

Chapter-Three

Theoretical Analysis and Methodology

This chapter is divided into two sections. First section deals with the theoretical analysis. Section two discusses the conceptual model developed in the present study and describes the process to be followed to collect and analyze the data for research which contains research hypotheses, respondents, research design, and tools used to collect data and procedure of data analysis.

Section- one : Theoretical Analysis

3.1 Theoretical Analysis

This part contains an analysis of the important concepts to be worked within this study. These concepts present a framework for the present study.

3.1.1 Happiness at work

Everybody searches for happiness in every culture (Aydin, 2012; Fisher, 2010). In psychology, happiness is known as "subjective well-being" (SWB). "The term SWB refers to peoples' evaluations of their life including cognitive judgments such as life satisfaction; and affective evaluations (mood and emotion), such as positive and negative emotional feeling' (Continuing Psychological Education Inc, 2006)." An individual's subjective well-being (Angner, Hullett, & Allison, 2011; Jiang, Lu, & Sato, 2012) or happiness is related to life satisfaction, which is closely related to job satisfaction (van Praag, Romanov, & Ferrer-i-Carbonell, 2010). Job satisfaction affects life satisfaction. At the same time life satisfaction affects satisfaction (Saari & Judge, 2004 in Phathara-on Wesarat et al, 2015). In this sense workplace happiness means life satisfaction or SWB at the workplace (Bhattacharjee & Bhattacharjee 2010, Carleton, 2009 in Phathara-on Wesarat et al, 2015).

Phathara-on Wesarat et.al. stated that happiness at the workplace refers to how satisfied people are with their work and lives. Hence, work/job has become one of the important aspects of peoples' happiness. We spend more than half of the time at work (Wikipedia). From, work we derive income, pleasure and also identity. We work not only for salary, but also there are incredibly different aspects of work which can either provide us great satisfaction or make us very unhappy. Happiness at work is a feeling

of an individual and also community. It arises from work when all the imaginable aspects find their places in a right order. Happiness is a personal experience and it is very important for individual. Myer and Diener defined workplace happiness as the experience of many positive affects, infrequent negative affects and an overall sense of satisfaction with life as a whole. Pryce-Jones defines happiness at work as "a mindset which allows maximizing performance and achieving potential". In a different definition, Kjerulf A. defines happiness at work as "a feeling of happiness resulting from work". Varila and Viholainen (Suojanen, Ilona, 2012) explained that work satisfaction is the manifestation of happiness at work. Happiness at work creates work satisfaction, work motivation and other positive reactions linked to work.

Happiness associated constructs in organizational investigation differ from a number of consequential ways. In this research, happiness has been defined as satisfaction derived from work attributes, work motivation and other positive feelings derived from work (S Lyubomirsky - 2011). The term happiness at work, job happiness and happiness are used interchangeably for the purpose of study.

Happiness has been the subject of study since the beginning of the writing of history. Over the years Philosophers, Sociologists, Economists, Psychologists, Lawyers and many Academicians have worked on it and as a result of their efforts yielded many appealing theories of happiness (P.Brey, 2012). Some well-known theories available in the literature are - Hedonism theory, Life satisfaction theory, Affective state theory, The sentiment satisfaction theory, Authentic Happiness theory, Davis's theory of happiness, Desire theory, Set point theory, Rising expectation theory and much more. A short description of psychologist set point theory is presented because this study followed the view of this theory. Till date set point theory is leading in psychology and it assumes that an individual has a predetermined set point in the region of which happiness level vary. This set point is mostly inborn and measured by genetic factors and personality. An individual may at first react in response to changes in real life circumstances or the happening of major life events, but effects are simply temporary. After some times, people will 'adapt' new situation. The primary boost or cut in happiness occurred by this new circumstances ultimately declines and is replaced by impartial feelings. 'Adaptation' so means to a decrease of

the happiness-effects formerly evoked by changed life circumstances and events with the passage of time. Peoples' happiness ultimately slips back to their set point level because of this adaptation procedure. The thought of biologically determined set point refers to that happiness levels will remain constant over time. (Frederick & Loewenstein, 1999 in Werk, gezin en geluk,2011).

3. 1.2 Concept of Personality

The word 'personality' originates from the Latin word "Persona" meaning mask (Hurlock, 1978). Personality issue is generally explored by the psychologists, which is viewed as a pattern of behavioral, temperamental, emotional, and mental traits of a person. It is what collectively comprises a unique individual"(Joyceline Chow & Indraneel Sircar,2008). Allport (1974) viewed personality as "a dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment". Robbins (2001) described personality as "the sum total of ways in which an individual reacts and interacts with others". According to Saville and Holdsworth (1999) " personality refers to a person's typical or preferred way of behaving, thinking and feeling". Personality is usually defined as referring to those internal properties of a person that leads to characteristic patterns of behavior"(Sarah E. Hampson and Andrew M. Colman, 1995).

Hereditary (genetic), environmental factors and situational conditions are the three factors which formed a personality, that motivates and guides human behavior (Murphy, 2008; Robbins, Odendaal & Roodt, 2003). Trait psychology and type psychology represent two incredibly unusual approaches to personality (Naomi L. Quenk, 1993).

'Personality traits are characteristics exhibited in a large number of situations and is used to describe peoples' behavior in different situations "(Robbins et al., 2003). Traits differentiate people from other and moderately stable and enduring aspects of individuals (Martin, 2005). On the other hand, Personality type refers to a grouping of different personality traits and preferences (Myers, 1998). According to Jung, personality types are the mental functions concerned in gathering information and making decisions on the basis of this information, and differences in behavior

result from peoples' inborn tendencies to use their minds in different ways. According to McCaule (1998) when people act on these tendencies, they build up predictable patterns of behavior. Bayne (2004) concluded that systematic differences in individual's way of perceiving things/events and drawing a conclusion; results distinction in individual's interests, reactions, skills, values, and motivations. (RONÉL NIENABER).

For the present research, personality is defined as a person's preferred way of thinking, feeling and behaving.

Theory of MBTI

In Hippocrate's period, personality was alienated into four groups based on the supremacy of one of four temperaments including sanguine, choleric, melancholic and phlegmatic. The dominance of each temperament results in precise features (Wikipedia). There are several schools of thought which try to give explanation or measure of individual differences. Some of the well-known theories are: Psychoanalytic theories (such as Freud's theory); Neo-psychoanalytic theories /neo-Freudtheories (such as Karl Young theory, Myers-Briggs' theory of stylistic, Alfred Adler's theory); Type theories(Hippocrates, Galien, Kerchmer and Sheldon's theories);Factor analysis theories/ trait theories(Cattle, Aizne's theory, five element theory of Mccray and Cousta) and Humanism theories (Abraham Mazlo and Carl Rajerz's theory) (Abolfazal Gandomi et al.,2012) .

It is beyond the scope of the proposed research to illustrate in details the theories and models of personality. A brief overview of the Myers-Briggs Theory (MBTI) that is applied to the current study is presented.

The Swiss psychiatrist Carl Jung explained in detail the logical ways in which people were different. He elucidated individual personality differences based on opposing dichotomies in function and attitude. Function comprised a person's favored style to gather information and the style in which they made decisions. Jung thought attitude included how an individual accumulated energy and carry on a role in how individuals would use their functions (Jung in Juanita Jane Cohen, 2008). Jung illustrated uniform characteristics between psychological functions and the effect of

an introverted or extroverted attitude on these functions. Jung's work has been used as one of the bases of the rising field of personality theory and is principal for the development of the MBTI. The MBTI, developed in the early 1950's by Katherine Cook Briggs and Isabel Briggs Myers, was intended to make Jung's theory more explicit and practical in its use to peoples' everyday lives and workplace (capt.org and Wikipedia.org).

Jung's theory is based on the thought that individuals, in general, have a basic preference for each of a set of functions. Jung's types deal with a preference for how we work, look a circumstance, or use our minds. According to Carl G. Jung's theory of psychological types (Jung-1971), people can be characterized by their preference for general attitude: Extroverted (E) vs. Introverted (I), their preference of one of the two functions of perception: Sensing (S) vs. Intuition (N), and their preference of one of the two functions of judging: Thinking (T) vs. Feeling (F).(Capt.org,)

The three areas of preferences introduced by Jung are dichotomies (i.e.bi-polar dimensions where each pole represents a different preference). Jung also proposed that in a person one of the four functions above is leading – either a function of perception or a function of judging. Isabel Briggs Myers proposed judging-perceiving relationship as a fourth dichotomy influencing personality type [Briggs Myers, 1980]: Judging (J) vs. Perceiving (P). (Scibd.com) Katherine Cook Briggs and Isabel Briggs felt that the differences in people were of value and that the differences could be measured (Barbuto, Brownfield, in Angela Alexander, 2004).Their personality type theory MBTI is comprised of four personality dichotomies (see annexure-A for description) that indicated the "preferences related to the basic functions of our personalities perform throughout life" (Kroeger & Thuesen, in Juanita Jane Cohen, 2008). The four dimensions of MBTI categorized by Hirsh and Kummerow (1989) as 1. Energizing: from where and how we acquire our energy 2. Attending: When we collect information at that time on what topic we give concentration 3. Deciding: At the time of decision making which method we follow and 4. Living: What type of life we will accept. The second and third categories refer to the mental powers or cognitive dimensions and are often considered the two most important dimensions.

The first and fourth categories refer to attitudes. They describe where we gain our energy and how we deal with the outside world (Archana Tyagi, 200).

Sixteen Personality Types of Myers-Briggs

	<i>Sensing</i>	<i>Sensing</i>	<i>Intuitive</i>	<i>Intuitive</i>	
<i>Introvert</i>	ISTJ	ISFJ	INFJ	INTJ	<i>Judging</i>
<i>Introvert</i>	ISTP	ISFP	INFP	INTP	<i>Perceptive</i>
<i>Extrovert</i>	ESTP	ESFP	ENFP	ENTP	<i>Perceptive</i>
<i>Extrovert</i>	ESTJ	ESFJ	ENFJ	ENTJ	<i>Judging</i>
	<i>Thinking</i>	<i>Feeling</i>	<i>Feeling</i>	<i>Thinking</i>	

Source: Jane M. Moraski, 2002

All promising permutations of preferences in the four bi-polar dimensions give up a four-letter sixteen different psychological types (see annexure-B for descriptions of all sixteen types).Each one represents a distinct combination of the four preferences. There are also a number of preference pairs and hierarchies helpful in predicting and knowing an individual’s behavioral styles, communication skills, and leadership preferences (E a Youngstrom, 2009).

The MBTI measures preferences rather than abilities, even if it is to be anticipated that a preferred and oft-used function will generally be developed to a higher level of skill and ease. No one personality type is regarded as superior, but certain types are anticipated to be more naturally skilled or comfortable in certain contexts or roles (Leonie Tickle, 2009).

Concept of Locus of Control

In psychology, the locus of control is considered as personality aspect. It means perception about the causes of events in an individual’s life (Heidi Chatfield and Allison Wooten; 2012). Phares first used the concept of locus of control and in 1950, Julian Rotter generalized the theory of locus of control and used the term

internal locus of control and external locus of control. He believes that an individual has varying degrees of internality and externality (Soleiman Yahyazadeh Jeloudar and Fatemeh Lotfi-Goodarzi; 2012).

According to Rotter individual with internal locus of control believes that his/her behavior is guided by his/her personal decisions and efforts. On the other hand, individual with external locus of control believes that his/her behavior is guided by fate, luck, or other external circumstances (Heidi Chatfield and Allison Wooten, 2012).

The following table depicts the features of internal and external locus of control:

Internal	External
<ul style="list-style-type: none"> • Usually more curious • Like to follow participative management style • Perform better in the jobs where they can set the pace • Take on those activities which will develop their position • Like to take challenges to control others. • More dynamic in search of information and data relating to their state of affairs. 	<ul style="list-style-type: none"> • Tends to stay in the dissatisfied job for a long period of time. • In automated situation works better • Easily stressed and victimized by illness. • Generally, posses negative outlook. • Not like to try to hard work easily give up. • The social environment has more influence on them. For success and failure in life blame luck, fate, and chance.

Source: Heidi Chatfield and Allison Wooten (2012)

3.1.3 Concept of Intelligence

When we hear the word intelligence, the concept of IQ testing may immediately come to mind. The word ‘intelligence’ is derived from the Latin word ‘intelligere’ which means to understand. Intelligence is frequently referred to our intellectual potential; something we are born with, something that can be calculated and a capacity that is complicated to change (Masoud Ghaffar, 2007). It is the capability of complex thoughts and logic (Ceci, 2001) and includes the skills acquired throughout life. Intelligence refers to a general mental ability to reason, resolve problems, think conceptually, learn and understand new material and profit from past

experience (Detterman, 2005 in Cimermanova I., 2013) .Intelligence is the capacity to learn from experience, using meta cognitive processes to enhance learning, and the ability to adapt to the surrounding environment which may require different adaptations within different social and cultural context (Sternberg, 2003). Intelligence is a mental ability that involves the capability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experiences. It is just not the learning of book, gaining academic skill, or smartness in tests (brainmatri.com). Rather, it reflects a broader and deeper capability for comprehending our surroundings—“catching on,” “making sense” of things, or “figuring out” what to do (Gottfredson, 2004 in Colin G. DeYoung). It is the ability to solve problems, and of creating product according to the value system of national culture. (Gardner, 1983 in Nida Temiz, 2010)

Among the existing definition, the psychometric analysis is the most traditional description of intelligence and this viewed intelligence as a single facet which is usually identified as general intelligence (EA Cocodia,2014). Over the years researchers have worked on it and identified the different components of intelligence.

Theory of Multiple Intelligences

Every society has its own ways of considering an ideal human being, such as the ancient Greeks valued physical capability, rational judgment, and honesty; Romans valued bravery and in China musical skill, drawing and archery (Victor Daniels;1997). The intelligence of person has been valued for many centuries in many western societies. The word “intelligence” has a strong impact on people (Gardener in Maria Do Rozario De Lima Bothelho, 2003). In late nineteen psychologists, Francis Galton developed formal IQ test on the belief that intelligence was inherited and it could be measured. In 1920-1930, Stanford-Binet’s IQ test modified by a French psychologist, Alfred Binet, gained popularity in America to determine learning disability of children. Thereafter many tests such as Wechsler Intelligence Scale, Kaufman Assessment Battery and woodcock - Johnson Psycho-Educational Battery for measuring children’s intelligence are available. Scholastic Assessment Test (SAT) and Achievement Test are created to measure human capabilities.

The IQ test could not predict success in life but able to predict academic achievement as it was designed for that. Traditional IQ test could not measure what intelligence and how intelligence a person is (Gardener in Maria Do Rozario De Lima Bothelho, 2003). Though, over a century IQ tests have been used, psychologists have raised a question about its validity. As a result, other measures of IQ tests have been emerged. One such thought is the theory of multiple intelligences (Howard Gardner) which viewed intelligence as the bio-psychological perspective to acquire information in certain ways, in order to explain problems or fashion products that are esteemed in a culture or community (Christodoulou,2009). It is a psychological theory about the nature of the human mind (Kafanabo, 2006).

Howard Gardner's thought is a move in our traditional thinking which suggests that one's multiple intelligences are as significant as one's capability to the rationale and it categorizes individuals based on their talents, abilities, and preference in various contexts. He believes that all human beings have multiple intelligences that can be nurtured and strengthened or ignored or weakened (springhurts.org).

Among the psychologists and educational community Gardener's MI theory gained substantial interest. The spirit of his theory centered on the hypothesis that there is no single human intelligence; rather, Gardner anticipated human beings have multiple intelligences (wikipedia). When he introduced the MI theory in *Frames of Mind*, Howard Gardner suggested that each individual possesses at least seven (verbal/linguistic, logical/mathematical, visual/spatial, musical, bodily/kinesthetic, interpersonal and intrapersonal) such relatively independent mental abilities or intelligences. Later he added two more MI factors naturalist and spiritual, but due to lack of literal evidence rejected the spiritual intelligence. (Annexure -C gives an overview of this eight comprehensive categories or intelligences).

In his *Multiple Intelligences (MI)* theory, Gardner extended the possibility of human capability far from a unitary criteria of the IQ test and proposed that intelligence has more to do with the competence for (1) solving problems and (2) fashioning products in a context-rich and naturalistic setting (Clifford E. Tyler et. al.2011).

The intelligence is comparatively self-regulating of each other and they may be associated with higher order functions. Conventional intelligence tests measured only Linguistic, Logical-Mathematical and Visual/Spatial intelligences. There is no scope to measure other bits of intelligence. Gardner gives evidence of his theory by reviewing the various literature relating to human abilities and finding results that are consistent with his theoretical proposal not by experiment or empirical study.(Joyce A. McClellan,2006).

Concept of Emotional Intelligence (EI)

Daniel Goleman's book (1995), Emotional Intelligence: Why it can matter more than IQ popularized the term emotional intelligence among researchers. He stated that emotional intelligence predicts workplace success better than IQ. "Emotional intelligence involves a combination of competencies which allow a person to be aware of to understand and to be in control of their own emotion, to recognize and understand the emotion of others, and to use this knowledge to foster their success and the success of others". Darwin work has the root of emotional intelligence, who stated that for the survival of human being emotional intelligence was necessary (bookbon.com). Salovey & Major in 1990 first gave the formal definition and model of emotional intelligence. At present, there is three (ability model of EI, Trait EI model, and Mixed EI model) models of emotional intelligence which have been widely used by the researchers. The ability model of Salovey & Mayer stated that in emotional nature individual differs in their capabilities to acquire information and their capabilities also vary in relating emotion to a wider cognition. The individual used this ability to manifest certain adaptive behavior (Yvonne Stys and Shelly L. Brown, 2004).

Goleman's (2001) Emotional Intelligence Competencies

	Personal Competence	Social Competence
RECOGNITION	<u>Self-Awareness</u> Emotional Self-Awareness Accurate Self-Assessment Self-Confidence	<u>Social Awareness</u> Empathy Service Orientation Organizational Awareness
REGULATION	<u>Self-Management</u> Self-Control Trustworthiness Conscientiousness Adaptability Achievement Drive Initiative	<u>Relationship Management</u> Developing Others Influence Communication Conflict Management Leadership Change Catalyst Building Bonds Teamwork and Collaboration

Source: Yvonne Stys and Shelley L. Brown (2004)

The trait EI model of Petrides and colleague (2009) assumed that emotional intelligence was a part of personalities and the individual had a number of emotional self-perception and emotional trait (bookbon.com). Daniel Goleman's mixed model of EI is a combination of a set of skills and a variety of competencies. According to Goleman, emotional quotient consists of five dimensions such as knowing one's emotions, managing emotions, motivating oneself, recognizing emotions in others, and handling relationships. He argued that a person with high emotional intelligence was optimistic, motivated and outgoing (Gülten Genç et.al, 2016).

Among the existing emotional intelligence models, Goleman's model is extensively used in analyzing workplace behavior of employees. Five domains of his model are divided into four parts. Two parts are related to personal ability and other two are related to social ability. The above table exhibits abstract of EI model of Goleman and subsequent EI abilities.

3.1.4 Concept of Occupational Stress

Stress, especially occupational one in modern life seems to have been increasing. Stress is the body's reaction that changes the physical, psychological or emotional adjustment or response (Dr, Stefan Ivanko, 2013). Hans Selye first

introduced the concept of stress into the life science in 1936. He defined stress as “The force, pressure, or strain exerted upon a material object or person which resist these forces and attempt to maintain its original state” (in Reshu Agarwal and Pradeep Sharma ,2015). According to McGrath (1976) stress is the perceived inability to cope with environmental demand. At modern age stress is known as an individual experience arises due to pressure or demands on an individual and effects on the individual’s capability to deal or somewhat, his/her awareness of that capability (Richard Blaug et.al). Ram Chandra Rao (1983a, in A.K.Srivastava) stated that the idea of stress was there in ancient time. Pointing the system of ‘Smakhya’ and ‘Yoga’ he noted that the two terms ‘Klesha’ and ‘Dukha’ described the concept and extent of stress. According to him, there are three types of stress--- Personal, Situational and Environmental.

Review of scientific literatures show that there are three approaches - engineering approach, physiological approach, and psychological approach to study the stress. Previous theories of stress used the concept of engineering approach and physiological approach. The present-day stress theories follow the character of psychological approach. In engineering approach stress is taken as the independent variable and considered as a harmful character of the work environment. Stress is termed as physiological effects of a number of unhealthy stimuli in the second approach, which has been known as the psychological approach. In this approach, it is treated as a depended variable. The last approach is known as a psychological approach. This approach supposed that stress occurs when a person interacts with the environment .It is considered in provisions of the cognitive processes and reactions of emotion which strengthen the interactions. Differences in opinion are observed in psychological approach. The interactional and the transactional are the most used among the different thoughts. The interactional model deals with the structural characters of the person’s interface with their work environment and the transactional models deals with the psychological mechanisms supporting that interaction. Transactional models are mainly a cognitive appraisal and coping process.(Tom Cox et.al. ,2000). Occupational stress falls under the third approach.

Occupational/job Stress is a complex relationship between a person and his/her work environment. It refers to the circumstances at which a person's skills and ability do not match with the work demands and requirements, and/or when the employees' needs are not fulfilled by the job environment (Ramirez et al., 1996). Job Stress refers to one's emotional response to the work environment that appears threatening to workers (Gill, Flaschner, & Shachar, 2006 in Hassan Darvish and Ali Akbar Nasrollahi 2011). Organizational psychologists use the term to signify employees' mental state arises due to job situation and combination of job situation perceived as too much and conflicting demands. Copper and Marshall (1976) expressed that "occupational stress means negative environmental factors or stressors associated with a particular job"(A.K. Srivastava, 1990). Work-related/ occupational stress arises when there is a mismatch between individual's ability and resources to meet up the jobs demand (Ricardo Blaug et.al).

A factor of job and psycho-physical environment causes occupational stress. All the sources of occupational stress can be categorized into two broad heads- individual character and work setting variables (see annexure---D).

Section Two : Methodology

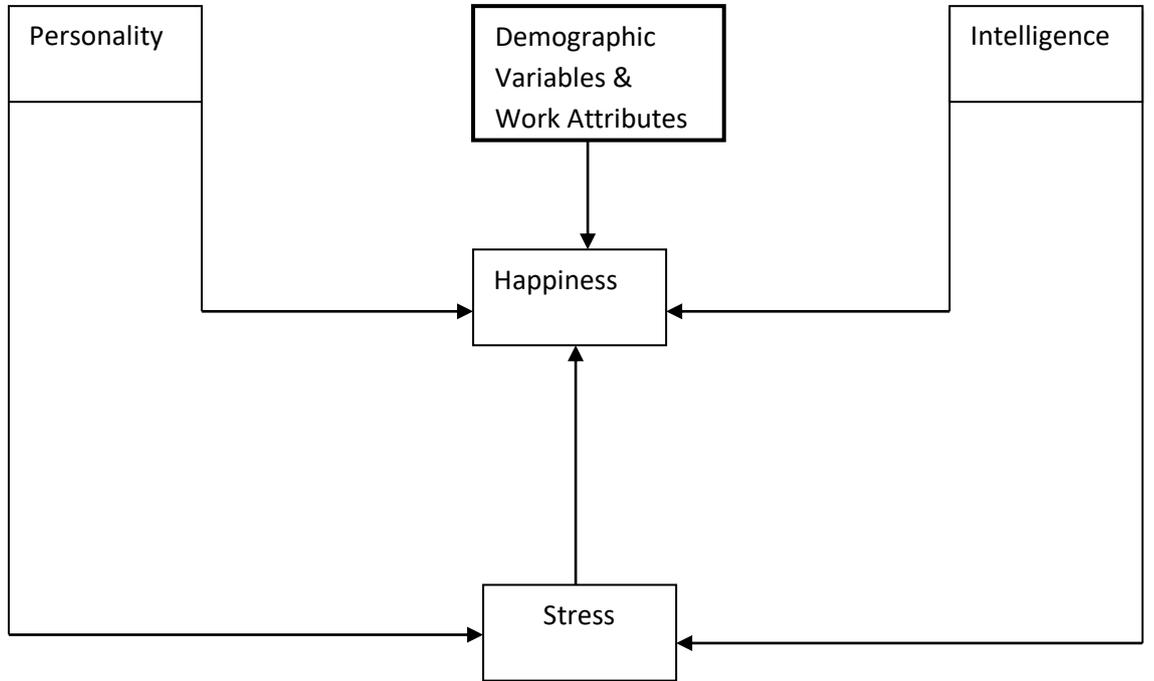
3.2 Conceptual Model

For any research work, a conceptual model on the basis of literature review and theoretical analysis is developed to give the answer to research questions. To analyze the relationship between variables, the planned model took personality and intelligence as the independent variables and workplace happiness as the dependent variable. The findings of researcher showed that some personality traits and intelligence are related to happiness/well being. This empirical research is carried out to demonstrate the relationship between Myers Briggs Type of Indicator, Multiple Intelligences and Workplace Happiness.

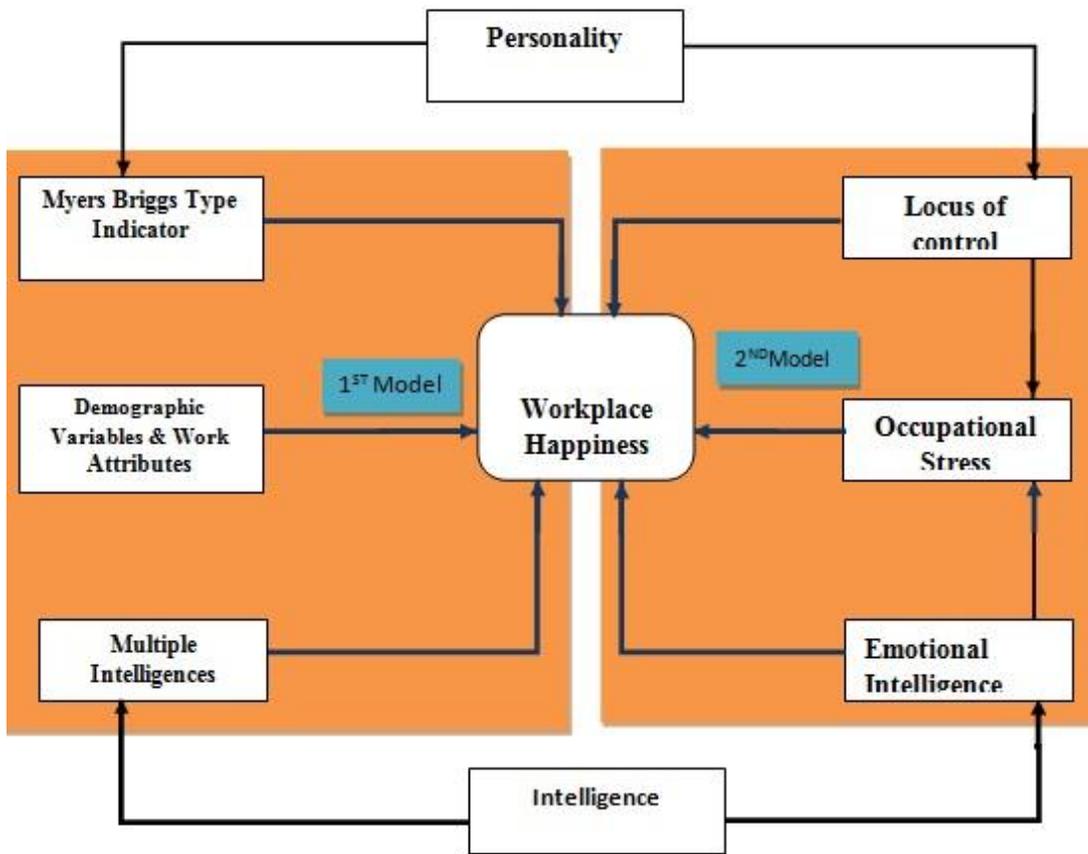
In the second section of the model, Workplace Happiness is the dependent variable and Emotional Intelligence, Locus of Control and Occupational Stress are the independent variables. There are plenty of literatures which exhibit the relationship

between these variables. So, with the help of the empirical study this relationship is planned.

The overall objective of the study is to get the relationship between personalities, intelligence, occupational stress and workplace happiness. The diagrams 3a and 3b on the next page represent the conceptual framework and design of the present research work respectively:



3a. Conceptual Framework



3. b Research Design

3.2.1 Research Hypotheses

To examine the research questions framed in chapter one, some hypotheses are formulated, based on the review of the literatures and theoretical analysis. For research questions two and three descriptive data analysis and for questions one, four and five statistical analysis of relationships is required. The following hypotheses are framed to address the research questions:

H₀₁. Demographic variables (gender, age, education and experience) have no effect on workplace happiness.

H₀₂ .Doctors are not satisfied with the important work attributes of happiness in their profession

H₀₃. There is the difference in the combination of personality types and multiple intelligence factors between doctors who are very happy in their profession and doctors who are very unhappy in their profession.

H₀₄. There is a relation between Locus of control (i.e. Internal or External), Emotional Intelligence and Workplace Happiness.

H₀₅.There is a negative relationship between Occupational Stress, Emotional Intelligence, Locus of Control, and Workplace Happiness.

3. 2.2 Design of the Research

The research is designed to investigate personalities, intelligence, occupational stress and workplace happiness of medical doctors and to find out relationships between these variables. This study is empirical, quantitative and descriptive in its design. The quantitative and qualitative approach is followed to accumulate and examination of the data. The reason behind choosing the quantitative method for this research is to assess the relationship among the variables.

To examine the relationship and to test the hypotheses generated a descriptive and quantitative, survey research is designed. This study is empirical in its design and to study the feasible relationship between the study variables and answer the main research questions it applied correlational approach.

3. 2.3 Research Variables

According to Gravetter and Wallnau (2005,in Anita G.du plessis,2014) a research variable indicates feature or state that alter or has different values for the

different individual. The condition or event which the researcher plan to examine or measures or observes, is known as the variable. The variables of this study are personality type as indicated by MBTI, Multiple Intelligence domains, Emotional Intelligence, Locus of control, Occupational Stress, and Workplace Happiness.

The outcome or the end result in which the researcher is interested is called dependent variable. It is observed to measure the effect of changes in the treatment. The independent variable will change or persuade dependent variable when it changes. It generally consists of one or more treatment state of affairs to which individual is exposed (Anita G. du plessis, 2014). The EI, Loc, and OS are the independent variables and Workplace Happiness is the dependent variable in the study.

3. 2.4 Population and Sample

Generally, the researchers want to generalize their research outcomes on a set of objects or individuals. This objects or individuals are considered as population (Anita G. du plessis, 2014). The population of the present research on which the research work has been carried out is the medical doctors of North Bengal which is located in Darjeeling district, West Bengal. This medical college has been catering the healthcare service to the people of north zone of West Bengal since fifty years.

It would not be possible to assess the study variables of the total population. So a sample from the population has been selected to evaluate. A sample is a small group from a large population. It is a subset of the population. (Anita G. du plessis, 2014). The doctors /physicians are the sample of the study.

3. 2.5 Sample Method and Sample Size

The data for the purpose of the study were collected from the doctors of North Bengal medical college in West Bengal .The reason behind the choice of North Bengal Medical College is that it is the only referral health care centre for the patients of four districts of West Bengal. This college provides tertiary care not only to the patients of West Bengal but also to the patients of adjacent states like Assam and Bihar. Patients for treatments from other countries like Bangladesh and Nepal also come to this medical college. It is one of the rural medical colleges which serve primary care along with tertiary care. In this college medical professional from West

Bengal Medical Education Service and West Bengal Health Service worked together. One could get the health service of doctors who have just passed medical science or very recently joined the health care system, along with service of senior doctors who have been working in the college for a long time. There is a need to understand the factors responsible for doctors' happiness in such a busy medical college. Happy doctors build a new encouraging working environment for health institution and patients.

For this research, samples were drawn by using the simple random method. Convenience sampling technique was followed to select the North Bengal medical college from the state and to choose the respondents from the said college the simple random sampling technique was applied. Due to time and fund constraints, it was not possible to approach to all the doctors to collect data. Some of the respondents had taken the survey booklet but due to their busy schedule not able to fill up the questionnaires. Some respondents did not fill up questionnaire properly. The final sample consists of one hundred two doctors for this research.

3. 2.6. The Procedure of Data Collection

The study is based on primary data. For collecting primary data six standardized tools were employed. These tools were the Myers Briggs Type Indicator, Jobs Central Works Happiness Indicator, Gardener's Multiple Intelligence Test, Linac's EI scale, A.K.Srivastava's occupational stress scale and Loco Inventory. Two surveys were conducted to collect the primary data for the purpose of the present empirical study. The survey booklet of first phase included questionnaires related to biographic information, personality types, multiple intelligences and workplace happiness. The data on emotional intelligence, locus of control, and occupational stress were collected in the second survey. All the questions of the survey sheets comprised of closed-ended, forced-choice and self-reported responses, except the questions of biographic information.

The data were collected by the researcher and also took the help of five persons. They were instructed how to collect data. The average time allowed to fill up the survey booklet was fifty minutes but the respondents in average had taken

fifty-three to fifty-five minutes. The data for the second survey was collected from the respondents who participated in the first survey.

3. 2.7 Data Analysis and Interpretation

The primary data of the research were collected by following survey method and data were analyzed with the help of descriptive and inferential statistics. Descriptive statistics was used to review and manage the data. T-test and One –way ANOVAs were employed to test the research hypotheses which were formulated to answer the research questions. Pearson correlation between the study variables were calculated and presented to assess the relationship between the variables. As the principal analytical tool SPSS version 19 was applied to operate and evaluate the data. The internal consistency or reliability of the research instruments were evaluated with the help of Cronbach's Coefficient Alpha.

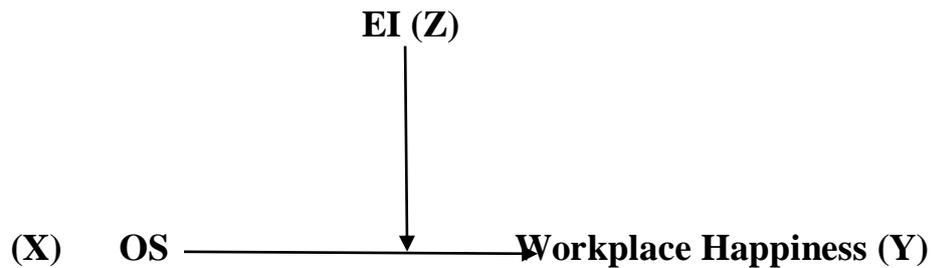
The skewness of all the variables in this research is within an acceptable range of normality ($SK.>-1$ & $Sk. <1$). The Kurtosis of all the variables in this research is also within an acceptable range of normality ($Ku>-2$ & $Ku<2$) (Kevin T. Murphy, 2006). Overall Univariate statistics and normal probability curves of all variables suggest that data for the research are normally distributed. Therefore for statistical purpose in this study regression analysis would be applicable (Anita G. du plessis, 2014).

Tolerance values, VIF (Variance Inflation Factor) and Durbin Watson values of the result of the present study indicate that the assumption of multi-collinearity is fulfilled. Hence, for the statistical purpose the researcher used multiple regression analysis (Anita G. du plessis, 2014).

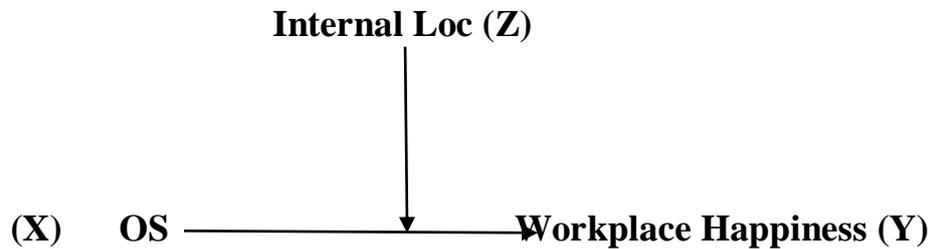
To test moderating role of EI on the relationship between OS and Workplace Happiness and to examine the moderating effects of Internal Loc on the relationship between OS and Workplace Happiness the researcher applied hierarchical/stepwise regression analysis.

“A moderator shows when and under what conditions an independent variable is related to a dependent variable. A moderator is a variable that affects the strength and/or relationship between an independent variable and a dependent variable”(Dr. Brian K. Cooper, 2015).

Moderated regression equation measuring the effects of EI on the relationship between OS and Workplace Happiness (among emotionally intelligent individuals the negative relationship between OS and workplace happiness will not be strong) is $Y=B_0+B_1X+B_2Z+B_3XZ+e$



Moderated regression equation measuring the effects of Internal Loc on the relationship between OS and Workplace Happiness (internal Loc influence the relationship between OS and workplace happiness) is $Y=B_0+B_1X+B_2Z+B_3XZ+e$



The researcher would like to point out here that in behavioral sciences correlation coefficients of $r = .10$, $r =.30$ and $r =.50$ are considered as small, medium and large coefficients respectively [Cohen (1988) Gravetter & Forzano (2009) and Green & Salkind (2003) in Kathungu Beatrice Mwathi (2010)].

3. 2.8 Research Instruments

As a whole six standardized tools were employed to obtain the primary data for the study. In addition to these six questionnaires, a short questionnaire was used to collect data on demographic information. The details of the six instruments are given below:

Biographical information

There was a biographical part in the questionnaire for each respondent to fill up. This part was included to collect information regarding the respondents' biographical character (including gender, age, educational degree and experience).

1. Jobs Central Works Happiness Indicator

Jobs Central Works Happiness Indicator is a tool used to study how happy workers are with their jobs. It has been widely used in Singapore where online participation is voluntary and open to all Singapore workers above the age of 16. It is widely recognized as a comprehensive tool to ascertain workplace happiness.

Jobs Central Work Happiness Indicator has been used to get information about doctors' workplace happiness (jobcentral.com). The Jobs Central Work Happiness Indicator measures workplace happiness which uses a 100-point scoring scale. This instrument has two parts. In the first part, respondents were required to rank the twelve items common work-related attributes, in the order of importance (1 for highest importance ----- 12 for lowest importance). In the next part, respondents were required to assign a satisfaction score (1 = absolutely not satisfied10 = totally satisfied) to each of these attributes. Each work attributes was then tabulated with a weighted score and mapped into a 100-point scale. The higher the score the happier an employer was considered (jobscentral.com). The Cronbach's alpha of this scale was .824.

2. The Myers Briggs Type Indicator (MBTI)

To identify the respondents' personality types The Myers Briggs Type Indicator (MBTI) was used. The MBTI is a self-report questionnaire based on Carl Jung's theory of psychological types. There are eight personality preferences which are paired along four bi-polar scales. There are no rights or wrong responses and all eight preferences are equally valid. The four dimensions can be combined to identify sixteen personality types designated by four letters representing each of the preferred mental attitudes and function (e.g. ESTJ, INFP etc).

In the present research, the researcher used twenty items modified version of MBTI (braintypes.com). The Cronbach 's alphas were ----EI-.79, SN-.84, TF-.74 and JP-.82 (Stephen Rushton et.al.,2007)

3. Multiple Intelligences

Primary data on MI were collected by using Gardener’s multiple intelligences inventory (self-assessment tool) (ww.drexcel.edu). Multiple intelligences test is used to identify eight multiple intelligence abilities as defined by Gardner (2006), namely verbal-linguistic, logical-mathematical, visual-spatial, musical-rhythmic, interpersonal, intrapersonal, bodily-kinesthetic, and naturalistic. The multiple intelligences inventory consists of a total of 80 statements, including 10 statements about each intelligence domains in the theory of multiple intelligences under each of the 8 sub-sections. The items are rated on a five-point rating scale including “Not like me ” (Value 0) to “Very much like me” (value 4). We computed the medical professionals’ scores on the items representing eight intelligence domains to identify their multiple intelligence domains. When evaluating the scores for each intelligence domains, those with a total score between 32 to 40 were described as having “highly advanced”, those with scores between 24 to 31 as “advanced”, those with scores between 16 to 23 as “moderately advanced”, those with scores between 8 to 15 as “slightly advanced” and those with scores between 0 to 7 as having “unadvanced” intelligence levels. Thus, the researcher interpreted the advancement levels of intelligence domains. The following table represents the alpha of eight MI domains.

MI Domains	Alpha
verbal-linguistic	.652
logical-mathematical	.770
visual-spatial	.700
musical-rhythmic	.793
interpersonal	.744
intrapersonal	.673
bodily-kinesthetic	.646
naturalistic.	.775

4. Emotional Intelligence

Data on EI were collected by using Linac EI Scale (linactraining.co.uk). It consists of fifty items. The EI scale of Linac assesses five distinct areas of abilities: Self Awareness, Self Regulation, Self Motivation, Social Awareness and social skills. Linac EI has five sub-scales and each scale has ten items. It is a five –pint Likert scale

ranging from “Always”(value 10) to “Rarely” (value 2). The Cronbach’s alpha of this scale was .880.

5. Occupational Stress

The level of respondents Occupational Stress in this research has been assessed by thirteen items occupational stress scale of A.K.Srivastava (pp.187). It is a five –point Likert scale ranging from “Absolutely true”(value 5) to “Absolutely false” (value 1). The Cronbach’s alpha of this scale was .793.

6. Locus of control

In the study to measure Locus of control Loco Inventory (Pareek, pp.185) was applied. It consists of thirty items and ten items for each internality, externality (other) and externality (luck). We considered only internality and externality. The distribution of the thirty items in the inventory as taken in the study is given in the following table:

Internality(item number)	Externality(item number)
1, 2,3,10,16,23,20. 25,27,28	4,5,6,7,8,9,11,12,13,14, 15,17,18,19,21,22,,24,26,29,30

The scale is a five –point Likert scale ranging from “Hardly feel”(value 0) to “Strongly Feel” (value 4). To find out the type of Locus of control present in doctors we used ratio analysis. The ratio greater than one considered as internal Loc. The reliability of this scale in the present study was .821.