3.1 Introduction

In Chapter 2 an attempt was made to review the previous studies conducted in the field of spiritual intelligence, job satisfaction and life satisfaction and their determinants. The present chapter is devoted to describing the methods and techniques used to achieve the objectives of this study. This chapter is divided into two sections. Section 1 and section 2. In section 1, the significance of the study of identifying gaps in the literature of spiritual intelligence, job satisfaction and life satisfaction from previous studies is presented. This chapter narrates the significance of the study of identifying gaps in spiritual intelligence, Job satisfaction and Life satisfaction from the previous literature. Section 2 describes the methodology adopted to carry out the present study.

3.2 Information Technology in South India

NASSCOM (2006) stated that India’s outreach to the global market comprises 67 percent to U.S., 25 per cent to Europe and 7.69 per cent to the other parts of the World. This clearly showed that the share and role of Indian IT industry in the global market. In the coming years, it is estimated that Indian IT industry continues to play a strategic and vital role in IT knowledge and its application for global economy. Information technology in India is an industry consisting of two major components: IT Services and business process outsourcing (BPO). The sector has increased its contribution to India's GDP from 1.2% in 1998 to 7.5% in 2012.
According to NASSCOM, the sector aggregated revenues of US$100 billion in 2012, where export and domestic revenue stood at US$69.1 billion and US$31.7 billion respectively, growing by over 9%. IT sector is playing an important role in India today and has transformed India's image from a slow moving bureaucratic economy to a land of innovative entrepreneurs. The IT sector in India is generating 2.5 million direct employments. India is now one of the biggest IT capitals of the modern world and all the major players in the world IT sector are present in the country. IT industry in India is providing a gainful employment directly and indirectly to many IT professionals and it’s related firms. Besides, the amounts of income earned out of IT exports have also been increasing alarmingly. Introduction India is the world's largest sourcing destination for the information technology (IT) industry, accounting for approximately 67 per cent of the US$ 124-130 billion market. The Indian IT and ITeS industry is divided into four major segments – IT services, Business Process Management (BPM), software products and engineering services, and hardware. The IT-BPM sector which is currently valued at US$ 143 billion is expected to grow at a Compound Annual Growth Rate (CAGR) of 8.3 per cent year-on-year to US$ 143 billion for 2015-16. The sector is expected to contribute 9.5 per cent of India’s Gross Domestic Product (GDP) and more than 45 per cent in total services export in 2015-16. Market Size of the Indian IT sector is expected to grow at a rate of 12-14 per cent for FY2016-17 in constant currency terms. India’s internet user base reached over 400 million by May 2016, the third largest in the world, while the number of social media users grew to 143 million by April 2015 and smartphones grew to 160 million. Public cloud services revenue in India is expected to reach US$ 1.26 billion in 2016, growing by 30.4 per cent year-on-year. The public cloud market alone in the country was estimated to treble to US$ 1.9 billion by 2018 from US$ 638 million in 2014. Increased penetration of
internet (including rural areas) and rapid emergence of e-commerce are the main drivers for continued growth of data centre co-location and hosting market in India. It is estimated that the Indian IT industry would grow to about $300 billion by 2020, with software services and e-commerce leading the race.

Government of India has taken several initiatives to promote the industry and several of the states have extended several benefits to the industry members (Indian Chamber of Commerce, 2015). The sector is also expected to triple its current annual revenue to reach US$ 350 billion by FY 2025. India ranks third among global start-up ecosystems with more than 4,200 start-ups. India’s internet economy is expected to touch Rs 10 trillion (US$ 146.72 billion) by 2018, accounting for 5 per cent of the country’s GDP. Indian start-ups are estimated to have raised US$ 1.4 billion across 307 deals in the quarter ending March 2016. Most large technology companies looking to expand have so far focused primarily on bigger enterprises, but a report from market research firm Zinnov highlighted that the small and medium businesses will present a lucrative opportunity worth US$ 11.6 billion in 2015, which is expected to grow to US$ 25.8 billion in 2020. Moreover, India has nearly 51 million such businesses of which 12 million have a high degree of technology influence and are looking to adopt newer IT products, as per the report. The Government of India has launched the Digital India program to provide several government services to the people using IT and to integrate the government departments and the people of India. The adoption of key technologies across sectors spurred by the 'Digital India Initiative' could help boost India's Gross Domestic Product (GDP) from US$ 550 billion to US$ 1 trillion by 2025. This sector has also led to massive employment generation. The industry continues to be a net employment generator — expected to add 230,000 jobs in fiscal year 2016, thus providing direct employment to about 2.8 million, and
indirectly employing 8.9 million people, making it a dominant player in the global outsourcing sector. The present study explored the sample from the major cities of South India viz. Bangalore, Hyderabad, Chennai and Kochi. Details of each city are given.

3.2.1 Bangalore

Bangalore is considered to be the Silicon Valley of India because it is the leading IT exporter (Wikipedia. Retrieved September 1, 2016). Exports dominate the industry and constitute about 77% of the total industry revenue. Bangalore alone consists of more than 35% of all the IT companies present in India and contains close to 5000 companies, making it the largest IT contributor in India, close to 3000 companies operate from the city. Bangalore has 25% of IT investments in India. That pegs the number to 750,000 IT professionals. (quora.com, 2016)

3.2.2 Hyderabad

Hyderabad is known as the HITEC City or Cyberabad, and is a major global information technology hub and second largest IT exporter and the largest bioinformatics hub of India. (Wikipedia. Retrieved September 1, 2016). It has become the first destination for the Microsoft development center in India and the largest software development center outside of their headquarters in Redmond, USA. Microsoft, Facebook, Apple Inc, Infosys, Google, Cognizant, Tata Consultancy Services, Computer Sciences Corporation, Accenture, Tech Mahindra, Wipro, HCL, Cyient, IGATE, Capgemini, Amazon.com, IBM, Dell, Deloitte etc., and close to 3000 companies operate from the city. Software exports from Hyderabad are likely to touch Rs.63,000-64,000 crore during the current fiscal 2014-15. A total of 3.2 lakhs people are working in
IT sector. It is expected that another 20,000 employees will be added every fiscal (Economic Times, 2015).

3.2.3 Chennai

Chennai is the third largest exporter of IT and Information Technology Enabled Services (ITES) of India (India Brand Equity Foundation, 2016). The IT Corridor, on Old Mahabalipuram Road in the southeast of the city houses several technology parks, and, when completed, will provide employment to close to 300,000 people. (Economy of Chennai, 2016). Some of the major companies having operation centers at Chennai are Accenture, Cognizant, TCS, Syntel, Wipro, Infosys, Verizon, HCL, Amazon.com, eBay, Paypal, Polaris, Patni, Capgemini and many major global providers. The city has a world class IT infrastructure with dedicated expressway nicknamed as IT expressways, and many other IT parks promoted by both government and private entities. The city's strong industrial base also favors the setting up of many major R&D centers in its vicinity.

3.2.4 Kochi

With Information Technology exports from Kerala for the 2014-15 fiscal touching Rs 10,000 crore, time was ripe for 'ghar wapsi' (home return) of Kerala IT professionals working outside the state and the country. IT exports from the southern Indian state grew from Rs 7,000 crore in 2013-14 to touch the Rs 10,000 crore-mark while total direct employment in the IT industry reached one lakh employees. Of these employees, 45,000 were working at Technopark Thiruvananthapuram, 25,000 at Kochi Infopark and the rest in IT companies spread across the state. Infopark Phase I is spread over a 101 acres (40.9 ha) campus with 3,200,000 sq ft (297,300 m2) of operational built-up space, and an additional 2,000,000 sq ft (185,800 m2) is now under
construction, housing over 200 companies which employ close to 25,000 professionals.

It is quite interesting to note that the share of IT development in India, though spreaded all over the States, but the Government statistics are clearly showing that a lion’s share i.e., about 54.6 per cent of the IT exports are exclusively from Southern States (Wikipedia, Retrieved September 1, 2016). The present study concentrates on the southern region and also on the major IT companies operating in this region. Tata Consultancy Services(TCS) which is operating in Bangalore, Hyderabad, Chennai and Kochi, Infosys which is operating in Bangalore, Hyderabad and Chennai, Wipro which is operating in Bangalore, Hyderabad, Chennai and Kochi, HCL Technologies which is operating in Bangalore, Hyderabad, Chennai, Kochi and Mindtree which is operating in Bangalore, Hyderabad and Chennai. These top firms contribute around lion's share to the total industrial revenue, indicating that the market is fairly competitive, with TCS being the leader accounting for about 10.1 per cent.

3.3 Identification of Gaps in Si, Js and Ls Literature – Rationale for This Study

Human reason (IQ) manages facts and information, using analysis and logic to arrive at conclusions or decisions. Human mind (EQ) is needed to understand and control one's emotions and feelings, while being sensitive to the feelings of others. Human spirit (SQ) can make a difference in the way in which people innovate, work and lead others in the workplace. Indian IT professionals have gradually but steadily fallen into modern work-related disorders. These problems should be seen in a comprehensive manner with scientific outlook. These tribulations if unseen can prove debilitating and can cause crippling injuries forcing one to change one’s profession. Future research is required to
study if and how EI and SI abilities can be developed among leaders, to test experimentally if and how their development may contribute to leadership outcomes, and to see if their assessment can be used to aid in leadership selection. The assessment methods that go afar self-report are required for reliable use in leader selection applications (Amram, 2010). Global information holism which integrates and extends these information paradigms by postulating a mechanism is necessary to connect and make the cosmic information process function. As it remains a speculative paradigm, additional research required to validate and expand the specifics is called for (Amram, 2006). To further look into the part played by emotional and spiritual intelligences on leadership effectiveness, researchers in the future would do well to replicate these findings with larger and more diverse demographic and business sample populations. Future studies are needed to replicate these findings, for example, with leaders at different levels in their organization, with companies outside of the United States, and different size companies (Amram, 2009). Future researchers should investigate the relationship between spiritual intelligence and more traditional forms of intelligence, such as verbal intelligence, mathematical intelligence and IQ more generally, in order to extend support for the interrelatedness criterion (King, 2012). In order to cross validate the present findings, more studies may be conducted (Kaur, 2004). In this study only two variables viz. spiritual intelligence and organizational climate that had major influence on life satisfaction and adjustment, have been investigated. Future research is required to test the other variables like emotional intelligence, personality, values, interests, and motivation etc. Programs to enhance spiritual intelligence can be devised by the further researchers (Kaur, 2013).

In spite of the plethora of research works on organizational behaviour, the efforts on the part of the researchers to identify the comprehensive outlook on the employee are minimal. There are only few studies in Indian context. The
literature reviewed by the researcher, provided various dimensions, on the study of job satisfaction, life satisfaction and spiritual intelligence. The studies also entailed various variables associated with them. But, most of the studies were done on job satisfaction and life satisfaction carried out outside India, in the developed nations, but not much research was conducted in organizations in India. The literature review also revealed that if at all some studies were carried out; it was mostly in manufacturing organizations, among university teachers, academicians, doctors, nurses and students. Furthermore, it was deemed desirable to understand that the components of spiritual intelligence and its influence on job satisfaction and life satisfaction can be studied by other researchers, (Seyed et al., 2014). Researchers had observed the relation between organizational commitment and job satisfaction while there was only little research done on the relationship among spiritual intelligence, organizational commitment and job satisfaction (Awais, 2015).

Spiritual intelligence had a significant role in various sectors like health care, education, other corporate sectors and information technology. It is moreover related to work performance, leadership and leadership styles (Maryam et al., 2013, Chin et al., 2012). Spiritual intelligence at the workplace was endowed with positive outcomes such as higher productivity, lower turnover rates, better attendance rates, increased job satisfaction, positive ethical values and higher customer satisfaction. Dali et al., (2013) did their studies on the professionalism of the auditors. The study ended with the remark that future studies should complement antecedent relationship work experience, discipline, professionalism as professional education and integrity. These studies provide recommendations for future research to conduct a broader investigation not only restricted to government’s internal auditor but also to the other sectors.
In terms of future research on the causal relationship between job satisfaction and life satisfaction, one avenue forward might be to use established longitudinal datasets (Mishra et al., 2014). The adaptability and understanding to changing contexts, makes it possible to help people pursue better goals. The exploration of such interventions may be a prolific target for future research, a research that may help people in identifying ways to progress their jobs and their lives (Judge, 2005). Organizational support of novel work planning, work-life balance, childcare provision, and other policy-level improvements can go a long way in enhancing the work life balance of the employees. These areas have to be researched further to assist organizations to make out strategies they can use to keep their employees lives well balanced (Amanjot and Ajay, 2014). There are a number of indications that there is a felt need for a future research in the fields of spiritual intelligence and its relationship to the job and life.

3.4 Significance of the Study

The primary pursuit of business management is creating and exchanging the value. In the software industry, the value is created and added from the human reason. The human resource-based view suggests that a firms’ human resource drive create the value via the development of competitive advantage. Specifically, the resource-based outlook suggests that possessing valuable and rare ideas provides the basis for value creation. But merely possessing such valuable resources do not guarantee the advancement of business, development of competitive advantages or the creation of value. Management is the ability to integrate the ideas and values for the betterment of the whole human being. Values underpin the behavior of the person in an organization. People act in accordance with their belief systems, conviction and achieved values. A sound knowledge of corporate and individual value systems, value
formation and value orientation will lead the organization to the excellence of human resource management.

Value is the driving force for satisfaction of an employee toward his or her job, employer, and colleagues. It is a psychological state with respect to motivation, confidence and resolve; the attitude of an individual or group of employees, devotion and discipline, resulting in courage; level of fulfillment one has with intrinsic work aspects, such as differences and challenge, feedback and learning, and space to grow and extrinsic circumstances of employment such as safety, job security, health and fair and adequate pay. Spiritual intelligence fosters the morale of the employees which will lead him to get satisfied with the job. In which he puts in effort, is creative, takes initiative, is committed to the organization and point in achieving organizational strategies rather than personal goals. Organization requires spiritual intelligence not only to block unhealthy behavior but also to inspire superior reasoning for novel ideas and performance. It is only through human awareness and spiritual intelligence that organizations can inspire superior levels of process breakthroughs, innovation and teamwork, that results in sustainable competitive advantages for the business.

India stands in the 174th position in the world with 40.2 score out of 100 in World Morality Index (Crabtree, 2015). A value-oriented foundation is needed for the existence of business. The need for improving governance and ethical culture across public and private sector companies has never before been felt as acutely as is being felt now. This resounding sentiment is echoed in the KPMG India Fraud Survey 2012. With reports indicating that as much as 5 percent of annual revenues could be lost to fraud. Organizations today are required to be more cognizant of the damage that fraud can do. Intellectual property fraud, counterfeiting and piracy are rampant in India. Counterfeit and pirated goods in India are estimated to be worth over USD 5 billion. (KPMG,
Indian managers are, it seems, to be value weak skill - strong which affects the performance of both employees and organizations. The comprehensive outlook to the business and life is the missing value among the Indian IT professionals. The existential and transcendental awareness give personal meaning to the output or production of the employee.

A strong value oriented organization is the need of the time in the business world. Spiritual intelligence plays a major role in the formation of value system in an individual. The study on spiritual intelligence of the organizations helps enhance the value system in any organization. This study is intended to make an awareness among the employees to have a value audit of the organization which will assess the spiritual intelligence of the employees and thereby the value barometer of the employees and business. The study tries to find out the relation of spiritual intelligence, job satisfaction and life satisfaction, which gives a comprehensive outlook to the job as a part of the life. Work values have influence on work satisfaction, but this influence is small; on the other hand, the morale factor derived from work satisfaction has significant influence. At the same time, work value has significant influence on worker morale too. As such, we can infer that working morale is the partial mediator of work satisfaction, and work-value influences work-satisfaction through work-morale.

It should be noted that the multinational organizations operating in the regional centres with dynamic nature, multitude of culture and attitude need comprehensive awareness and more proactive approach to develop a positive work climate. The comprehensive awareness about the job and life with a meaningful vision will lead to effectiveness of the organization and the work of the employee. The facilitation of spiritual intelligence in the organization will bring out the best service out of the person because spiritual intelligence will give a positive attitude to the employee. The job and the life are
reciprocal; if the job is satisfying then it will lead to a satisfied life. The satisfied life will bring *eureka* moments in life, which will lead to a creative life with full of new possibilities, discoveries, exploration, experimentation, self-expression, and invention. Creative life appears to be associated with a more deeply meaningful life (Kaufman, 2013).

The findings of the present study would be useful for managers, administrators, for curriculum developers, and other research workers, who are concerned with the philosophy and practices of management education to understand the problems connected with employee attitudes, performance in the IT industry, to introduce innovations and inventions in the IT sector so that the organizational goals and best out of the employee can be brought out. With this rationale, this is an attempt to explore the relationship between various dimensions of spiritual intelligence, job satisfaction and life satisfaction of IT professionals from four major cities of south India.

The suggestions and recommendations of this study, which are based on empirical findings, if implemented, are expected to bring radical changes in the organizational behaviour and to develop spiritual competencies so as to enable the employees to face the complex situation in the industry and outside world. The findings can also be utilized to develop appropriate training for the development of spiritual intelligence for the industry and thereby form the employees with a comprehensive outlook of industry and life. The spiritual intelligence development will add human resource asset to the organization.

**3.5 Statement of the Problem**

Section 1 highlighted the gap in the study of the relationship between spiritual intelligence, job satisfaction and life satisfaction in literature. In the second section, the problem statement, conceptual model framework, research
questions, theoretical and operational definitions of the important terms used in the present study and methodology of the research work is given.

There are only few comprehensive studies on the existence of the employee with his life, job and spirit. The problem considered for this study was the lack of empirical studies on the comprehensive outlook of human being. The study tries to bring out the relationship between the purpose of life and the job. This quantitative study examined the relationships between spiritual intelligence, job satisfaction and life satisfaction among the IT professionals of four cities in south India. There are studies conducted on spiritual intelligence (Bar-On, 2000; Gardner, 1983, 2000; Emmons, 1999; Noble, 2001; Halama and Strizenec, 2004; Salovey and Mayer, 1993; Sternberg, 1997; Covey 2004; Wigglesworth, 2006; Amram and Dryer, 2008; King, 2008). Most of the studies are conducted outside India and the studies are conducted other than the IT sector. There is a perceived lack of knowledge regarding the impact of spiritual intelligence on the job satisfaction and its impact on the life of the employee. Implementation of spiritual intelligence in the workplace and life will increase efficiency and productivity with them but unfortunately, this is often forgotten in the today's technological society. There is a truth about human beings and human relationships that people should be seen as human beings, not objects for organization to achieve their goals (Isfahani and Nobakht, 2013).

Scholars are working on the idea that organizational performance may improve within the spiritual environment (Moore, 2005). Advance research is needed for better understanding for finding out the relationship between spiritual intelligence, job satisfaction and life satisfaction. Traditional concept of lifetime employment has also changed. Employees of the future need to demonstrate to the organizations that they can add value to the organization
(Harari, 1993). Organizational soul and workforce spirit have often been overlooked and ignored by many (Biberman and Whitty, 1997). Work life reaches and touches into the very soul and spirit of all employees at work. Those at work are constantly seeking ways to improve themselves and a sense of contribution to their work life. Workplace unity creates a stronger organization, one that can withstand the uncertainties in this dynamic business environment. The new economic model requires the best of human capital. Therefore, proposed expert system should ‘discover’ and ‘generate’ new base of knowledge and convert it into explicit knowledge. This also includes definition of the factors that mostly contribute to the functionality of the decision, as the result of the inductive approach in an expert system building process. These components represent research agenda that should be addressed by further research, but also main categories which provide the instructions for a new discourse on managerial decision making (Stupar et al., 2013).

The purpose of spiritual intelligence development is to create vision and value congruence within an organization that will foster higher levels of job satisfaction and life satisfaction and thereby organizational commitment and productivity. Spiritual intelligence is the set of abilities that individuals use to apply, manifest and embody spiritual resources, values and qualities in ways that enhances their daily functioning and well-being (Amram, 2007). The empirical research studies and examines the link between life and job with the reference to spiritual intelligence. This study is pertinent among the IT professionals in south India because IT sector is the largest employee provider and IT requires human reason as the matter and human mind is the mould for production. The industry faces significant difficulties in dealing with issues like employee stress and employee retention (Chand, 2007). IT sector is also characterized with high role stress and low commitment levels (Quan and Cha, 2010; Karad, 2010). The organizational culture is seen to be lacking in terms of assisting the employees on dealing with stress and its related problems. The
life expectancy of products and programs decline each year, while the demands on employees increase due to the unique set of environmental pressures on IT functions such as continuous re-engineering, outsourcing, more demanding customers, and general information overload. In both industries, it is also important to assess the intense use of emotional labour that the employees exert in dealing with external and internal clients, which may add to the inception of stress amongst the employees (www.hiscox.co.uk, 2016). In tune with the global changes, quality of work life and job behaviour of the IT professionals compared to yester decades and days had been drastically changing. The expectations and aspirations of IT professionals are also found changing. Accordingly, the IT industrialists have also changed their organization structures, work culture and methods, role expectations, salary packages, working schedules and shifts, fixing the targets, deadlines and formulating HR policies from time to time. As a result, the role and life expectations of employees have also been found changing. The industry tries to squeeze the potentiality from the professionals and it does not see the complexity and comprehensiveness of the human personality. Due to this outlook the work stress, lifestyle factors and emotional factors dominate the satisfaction of life; time pressure, shift work, job control, income related factors dominates the job satisfaction. At this juncture there exists a problem of lack of comprehensive outlook towards the employees in the organization and a value based vision oriented organizational policy. This study tries to make a relationship between the job, life and the ultimate concerns of human life. Thus, the problem of the present is stated as —The impact of spiritual intelligence on job satisfaction and life satisfaction of IT professionals in four cities of South India.
3.6 Conceptual Model Frame Work of the Present Study

The entire theme of the research is shown in the figure below. The entire research is conceptualized in the model of the research. The interrelationships among the variables and their components are depicted in the model.

![Conceptual Model Frame Work](image)

**Figure 3.1 Conceptual Model Frame work**

It is clear from the model that there is a possible relation between Spiritual intelligence, job satisfaction and life satisfaction. Spiritual intelligence has an impact on job satisfaction and life satisfaction of the IT professionals. The study considered the relationships among the various components of the selected variables and is shown in the model. All interrelationships are clearly depicted. The interrelationships are the basis for the formulation of the hypothesis which is formed to test in the study.
3.7 Research Questions

Based on the significant knowledge gaps identified in SI, JS and LS literature and as described in the rationale of the study, the following research questions were investigated to achieve the purpose of the study.

1. What is the relationship between spiritual intelligence and job satisfaction among the IT professionals in south India?

2. What is the relationship between Spiritual intelligence and life satisfaction among IT professionals in south India?

3. How is job satisfaction and life satisfaction among IT professionals in south India related?

4. Is there any relationship between spiritual intelligence, job satisfaction and life satisfaction among IT professionals in south India?

3.8 Theoretical and Operational Definitions of Important Terms Used In the Present Study

All the important terms used in the present study (Spirit, Intelligence, Spiritual Intelligence, Spiritual quotient, Job Satisfaction, Life Satisfaction, IT professionals) and their theoretical definitions along with the author/authors are given in Table 3.1.
Table 3.1 Theoretical definitions of important terms used in the present study

<table>
<thead>
<tr>
<th>S.No</th>
<th>Terms</th>
<th>Definitions</th>
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<tbody>
<tr>
<td>1</td>
<td>Spirit</td>
<td>Spirit is the animating or vital principle; that which gives life to the physical organism in contrast to its material elements; the breath of life. (Zohar, 1990, p.3).</td>
</tr>
<tr>
<td>2</td>
<td>Intelligence</td>
<td>A characterization of how well the cognitive sphere operates, e.g., how quickly someone can learn, how well they can judge and think, and so on (Mayer and Salovey, 1997, p. 23).</td>
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<tr>
<td>3</td>
<td>Spiritual Intelligence</td>
<td>Spiritual Intelligence means the intelligence with which we address and solve problems of meaning and value, the intelligence with which we can place our actions and our lives in a wider, richer, meaning-giving context, the intelligence with which we can asses that one course of action or one life-path is more meaningful than another. It is our Ultimate Intelligence. (Zohar, 1990, p.3-4)</td>
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<td>4</td>
<td>Job satisfaction</td>
<td>Job satisfaction is a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences (Locke (1976, p. 1304).</td>
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<tr>
<td>5</td>
<td>Life Satisfaction</td>
<td>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 (Diener, 1984)</td>
</tr>
</tbody>
</table>
3.9 Research Methodology

In the subsequent section, objectives of the present study, variables considered in the present study, hypotheses formulated for testing in the study, data collection procedure, sample and sampling techniques and determination of sample size are discussed.

3.9.1 Objectives of the present study

It is clear from the review of earlier researches that spiritual intelligence, job satisfaction and life satisfaction are studied as separate research topics and no study has been conducted so far to explore into the relationship between spiritual intelligence, job satisfaction and life satisfaction. The ample objective of this study is to verify and to find out the extent of relationship between spiritual intelligence (independent variable) and job satisfaction and life satisfaction (dependent variables) and their affiliation with the select demographic variables. The study also intends to generate a model for maximizing the job satisfaction and life satisfaction of the IT professionals and enhances the spiritual competencies in the professionals. The specific objectives of this study are:

1. To find out the relationship between spiritual intelligence and job satisfaction of IT employees.
2. To find out the relationship between spiritual intelligence and life satisfaction of IT employees.
3. To find out the relationship between job satisfaction and life satisfaction of IT employees.
4. To find out whether there exists any significant relationship between spiritual intelligence, job satisfaction and life satisfaction among IT employees.
5. To examine the effect of demographic variables on each of the factors of spiritual intelligence of the IT employees.
6. To find out the relationship between socio-demographic and economic factors, spiritual intelligence, job satisfaction and life satisfaction of IT employees.
7. To validate the conceptual model developed by the researcher with regard to spiritual intelligence, job satisfaction and life satisfaction through Structural Equation Modelling (SEM).

3.9.2 Variables taken for the study

The dependent variables and independent variables taken for the study are given in Table 3.2.

<table>
<thead>
<tr>
<th>Table 3.2 Variables taken for the study</th>
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<tr>
<td><strong>Dependent variable</strong></td>
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</table>
Table 3.2 shows that there are six dependent variables and six independent variables. It should be noted that Structural Equation Modelling (SEM), estimates a series of separate, but interdependent, multiple regression equations simultaneously by specifying the structural model used by the statistical program. Some dependent variables become independent variables in subsequent relationships, giving rise to the interdependent nature of the structural model. The structural model expresses these relationships among independent and dependent variables, even when a dependent variable becomes an independent variable in other relationships. It is clear from the table that initially, spiritual intelligence, job satisfaction and life satisfaction are considered as dependent variables whereas socio-demographic and economic factors are taken as independent variable. In the next series of relationships, job satisfaction and life satisfaction have become the dependent variables and spiritual intelligence is taken as independent variable.

3.9.3 Statement of Hypothesis

On the basis of the theoretical framework described in Chapter 1 and on the basis of the review of related studies given in Chapter 2, the following hypotheses were formulated for the present study:

The purpose of this quantitative study is to examine the relationships between the variables Spiritual intelligence, Job satisfaction, and Life satisfaction among Bank employees and IT professional in South India. It was hypothesized for this study that a relationship exists between these three variables. More specifically, results from this study should produce data supporting the following hypotheses:

**H01:** There is no significant difference between male and female employees with respect to the spiritual intelligence, job satisfaction and life satisfaction.
H02: There is no significant difference between married and unmarried employees with respect to the dimensions of spiritual intelligence, job satisfaction and life satisfaction.

H03: There is no significant difference between monthly income with respect to dimensions of spiritual intelligence, job satisfaction and life satisfaction.

H04: There is no significant difference between management levels of job with respect to the dimensions of spiritual intelligence, job satisfaction and life satisfaction.

H05: There is no significant difference between total work experiences with respect to spiritual intelligence, job satisfaction and life satisfaction.

H06: There is no association between levels of spiritual intelligence and levels of job satisfaction among the IT employees.

H07: There is no association between levels of spiritual intelligence and levels of life satisfaction among the IT employees.

H08: There is no association between levels of job satisfaction and levels of life satisfaction among the IT employees.

H09: There is no significant difference between mean ranks towards their perception on spiritual intelligence.

H010: There is no significant difference between mean ranks towards their perception on job satisfaction.

H011: There is no significant difference between mean ranks towards their perception on life satisfaction.

H012: There is no significant relation between job satisfaction and spiritual intelligence.
H013: There is no significant relation between job satisfaction and life satisfaction.

H014: There is no significant relation between job satisfaction and life satisfaction.

H015: There is no impact of spiritual intelligence on job satisfaction.

H016: There is no impact of spiritual intelligence on life satisfaction.

H017: There is no impact of job satisfaction on life satisfaction.

H018: There is no impact of spiritual intelligence on job satisfaction and life satisfaction.

3.9.4 Data collection

Data were collected through well-designed questionnaires on the various components of spiritual intelligence, job satisfaction and life satisfaction. Information on spiritual intelligence of the IT professionals were collected through the Spiritual Intelligence Self-Report Inventory SISRI-24 (King, 2008; King and DeCicco, 2010), job satisfaction through the Job Satisfaction Survey-JSS (Spector, 1994), life satisfaction through self constructed questionnaire. A sample of 700 IT professionals was selected from various organizations from four cities viz. Bangalore, Hyderabad, Chennai and Kochi of South India.

3.9.5 Sampling Technique

Stratified random sampling was used to select IT organizations and employees. Chart 2 shows the sampling plan. The stratification was done on the basis of four cities and the nature of the employment. The companies are selected according to the presence of the operation in these cities and the number of employees working. The sectors were formed according to
different level of operation. The samples were collected based on the nature of the work. The samples consist of senior managers, project managers, technical leader (quality check), software engineer, programmer and BPO. Figure 3.2 sample design and table 3.3 show the sampling plan.

Figure 3.2 Sample Design
### Table 3.3 Sampling Plan

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<tr>
<th>S.No</th>
<th>City Name</th>
<th>Designation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bangalore</td>
<td>Senior Manager</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Project Manager</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technical Leader</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Software Engineer</td>
<td>50</td>
</tr>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>BPO</td>
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<tr>
<td>2</td>
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<td>Senior Manager</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Project Manager</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>Software Engineer</td>
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<tr>
<td></td>
<td></td>
<td>Programmer</td>
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<td></td>
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<td>BPO</td>
<td>31</td>
</tr>
<tr>
<td>3</td>
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</tr>
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<td></td>
<td></td>
<td>Project Manager</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Technical Leader</td>
<td>28</td>
</tr>
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<td></td>
<td></td>
<td>Software Engineer</td>
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<td>Programmer</td>
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<td></td>
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<td>BPO</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>Kochi</td>
<td>Senior Manager</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Project Manager</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Technical Leader</td>
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<td></td>
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<td>Software Engineer</td>
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<td></td>
<td></td>
<td>Programmer</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BPO</td>
<td>36</td>
</tr>
</tbody>
</table>

**Total**: 700
3.9.6 Determination of Sample Size

A number of formulae have been devised for determining the sample size depending upon the availability of information. A formula is given below:

Sample size \( n = \frac{(Z \cdot S)}{E^2} \)

Where \( Z \) = standardized value corresponding to a confidence level of 95% = 1.96
\( S \) = sample standard deviation from pilot study of 200 sample = 0.675
\( E \) = acceptable error = 5% = 0.05

Hence, sample size = \( n = \frac{(Z \cdot S)}{E^2} \)

\[ = \left( \frac{1.96 \cdot 0.675}{0.05} \right)^2 \]
\[ = 700.13 \]
\[ = 700 \]

The power of sample is also calculated with the help of GPower software 3.1. The calculated output is given in figure 3.3.

![Figure 3.3 Power of Sample](image-url)
3.9.7 Description of the Tools Used to Measure Spiritual Intelligence, Job Satisfaction and Life Satisfaction

There are three measurement tools used to measure the spiritual intelligence, Job satisfaction and life satisfaction of IT employees. They were Spiritual Intelligence Self-Report Inventory -SISRI King, 2008), Job Satisfaction Survey –JSS (Spector, 1994), and self developed life satisfaction survey. Taking into consideration the cultural differences where the tools were originally developed and where the tools are presently used, the researcher re-validated the tools to use them on IT professionals in Indian culture. The procedure of re-validating the tools is given in the following sections:

3.9.7.1 Spiritual Intelligence Self-Report Inventory –SISRI

A self-report measure of spiritual intelligence had been developed and validated by King in 2008. This tool provides a useful starting point for the measurement of spiritual intelligence and a four-factor model of spiritual intelligence is proposed. Supportive evidence is reviewed for the capacities of critical existential thinking, personal meaning production, transcendental awareness, and conscious state expansion. Beginning with an over-inclusive 84-item Spiritual Intelligence Self-Report Inventory (SISRI) in Study 1 (N = 619 undergraduates), a series of exploratory factor analyses led to a reduced 39-item scale. Study 2 (N = 305 undergraduates) involved a confirmatory factor analysis which resulted in the removal of additional scale items in order to obtain adequate model fit. The final version of the scale, the SISRI-24, displays excellent internal reliability and good fit to the proposed four-factor model of spiritual intelligence (King, 2008). The long-term goal is the investigation and potential development of performance task measures of spiritual intelligence, as these would most directly assess the target construct. According to both intelligence criteria and current psychometric standards,
findings validate the proposed model and measure of spiritual intelligence. A multiple-choice, Likert-type scale was utilized, with responses ranging on a scale of 0 to 4, 0 – Not at all true of me, 1 – Not very true of me, 2 – Somewhat true of me, 3 – Very true of me, 4 – Completely true of me, representing the extent to which each statement is true for the respondent. The finding that spiritual intelligence is more significantly related to presence of meaning than search for meaning supports the validity of the SISRI, as presence of meaning is more indicative of an ability to construct meaning and purpose.

3.9.7.2 Pilot study using SISRI to measure Spiritual intelligence

The pilot study was conducted on a sample of 200 IT professionals selected from four cities of south India. To re-validate the scale for the present study, reliability analysis for each multi-item scale using Cronbach’s alpha was performed. Table 3.4 presents the result of the reliability analysis. Overall, the study reported strong reliability with coefficient alphas ranging from 0.890 to 0.900 which demonstrated that the scale shows good reliability and can be used in Indian conditions.

Table 3.4 Reliability coefficient of Spiritual intelligence scale

<table>
<thead>
<tr>
<th>Cronbach’s alpha value</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.90</td>
<td>24</td>
</tr>
</tbody>
</table>

Table 3.4 reveals that overall Cronbach’s alpha value of spiritual intelligence scale (24 items) is 0.90.
3.9.7.3 Job satisfaction Survey - JSS questionnaire

The tool used to measure the job satisfaction is Job Satisfaction Survey - JSS questionnaire originally developed by Spector in 1994. The Job Satisfaction Survey, JSS is a 36 item scale to assess employee attitudes about the job and aspects of the job. A summated rating scale format is used, with six choices per item ranging from 1. Disagree very much, 2. Disagree moderately, 3. Disagree slightly, 4. Agree slightly, 5. Agree moderately, 6. Agree very much. Items are written in both directions, so about half must be reverse scored. The scale is further reduced to five facets. The facets are Remuneration, Quality of work life, Promotion, Supervision and Teamwork. Although the JSS was originally developed for use in human service organizations, it is applicable to all organizations. This is re-validated to use in Indian conditions by establishing the reliability coefficients (Cronbach’s alpha).

3.9.7.4 Pilot study to measure the Job satisfaction Survey - JSS questionnaire

A pilot study was conducted on a sample of 200 respondents who are working in the IT sector from four cities of south India with a view to establish the reliability, validity and workability of the research tool, JSS. In addition, the face validity of the tool was measured. The study used reliability analysis for each multi-item scale using Cronbach’s alpha. Table 3.6 presents the results of the reliability analysis. Overall, the study reported strong reliability with coefficient alphas ranging from 0.858 to 0.871 which demonstrated that scale has high reliability.

<table>
<thead>
<tr>
<th>Cronbach’s alpha value</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.871</td>
<td>36</td>
</tr>
</tbody>
</table>
Table 3.5 reveals that overall Cronbach’s alpha value for the JSS is 0.871 (36 items).

3.10 Development of The Tool to Measure the Life Satisfaction

A measurement tool is developed and standardized to measure the life satisfaction of employees working in IT industry for this study. Satisfaction with Life Scale (SWLS), (Diener, 1985) and Life Satisfaction Questionnaire (LISAT-9), (Fugl-Maeyer et al., 1991, Melin et al., 2003) is also taken into consideration for developing the life satisfaction scale by the researcher. Initially thirty items (statements) were pooled in consultation with academicians and industry experts. An extensive literature survey was also done to identify the variables. Some items were modified, some were deleted, based on expert opinion and a draft scale consisting of twenty-five statements was prepared. This is a Likert type scale. The items have to be rated on a five point scale which are:

1. Strongly disagree
2. Disagree
3. Neither agrees nor disagrees
4. Agree
5. Strongly agree

3.10.1 Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA) was done to identify the factors which are the index of life satisfaction. Principal component method and Varimax rotation were the main tools of analysis. Cronbach alpha was also established. The total variance explained after rotation is given in Table 3.5
Table 3.5 Exploratory Factor Analysis Results

<table>
<thead>
<tr>
<th>Factors</th>
<th>Rotated Component Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Component</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Standard of living</td>
<td>.06</td>
</tr>
<tr>
<td>Financially secure</td>
<td>.07</td>
</tr>
<tr>
<td>Health conditions</td>
<td>.12</td>
</tr>
<tr>
<td>Involved in many activities in my life</td>
<td>.19</td>
</tr>
<tr>
<td>Secure Job</td>
<td>.10</td>
</tr>
<tr>
<td>Social interactions</td>
<td>.91</td>
</tr>
<tr>
<td>Achieving meaningful goals</td>
<td>.20</td>
</tr>
<tr>
<td>Personal control</td>
<td>.10</td>
</tr>
<tr>
<td>Optimistic</td>
<td>.10</td>
</tr>
<tr>
<td>Life goal that is challenging</td>
<td>.08</td>
</tr>
<tr>
<td>Supportive relationships</td>
<td>.08</td>
</tr>
<tr>
<td>Challenging work and active leisure</td>
<td>.08</td>
</tr>
<tr>
<td>Direction for life</td>
<td>.12</td>
</tr>
<tr>
<td>Family life</td>
<td>.06</td>
</tr>
<tr>
<td>Safe environment</td>
<td>.05</td>
</tr>
<tr>
<td>Satisfied with my life</td>
<td>.10</td>
</tr>
</tbody>
</table>
Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Table.3.6 contains the factor loadings, which are the correlations between the variable and the factor. Because these are correlations, possible values range from -1 to +1.

Factors: The columns under factors are the rotated factors that have been extracted. Here the researcher used 0.8 as the cut-off value in the factor loadings which is considered as a high loading. Through this method, 17 components were identified. They are explained below:

Factor 1: Looking down the factor column 1, it is seen that variable number 6 alone has the highest loading of 0.91. The variable corresponding to this value it is “I have good Social interactions”. Therefore factor 1 is named as “Social interaction”.

Factor 2: The factor column 2 has highest loading for variable number 5 and the loaded value is 0.94. The variable used was ‘The employee has a secure job’. Hence it can be labeled as “Secure Job.”

Factor 3: In the factor column 3, it is seen that the variable no. 1 has the highest loading of 0.93. And the variable (item) is ‘I am satisfied with my standard of living’. Therefore factor 3 can be given a name as “Standard of living”.

Factor 4: In the above factor column 4 of rotated component matrix, variable no.15 has loaded highest value of 0.91. And the corresponding statement was ‘In my family life – relation with my partner and children I am satisfied ‘. So this factor is named as “Sound family life”.

Factor 5: The factor column 5 shows that variable no.12 has loaded highest value of 0.90 and the corresponding statement was “supportive relationships that allow companionship and friendship.” So this factor can be called “Supportive relationships”.

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Factor 6: The factor column 6 shows that variable no.9 has loaded highest value of 0.89 and the corresponding statement was “high level of personal control”. So this factor can be called “Personal control”.

Factor 7: From the factor column 7, we come to know that the variable no.3 has recorded a highest loading of 0.91. And the variable used was ‘I am satisfied with my health conditions’. Hence it can be called “Health conditions”.

Factor 8: From the factor column 8, the observed highest loading was 0.90 for variable no.16 which is ‘I live in a secure and safe environment’. So it is labeled as “Secure and safe environment”

Factor 9: In the factor column 9, the highest loaded variable is no.4 with factor loading of 0.91 which was explained as ‘I am fully involved in many activities in my life’. Hence it can be called “Involved in activities in my life”.

Factor 10: The factor column 10 shows that the variable no.2 has the highest loading of 0.92 and its statement (item) was ‘I am financially secure’. Hence this factor can be named “Financial Security”.

Factor 11: The factor column 11 reveals that variable no.11 is having the highest loading of 0.89. And the statement was ‘I set some overall life goasl that is challenging, and succeed in reaching it’, so it is called “Life goal that is challenging”.

Factor 12: Looking down the factor column 12, we realize that the variable no.13 has the highest loading of 0.90. The statement is ‘I have challenging work and active leisure’. Thus it can be called “Challenging work and active leisure”.

Factor 13: The factor column 13 tells that the variable 10 has the highest loading of 0.87 with the statement ‘I am optimistic: satisfied people are hope-filled and see the positive side of things’, and so it is labeled as “Optimism”.
**Factor 15:** The factor column 15 shows that the variable no.14 has recorded highest loading of 0.86 and the variable described as ‘I feel that there is a meaning and direction for life’. So it was be named as “Direction for life”

**Factor 16:** The last factor column 16 tells that variable no.17 has the highest loading of 0.86 with the statement ‘I am satisfied with my life’. So this last factor can be named as “Satisfied with my life”.

**Factor 17:** The last factor column 17 tells that variable no.8 has the highest loading of 0.84 with the statement ‘I have high level of self-esteem and happiness. So this last factor can be named as “High level of self-esteem”

A careful selection of the items/statements was made on the basis of the merit of the statements after item analysis. The final scale constituted statements are selected on the basis of factor loading. Statements having factor loading 0.8 and above were considered for the final scale. Both positive and negative statements of approximately equal number were included. Care was taken to include maximum possible aspects of Life Satisfaction. The number of items/statements in the final scale is seventeen. They are arranged randomly. The scale is preceded with an introductory note carrying instructions to the respondents.

### 3.10.2 Pilot study to measure the Life Satisfaction Survey

A pilot study was conducted on a sample of 200 respondents who are working in the IT sector in four cities of south India with a view to establish the reliability, validity and workability of the research tool, Life satisfaction survey. The study used reliability analysis for each multi-item scale using Cronbach’s alpha. Table 3.7 presents the results of the reliability analysis along with the descriptive statistics for each variable.
Overall, the study reported strong reliability with coefficient alphas ranging from 0.890 to 0.898 which demonstrated that the scale has high reliability.

**Table 3.6 Reliability analysis of Job satisfaction Survey -JSS questionnaire**

<table>
<thead>
<tr>
<th>Cronbach’s alpha value</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.898</td>
<td>17</td>
</tr>
</tbody>
</table>

Table 3.6 reveals that overall Cronbach’s alpha value for the Life Satisfaction Survey is 0.898 (17 items).

**3.11 Statistical Analysis**

Sophisticated statistical techniques were used in the analysis of the collected data. Data on spiritual intelligence, job satisfaction and life satisfaction of IT professionals are collected through the revalidated scales and their demographic characteristics converted into appropriate numerical values were analyzed using descriptive and inferential statistical measures. The raw data which was obtained from the survey questionnaire was transferred and recorded onto statistical tools SPSS version 21. All items obtained through CFA were considered in the Structural Equation Modeling (SEM) procedure and the tool applied is AMOS version 22. The statistical tools used for the analysis along with its purpose are presented in Table 3.7.
### Table 3.7 The statistical analysis performed

<table>
<thead>
<tr>
<th>S.No</th>
<th>Statistical tool</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reliability analysis</td>
<td>To find the reliability of the factors and variables identified by the developers of the scales used in the present study.</td>
</tr>
<tr>
<td>2</td>
<td>Descriptive Statistics (Percentage analysis)</td>
<td>To describe the sample in terms of their demographic characteristics.</td>
</tr>
<tr>
<td>3</td>
<td>t-test</td>
<td>To find out whether there is any significant relation between spiritual intelligence, job satisfaction and life satisfaction with the demographic and economic factors.</td>
</tr>
<tr>
<td>4</td>
<td>One way ANOVA</td>
<td>To find out the relationship between the demographic variables, various components of spiritual intelligence job satisfaction and life satisfaction.</td>
</tr>
<tr>
<td>5</td>
<td>Chi-square test</td>
<td>To find out the association between demographic variables and the level of spiritual intelligence.</td>
</tr>
<tr>
<td>6</td>
<td>Friedman test</td>
<td>To find out the significant difference between mean ranks towards spiritual intelligence and job satisfaction, spiritual intelligence and life satisfaction.</td>
</tr>
<tr>
<td>7</td>
<td>Correlation (Pearson r)</td>
<td>To find out the relation between dimensions of spiritual intelligence.</td>
</tr>
<tr>
<td>8</td>
<td>Regression analysis</td>
<td>To measure the impact of spiritual intelligence on job satisfaction and to measure the impact of spiritual intelligence on life satisfaction.</td>
</tr>
<tr>
<td>9</td>
<td>SEM</td>
<td>To test the conceptual model which the researcher has developed.</td>
</tr>
</tbody>
</table>

These different statistical techniques namely, Reliability analysis, Descriptive statistics, t-test, one way ANOVA, Chi-square test, Friedman test, Correlation
(Pearson r) and Regression analysis (Table.3.7) enabled the researcher to test the various hypotheses formulated in the present study so as to achieve the objectives of the study. A detailed explanation of these tests is given in the following section. It comprises of the descriptions of the numerical methodologies and their appropriateness to use in the particular analysis.

3.11.1 Percentage analysis

‘Percentage method’ refers to a particular sort of statistical study which is used for making comparison between two or more series of data. Percentages are based on descriptive relationships. It makes the comparison between the relative items. Since the percentage reduces various observations to a common base, this method allows meaningful relationship among various sets of data.

\[
\text{Percentage} = \frac{\text{Total Number of Responses}}{\text{Total number of Respondents}} \times 100
\]

3.11.2 Independent samples t-test

The independent samples t-test helps the researcher to estimate the mean difference between two groups using the data from two samples. With all inferential statistics, it is assumed that the dependent variable fits a normal distribution. When there is no prior knowledge about the either of the two populations being compared this test is being used. The general purpose of the independent samples t-test is to determine whether the sample mean difference observed is a real difference between the two populations or merely the result of sampling error.

In this study t-test is used to find out the impact difference between the means of two independent samples. The two independent samples considered in this study are ‘male’ and ‘female’ unmarried and married IT professionals.
3.11.3 One way ANOVA

In order to examine the differences between the means for two or more populations ANOVA (Analysis of Variance) is used as a statistical technique. It tests the null hypothesis, which assumes that all means are equal. In one way ANOVA, the dependent variable is denoted by Y and the independent variable by X. X is a categorical variable having c categories. There are n observations on Y for each category of X. \( H_0 = \mu_1 = \mu_2 = \mu_3 = \ldots = \mu_k \) where \( \mu = \) group mean and \( k = \) number of groups. If, however, the one-way ANOVA returns a significant result, the alternative hypothesis is accepted. In examining the differences between the means, one way analysis of variance involves the decomposition of the total variation observed in the dependent variable. This variation is measured by the sums of squares corrected for the mean (SS). ANOVA is so named because it examines the variability or variation in the sample (dependent variable) and based on the variability, determines whether there is reason to believe that the population means differ.

On the analysis of variance, two measures of variation are estimated: within groups and between groups. Within groups variation is a measure of how much the observations, Y values, within the group vary. This is used to estimate the variance within a group in a population. It is implicit that all groups have the equal mean; the variance of all observations cannot be calculated together. The variance for each of the groups must be calculated individually and these are combined into an ‘average’ or ‘overall’ variance.

In the present study one way ANOVA is used to find out the difference, if any, with respect to spiritual intelligence and job satisfaction and spiritual intelligence and life satisfaction based on the demographic characteristics of IT professionals namely, age, education levels and income levels.
3.11.4 Chi-square Test

A Chi-square is a statistical measure applied in the context of sampling analysis for comparing a variance to a theoretical variance. As a non-parametric test, it can be used to establish if categorical data shows dependency or the two classifications are independent. It can also be applied to make comparisons between theoretical populations and real data when categories are used. Thus, the chi-square test is applicable in large number of cases. The test is, in fact, a tool through the use of which it is likely for all researchers to (1) test the homogeneity or the significance of population variance. (2) to test the (GFI) goodness of fit and (3) to test the significance of association between two attributes.

3.11.5 Friedman test

The Friedman test is a non-parametric test. It is applied to detect differences in treatments across multiple test attempts and it is similar to the parametric measures like ANOVA. The procedure involves ranking each row (or block) together, then taking into account the values of ranks by columns. In this present study, Friedman test is used to investigate the significance of difference between mean ranks towards spiritual intelligence and job satisfaction and spiritual intelligence and life satisfaction.

3.11.6 Correlation analysis

The correlation analysis measures the degree of relationship between the variables under consideration. The measure of correlation or correlation index summarizes in one figure the direction and degree of correlation. The closeness of the relationship between the variables is measured in this
technique. Thus, correlation is a statistical tool which helps in analyzing the co-variation of two or more variables. The detection and analysis of correlation (i.e., co-variation) between two statistical variables requires relationship of some sort which associated the observation in pairs, one of each pair being a value of each of the two variables. In the present study correlation (Pearson r) is used to find out the correlation between the various components of spiritual intelligence and various components of job satisfaction and life satisfaction.

3.11.7 Multiple Regression Analysis

Multiple Regression is an advanced statistical tool and is extremely powerful when tried to develop a “model” for predicting outcomes. It is a statistical tool that allows examining how multiple independent variables are related to a dependent variable. Once the variables are identified how these multiple variables are connected to dependent variable, can take information about all of the independent variables and use it to make correct predictions about why things are the way they are. It can also show how a set of independent variables explain a proportion of the variance in a dependent variable at a significant level. Kemp and Snelgar (2006) specify four conditions for using multiple regression technique in statistical analysis:

- There are linear relationships between the predictor and dependent variables (i.e., the relationship follows a straight line).
- The criterion variable is measured on a continuous scale such as interval or ratio scale
- The predictor variables are measured on a ratio, interval or ordinal scale.
When there are a large number of observations, the number of participants must substantially exceed the number of predictor variables used in the regression.

In the present study, multiple regressions are applied to find out the impact of spiritual intelligence on job satisfaction, impact of spiritual intelligence on life satisfaction and impact of job satisfaction on life satisfaction of IT professionals who participated in the present study

3.11.8 Structural Equation Modeling (SEM)

Structural Equation Modeling (SEM) is a statistical technique to test the causal relationship among multiple predictor and criterion variables. SEM is a family of statistical models that seek to explain the relationships among multiple variables. The technique combines measurement model (confirmatory factor analysis) and structural model (regression or path analysis) into a simultaneous statistical test to verify the causal relationships among the variables. The conceptual model in the study is proposed to assess structural linkages among latent constructs. In the process, the structure of inter-relationships expressed in a series of equations is examined, similar to a series of multiple regression equations. These equations depict all the relationships among the constructs (both dependent and independent). Constructs are unobservable or latent factors represented by multiple variables. A latent construct is a hypothesized and unobserved concept that can be represented by observable variables. It is measured indirectly by examining consistency among multiple measured variables, also referred to as manifest variables or indicators. SEM’s foundation lies in two familiar multivariate techniques: factor analysis and multiple regression analysis.
Structural Equation Modeling (SEM) is widely used in behavioral research. SEM is used in the present study because of the following three distinct characteristics:

1. Estimation of multiple and inter-related dependence relationships.

2. Ability to represent unobserved concepts/latent variables in these relationships and check for measurement error in the estimation process.

3. Defining a model to explain the entire set of relationships.

The most obvious difference between SEM and other multivariate techniques is the use of separate relationships for each set of dependent variables. In simple terms, SEM estimates a series of separate, but interdependent, multiple regression equations simultaneously by specifying the structural model used by the statistical program. Some dependent variables become independent variables in subsequent relationships, giving rise to the interdependent nature of the structural model. The structural model expresses these relationships among independent and dependent variables, even when a dependent variable becomes an independent variable in other relationships.

The proposed relationships are then translated into a series of structural equations (similar to regression equations) for each dependent variable. This feature sets SEM apart from multivariate analysis of variance and canonical correlation-in that they allow only single relationship between dependent and independent variables.

Amos is short for Analysis of Moment Structures. It implements the general approach to data analysis known as structural equation modeling (SEM), also known as analysis of covariance structures, or causal modeling. This approach includes, as special cases, many well-known conventional techniques,
including the general linear model and common factor analysis. AMOS is an easy-to-use program for visual SEM. With AMOS it can quickly specify, view, and modify the model graphically using simple drawing tools. Then it can be assessed the model’s fit. Some of the advantages of AMOS are: graphical language, no need to write equations or type commands, easy to learn user-friendly features such as drawing tools, configurable toolbars and drag and drop capabilities fast. Models that once took days to create can now be completed in minutes using AMOS.

In the present study SEM is used to test whether the conceptual model developed by the researcher is fit or not. The inter-relationships among the variables are also examined. In this model, there are six dependent and six independent variables (Table 3.3). The hypothesis made in the study is that the spiritual intelligence has an impact on job satisfaction which in turn affects the life satisfaction of the IT professionals. Demographic variables also affect spiritual intelligence, job satisfaction and life satisfaction of the IT professionals. Thus some dependent variables become independent variables in subsequent relationships, giving rise to the interdependent nature of the structural model as mentioned above (Vide, 3.8.1, para 3). The conceptual model was tested using SEM and it was found that the model developed was fit.

### 3.12 Limitations of the Study

The present study, though carefully planned and executed, is not free from certain limitations. They are discussed below:

The variables and components under study may be influenced by external factors which the study does not take into consideration. The study used the survey method to collect the primary data and the gathering of data is
dependent upon the respondents to answer factually and accurately. Questions are closed ended. Alternatives are fixed. The opportunity for subjects to express their true feelings and thoughts are obliterated. The IT professional’s ratings on their spiritual intelligence and job satisfaction and life satisfaction may result in tendencies to respond in set patterns which have little relation to the reality or content of the research. Due to the busy and stressful schedule of these employees the responding time for the questionnaire is minimal.

Since this study covers only city area that is Bangalore, Chennai, Hyderabad and Kochi, the problem of generalization may occur. Due to time and financial constraints, the study was conducted only in the cities. The total population in the IT sector is immeasurable. So the conclusions apply only to the specified population and any broader generalization will not be justified. Obviously, no perfection and accuracy is claimed and it is admitted without any hesitation that the present study is only a humble attempt in this field.

3.13 Conclusion

The research methodology adopted in the present study is explained in detail in this chapter. Identification of important gaps in Spiritual intelligence, Job satisfaction and Life satisfaction through the literature review is the rationale of the present study. As such this study intends to fill up those knowledge gaps by developing a new paradigm for establishing a comprehensive outlook about the life and job of the human being. IT sector is the largest employee generator in South India. Hence the employee should be studied with utmost care as the industry requires the human reason as the input for production. This study tries to establish that the job done by IT professionals is an expression of his existence. IT employees experience high levels of stress and burn out. Due to the pressure in the job and assignment of the projects they experience attrition.
and frustration in life. This study tries to bring a comprehensive outlook on the human body, mind and spirit and try to explain that work and life are the part of the very individual.

The chapter also discussed the objectives of the study, hypotheses, data collection method, sample and sampling techniques, re-establishing the reliability of spiritual intelligence scale and job satisfaction questionnaire and development of the tool for measuring life satisfaction. The limitations of the study are also stated in this chapter.

The analysis and interpretation of the collected data are given in Chapter 4.