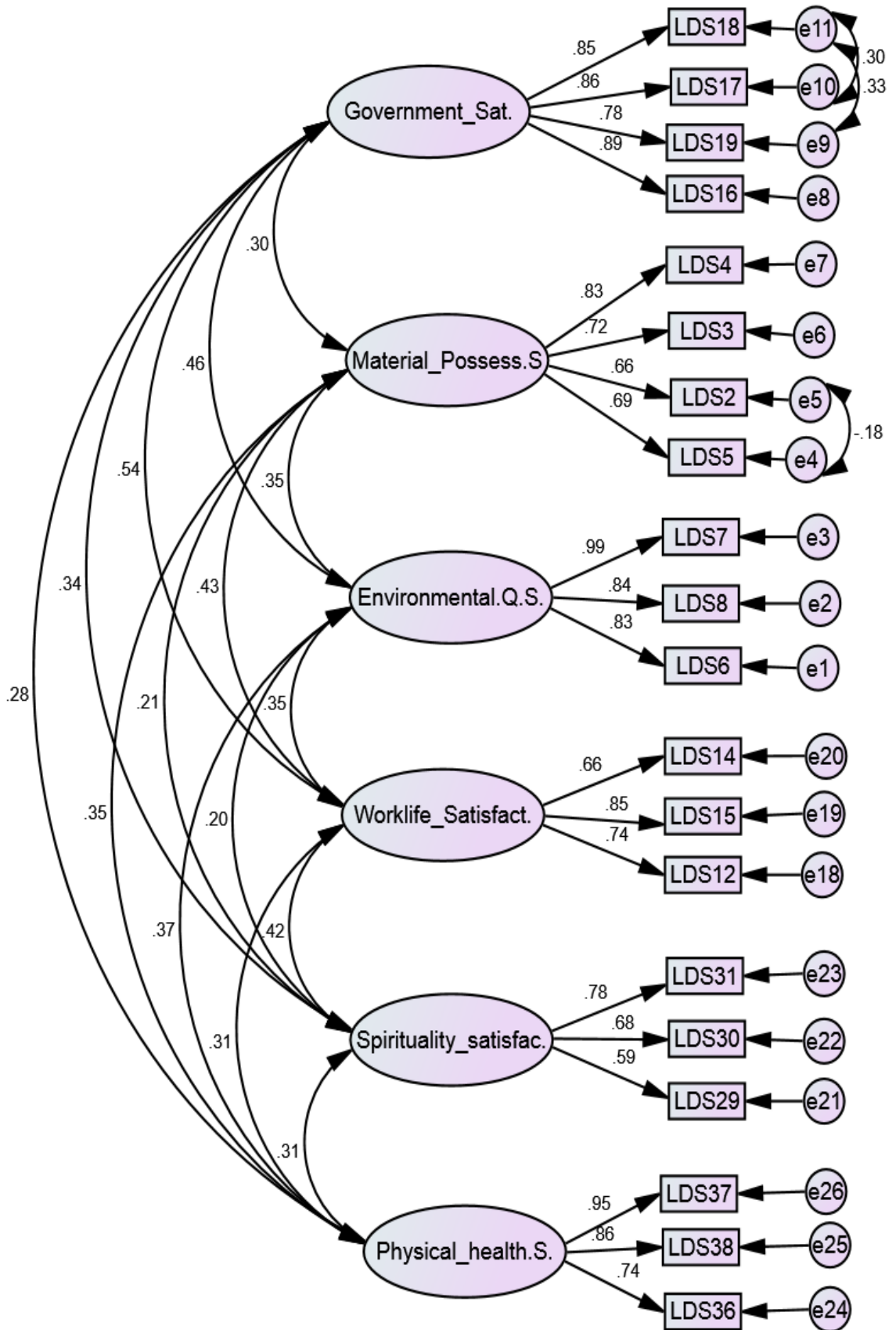
Standardised regression weights were arranged in ascending order (Ref. Fig. 4.10).

#### **Convergent validity check**

To establish convergent validity, the specific items should share a high proportion of variance in common. As described in Table 4.45, convergent validity is indicated by:

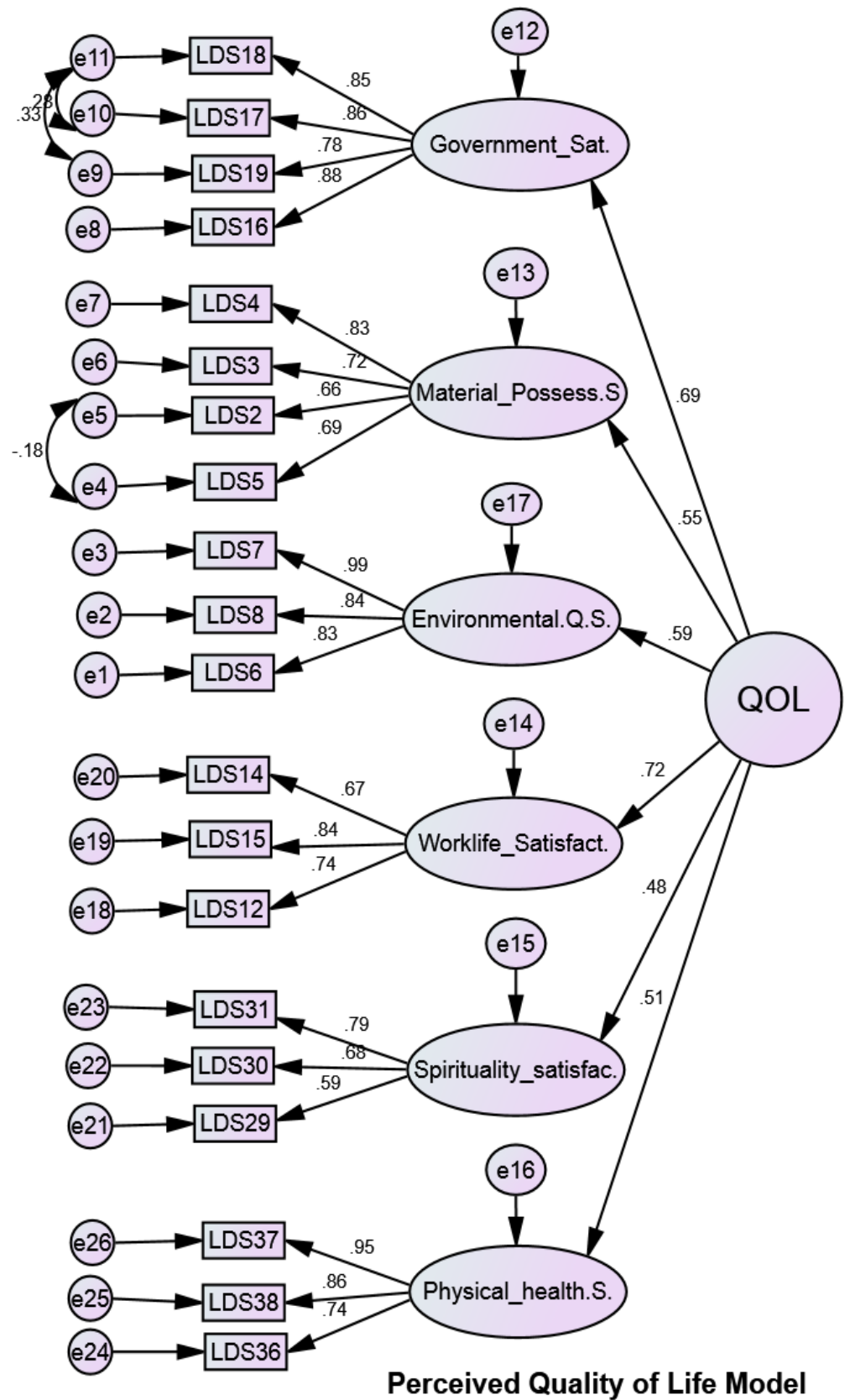
1. All factor loadings are significant and with values greater than 0.5.
2. t- values all indicators are higher than 1.96 at 5% significance level.
3. The relatively high Average Variance Extracted (AVE) of all constructs with values greater than 0.5. Here, Government satisfaction = 71.5%, Material possession satisfaction = 53.2%, Environmental satisfaction = 79%, Work life satisfaction = 56.6%, Spirituality satisfaction = 50% and Physical health satisfaction = 72.9%.
4. Composite Reliability (CR) of all constructs is higher than 0.7 which shows measures of reliability. The correlation between the indicators is high, which is an evidence of internal consistency and the construct's Unidimensionality (Gerbing and Anderson, 1988).

Fig. 4.11 Perceived quality of life (measurement model)



Perceived Quality of Life Model

Fig. 4.12 Perceived quality of life (structural model - second order CFA)



**Table 4.45 CFA report for every construct in the model**

| The CFA Report for every construct in the model |          |  |                |         |                |                 |
|---|----------|--|----------------|---------|----------------|-----------------|
| Construct                                       | Item No. | Item   | Factor Loading | t-value | CR (Above 0.6) | AVE (Above 0.5) |
| Government satisfaction                         | 18       | I am satisfied with central government position on civil rights.   | 0.853          |         | 0.909          | 0.715           |
|   | 17       | I am satisfied with international relation policies with neighbor countries of central government.                                       | 0.861          | 34.696  |                |                 |
|   | 19       | I am satisfied with central government policies to solve the problems like unemployment, poverty, inflation, corruption, terrorism, etc. | 0.783          | 30.282  |                |                 |
|   | 16       | I am satisfied with internal economic policies of central government (like Interest rates, Income tax slab, etc.).                       | 0.883          | 27.615  |                |                 |
| Material possession satisfaction                | 4        | I am satisfied with my clothing, accessories & jewelry.  | 0.834          |         | 0.818          | 0.532           |
|   | 3        | I am satisfied with my vehicle.  | 0.722          | 20.165  |                |                 |
|   | 2        | I am satisfied with my furniture and appliances at home.   | 0.66           | 17.4    |                |                 |
|   | 5        | I am satisfied with my saving & investment.  | 0.689          | 18.051  |                |                 |
| Environmental satisfaction                      | 7        | I am satisfied with quality of air in my village/town/city.  | 0.989          |         | 0.918          | 0.790           |
|   | 8        | I am satisfied with greenery in my village/town/city.  | 0.84           | 36.188  |                |                 |
|   | 6        | I am satisfied with weather in my village/town/city.   | 0.829          | 35.105  |                |                 |
| Work life satisfaction                          | 14       | I am satisfied with working hours & timings.   | 0.667          |         | 0.795          | 0.566           |
|   | 15       | I am satisfied with my career growth.  | 0.836          | 18.215  |                |                 |
|   | 12       | I am satisfied with personal income.   | 0.745          | 15.583  |                |                 |
| Spirituality satisfaction                       | 31       | I had felt paranormal/spiritual experience.  | 0.792          |         | 0.731          | 0.50            |
|   | 30       | I am associated with Guru.   | 0.681          | 17.665  |                |                 |
|   | 29       | I am working on self-discovery.  | 0.587          | 14.702  |                |                 |
| Physical health satisfaction                    | 37       | I feel sufficient energy/stamina to live full life.  | 0.948          |         | 0.889          | 0.729           |
|   | 38       | I feel sufficient body mobility/speed to live full life.   | 0.86           | 31.632  |                |                 |
|   | 36       | I feel free from disease/ disorder.  | 0.741          | 25.435  |                |                 |

As per Table: 4.45, all six constructs are satisfied the criteria of having Composite Reliability (CR) value greater than 0.6 and Average Variance Explained (AVE) by each construct is above 0.5. Basic conditions of reliability have satisfied (Hair Jr. et al., 2015).

**Construct validity**

CFA results as mention below in Table 4.46 model has satisfied all parameters of acceptance, hence we suggest that model is reliable and valid.

**Table 4.45 CFA model fit summary**

|                  | Index      | Level of acceptance | Observed value | Literature review          | Comments        |
|------------------|------------|---------------------|----------------|----------------------------|-----------------|
| Absolute fit     | Chi-square | $P > 0.05$          | 0.000**        | Wheaton et. al. (1997)     | <b>Accepted</b> |
|                  | RMSEA      | $RMSEA < 0.08$      | 0.062          | Browne and Cudeck (1993)   | <b>Accepted</b> |
|                  | GFI        | $GFI > 0.90$        | 0.926          | Joreskog and Sorbom (1984) | <b>Accepted</b> |
| Incremental fit  | AGFI       | $AGFI > 0.90$       | 0.903          | Tanaka and Huba (1985)     | <b>Accepted</b> |
|                  | CFI        | $CFI > 0.90$        | 0.947          | Bentler (1990)             | <b>Accepted</b> |
|                  | TLI        | $TLI > 0.90$        | 0.937          | Bentler and Bonett (1980)  | <b>Accepted</b> |
|                  | NFI        | $NFI > 0.90$        | 0.930          | Bollen (1989)              | <b>Accepted</b> |
| Parsimonious fit | Chisq./df  | $Chisq./df < 5.0$   | 3.998          | Marsh and Hocevar (1985)   | <b>Accepted</b> |

\*\* Chi-square value is ignored here, because it is sensitive towards sample size. One could ignore the absolute fit index of minimum discrepancy chi-square if the sample size obtained for the study is greater than 200 (Hair et al., 1996; Joreskog and Sorbom, 1996).

Where,

RMSEA = Root Mean Square of Error Approximation.

GFI = Goodness of Fit Index.

AGFI = Adjusted Goodness of Fit Index.

CFI = Comparative Fit Index.

TLI = Tucker–Lewis Index.

NFI = Normed Fit Index.

### Discriminant validity check

It is required that each construct distinct from other constructs. Discriminant validity is assessed by comparing the share variance (squared correlation) between each pair of constructs against the minimum of the AVEs for these two constructs (Fornell and Larcker, 1981), here; the discriminant validity is achieved by:

- I. The absence of significant cross-loading that are not represented by the measurement model. The absence of significant cross-loading (Refer Figure. 4.11 & Figure 4.12) is also proof of a construct's Unidimensionality (Gerbing and Anderson, 1988).
- II. To compare the average variance-extracted values for any two constructs with the square of the correlation estimate between these two constructs. The variance extracted estimates should be greater than the squared correlation estimate (Hair Jr. et al., 2015). The logic here is based on the idea that a latent construct should explain more of the variance in its item measures that it shares with another construct. Holmes-Smith (2001) recommended that the average AVE of the two constructs must exceed the square of their correlation to satisfy the Discriminant validity test. Referring to Table 4.47, one can conclude that the discriminant validity for all six constructs is achieved.

**Table 4.46 Discriminant validity index summary for the constructs**

| Pair of constructs  |                             | Correlation | Square correlation | Average AVE of two constructs |
|---------------------|-----------------------------|-------------|--------------------|-------------------------------|
| Material_Possess.S  | <--> Government Sat.        | 0.3         | 0.0900             | 0.6235                        |
| Environmental.Q.S.  | <--> Government Sat.        | 0.457       | 0.2088             | 0.7528                        |
| Government_Sat.     | <--> Worklife Satisfact.    | 0.545       | 0.2970             | 0.6408                        |
| Government_Sat.     | <--> Spirituality_satisfac. | 0.341       | 0.1163             | 0.6077                        |
| Government_Sat.     | <--> Physical_health.S.     | 0.285       | 0.0812             | 0.7222                        |
| Environmental.Q.S.  | <--> Material_Possess.S     | 0.347       | 0.1204             | 0.6610                        |
| Material_Possess.S  | <--> Worklife_Satisfact.    | 0.433       | 0.1875             | 0.5490                        |
| Material_Possess.S  | <--> Spirituality_satisfac. | 0.208       | 0.0433             | 0.5158                        |
| Material_Possess.S  | <--> Physical_health.S.     | 0.351       | 0.1232             | 0.6304                        |
| Environmental.Q.S.  | <--> Worklife_Satisfact.    | 0.326       | 0.1063             | 0.6782                        |
| Environmental.Q.S.  | <--> Spirituality_satisfac. | 0.196       | 0.0384             | 0.6451                        |
| Environmental.Q.S.  | <--> Physical_health.S.     | 0.366       | 0.1340             | 0.7597                        |
| Worklife_Satisfact. | <--> Spirituality_satisfac. | 0.422       | 0.1781             | 0.5331                        |
| Worklife_Satisfact. | <--> Physical_health.S.     | 0.357       | 0.1274             | 0.6476                        |
| Physical_health.S.  | <--> Spirituality_satisfac. | 0.312       | 0.0973             | 0.6476                        |

**Nomological validity check**

The correlation among the constructs makes Nomological validity (Hair Jr. et al., 2015). In the above table 4.47, positive correlation among construct prevails the Nomological validity of the model.

**4.6 CONCLUSION**

This chapter played a most crucial part of the study, because a success of the study depends on the success of this chapter. In this chapter, appropriate statistical tests had applied and results were interpreted. Adequate justification and assumption's testing had done properly for all statistical tests which were used. Selections of statistical tests were determined on the basis of meeting its criteria with the characteristics of data and its capability to analyze it, so that the optimum outcome might be expected. Statistical tests had applied in a chronological sequence in aims to meet with the objectives of the study. Tables and figures were used with supportive statements with each test results, so that a summarized form of results might be presented.

# **CHAPTER 5**

## **DISCUSSION**

### **5.1 INTRODUCTION**

### **5.2 FINDINGS OF THE STUDY**

### **5.3 CONCLUSION OF THE STUDY**

### **5.4 CONTRIBUTION TO KNOWLEDGE**

### **5.5 IMPLICATIONS OF THE STUDY**

### **5.6 SCOPE FOR FURTHER RESEARCH**

### **5.7 COMPARISON OF THE RESULT WITH EARLIER STUDY**

## 5.1 INTRODUCTION

In this chapter, the key points of the research are recalled and synthesized into the coherent body of understanding. In the process of summarizing, references of back sections are given so that it is easy to locate that part of the thesis at which the issues were originally discussed. Here, it was also examined that the conclusions of the study, to what extent will meet the aims or objectives of the study. A clear statement of the original contribution to knowledge made by the research has been mentioned. A practical implication had made in the thesis for various stakeholders of the society, like the Government, Welfare Organizations, People, etc. Implications were made keeping in view the thought that individual or organizations would be in the position to understand its importance and implement it. In the latter part of this chapter, possibilities for further research have been discussed.

## 5.2 FINDINGS OF THE STUDY

- I. A sample of people of Gujarat was classified into three groups on the bases of their overall life satisfaction ratings (Refer Table 4.2): a) highly satisfied group with 20.5%, b) moderately satisfied group with 60.6%, and c) poorly satisfied group with 18.8%. It was found that highly satisfied group scored higher on all variables of a semantic differential scale. It showed that they had expressed positive orientation towards their overall life satisfaction and perceived their lives as Enjoying, Interesting, Active, Happy, Meaningful, Worthwhile, Rewarding, Easy, Relaxed, Full of fun and Comfortable. On another side, the moderately satisfied group was observed to be perceived the same as the highly satisfied group but comparative lesser degree. A poorly satisfied group having comparative lower ratings on overall life satisfaction scale and Semantic differential scale, it showed poorly satisfied group perceived same as the first two groups but the comparative lowest degree (Refer Table 4.8).
  
- II. On the bases of the results of the Tree Segmentation method (Refer Fig. 4.1), the whole sample was classified into two groups: middle & highest income group and lower income group. It was found that the annual income of people was the most significant variable led to the classification of the whole sample into two groups. In

Node 1, Individuals belonged to middle & higher income group was found to be 28.3% highly satisfied, 59.2% moderately satisfied and only 12.5% poorly satisfied with their overall life satisfaction. On the other side, Node 2, respondents belonging to lower income group only 12.2% people were highly satisfied, 62.2% moderately satisfied and 25.7% poorly satisfied with their overall life satisfaction. Further classification of Node 1 into Node 3 and 4 took place. Gender of people was the second most significant variable found in the study under sub-group segmentation, which classified middle & higher income group income group in two categories: Node 3 of males and Node 4 of the females. It was found that in Node 3, Males were 23.7% highly satisfied, 62.9% moderately satisfied and only 13.4% poorly satisfied with their overall life satisfaction. On the other side in Node 4, Females were 40.7% highly satisfied, 49.1% moderately satisfied and only 10.2% poorly satisfied with their overall life satisfaction. It revealed that females were relatively highly satisfied in their overall life satisfaction than males.

- III. On the basis of mean value ( $\bar{x} = 5.10$ ) of sample data of overall life satisfaction ratings, it was found that people were somewhat satisfied in their overall life satisfaction (Refer Table 4.12).
- IV. By comparing the mean values of overall life satisfaction ratings, it was found that perceived quality of life of males and females seemed to be same (Refer Table 4.15).
- V. By comparing the mean values of overall life satisfaction ratings, it was found that perceived quality of life of people varied with different age groups. Perceived quality of life of people of age group 46-55 years was better than people of 26-35 years and 36-45 year age groups (Refer Table 4.17).
- VI. By comparing the mean values of overall life satisfaction ratings, it is found that perceived quality of life of post-graduates, graduates and below-graduates were same (Refer Table 4.20).
- VII. By comparing the mean values of overall life satisfaction ratings, it was found that perceived quality of life of people varied with their marital status. Marrieds were found to be more satisfied than unmarried (Refer Table 4.23).

- VIII. By comparing the mean values of overall life satisfaction ratings, it was found that perceived quality of life of people varied with their income levels. People who belonged to the higher and middle-income group were more satisfied than lower income group in their perceived quality of life (Refer Table 4.25).
- IX. By comparing mean values of overall life satisfaction ratings, it was found that perceived quality of life of people lived in different areas like Central Gujarat, South Gujarat, Saurashtra, and North Gujarat were same (Refer Table 4.28).
- X. By comparing the mean values of overall life satisfaction ratings, it was found that perceived quality of life of people lived in rural and urban Gujarat was the same (Refer Table 4.31).
- XI. By applying exploratory factor analysis, six latent factors were explored from 20 observed variables. Labelling of six factors had done as Government satisfaction, Material possession satisfaction, Environmental quality satisfaction, Work life satisfaction, Spirituality satisfaction and Physical health satisfaction. Going further, by applying multiple regression analysis relationships between Overall Life satisfaction and these six factors were examined. It was found that all six factors (Domains of life satisfaction) were having a significant relationship with overall life satisfaction. A regression model was found to be significant which explained 34.5% of the variance in overall life satisfaction (Refer Table 4.39). Respondents were found to be quite satisfied with Material Possession and Physical Health, while they were observed to be least satisfied with Environmental satisfaction variable among the 6 domains of life satisfaction (Refer Table 4.41).
- XII. By applying confirmatory factor analysis relationship between Overall Life satisfaction and six factors (Government satisfaction, Material possession satisfaction, Environmental quality satisfaction, Work life satisfaction, Spirituality satisfaction and Physical health satisfaction) were validated. Construct validity, Convergent validity, Discriminant validity and Nomological validity were proved (Refer Table 4.45, 4.46 & 4.47).

### 5.3 CONCLUSION OF THE STUDY

This study had measured perceived quality of life of people in the context of Gujarat's culture. It was proved that culture, having a strong impact on the quality of life of people (Diener and Suh 2000). The culture of Gujarat had a strong influence over the quality of life of people in Gujarat. The characteristics of Gujarati culture were observed during the research were; Gujarati people are religious and spiritual in nature, most of the respondents were attached with any of the religious groups like Swaminarayan, Jainism, etc. and most of the people lived in joint families. A satisfied quality of life of people in Gujarat was one of the outcomes of a heritage culture of Gujarat.

Highly satisfied group of people were having a positive orientation towards their perceived quality of life. They sense their lives as Enjoying, Interesting, Active, Happy, Meaningful, Worthwhile, Rewarding, Easy, Relaxed, Full of Fun and Comfortable. On the other side, the moderately satisfied group was also perceived the same as a highly satisfied group but in a comparatively lesser degree. The poorly satisfied group was having poor ratings on overall life satisfaction scale and semantic differential scale, it shows dissatisfied groups perceived the same as the first two groups but in comparative lowest degree.

The annual income of people was the most significant variable which classified the whole sample into two groups; the middle & higher income group and lower income group. For further classification of sub-group segmentation, Gender of people was the second most significant variable in the study, which classified middle & higher income group in two categories, where it concluded that females were more satisfied than males.

Gujarat has a heritage culture of peace and prosperity. All over Gujarat, people were somewhat satisfied towards their overall life irrespective of different education, area, income, etc. All credit goes to a good culture of Gujarat.

In terms of gender difference, there was no gender difference in perceived quality of life of people in Gujarat. Males and females were equally satisfied in their lives. A credit goes to the culture of Gujarat and consistent efforts of the government of Gujarat in the area of women empowerment.

In terms of an age difference, perceived quality of life of people of 46-55 years age groups were significantly better than people of 26-35 years and 36-45 year age groups. Here, maybe people of 46-55 years age group perceived more stabilize in their life compared to the rest of two age groups. This is a good sign for the state.

In terms of education, perceived quality of life of post-graduates, graduates, and undergraduates were the same. This is also an impact of the good culture of Gujarat.

In terms of marital status, perceived quality of life of married was better than unmarried. This might be because of marrieds were more focused.

In terms of income status, perceived quality of life of people of a higher-income group and a middle-income group were better than a lower-income group. It is quite clearly understood that income or material possession is one of the strong influencing factors affecting the quality of life.

In terms of geographical region, perceived quality of life of the people was same in all four geographical zones of Gujarat; Central Gujarat, South Gujarat, Saurashtra, and North Gujarat. It was the biggest achievement of the Government of Gujarat to maintain uniform development all across Gujarat.

In terms of rural vs urban Gujarat, perceived quality of life of the people was same. Again, it was a very big achievement of the government of Gujarat. A balanced growth in urban and rural Gujarat has been maintained by consistent efforts of the government of Gujarat.

In terms of domains of life satisfaction, six domains of life satisfaction were identified which have an influence on the quality of life of people. These domains: Government satisfaction, Material possession satisfaction, Environmental quality satisfaction, Work life satisfaction, Spirituality satisfaction and Physical health satisfaction. Total 34.5% of the variance in overall life satisfaction of individuals had explained by these six domains of life satisfaction. Material possession satisfaction and physical health satisfaction were more influenced factors compared with rest.

## 5.4 CONTRIBUTION TO KNOWLEDGE

This section comprised of the original contribution of the study, which is the most important part of the research and highly recommended by the research society. Here, a list of contributions mentioned below:

1. **A Problem statement:** The problem statement of the study “To measure a perceived quality of life of people in Gujarat” is a comparative novel idea where the subjective approach of measuring the well-being of people was used.
2. **Research Methodology:** Sampling designed was one of the unique contributions of this study where an attempt was made to collect data from the whole state under a limitation of resources and time.
3. **Questionnaire Designed:** Life domain satisfaction scale was developed for the study, which was one of the most crucial contributions of the study. To measure different domains of life satisfaction for which different statements were chosen. Selection of most the appropriate statement and their sequence was the challenge. Also to maintain the length of the questionnaire was also challengeable. But in last, the questionnaire was developed through which successfully 6 factors (Domains of Life satisfaction) were extracted which accounts 34.5 % of variability defined in overall life satisfaction of people.
4. **Perceived Quality of Life Model:** The major and unique contribution given by the study is the Perceived Quality of Life (PQoL), Model. PQoL model was validated by the confirmatory factor analysis method.
5. **Implications of the study:** The implications of the study were also one of the unique contributions of the study.

## **5.5 IMPLICATIONS OF THE STUDY**

This study having 360-degree impacts on all stakeholders of society, also its finding clarifies many misinterpretations of human psychology. Subjective well-being is a comparatively new approach to human society and having a history of approx. 50 years, but its practical implications have accepted by the world in the year 2012. World Happiness Index and ministry of Well-being in UAE are the big examples of it.

### **An Implication of the study to the government of Gujarat & India**

The findings of the study may play a big role in policymaking. As we know, in our country a huge gap has found between the needs of society and government policies. To fulfil this gap many time feedback surveys have conducted by the government, like for Indian Railways modernization, Indian railway's continuing taking feedbacks from passengers about service quality and areas of improvements. In India, we have seen that even prestigious planning commission (now NITI Aayog) gets fail to formulate successful policies and its implementation in last 64 years. The government doesn't know about the needs of the specific sector, resultant development initiatives do not resolve problems. Budgets are prepared on the basis of socioeconomic surveys which are purely based on objective measures of households, hence very less informative. Resultants poor policies are formed and only a few people get benefits and a major portion of society which required immediate help from the government remains to deprive of any kind of action of the government.

Such studies help the government to understand the people's requirements, it may act like a voice of people and helps policymakers to make policy, its planning and implementation accordingly. Like if people are more concerned about housing issues, so the government needs to form policies which promote housing schemes in countries, If people are found dissatisfied with government economic policies, infrastructure growth, children's education, health facilities, then policies are needed to frame accordingly. Subjective well-being study is very informative, resulted in most of the developed countries; it is widely used for policy formations. In India, few NGO (Non-government Organizations) and T.V. channels conducted (public polls) people's opinion surveys during elections. That is also a subjective well-being study, which plays a significant role to determine people's

perception of their quality of life. In future, such studies will act as a performance indicator.

Other benefits of such studies are like Government policies are formed without considering the diversity among people. India is the country of diversities, here huge differences found in social, economic, demographic characteristics of people. Standardized policies will never work in India. With the help of subjective well-being studies, the government can make customized policies as per the requirement of a particular group of people.

A government may also apply the methodology of the study at sensitive areas of countries where real development is much needed and even priorities of areas of development need to know. It may very much helpful for the government to take steps for development; also it may give maximum benefit during budget preparation.

Nowadays, Happiness index is the most popular approach to measure the well-being of nations. Many countries are following it. In India, still objective approach of measuring well-being has been used and a public welfare policy has been formed accordingly. India has been used HDI Index, which is based on the few indicators of the well-being of people. In the future, India will need to adopt one holistic approach of measuring well-being like happiness Index. In future, may India apply Happiness Index to measure well-being in the country in place of Human Development Index (HDI)?

#### **An implication of the study to the welfare organizations**

Welfare organizations like NGO (Non-government Organizations), Organizations involved in CSR (Corporate social responsibility) activities, etc. are having common goals to give maximum benefits to needy people. This will only become possible when they can examine the current state of society. They require information on the quality of life of people. Such studies may provide meaningfully and customize required information to such organizations. If you can see for the last 70 years, assessing wellbeing is the biggest challenge. This study will give relief to NGOs and other welfare organizations and to policymakers.

### **An implication of the study of the people of Gujarat**

The biggest beneficiaries of the study are people of Gujarat itself because this study had explored their quality of life and the factors which affect their overall life satisfaction. Due to such studies, people may realize the importance of their active participation in a survey of such studies. In the future by better awareness and participation of people, better results may be achieved. Due to such studies, many people start to evaluate their overall quality of life and domains of life satisfaction. It may help them to achieve happiness in life.

### **An implication of the study to the field of economics and public policy**

Each research makes its contribution to the related field of studies. This study may also add its unique methodology of assessing well-being and its results in the field of advanced economies. The model of perceived quality of life was developed by the study is one of the major contribution to literature and helpful for upcoming researches. The study is a small example of a way of doing research, in this field. In an upcoming era, research may occur in this field because the world economics are working on this part. This research is expected to impact the following areas of public policy:

- a) Economic development and well-being.
- b) Cultural cohesion with diversity has overtaken on the well-being.
- c) The government should certainly work on enhancing income levels for ensuring material well-being, and
- d) A long-spell of “ethnic conflict free” regime has an influence on the life satisfaction. A future study must address ethnic differences.

### **5.6 SCOPE FOR FURTHER RESEARCH**

This study has broadly focused on to examine overall life satisfaction and the factors (domains) of life satisfaction of people in Gujarat. The study has limitation like to consider a person who is doing the job with an age group of 26-55 years, an annual income of ₹ 1.20 lakhs - ₹ 12.00 lakhs and minimum education status of S.S.C. As per the time and resource constraints, 785 respondents were included in the study. The study had excluded the people of tribal areas of Gujarat.

This study may carry forward in many ways. This study has presented one research methodology for assessing the well-being of people. The same methodology may use to assess the well-being of adolescent, younger and older people. We can also measure the well-being of people in tribal areas of Gujarat. The study may also, carry forward to measure the well-being of people in slums or any other particular class or category in terms of socioeconomic categories.

Subjective assessment of the quality of life is a comparatively new concept and not much history is available. Especially countries like India this topic is new and has a very broad scope for further studies. This study was restricted up to Gujarat with a limited sample size of 785 respondents. For further studies, research may study people who are engaged in business, profession, agriculture, etc. Even measure the quality of life of the unemployed, etc. Topic has huge potential for further studies and very essential for society in numerous ways. The study may also carry forward to other states of India like North-eastern states, Jammu & Kashmir etc. also, the whole country's well-being can measure this way and Well-being Index of India will be constructed.

### **5.7 COMPARISON OF THE RESULT WITH EARLIER STUDY**

The result of this study has been compared with the result of a study done by Dasgupta and Majumdar (1996). Finding of both studies has mentioned below:

**Findings of Dasgupta and Majumdar (1996):** They found that socioeconomic status was not significantly related to perceived quality of life. They found that people of 21-35 years and 56 years or older were comparatively more satisfied than the people of 36-55 years age group. The sex difference was found insignificant. They examined the association between overall life satisfactions with domains of life satisfaction. Satisfaction with self-development, Family life, Material possession, and Local government administration were found significant. Local government administration was the most influential domain.

**The findings of the current study:** Study found that people of Gujarat were somewhat satisfied towards their perceived quality of life. The study found that difference in people's gender, educational status, and residence area were insignificant related to perceived quality of life. The study found that people of age group 46-55 years were comparatively more satisfied with their perceived quality of life than people of age group 26-35 years and

36-45 years. The study found that married were better perceived quality of life than unmarried. The study found that individuals with higher and middle income groups were comparatively more satisfied with their perceived quality of life than people of lower income group. The study examined the association between overall life satisfactions with domains of life satisfaction. Six domains were found significant; Material Possession Satisfaction, Physical Health Satisfaction, Spirituality Satisfaction, Government Satisfaction, Work life Satisfaction and Environmental Satisfaction. Material Possession and Physical Health Satisfaction were more influential, followed by Spirituality Satisfaction, Government Satisfaction, Work life Satisfaction, and Environmental Satisfaction.

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- Handa, R. & Maheshwari, G.C. (2016). A study of sense of well-being and perceived quality of life of people in Central Gujarat, *International Journal of Science Technology and Management*, Vol. No.5, Issue No. 11, pp. 137-146. ISSN (O) 2394-1537.
- Handa, R. & Maheshwari, G.C. (2016). A study of sense of well-being and perceived quality of life of people in North-Gujarat & Central Gujarat, *International Journal of Advance Engineering and Research*, Vol. No.5, Issue No. 11, pp. 171-182. ISSN (O) 2319-8354.
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**APPENDIX A- QUESTIONNAIRE (IN ENGLISH)**

Respected Sir/Madam,

I Rajesh Handa – working as an Assistant Professor in the Manish Institute of Management at Visnagar (Mehsana), also I am a doctoral student of Gujarat Technological University, Ahmedabad. I am doing research work on the topic “A study of the sense of well-being and perceived quality of life of people in Gujarat”. I am approaching you to get your responses on the topic. You will agree that this kind of research is not possible without the support of people like you. The information provided by you will be kept confidential and used for research purpose only.

|  |
|--|
| <p>→ Place _____</p> <p>→ I am staying in Gujarat from last five years at a given place. <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>→ Continue, if your answer is <b>yes</b>.</p>   |
| <p>✓ - <u>Please <input checked="" type="checkbox"/> whichever box applicable in each line.</u></p> <p>1. What is your gender? <input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>2. What is your age? <input type="checkbox"/> 26–35 years <input type="checkbox"/> 36-45 years <input type="checkbox"/> 46 -55 years</p> <p>3. What is your education? _____.</p> <p>4. What is your marital status? <input type="checkbox"/> Unmarried <input type="checkbox"/> Married</p> <p>5. Your residence is located in a <input type="checkbox"/> Village <input type="checkbox"/> Town (Municipality) <input type="checkbox"/> City (Muni.Cooperation)</p> <p>6. What is your Annual income? <input type="checkbox"/> 1.20 - 2.50 lakhs <input type="checkbox"/> 2.51- 6.00 lakhs <input type="checkbox"/> 6.01- 12.00 lakhs</p> |

|                                     |
|-------------------------------------|
| <b>Satisfaction with Life Scale</b> |
|-------------------------------------|

Please  whichever box applicable in each line.

|   |  | Strongly disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly agree |
|---|--|-------------------|----------|-------------------|---------|----------------|-------|----------------|
| 1 | In most ways my life is close to my ideal.                   |                   |          |                   |         |                |       |                |
| 2 | The conditions of my life are excellent.                     |                   |          |                   |         |                |       |                |
| 3 | I am satisfied with my life.                                 |                   |          |                   |         |                |       |                |
| 4 | So far I have got the important things I want in life.       |                   |          |                   |         |                |       |                |
| 5 | If I could live my life over, I would change almost nothing. |                   |          |                   |         |                |       |                |

|                             |
|-----------------------------|
| Semantic Differential Scale |
|-----------------------------|

Please  whichever box applicable in each line.

***My Present Life is....***

|             | 7 | 6 | 5 | 4 | 3 | 2 | 1 |               |
|-------------|---|---|---|---|---|---|---|---------------|
| Enjoyable   |   |   |   |   |   |   |   | Miserable     |
| Interesting |   |   |   |   |   |   |   | Boring        |
| Active      |   |   |   |   |   |   |   | Inactive      |
| Happy       |   |   |   |   |   |   |   | Unhappy       |
| Meaningful  |   |   |   |   |   |   |   | Meaningless   |
| Worthwhile  |   |   |   |   |   |   |   | Useless       |
| Rewarding   |   |   |   |   |   |   |   | Disappointing |
| Easy        |   |   |   |   |   |   |   | Hard          |
| Relaxed     |   |   |   |   |   |   |   | Tightened up  |
| Full of fun |   |   |   |   |   |   |   | No fun at all |
| Comfortable |   |   |   |   |   |   |   | Uncomfortable |

|                                |
|--------------------------------|
| Life-domain Satisfaction Scale |
|--------------------------------|

Please  whichever box applicable in each line.

|    |   | Strongly disagree | Disagree | Slightly Disagree | Neutral | Slightly Agree | Agree | Strongly agree |
|----|---|-------------------|----------|-------------------|---------|----------------|-------|----------------|
| 1  | I am satisfied with my house.   |                   |          |                   |         |                |       |                |
| 2  | I am satisfied with my furniture and appliances at home.  |                   |          |                   |         |                |       |                |
| 3  | I am satisfied with my vehicle.   |                   |          |                   |         |                |       |                |
| 4  | I am satisfied with my clothing, accessories & jewelry.   |                   |          |                   |         |                |       |                |
| 5  | I am satisfied with my saving & investment.   |                   |          |                   |         |                |       |                |
| 6  | I am satisfied with weather in my village/town/city.  |                   |          |                   |         |                |       |                |
| 7  | I am satisfied with quality of air in my village/town/city.                                       |                   |          |                   |         |                |       |                |
| 8  | I am satisfied with greenery in my village/town/city.   |                   |          |                   |         |                |       |                |
| 9  | I spent joyful time with my family and friends.   |                   |          |                   |         |                |       |                |
| 10 | I give sufficient time to self for hobbies, exercise, relaxation, etc.                            |                   |          |                   |         |                |       |                |
| 11 | I spent sufficient time for social gatherings, ceremonies, etc.                                   |                   |          |                   |         |                |       |                |
| 12 | I am satisfied with personal income.  |                   |          |                   |         |                |       |                |
| 13 | I am satisfied from relations with coworkers.   |                   |          |                   |         |                |       |                |
| 14 | I am satisfied with working hours & timings.  |                   |          |                   |         |                |       |                |
| 15 | I am satisfied with my career growth.   |                   |          |                   |         |                |       |                |
| 16 | I am satisfied with internal economic policies of central government (like Interest rates, Income |                   |          |                   |         |                |       |                |

|    |   |  |  |  |  |  |  |  |
|----|---|--|--|--|--|--|--|--|
|    | tax slab, etc.)   |  |  |  |  |  |  |  |
| 17 | I am satisfied with international relation policies with neighbor countries of central government.  |  |  |  |  |  |  |  |
| 18 | I am satisfied with central government position on civil rights.  |  |  |  |  |  |  |  |
| 19 | I am satisfied with central government policies to solve the problems like unemployment, poverty, inflation, corruption, terrorism, etc.  |  |  |  |  |  |  |  |
| 20 | I am satisfied with my village/ town/ city growth (Expansion).  |  |  |  |  |  |  |  |
| 21 | I am satisfied with number of bridges/ over bridges/ under bridges in my village/ town/ city.   |  |  |  |  |  |  |  |
| 22 | I am satisfied with supply of electricity in my village/ town/ city.  |  |  |  |  |  |  |  |
| 23 | I am satisfied with mobile network in my village/ town/ city.   |  |  |  |  |  |  |  |
| 24 | I am satisfied with availability of public amenities like Garden/Children's playground/ Community Centre, etc. in my village/ town/ city. |  |  |  |  |  |  |  |
| 25 | I am satisfied with quality of public transportation services in my village/ town/ city.  |  |  |  |  |  |  |  |
| 26 | I am satisfied with quality of education institute in my village/ town/ city.   |  |  |  |  |  |  |  |
| 27 | I am satisfied with quality of health care services in my village/ town/ city.  |  |  |  |  |  |  |  |
| 28 | I feel inner peace/harmony.   |  |  |  |  |  |  |  |
| 29 | I am working on self-discovery.   |  |  |  |  |  |  |  |

|    |  |  |  |  |  |  |  |  |
|----|--|--|--|--|--|--|--|--|
| 30 | I am associated with Guru (Spiritual Guru).  |  |  |  |  |  |  |  |
| 31 | I had felt paranormal/spiritual experience.  |  |  |  |  |  |  |  |
| 32 | I feel close to God/supreme power.   |  |  |  |  |  |  |  |
| 33 | I am satisfied with personal safety and security in my village/ town/ city.  |  |  |  |  |  |  |  |
| 34 | I am satisfied with Government community services like street lights, sanitation, water supply, roads & sewerage maintenance etc. in my village/ town/ city. |  |  |  |  |  |  |  |
| 35 | There is corruption free public service available in my village/ town/ city.   |  |  |  |  |  |  |  |
| 36 | I feel free from disease/ disorder.  |  |  |  |  |  |  |  |
| 37 | I feel sufficient energy/stamina to live full life.  |  |  |  |  |  |  |  |
| 38 | I feel sufficient body mobility/speed to live full life.   |  |  |  |  |  |  |  |

*Thanking you for your gentle support.*

Any suggestion\_\_\_\_\_

## APPENDIX B- QUESTIONNAIRE (IN GUJARATI)

## આદરણીય સાહેબશ્રી/ મેડમ

હું રાજેશ હાંડા, મનીષ ઈન્સ્ટીટ્યુટ ઓફ મેનેજમેન્ટ, વિસનગર (મહેસાણા)માં આસીસ્ટન્ટ પ્રોફેસર તરીકે કામ કરું છું અને હું ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી, અમદાવાદ ખાતે ડૉક્ટરલનો વિદ્યાર્થી છું. હું આ વિષય પર સંશોધન કામ કરી રહ્યો છું. ‘ગુજરાતની પ્રજાની સુખાકારી માટેની સમજ અને જીવનની ગુણવત્તા માટેના ખોલનો અભ્યાસ’ મેં આ વિષય પર તમારો પ્રતિભાવ લેવા માટે તમને અપ્રોચ કર્યા છે. આ પ્રકારના સંશોધન કાર્ય, તમારા જેવા લોકોના સહકાર વિના શક્ય નથી, એમાં તમે સહમત હશો. તમારા દ્વારા પ્રાપ્ત કરવામાં આવેલી માહિતી ગુપ્ત રાખવામાં આવશે અને તેનો માત્ર સંશોધન માટે જ ઉપયોગ કરવામાં આવશે.

|    |  |   |   |
|----|--|---|---|
| -  | સ્થળ : .....   |   |   |
| -  | હું ગુજરાતમાં છેલ્લા પાંચ વર્ષથી ઉપર દર્શાવેલા સ્થળે રહું છું.             | <input type="checkbox"/> હા             | <input type="checkbox"/> ના               |
| -  | ચાલુ રાખો, જો તમારો જવાબ હા હોય તો.  |   |   |
| -  | દરેક લીટીમાં જે ખાનું યોગ્ય હોય તેમાં મહેરબાની કરીને (✓) ખરાની નિશાની કરો. |   |   |
| ૧. | તમારી જાતિ કઈ છે ?   | <input type="checkbox"/> પુરુષ          | <input type="checkbox"/> સ્ત્રી           |
| ૨. | તમારી ઉંમર કેટલી છે.   | <input type="checkbox"/> ૨૬-૩૫ વર્ષ     | <input type="checkbox"/> ૩૬-૪૫ વર્ષ       |
| ૩. | તમારો અભ્યાસ કેટલો છે ? .....  |   |   |
| ૪. | તમારી વૈવાહિક સ્થિતિ શું છે ?  | <input type="checkbox"/> અપરણિત         | <input type="checkbox"/> પરણિત            |
| ૫. | તમારું નિવાસ સ્થાન નીચેના પૈકી કયું છે ?                                   | <input type="checkbox"/> ગામ            | <input type="checkbox"/> નગર              |
| ૬. | તમારી વાર્ષિક આવક કેટલી છે ?   | <input type="checkbox"/> ૧.૨૦- ૨.૫૦ લાખ | <input type="checkbox"/> ૨.૫૧ - ૬.૦૦ લાખ  |
|    |  |   | <input type="checkbox"/> ૬.૦૧ - ૧૨.૦૦ લાખ |

## સેટીસ્ફેક્શન વિથ લાઈફ સ્ટેલ

→ દરેક લીટીમાં જે ખાનું યોગ્ય હોય તેમાં મહેરબાની કરીને ✓ કરો.

|    | પૂર્ણ પાછો અસહમત   | અસહમત | સહેજ અસહમત | તટસ્થ | સહેજ સહમત | સહમત | પૂર્ણપણે સહમત |
|----|--|-------|------------|-------|-----------|------|---------------|
| ૧. | ઘણીખરી બાબતોમાં મારું જીવન મારા આદર્શોની નજદીક છે.                                   |       |            |       |           |      |               |
| ૨. | મારા જીવનની પરિસ્થિતિ ઘણી સારી છે.   |       |            |       |           |      |               |
| ૩. | હું મારા જીવનથી સંતુષ્ટ છું.   |       |            |       |           |      |               |
| ૪. | મારા જીવનમાં જોઈતી જરૂરી ચીજો લગભગ મેં મેળવી લીધી છે.                                |       |            |       |           |      |               |
| ૫. | જો મારું જીવન પુરુ થવાના આરે હોય, તો યે હું મારા જીવનમાં લગભગ કશું બદલવા માંગતો નથી. |       |            |       |           |      |               |

|                            |
|----------------------------|
| સીમેન્ટીક ડિક્ન્સીયલ સ્કેલ |
|----------------------------|

→ દરેક લીટીમાં જે ખાનું યોગ્ય હોય તેમાં મહેરબાની કરીને ✓ કરો.

માઠં હાલનું જીવન...

|          | ૭ | ૬ | ૫ | ૪ | ૩ | ૨ | ૧ |              |
|----------|---|---|---|---|---|---|---|--------------|
| આનંદપ્રદ |   |   |   |   |   |   |   | દયાપાત્ર     |
| રસપ્રદ   |   |   |   |   |   |   |   | કંટાળાજનક    |
| સક્રિય   |   |   |   |   |   |   |   | નિષ્ક્રિય    |
| સુખી     |   |   |   |   |   |   |   | દુખી         |
| સાર્થક   |   |   |   |   |   |   |   | નિરર્થક      |
| યોગ્ય    |   |   |   |   |   |   |   | અમસ્તુ       |
| ઈનામી    |   |   |   |   |   |   |   | નિરાશ        |
| સરળ      |   |   |   |   |   |   |   | મુશ્કેલ      |
| આરામદાયક |   |   |   |   |   |   |   | ખેંચતાણવાળું |
| મજેદાર   |   |   |   |   |   |   |   | મજા વગરનું   |
| ચેનવાળું |   |   |   |   |   |   |   | બેચેની વાળું |

**લાઈફ ડોમેન સેટીફિકેશન સ્કેલ**

→ દરેક લીટીમાં જે ખાનું યોગ્ય હોય તેમાં મહેરબાની કરીને ✓ કરો.

|    |  | પૂર્ણ પાલો<br>અસહમત | અસહમત | સહેજ<br>અસહમત | તટસ્થ | સહેજ<br>સહમત | સહમત | પૂર્ણ પાલો<br>સહમત |
|----|--|---------------------|-------|---------------|-------|--------------|------|--------------------|
| ૧  | હું મારા ઘરથી સંતુષ્ટ છું.   |                     |       |               |       |              |      |                    |
| ૨  | હું મારા ઘરના રાચરચીલું અને ઉપકરણોથી સંતુષ્ટ છું.                                  |                     |       |               |       |              |      |                    |
| ૩  | હું મારા વાહનોથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૪  | હું મારા પોશાક, ઉપસાધનો અને ઘરેણાંથી સંતુષ્ટ છું.                                  |                     |       |               |       |              |      |                    |
| ૫  | હું મારી બચત અને રોકાણોથી સંતુષ્ટ છું.   |                     |       |               |       |              |      |                    |
| ૬  | હું મારા ગામ / નગર / શહેરના હવામાનથી સંતુષ્ટ છું.                                  |                     |       |               |       |              |      |                    |
| ૭  | હું મારા ગામ / નગર / શહેરની હવાની ગુણવત્તાથી સંતુષ્ટ છું.                          |                     |       |               |       |              |      |                    |
| ૮  | હું મારા ગામ / નગર / શહેરની હરિયાળીથી સંતુષ્ટ છું.                                 |                     |       |               |       |              |      |                    |
| ૯  | હું મારા પરિવાર અને મિત્રો સાથે આનંદીત સમય પસાર કરી શકું છું.                      |                     |       |               |       |              |      |                    |
| ૧૦ | હું મારી જાતને શોખ, કસરત અને આરામ વગેરે માટે પૂરતો સમય વ્યતીત કરી શકું છું.        |                     |       |               |       |              |      |                    |
| ૧૧ | હું સામાજિક મેળા અને પ્રસંગોમાં પૂરતો સમય વ્યતીત કરી શકું છું.                     |                     |       |               |       |              |      |                    |
| ૧૨ | હું પોતાની આવકથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૧૩ | હું સહકર્મીઓ સાથેના સંબંધોથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૧૪ | હું કામ કરવાના કલાક અને સમયથી સંતુષ્ટ છું.   |                     |       |               |       |              |      |                    |
| ૧૫ | હું મારી કારકિર્દીના વિકાસથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૧૬ | હું કેન્દ્ર સરકારની અર્થતંત્રની નીતિ સંતુષ્ટ છું. (જેમ કે વ્યાજદર, આવક દર વગેરે..) |                     |       |               |       |              |      |                    |
| ૧૭ | હું કેન્દ્ર સરકારની પાડોશી દેશો સાથેની વિદેશ નીતિ થી સંતુષ્ટ છું.                  |                     |       |               |       |              |      |                    |
| ૧૮ | હું કેન્દ્ર સરકારના નાગરિક અધિકાર માટેના વલણથી સંતુષ્ટ છું.                        |                     |       |               |       |              |      |                    |
| ૧૯ | કેન્દ્ર સરકારની જુદી જુદી સમસ્યાઓના જેમ કે બેરોજગારી, ગરીબી, કુગાવો, ભ્રષ્ટાચાર,   |                     |       |               |       |              |      |                    |

|    |  | પૂર્ણ પાલો<br>અસહમત | અસહમત | સહેજ<br>અસહમત | તટસ્થ | સહેજ<br>સહમત | સહમત | પૂર્ણ પાલો<br>સહમત |
|----|--|---------------------|-------|---------------|-------|--------------|------|--------------------|
|    | આંતકવાદ વગેરેના સમાધાન માટેની નીતિ સંતુષ્ટ છે.   |                     |       |               |       |              |      |                    |
| ૨૦ | હું મારા ગામ / નગર / શહેરના વિકાસ (ફેલાવો)થી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૨૧ | હું મારા ગામ / નગર / શહેરના બ્રિજ (પુલ), ઓવરબ્રિજ અને અંડરબ્રિજની સંખ્યાથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૨૨ | હું મારા ગામ / નગર / શહેરના વીજપ્રવાહના પુરવઠાથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૨૩ | હું મારા ગામ / નગર / શહેરના મોબાઇલ નેટવર્કથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૨૪ | હું મારા ગામ / નગર / શહેરમાં મને મળતી સરકારી સુખસગવડો જેવી કે બગીચા / બાળકોનું રમવાનું મેદાન, કોમ્યુનીટી સેન્ટર વગેરેથી સંતુષ્ટ છું. |                     |       |               |       |              |      |                    |
| ૨૫ | હું મારા ગામ / નગર / શહેરની પરિવહન સેવાની ગુણવત્તાથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૨૬ | હું મારા ગામ / નગર / શહેરની શિક્ષણ સંસ્થાની ગુણવત્તાથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૨૭ | હું મારા ગામ / નગર / શહેરની આરોગ્ય સંભાળની સેવાઓથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૨૮ | મને આંતરિક શાંતિ / સંવાદિતા લાગે છે.   |                     |       |               |       |              |      |                    |
| ૨૯ | હું પોતાની જાતની શોધ પર કામ કરી રહ્યો છું.   |                     |       |               |       |              |      |                    |
| ૩૦ | હું ગુરૂ સાથે સંકળાયેલો છું.<br>(આધ્યાત્મિક ગુરૂ)  |                     |       |               |       |              |      |                    |
| ૩૧ | મને પેરાનોર્મલ / આધ્યાત્મિક અનુભવ થયો છે.  |                     |       |               |       |              |      |                    |
| ૩૨ | હું પોતાને ભગવાન / મહાસત્તાની નજીક અનુભવું છું.  |                     |       |               |       |              |      |                    |
| ૩૩ | હું મારા ગામ / નગર / શહેરની વ્યક્તિગત સલામતી અને સુરક્ષાથી સંતુષ્ટ છું.  |                     |       |               |       |              |      |                    |
| ૩૪ | હું મારા ગામ / નગર / શહેરની જાહેર સમાજ સેવાઓ જેવી કે   |                     |       |               |       |              |      |                    |

|    |  | પૂર્ણ પાલો<br>અસહમત | અસહમત | સહેજ<br>અસહમત | તટસ્થ | સહેજ<br>સહમત | સહમત | પૂર્ણ પાલો<br>સહમત |
|----|--|---------------------|-------|---------------|-------|--------------|------|--------------------|
|    | ફળીયાની લાઈટો, સ્વચ્છતા, પાણી<br>પુરવઠો, રોડ અને ગટરની<br>સમારકામ વગેરેથી સંતુષ્ટ છું. |                     |       |               |       |              |      |                    |
| ૩૫ | મારા ગામ / નગર / શહેરમાં<br>બ્રહ્મચાર રહિતની સમાજ સેવાઓ<br>ઉપલબ્ધ છે.                  |                     |       |               |       |              |      |                    |
| ૩૬ | હું મારી જાતને રોગ / બીમારીથી<br>મુક્ત અનુભવું છું.                                    |                     |       |               |       |              |      |                    |
| ૩૭ | આખું જીવન જીવવા માટે પૂરતો<br>ઉત્સાહ અને શક્તિ મારી પાસે છે<br>એમ લાગે છે.             |                     |       |               |       |              |      |                    |
| ૩૮ | આખું જીવન જીવવા માટે શરીરનું<br>પૂરતું હલનચલન અને ગતિ મારી<br>પાસે છે એમ લાગે છે.      |                     |       |               |       |              |      |                    |

તમારા સૌમ્ય સાથ બદલ તમારો ખૂબ આભાર.

આપનું કોઈ સૂચન હોય તો .....