2.1 OVERVIEW

Before beginning system development, a literature review was performed on personality traits, leadership styles and career guidance theories. Besides that, a study was conducted on existing systems that can identify personality traits and leadership styles. This chapter documents the literature review performed in this project.

2.2 PERSONALITY TRAITS

Psychologists may not agree on one definition of personality, but there is strong agreement that personality includes how a person acts, the impression that a person creates in others, and the person’s typical patterns of behaviour (Warren, 2002). Personality traits are unique to every individual. It is understood that no two people are exactly the same - not even identical twins.

Traits are distinguishing qualities or characteristics of a person (Clark, 1997). Traits are a readiness to think or act in a similar fashion in response to a variety of different stimuli or situations.

In general, trait theory assumes that people differ on variables or dimensions that are continuous. People differ by exhibiting more or less of a characteristic rather than in the quality of the characteristic. In short, people do not fall into specific traits category, but exhibit varying degrees of a mix of traits.

There are two major approaches to the study of personality. The idiographic approach believes that human behaviour cannot be broken down into its constituent
parts. The nomothetic approach believes that the general dimension of behaviour can be used to describe most people of a general age group (Deutsch and Coleman, 2000).

The Idiographic view emphasises that each person has a unique psychological structure and that some traits are possessed by only one person; and that there are times when it is impossible to compare one person with others.

The Nomothetic view emphasises that people can be compared but sees people as unique in their combination of traits. This viewpoint sees traits as having the same psychological meaning in everyone. The belief is that people differ only in the amount of each trait.

2.2.1 The Big Five Personality Traits Theory

The Big Five personality traits theory classifies a person’s personality into Adjustment, Sociability, Agreeableness, Conscientiousness, and Openness to experience (Howard, and Howard, 2004).

The Big Five personality traits theory comprises five personality dimensions. Each of the Big Five personality traits theory dimensions is like a bucket that holds a set of traits that tend to occur together.

Important characteristics of the Big Five personality traits theory are (Howard and Howard, 2004):

i. The factors are dimensional, not according to types so people vary continuously on them, with most people falling in between the extremes.

ii. The factors are stable over a 45-year period beginning from early adulthood.

iii. The factors and their specific facets are heritable, at least in part.

iv. The factors probably had adaptive value in a prehistoric environment.

v. The factors are considered universal, having been recovered in languages as diverse as German and Chinese.
vi. Knowing one’s placement on the factors is useful for insight and improvement through therapy.

The five dimensions of the Big Five personality traits theory are commonly labelled as Adjustment, Sociability, Openness, Agreeableness and Conscientiousness. The Adjustment trait refers to the degree to which a person responds to stress (Howard, and Howard, 2004). People who exhibit strong Adjustment traits are usually labelled as “resilients” and tend to be secure, unflappable, rational, unresponsive, or guilt free. People who exhibit weak Adjustment traits are usually labelled as “reactive” and tend to be excitable, worrying, reactive, high strung, or alert. In between these two extremes is the middle range called “responsives”, who are a mixture of qualities characteristic of “resilients” and “reactives”.

Table 2.1 lists the four facets of adjustment with anchors for the two extremes of the continuum.

<table>
<thead>
<tr>
<th>Four Facets of Need for Adjustment</th>
<th>Resilient (R-)</th>
<th>Responsive (R=)</th>
<th>Reactive (R+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitiveness</td>
<td>At ease most of the time</td>
<td>Some concern from time to time</td>
<td>Worrying</td>
</tr>
<tr>
<td>Intensity</td>
<td>Usually calm</td>
<td>Occasionally heated</td>
<td>Quick to feel anger</td>
</tr>
<tr>
<td>Interpretation</td>
<td>Optimistic explanations</td>
<td>Realistic explanations</td>
<td>Pessimistic explanations</td>
</tr>
<tr>
<td>Rebound Time</td>
<td>Rapid rebound time</td>
<td>Moderate rebound time</td>
<td>Longer rebound time</td>
</tr>
</tbody>
</table>

Sociability trait refers to the ability to be fond of the company of others (Howard and Howard, 2004). People who are sociable are inclined to converse with others. People who exhibit high Sociability traits are usually labelled as “extroverts” and tend to be assertive, sociable, warm, optimistic, and talkative. People who exhibit low
Sociability traits are usually labelled as “introverts” and tend to be private, independent, reserved, and not easily understood. In between these two extremes are the “ambiverts,” who are able to move comfortably from outgoing social situations to the isolation of working alone.

Table 2.2 lists the six facets of sociability with anchors for the two extremes of the continuum.

Table 2.2: Six facets of Sociability trait

<table>
<thead>
<tr>
<th>Six Facets of Sociability</th>
<th>Introvert (E-)</th>
<th>Ambivert (E=)</th>
<th>Extrovert (E+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthusiasm</td>
<td>Holds down positive feelings</td>
<td>Demonstrates some positive feelings</td>
<td>Shows a lot of positive feelings</td>
</tr>
<tr>
<td>Sociability</td>
<td>Prefers working alone</td>
<td>Occasionally seeks out others</td>
<td>Prefers working with others</td>
</tr>
<tr>
<td>Energy Mode</td>
<td>Prefers being still in one place</td>
<td>Maintains a moderate activity level</td>
<td>Prefers to be physically active</td>
</tr>
<tr>
<td>Taking Charge</td>
<td>Prefers being independent of others</td>
<td>Accepts some responsibility for others</td>
<td>Enjoys responsibility of leading others</td>
</tr>
<tr>
<td>Trust of Others</td>
<td>Sceptical of others</td>
<td>Is somewhat trusting of others</td>
<td>Readily trusts others</td>
</tr>
<tr>
<td>Tact</td>
<td>Speaks without regard for consequences</td>
<td>Exerts moderate care in selecting words</td>
<td>Carefully selects the right words</td>
</tr>
</tbody>
</table>

Openness trait refers to the degree to be open to new experiences or new ways of doing things (Howard and Howard, 2004). People who exhibit high Openness traits are usually labelled as “explorers.” They have broad interests, are curious, liberal, impractical, and like novelty. People who exhibit low Openness traits are usually labelled as “preservers” and tend to be practical, conservative, have depth of knowledge, efficient, and expert. In the middle of the continuum lies the “moderate” group.

Table 2.3 lists the four facets of openness with anchors for the two extremes of the continuum.
Table 2.3: Four facets of Openness trait

<table>
<thead>
<tr>
<th>Four Facets of Openness</th>
<th>Preserver (O-)</th>
<th>Moderate (O=)</th>
<th>Explorer (O+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imagination</td>
<td>Implements plans</td>
<td>Creates and implements equally</td>
<td>Creates new plans and ideas</td>
</tr>
<tr>
<td>Complexity</td>
<td>Prefers simplicity</td>
<td>Balance of simplicity and complexity</td>
<td>Seeks complexity</td>
</tr>
<tr>
<td>Change</td>
<td>Wants to maintain existing methods</td>
<td>Is somewhat accepting of changes</td>
<td>Readily accepts changes and innovations</td>
</tr>
<tr>
<td>Scope</td>
<td>Attentive to details</td>
<td>Attends to details if needed</td>
<td>Prefers a broad view and resists details</td>
</tr>
</tbody>
</table>

Agreeableness trait refers to the degree to which we defer from others (Howard and Howard, 2004). People who exhibit high Agreeableness traits are usually labelled as “*adapters*” and tend to be trusting, humble, altruistic, team player, conflict averse, and frank. People who exhibit low Agreeableness traits are usually labelled as “*challengers*” and tend to be sceptical, questioning, tough, aggressive and self-centred. In the middle of the continuum are the “*negotiators,*” who are able to move from leadership to follower-ship as the situation demands.

Table 2.4 lists the five facets of agreeableness with anchors for the two extremes of the continuum.

Table 2.4: Five facets of Agreeableness trait

<table>
<thead>
<tr>
<th>Five Facets of Agreeableness</th>
<th>Challenger (A-)</th>
<th>Negotiator (A=)</th>
<th>Adapter (A+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>More interested in self needs</td>
<td>Interested in needs of others and self</td>
<td>More interested in others’ needs</td>
</tr>
<tr>
<td>Agreement</td>
<td>Welcomes engagement</td>
<td>Seeks resolution</td>
<td>Seeks harmony</td>
</tr>
<tr>
<td>Deference</td>
<td>Wants acknowledgement</td>
<td>Likes some acknowledgement</td>
<td>Uncomfortable with acknowledgement</td>
</tr>
<tr>
<td>Reserve</td>
<td>Usually expresses opinions</td>
<td>Expresses opinions somewhat</td>
<td>Keeps opinions to self</td>
</tr>
<tr>
<td>Reticence</td>
<td>Enjoys being out front</td>
<td>Wants some visibility</td>
<td>Prefers the background</td>
</tr>
</tbody>
</table>
Conscientiousness trait refers to the trait of being careful, or the quality of conforming to conscience (Howard and Howard, 2004). People who exhibit high Conscientiousness traits are usually labelled as “focused” and tend to be dependable, organised, disciplined, cautious, and stubborn. People who exhibit low Conscientiousness traits are usually labelled as “flexible” and tend to be private, independent, work alone, reserved, and are hard to read. Towards the middle of this continuum is the “balanced” person, who finds it easier to move from focus to laxity and from production to research.

Table 2.5 lists the five facets of conscientiousness with anchors for the two extremes of the continuum.

<table>
<thead>
<tr>
<th>Five Facets of Conscientiousness</th>
<th>Flexible (C-)</th>
<th>Balanced (C=)</th>
<th>Focused (C+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfectionism</td>
<td>Low need to continually refine or polish</td>
<td>Occasional need to refine or polish</td>
<td>Continual need to refine or polish</td>
</tr>
<tr>
<td>Organisation</td>
<td>Comfortable with little formal organisation</td>
<td>Maintains some organisation</td>
<td>Keeps everything organised</td>
</tr>
<tr>
<td>Drive</td>
<td>Satisfied with current level of achievement</td>
<td>Needs some additional achievement</td>
<td>Craves even more achievement</td>
</tr>
<tr>
<td>Concentration</td>
<td>Shifts easily between on-going tasks</td>
<td>Can shift between tasks before completion</td>
<td>Prefers completing tasks before shifting</td>
</tr>
<tr>
<td>Methodicalness</td>
<td>Operates in a more spontaneous mode</td>
<td>Does some planning</td>
<td>Develops plans</td>
</tr>
</tbody>
</table>

Like any other theories in practice, the Big Five personality traits theory has also been analysed and critiqued upon by experts. Although widely accepted, the Big Five personality traits theory is seen to lack in the following (Howard and Howard, 2004):

i. The theory is seen to lack in originality. It is often claimed that the Big Five personality traits theory is the end result of mixing theories sourced from Cattell, Eysenck, Fiske, Goldberg and McCrae and Costa.
ii. There are varying definitions and names given to the Openness factor. Names commonly used are Intellect, Openness and Imitation.

iii. The theory is seen as just a list of five variables that are useful in attempting to identify and classify personality traits. The theory also claims to possibly exclude other universal personality factors.

iv. The theory produces classification of personalities based on self report questionnaires where people answer questions about their own personality traits. This introduces problems such as a tendency among participants to agree or disagree with the questions regardless of the content; a tendency among participants to endorse items on the basis of how socially desirable they are; a tendency among participants to cluster responses in the middle or at the end of scales; and a tendency among participants to manipulate their scores by answering in a certain way to produce favourable results.

However, the Big Five personality traits theory dimensions have been reliably demonstrated to occur in an impressive number of groups, including children, women and men, non-white and white respondents, and in people from such varied lingual and cultural backgrounds as Dutch, German, Japanese, Chinese, and Filipino (Deutsch and Coleman, 2000).

2.2.2 The Myers-Briggs Type Indicator (MBTI) Theory

The Myers-Briggs Type Indicator tool was developed in the 1940s by Isabel Briggs Myers and Katherine Briggs Myers. The original research was done in the 1940s and 50s. Myers-Briggs Type Indicator (MBTI) is a model of personality that identifies personality preferences. The purpose of the MBTI personality inventory is to make the
theory of psychological types described by Carl Jung understandable and useful in people’s lives (The Myers & Briggs Foundation, 2006).

The essence of the theory is that much seemingly random variation in the behaviour is actually quite orderly and consistent, being due to basic difference in the way an individual prefers to use their perception and judgment.

Myers Briggs Personality Type is based on four preferences (The Myers & Briggs Foundation, 2006):

i. The first preference determines individual preference in directing energy. People who prefer to direct energy to deal with people, things, situations, or "the outer world" is grouped under the Extroversion preference. This is denoted by the letter "E." People who prefer to direct energy to deal with ideas, information, explanations or beliefs, or "the inner world," are grouped under the Introversion preference. This is denoted by the letter "I."

ii. The second preference determines individual preference in processing information. People who prefer to deal with facts, what they know, to have clarity, or to describe what they see, are grouped under the Sensing preference. This is denoted by the letter "S." People who prefer to deal with ideas, look into the unknown, to generate new possibilities or anticipate what is not obvious, are grouped under the Intuition preference. This is denoted by the letter "N."

iii. The third preference determines individual preference in making decisions. People who prefer to decide on the basis of objective logic, using an analytical and detached approach, are grouped under the Thinking preference. This is denoted by the letter "T." People who prefer to decide using values and/or personal beliefs, on the basis of what they believe is important or what they or others care about, are grouped under the Feeling preference. This is denoted by the letter "F."
iv. The fourth preference determines individual preference in organising their life. People who plan, are stable and organised are grouped under the Judging preference. This is denoted by the letter "J." People who prefer to go with the flow, to maintain flexibility and respond to things as they arise are grouped under the Perception preference. This is denoted by the letter "P."

Individuals arrive at their personal personality types after determining their preferences under each of the four preference types above. The combination of the four alphabets above allows for sixteen combinations to be made, which is illustrated in the Table 2.6.

Table 2.6: Sixteen combinations of MBTI

<table>
<thead>
<tr>
<th>ISTJ</th>
<th>ISFJ</th>
<th>INFJ</th>
<th>INTJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISTP</td>
<td>ISFP</td>
<td>INFP</td>
<td>INTP</td>
</tr>
<tr>
<td>ESTP</td>
<td>ESFP</td>
<td>ENFP</td>
<td>ENTP</td>
</tr>
<tr>
<td>ESTJ</td>
<td>ESFJ</td>
<td>ENFJ</td>
<td>ENTJ</td>
</tr>
</tbody>
</table>

The aim of knowing about personality type is to understand and appreciate differences between people. As all types are equal, there is no best type. The MBTI instrument sorts for preferences and does not measure trait, ability, or character. The MBTI tool is different from many other psychological instruments and also different from other personality tests.

The best reason to choose the MBTI instrument would be that hundreds of studies over the past 40 years have proven the instrument to be both valid and reliable (The Myers & Briggs Foundation, 2006). As a testament to this, the MBTI approach to classifying personalities has been widely accepted and applied in a diversity of fields.
such as social work, counselling, career planning, and management (Kaluzniacky, 2004).

Although easy to practise, the following are some criticism against the MBTI model (The Myers & Briggs Foundation, 2006):

i. Neither Katharine Cook Briggs nor Isabel Briggs Myers has any scientific, medical, psychiatric or psychological qualifications, and hence, they are seen to be unqualified to work on the theory.

ii. The MBTI has not been validated by double-blind tests, in which participants accept reports written for other participants, and are asked whether or not the report suits them, and thus, may not qualify as a scientific assessment.

iii. MBTI classifies people into distinct groups, which may not represent participants who fall very close to the borders of each group.

2.2.3 The PEN Model Personality Theory

The PEN model comprises three personality dimensions based on psychophiology. The model results from the work of Hans Eysenck, who was born in Germany on 4 March, 1916 and aims to explain individual differences in personality or temperament (Great Ideas in Personality, 1999).

Eysenck’s PEN model theory is based primarily on physiology and genetics. Eysenck considers personality differences as growing out of genetic inheritance. Thus, Eysenck became primarily interested in what is usually called temperament. His methods of determining temperament involve a statistical technique called factor analysis. This technique extracts a number of “dimensions” from large masses of data. The PEN model is one such result (Great Ideas in Personality, 1999).

The three personality dimensions of the PEN model are (Great Ideas in Personality, 1999):
i. The first dimension is psychoticism. Psychoticism is associated not only with the liability to have a psychotic episode or break with reality, but also with aggression. While less research has been done on psychoticism than on extroversion and neuroticism, the research that has been done has indicated that psychoticism too has a biological basis of increased testosterone levels. This personality dimension is denoted by the letter "P."

ii. The second dimension is extroversion. Extroversion is related to social interest and positive affect. Some investigators have proposed that social interest causes positive affect, since the best of times are usually those spent with other people. Another view is that positive affect causes social interest, as being very enthusiastic and fun loving may make people want to go out and be with other people. Yet another possibility is that a third factor causes both positive affect and social interest. This personality dimension is denoted by the letter "E."

iii. The third dimension is neuroticism. Neuroticism is based on activation thresholds in the sympathetic nervous system or visceral brain. This is the part of the brain that is responsible for the fight-or-flight response in the face of danger. Activation can be measured by heart rate, blood pressure, cold hands, sweating, and muscular tension, especially on the forehead. Neurotic people, who have a low activation threshold, experience negative effect in the face of very minor stressors and tend to become upset easily. Emotionally stable people, who have a high activation threshold, experience negative effect only in the face of very major stressors, and are calm under pressure. This personality dimension is denoted by the letter "N."

Eysenck’s PEN model is often criticised (Great Ideas in Personality, 1999):
i. The PEN model is based on the belief that only the scientific method could give us an accurate understanding of human beings, and mathematical methods are essential in this process.

ii. Some things are not so easily reduced to numbers, and factor analysis in particular, is a technique not all statisticians approve of.

iii. Scientists are of the opinion that Eysenck’s claim that all things must have a physiological explanation is debatable.

2.2.4 The Minnesota Multiphasic Personality Inventory Theory

The Minnesota Multiphasic Personality Inventory (MMPI) is a standardised questionnaire developed at the University of Minnesota in 1940 (Kaye, 2002). The original authors of the MMPI were Starke R. Hathaway, and J. C. McKinley.

This assessment or test was designed to help identify personal, social, and behavioural problems in psychiatric patients. The test helps provide relevant information to aid in problem identification, diagnosis, and treatment planning for the patient (Kaye, 2002).

MMPI-2 was released in 1989 with a revision made on certain test elements in early 2001. The scoring generates six validity scales and ten basic clinical or personality scales. The ten basic clinical or personality scales are (Kaye, 2002):

i. Hypochondriasis - Neurotic concern over bodily functions.

ii. Depression - Poor morale, lack of hope in the future, and a general dissatisfaction with one's own life situation. High scores indicate clinical depression whilst lower scores are more indicative of general unhappiness with life.

iii. Hysteria - Hysterical reaction to stressful situations. People in such situation often have 'normal' facade and then go to pieces when faced with a 'trigger' level
of stress. People who tend to score higher include those who are brighter, better educated and from higher social classes. Women score higher too.

iv. Psychopathic Deviation - Measures social deviation, lack of acceptance of authority, amorality. Adolescents tend to score higher.

v. Masculinity-Femininity - Measures how strongly an individual identifies with the traditional masculine or feminine role. Men tend to get higher scores. It is also related to intelligence, education, and socioeconomic status.

vi. Paranoia - Paranoid symptoms such as ideas of reference, feelings of persecution, grandiose self-concepts, suspiciousness, excessive sensitivity, and rigid opinions and attitudes.

vii. Psychasthenia - Indicates conditions such as Obsessive Compulsive Disorder (OCD). It also shows abnormal fears, self-criticism, difficulties in concentration, and guilt feelings.

viii. Schizophrenia - Assesses a wide variety of content areas, including bizarre thought processes and peculiar perceptions, social alienation, poor familial relationships, difficulties in concentration and impulse control, lack of deep interests, disturbing questions of self-worth and self-identity, and sexual difficulties.

ix. Hypomania - Tests for elevated mood, accelerated speech and motor activity, irritability, flight of ideas, and brief periods of depression.

x. Social Introversion - Tests for a person's tendency to withdraw from social contacts and responsibilities.

Some of the criticisms levelled against the MMPI are (Kaye, 2002):

i. Critics have raised issues about the ethics and validity of administering MMPI, especially for non-clinical uses.
ii. Ethical use of psychological tests means that results must be interpreted in the context of other information about the individual, i.e., personal history, reason for assessment, the intended uses of the report about the results, and who made the referral for assessment. Many controversies have arisen in situations of inappropriate test use, such as deciding the results are infallible, and can stand on their own in isolation from other information about the test taker.

iii. There are claims that giving the test to job applicants is an invasion of privacy, and that there is no evidence linking the test results to job performance.

2.2.5 The Enneagram of Personality Types

The Enneagram is a personality system that focuses on psychological motivations (Enneagram, 2006). In the personality traits space, the Enneagram aims to describe “why” an individual functions in a specific way (Kaluzniacky, 2004). The Enneagram is depicted in Figure 2.1.

![Figure 2.1: The Enneagram](image)

The modern version of the Enneagram personalities emerged in the 20th century from Oscar Ichazo (Enneagram, 2006). The Enneagram is mainly a diagnostic tool that maps the emotional outlook on life. The tool will not cure problems, but may help point
out the underlying fixations of people. The Enneagram tools will classify subjects into
nine types. These nine types can be derived based on a set of questions and answers, but
it is claimed that the best method of identification is through self observation and
understanding what the types are (Enneagram, 2006).

By knowing the type, participants are expected to get out of the types that they fall
into. The nine types are (Enneagram, 2006):

i. Reformer, Critic, Perfectionist - This type focuses on integrity. People in this
category can be wise, discerning and inspiring in their quest for the truth.

ii. Helper, Giver, Caretaker - People in this category, at their best, are
compassionate, thoughtful and astonishingly generous.

iii. Achiever, Performer, Succeeder - People in this category are highly adaptable
and changeable. They walk the world with confidence.

iv. Romantic, Individualist, Artist - People in this category are driven by a desire to
understand themselves and find a place in the world and are often creative and
intuitive.

v. Observer, Thinker, Investigator - People in this category are motivated by the
desire to understand the world around them, specifically in terms of facts.

vi. Loyalist, Devil's Advocate, Defender - People in this category long for stability
above all else. They are loyal and responsible, but once dealt with a bad
experience, they are not quick to trust again.

vii. Enthusiast, Adventurer, Materialist, Epicure - People in this category go from
one activity to another with energy and enthusiasm.

viii. Leader, Protector, Challenger - People in this category are motivated by justice
and the desire to be in the right. They worry about self-protection and control.

ix. Mediator, Peacemaker, Preservationist - People in this category are ruled by
their empathy.
Some of the criticisms levelled against the Enneagram of Personality Types are (Enneagram, 2006):

i. The claims of Enneagram theorists cannot be verified using the empirical scientific method.

ii. The Roman Catholic Church has expressed concerns about the Enneagram when used in a religious context because it is claimed that it "introduces an ambiguity in the doctrine and the life of the Christian faith."

iii. Its "accuracy" may be attributed to the Forer effect, a tendency for individuals to believe a supposedly tailored description of themselves, yet the description has also been worded in such a general sense as to be interpreted as being tailored specifically for them.

2.3 LEADERSHIP STYLES

Leadership defines what the future should look like, aligns people with that vision, and inspires them to make it happen despite obstacles. It is seen as a set of processes that creates organisations in the first place or adapts them to significantly changing circumstances (Kotter, 1996).

Leadership is a very broad topic, which spans from areas such as interpersonal relationships to corporate strategy. Individuals who aspire to possess high leadership qualities need to be equipped with the following competencies (Hiebert and Bruce, 2001):

i. Be result oriented by knowing what the important people want.

ii. Take responsibility and manage the people side of the work environment so that work gets done inside a positive environment.
iii. Encourage teamwork by using consensus as opposed to command, coercion, or compromise, accepting conflict as inevitable, and mediating conflict on rational grounds, supporting decisions based on knowledge and technical competence, rather than on personal whims or the prerogatives of rank, and encouraging emotional expression while emphasising task accomplishment.

iv. Set aside personal issues, and manage people by setting good examples and by practising what is preached.

2.3.1 Leadership and Management

There are often comparisons between the concepts of leadership and management. Both are important in today’s organisations. The table below shows the characteristics that differentiate leadership and management (Hiebert and Bruce, 2001).

Table 2.7: Distinction between leadership and management

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>success based on innovation and adaptation</td>
<td>success based on predictability</td>
</tr>
<tr>
<td>vision and values</td>
<td>goals</td>
</tr>
<tr>
<td>energy</td>
<td>plans</td>
</tr>
<tr>
<td>lives the vision and purpose</td>
<td>defines vision and purpose statements</td>
</tr>
<tr>
<td>models values</td>
<td>defines value statements</td>
</tr>
<tr>
<td>does the right things</td>
<td>does things right</td>
</tr>
<tr>
<td>leadership at all levels; everyone is strategic</td>
<td>top-down strategy</td>
</tr>
<tr>
<td>measurement of results</td>
<td>measurement of activities</td>
</tr>
<tr>
<td>long-term results, big picture emphasised</td>
<td>short-term results emphasised</td>
</tr>
<tr>
<td>systems, aligning the whole, intuitive</td>
<td>linear, rational, analytical</td>
</tr>
<tr>
<td>“heart stuff” (e.g., morale, commitment)</td>
<td>“head stuff” (e.g., behaviour, compliance)</td>
</tr>
<tr>
<td>inspires, creates new ways, coaches, mentors</td>
<td>controls</td>
</tr>
<tr>
<td>multiple, situational leadership roles and</td>
<td>one best style (plan, organise, delegate,</td>
</tr>
<tr>
<td>styles</td>
<td>control)</td>
</tr>
<tr>
<td>principles</td>
<td>techniques</td>
</tr>
<tr>
<td>sets context, pays attention to process</td>
<td>focus on content</td>
</tr>
<tr>
<td>everyone is responsible for quality</td>
<td>quality control</td>
</tr>
<tr>
<td>customer-focused</td>
<td>inward-looking</td>
</tr>
<tr>
<td>individual and team effort and reward</td>
<td>individual effort and reward</td>
</tr>
</tbody>
</table>
2.3.2 Hersey and Blanchard’s Situational Leadership Theory

The Situational Leadership theory was developed by Paul Hersey and Ken Blanchard. It recommends the use of a different pattern of leadership behaviour depending on the ‘maturity’ of an individual follower and the situation that a leader is now in (Management, Methods, Models and More, 2006).

Maturity includes two related components. The first, ‘job maturity,’ refers to a follower’s task relevant skills and technical knowledge. This component is directly reflective of the follower’s ability to perform a task. The second, ‘psychological maturity’ is indicative of the follower’s self-confidence and self-respect. This aspect influences a follower’s willingness to perform a task (Management, Methods, Models and More, 2006).

The theory is based on the following assumptions:

i. Leaders should adapt their style to follower ‘maturity’ based on how ready and willing the follower is to perform the required tasks (that is, their competence and motivation).

ii. There are four leadership styles (‘telling’, ‘selling’, ‘participating’ and ‘delegating’) that match the four combinations of high/low readiness and willingness.

iii. The four styles suggest that leaders should put greater or less focus on the task in question and/or the relationship between the leader and the follower.

iv. Presumes that leadership is about how the boss makes decisions.
Hersey and Blanchard propose four possible leadership styles, each one relating to a particular combination of follower and leader behaviour (Management, Methods, Models and More, 2006):

i. The ‘telling’ style represents a directive style of leader behaviour. The leader simply tells his followers what to do. It is recommended for followers who have both low job maturity and low psychological maturity.

ii. The ‘selling’ style represents a style of leader behaviour that is both directive and supportive. Here, the leader convinces his followers of the importance and necessity of task accomplishment. It is recommended for followers who have low job maturity and high psychological maturity.

iii. The ‘participating’ style represents a supportive style of leader behaviour and involves the leader and followers interacting to determine the proper course of action for a given situation. It is recommended for followers who have high job maturity and low psychological maturity.

iv. The ‘delegating’ style is characterised by a style of leader behaviour, lacking in both supportiveness and directiveness. As previously discussed, delegation involves the assignment of new responsibilities to followers along with additional authority to perform the new tasks. It is recommended for followers who have both high job maturity and high psychological maturity.

The leadership quadrants defined by Hersey and Blanchard are shown in Figure 2.2 (Management, Methods, Models and More, 2006).
The leadership quadrant groups people based on the degree of task and people orientation. The y-axis of the quadrant measures the task orientation of people, while the x-axis measures the people orientation. A combination of high task and people orientation in a person will see a person fall into one of the ‘telling’, ‘selling’, ‘delegating’ or ‘participating’ categories.

The Situational Leadership theory proposed by Hersey and Blanchard is considered by many to be easy to understand and use. However, some of the disadvantages noted about this theory are (Management, Methods, Models and More, 2006):

i. This theory does not distinguish between leadership and management. What is called leadership style is really management style.

ii. Leadership is not primarily about making decisions, but is about inspiring people to change direction.

iii. Leaders may indeed vary the way they inspire people to change. But this is when they have already decided on the need to change. Hence, leadership style does not reduce to decision making style.

iv. Focuses too exclusively on what the person in charge does.
v. It is a definite fact that both leaders and managers have to behave differently in different situations. However, that is just a trivial fact of life, rather than anything profound in terms of our basic believe of what it means to lead or manage.

2.3.3 The Theory X, Theory Y and Theory Z Leadership Theory

Theory X and Theory Y are theories of human motivation developed by Douglas McGregor at the Massachusetts Institute of Technology Sloan School of Management in the 1960s (Management, Methods, Models and More, 2007).

The theory provides an insight into leadership styles (Kliem, 2004). McGregor's work was based on Maslow's hierarchy of needs. He grouped Maslow's hierarchy into "lower order" (Theory X) needs and "higher order" (Theory Y) needs. He suggested that management could use either set of needs to motivate employees but that better results could be obtained by meeting the Theory Y needs (Management, Methods, Models and More, 2007).

A person who subscribes to Theory X reflects a manager's negative view of subordinates. This person believes that subordinates dislike work, avoid responsibility, and lack ambition. This person also assumes that employees are inherently lazy and will avoid work if they can. The result of this line of thought is that Theory X managers naturally adopt a more authoritarian style based on the threat of punishment (Management, Methods, Models and More, 2007).

A person who subscribes to Theory Y believes that subordinates seek work that is physically and mentally rewarding and want to control their destinies. This person assumes that employees are ambitious, self-motivated, and anxious to accept greater responsibility, and exercise self-control and self-direction. This person sees that employees enjoy their mental and physical work activities, have the desire to be
imaginative and creative in their jobs if they are given a chance (Management, Methods, Models and More, 2007). Today, the theories are seldom used because newer and more applicable theories are available. Furthermore, Theory X and Theory Y have the following shortcomings:

i. Workplaces are now commonly described as "hard" versus "soft." Theory X and Theory Y seem to represent workplaces in unrealistic extremes. Most employees and managers may fall somewhere in between these poles.

ii. Recent studies have questioned the rigidity of the model, but McGregor's X-Y Theory remains a guiding principle of positive approaches to management, to organisational development, and to improving organisational culture.

Theory Z is the product of William Ouchi who combined the American and Japanese management policies to form a fusion theory (Management, Methods, Models and More, 2007). Theory Z focuses on increasing employee loyalty to the company. This is done by providing a job for life and focusing on the well-being of the employee, both on and off the job. Characteristics of Theory Z are (Management, Methods, Models and More, 2007):

i. Long-term employment

ii. Collective responsibility

iii. Implicit, informal control with explicit, formalised measures

iv. Collective decision-making

v. Slow evaluation and promotion

vi. Moderately specialised careers

vii. Concern for a total person, including their family
2.3.4 The Managerial Grid Model

The Managerial Grid Model is a behavioural leadership model developed by Robert Blake and Jane Mouton. As shown in Figure 2.3, this model seeks to identify an individual’s management style, and expresses results using numbers and graphs (Dearlove, 2003). This model identifies five different leadership styles based on the concern for people and the concern for production (Managerial Grid Model, 2007).

The five styles are (Managerial Grid Model, 2007):

i. The impoverished style: In this style, managers have low concern for both people and production. Managers use this style to avoid getting into trouble. The main concern for the manager is not to be held responsible for any mistakes. This results in less innovative decisions.

ii. The country club style: Managers using this style pay a lot of attention to the security and comfort of the employees, in the hope that this would increase performance.

iii. The produce or perish style: Managers using this style deem employee needs unimportant; they provide their employees with money and expect good performance in return.

iv. The middle-of-the-road style: Managers using this style try to balance between the company's goals and workers’ needs.

v. The team style: In this style, high concern is paid both to people and production.
The path-goal model is a leadership theory that states that a leader's function is to clear the path toward the goal of the group, by meeting the needs of subordinates. The model was developed jointly by Martin Evans and Robert House (Spencer, 2007).

In this theory, the manager’s job is viewed as coaching or guiding workers to choose the best paths for reaching their goals. ‘Best’ is judged by the accompanying achievement of organisational goals.

Path-Goal Theory identifies four leadership styles (Spencer, 2007):

i. The first style is achievement-oriented. In achievement-oriented leadership, the leader sets challenging goals for followers, and expects them to perform at their highest level, and show confidence in their ability to meet this expectation.

ii. The second style is directive. In directive leadership, the leader lets the followers know what is expected of them and tells them how to perform their tasks.

iii. The third style is participative. Participative leadership involves leaders consulting followers and asking for their suggestions before making a decision.
iv. The fourth style is supportive. In supportive leadership, the leader is friendly and approachable. The leader shows concern for the followers’ psychological well-being.

The Path-Goal Model states that the four leadership styles are fluid, and that leaders can adopt any of the four depending on what the situation demands.

2.4 RELATIONSHIP BETWEEN PERSONALITY TRAITS AND LEADERSHIP STYLES

In his article “Leadership – Character and Traits” Clark (1997) states that good leaders have the following traits:

i. Honesty - Display sincerity, integrity, and candour in all actions.

ii. Competent - Actions should be based on reason and moral principles and not childlike emotional desires or feelings.

iii. Forward-looking. Set goals and have a vision of the future. The vision must be owned throughout the organisation.

iv. Inspiring - Display confidence and show endurance mentally, physically, and spiritually.

v. Intelligent - Read, study, and seek challenging assignments.

vi. Fair-minded - Show fair treatment to all people and display empathy by being sensitive to the feelings, values, interests, and well-being of others.

vii. Broad-minded - Seek out diversity.

viii. Courageous - Have the perseverance to accomplish a goal, regardless of challenges.

ix. Straightforward - Use sound judgment to make good decisions at the right time.
x. Imaginative - Make timely and appropriate changes in thinking, plans, and methods. Show creativity by thinking of new and better goals, ideas, and solutions to problems.

Some of the traits mentioned in the article are similar to the dominant traits discovered within the participants on this survey. The traits ‘Honesty’, ‘Straightforward’, and ‘Competent’ define leaders who exhibit dominant Conscientiousness trait. The trait ‘Inspiring’ defines leaders who exhibit dominant Sociability trait.

2.5 ROLE OF PERSONALITY TRAITS AND LEADERSHIP STYLES IN HELPING TO MANAGE SUCCESSFUL PROJECTS

The CHAOS Report (The Standish Group, 1994) states that companies in the United States spend more than $250 billion each year on IT application projects. Of the 175,000 estimated projects where a budget is allocated, 31.1% of projects will be canceled before they are completed and 52.7% of projects will cost 189% more than their original estimates.

There are many studies and articles that discuss and document the primary reasons for project failures. Winters (2002), in his article named “Top 10 Reasons Projects Fail” states the top ten reasons, listed in order, of project failures are as follows:

i. Inadequately trained and/or inexperienced project managers.

ii. Failure to set and manage expectations.

iii. Poor leadership at any or all levels.

iv. Failure to adequately identify, document and track requirements.

v. Bad plans and poor planning processes.

vi. Poor effort estimation.
vii. Cultural and ethical misalignment.

viii. Misalignment between the project team and the business or other organisation it serves.

ix. Inadequate or misused methods.

x. Inadequate communication, including progress tracking and reporting.

From the list above, it can be seen that the top 3 reasons for project failures are the lack of good leaders. This highlights the need for organisations to identify good leaders in order to ensure that the rate of project failure is brought down and the companies’ investments get good return.

2.6 CAREER SELECTION

Job selection is an important process for individuals, regardless of whether they are looking for the first assignment or are in the midst of looking for new career opportunities. Rather than focusing solely on monetary and positional gains, career selection initiatives must take into consideration the following factors:

i. Personal aptitudes, abilities, interests, ambitions, resources, limitations, and knowledge.

ii. Knowledge of the requirements, conditions for success, advantages and disadvantages, compensation, opportunities, and prospects in different areas of work.

Career development theories explain how people develop certain traits, personalities, and how these developments influence decision making. The career selection theories considered in the selection process for this project are documented in the following sections.
2.6.1 Holland Occupational Codes of Career Possibilities

Dr. John L. Holland is the creator of the Holland Occupational Codes, a system of personality types to classify jobs into job categories, interest clusters, or work personality environments (Holland Code Career Resource Centre, 2006). In the early stages, the theory emphasises the “searching” aspects of the person-environment fit: “The person making a vocational choice, in a sense, searches for situations which satisfy his hierarchy of adjustive orientations” (Brown, 2002).

The Holland Occupational Codes describes the nature of a worker. This is graphically depicted in Figure 2.4.

![Figure 2.4: The Holland Hexagon Model or Holland Codes](image)

Dr. John L. Holland developed the Self Directed Search (SDS) package based on the belief that every individual will serve to their best ability if the work that they do fits best to their general interests and abilities.

The SDS package allows participants to arrive at their 3-letter Holland Code, also known as the RIASEC code. The 3-letter RIASEC code is a representation of the 3 RIASEC categories that participants are most strongly associated to. This association
can then be used to look up career possibilities from a list that is available in Internet Sites such as the University of Missouri Career Centre Website (http://career.missouri.edu/students/explore/thecareerinterestsgame-realistic.php).

Dr. John L. Holland’s Occupational Codes states that every individual can be loosely categorised into the following six categories of work personalities (Holland Code Career Resource Centre, 2006):

i. ‘R’ represents people in the Realistic category. Realistic people are those who have athletic or mechanical ability, prefer to work with objects, machines, tools, plants or animals, or prefer to be outdoors.

ii. ‘I’ represents people in the Investigative category. Investigative people are people who like to observe, learn, investigate, analyse, evaluate or solve problems.

iii. ‘A’ represents people in the Artistic category. Artistic people are people who have artistic, innovative or intuitive abilities and like to work in unstructured situations using their imagination and creativity.

iv. ‘S’ represents people in the Social category. Social people are people who like to work with other people to enlighten, inform, help, train, or cure them. They are skilled with words.

v. ‘E’ represents people in the Enterprising category. Enterprising people are people who like to work with people by influencing, persuading, performing, leading or managing for organisational goals or economic gain.

vi. ‘C’ represents people in the Conventional category. Conventional people are people who like to work with data, have clerical or numerical ability, can carry out tasks in detail or follow through on others’ instructions.
The categories were developed based on the foundation that people search for environments that will let them exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles (Brown, 2002).

Each of the RIASEC categories opens a list of career possibilities that participants can pursue in order to match interest and ability to career, and subsequently perform to their best ability. Some of the career and hobby possibilities are listed in Table 2.8.

Table 2.8: The RIASEC Code of career possibilities

<table>
<thead>
<tr>
<th>RIASEC Code</th>
<th>Possible Careers</th>
<th>Possible Hobbies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realistic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aircraft Mechanic</td>
<td>Refinishing furniture</td>
</tr>
<tr>
<td></td>
<td>Automotive Engineer</td>
<td>Growing plants/flowers</td>
</tr>
<tr>
<td></td>
<td>Baker/Chef</td>
<td>Playing sports</td>
</tr>
<tr>
<td></td>
<td>Dental Assistant</td>
<td>Hunting/fishing</td>
</tr>
<tr>
<td></td>
<td>Engineer</td>
<td>Woodworking</td>
</tr>
<tr>
<td></td>
<td>Electrician</td>
<td>Coaching team sports</td>
</tr>
<tr>
<td></td>
<td>Jeweller</td>
<td>Building models</td>
</tr>
<tr>
<td></td>
<td>Optician</td>
<td>Repairing cars, equipment, etc.</td>
</tr>
<tr>
<td></td>
<td>Painter</td>
<td>Target shooting</td>
</tr>
<tr>
<td></td>
<td>Practical Nurse</td>
<td>Landscaping</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Taking exercise classes</td>
</tr>
<tr>
<td>Investigative</td>
<td>Archaeologist</td>
<td>Book club</td>
</tr>
<tr>
<td></td>
<td>Biologist</td>
<td>Astronomy</td>
</tr>
<tr>
<td></td>
<td>Chemist</td>
<td>Crossword puzzles/board games</td>
</tr>
<tr>
<td></td>
<td>Dentist</td>
<td>Preservation of endangered species</td>
</tr>
<tr>
<td></td>
<td>Geologist</td>
<td>Computers</td>
</tr>
<tr>
<td></td>
<td>Horticulturist</td>
<td>Visiting museums</td>
</tr>
<tr>
<td></td>
<td>Meteorologist</td>
<td>Collecting rocks, stamps, coins, etc.</td>
</tr>
<tr>
<td></td>
<td>Pharmacist</td>
<td>Amateur radio</td>
</tr>
<tr>
<td></td>
<td>Physician</td>
<td>Recreational flying</td>
</tr>
<tr>
<td></td>
<td>Software Engineer</td>
<td></td>
</tr>
<tr>
<td>Artistic</td>
<td>Actor/Actress</td>
<td>Photography</td>
</tr>
<tr>
<td></td>
<td>Advertising</td>
<td>Performing</td>
</tr>
<tr>
<td></td>
<td>Art Director</td>
<td>Writing stories, poems, etc.</td>
</tr>
<tr>
<td></td>
<td>Dancer</td>
<td>Desktop publishing</td>
</tr>
<tr>
<td></td>
<td>Copywriter</td>
<td>Sewing</td>
</tr>
<tr>
<td></td>
<td>Drama</td>
<td>Taking dance lessons</td>
</tr>
<tr>
<td></td>
<td>Teacher</td>
<td>Visiting art museums</td>
</tr>
<tr>
<td></td>
<td>Graphic Designer</td>
<td>Designing sets for plays</td>
</tr>
<tr>
<td></td>
<td>Museum Director</td>
<td></td>
</tr>
<tr>
<td>Architect</td>
<td>Travel</td>
<td></td>
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<tr>
<td>-----------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Photographer</td>
<td>Playing a musical instrument</td>
<td></td>
</tr>
<tr>
<td>Reporter</td>
<td>Homemade crafts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Painting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Speaking foreign languages</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social</th>
<th>Enterprising</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chaplain/Minister</td>
<td>Auto Sales Rep</td>
<td>Accountant</td>
</tr>
<tr>
<td>City Manager/Public Manager</td>
<td>Buyer</td>
<td>Bank Teller</td>
</tr>
<tr>
<td>Professor</td>
<td>Credit Manager</td>
<td>Building Inspector</td>
</tr>
<tr>
<td>Cruise Director</td>
<td>Business Owner</td>
<td>Cashier</td>
</tr>
<tr>
<td>High School teacher</td>
<td>Flight Attendant</td>
<td>Computer Operator</td>
</tr>
<tr>
<td>Librarian</td>
<td>Hotel Manager</td>
<td>Legal Secretary</td>
</tr>
<tr>
<td>Detective</td>
<td>Insurance Agent</td>
<td>Typist</td>
</tr>
<tr>
<td>Physical Therapist</td>
<td>Lobbyist</td>
<td>Teacher</td>
</tr>
<tr>
<td>Social Worker</td>
<td>Real Estate Agent</td>
<td>Librarian</td>
</tr>
<tr>
<td>School Counsellor</td>
<td>Stockbroker</td>
<td>Auditor</td>
</tr>
<tr>
<td>Volunteering with social action groups</td>
<td>Discussing politics</td>
<td>Collecting memorabilia</td>
</tr>
<tr>
<td>Writing letters</td>
<td>Reading business journals</td>
<td>Arranging and organising household or workshop, etc.</td>
</tr>
<tr>
<td>Joining campus or community organisations</td>
<td>Watching the stock market</td>
<td>Playing computer or card games</td>
</tr>
<tr>
<td>Helping others with personal concerns</td>
<td>Attending meetings and conferences</td>
<td>Collecting any related objects</td>
</tr>
<tr>
<td>Meeting new friends</td>
<td>Selling products</td>
<td>Keeping club or family records and files</td>
</tr>
<tr>
<td>Attending sporting events</td>
<td>Leading campus of community organisations</td>
<td>Reading home magazines</td>
</tr>
<tr>
<td>Caring for children</td>
<td>Operating a home business</td>
<td>Studying tax laws</td>
</tr>
<tr>
<td>Religious activities</td>
<td></td>
<td>Practicing Clutter's Last Stand</td>
</tr>
<tr>
<td>Going to parties</td>
<td></td>
<td>Writing family history</td>
</tr>
<tr>
<td>Playing team sports</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Self Directed Search (SDS) career planning package, which is used by over 22 million people worldwide and translated into 25 different languages, is based on these codes (Self-directed Search, 2001). Some of the other useful tools are:

i. The Vocational Preference Inventory, which contains 160 occupational titles as items and yields the six type scales and five supplemental scales (Self-Control, Masculinity, Status, Infrequency, and Acquiescence).

ii. The Position Classification Inventory, the brainchild of Gottfredson and Holland in the year 1991, is an 84-item inventory containing six 13-item scales corresponding to the six Holland’s work-environment types.

iii. The Career Attitudes and Strategies Inventory, the brainchild of Gottfredson and Holland in the year 1994, is the newest measure in the Holland’s system and is an 130-item 4-position scale with nine subscales (Job Satisfaction, Work Involvement, Skill Development, Dominant Style, Career Worries, Interpersonal Abuse, Family Commitment, Risk-Taking Style, and Geographical Barriers).

2.6.2 The Birkman Method of Career Possibilities

The Birkman Method provides organisations with valuable insight into individual, team and organisational performance. Since 1951, The Birkman Method has helped individuals and companies reach greater performance levels (Birkman, 2007).

The Birkman Method can be summarised as follows (Birkman, 2007):

i. A non-judgmental profile revealing how individuals within an organisation are likely to act, react and feel, based on their interests, underlying needs, usual behaviour and behaviour under stress.

ii. A system for maximising productivity by aligning individual or team behaviour with organisational goals.
iii. A leading motivational assessment system for creating strategic change within an organisation.

iv. A comprehensive way to assess and manage individual organisational effectiveness, enhancing productivity, responsibility and accountability.

The Birkman site has been developed as a self-report questionnaire eliciting responses about views of self, views of others and perception of career opportunities. The Birkman Method focuses on 5 major perspectives (Birkman, 2007):

i. Usual Behaviour – an individual’s effective behavioural style of dealing with relationships and tasks.

ii. Underlying Needs – an individual’s expectations of how relationships and social situations should be governed in the context of the relationship or situation.

iii. Stress Behaviours – an individual’s ineffective style of dealing with relationships or tasks; behaviour observed when underlying needs are not met.

iv. Interests – an individual’s expressed preference for job titles based on the assumption of equal economic rewards.

v. Organisational Focus - the perspective in which an individual views problems and solutions relating to organisational goals.

The most common output of the Birkman Method is illustrated as the Work Style Grid (Figure 2.5), which a visual, graphic representation of results based on a model of how people behave, in general. The Work Style Grid Report can help to (Birkman, 2007):

i. Clarify communication styles by determining if a person is a Direct Communicator, represented by the top two quadrants of the Grid, or an Indirect Communicator, represented by the bottom two quadrants.
ii. Reveal a person’s focus by determining if a person is Task-Oriented, represented by the left two quadrants, or People-Oriented, represented by the right two quadrants.

iii. Discover unique strengths that move individuals toward a distinct personal style by determining if a person is a Planner (Blue quadrant), Communicator (Green quadrant), Expediter (Red quadrant), or Administrator (Yellow quadrant).

![Figure 2.5: The Work Style Grid](image)

### 2.7 RELATIONSHIP BETWEEN THE BIG FIVE PERSONALITY TRAITS THEORY AND HOLLAND OCCUPATIONAL CODES

There have been studies carried out to determine a possible match between the Big Five personality traits theory dimensions of adjustment, sociability, agreeableness, conscientiousness, and openness and John Holland’s Occupational Code of Realistic, Investigative, Artistic, Social, Enterprising and Conventional. One of the studies was carried out in 1997 by John A. Schinka, James A. Haley, David A. Dye and Glenn Curtiss. The results were documented in a journal article entitled “Correspondence Between Five-Factor and RIASEC Models of Personality” (Schinka et al., 1997).
The primary purpose of the study was to extend the scope of previous studies by examining the dimensional relationships between the full Big Five personality traits theory and the RIASEC code theory, and employing the full measures of all five domains in a large national sample of working adults (Schinka et al., 1997).

The study was also aimed at addressing the complementary convergent validity of the two personality models by examining their comprehensiveness. It involved 1,034 participants, broken into groups of men and women, drawn from a larger pool of working adults who had participated in a national study of job performance.

In the study, the authors observed that there are several obvious hypothetical links between the Big Five personality traits and RIASEC theories: Big Five Sociability with RIASEC Enterprising and Social; Big Five Openness with RIASEC Investigative and Artistic; and Big Five Conscientiousness with RIASEC Conventional (Schinka et al., 1997).

This observation was made based on the following findings from the study (Schinka et al., 1997):

i. For men, the relationship between Big Five Extraversion and RIASEC Social and Enterprising interests and the relationship between Big Five Openness and RIASEC Artistic is uncovered in all three studies. In addition, two studies yielded a relationship between Big Five Agreeableness and RIASEC Social. Other relationships cannot be generalised across the studies and require confirmation from further studies.

ii. For women, all studies show a relationship between Big Five Openness and RIASEC Investigative and Artistic dimensions. Two studies reveal a relationship between Big Five Extraversion and RIASEC Social interests, two studies reveal a relationship between Big Five Extraversion and Enterprising interests, and two studies reveal an inverse relationship between Big Five Extraversion and
RIASEC Artistic interests. Two studies also show a relationship between Big Five Conscientiousness and RIASEC Investigative.

Another study on the influence personality traits have on the degree of involvement participants have in their work shows that the Agreeableness trait negatively influences the work involvement and to total hours worked per week; and the Openness trait positively influences the work involvement. In short, the study documented that there are in existence of an, albeit not strong or extensive, relationship between the Big Five of personality and work involvement (Bozionelos, 2004).

2.8 REVIEW ON EXISTING SYSTEMS

Before system development, it is important to review other systems that provided personality traits and leadership styles tests. This will serve as the differentiating factor to the PL-Analyser system, which will allow it to be used when there is a requirement for personality traits, leadership skills measurement and career guidance analysis to be done.

Five personality traits and three leadership styles systems were studied to identify and understand the functions, strengths and weaknesses of each system. The systems were reviewed on the aspects of usability, medium of delivery (Web-based or other means), clarity of information and instructions, and types of results generated. The results are documented in Table 2.9 and 2.10.

Table 2.9: Strengths and weaknesses of existing personality traits survey systems

<table>
<thead>
<tr>
<th>Existing systems</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>eBullPen Job Website. Available: <a href="http://www.ebullpen.com/">http://www.ebullpen.com/</a> (eBullPen, 2006).</td>
<td>• Offers Web-based personality analysis.  • Provides facilities for employers to</td>
<td>• Very much focused on job search and placement, hence information and survey results are</td>
</tr>
<tr>
<td>Service</td>
<td>Features</td>
<td>Limitations</td>
</tr>
<tr>
<td>---------</td>
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<td>-------------</td>
</tr>
</tbody>
</table>
| Your Personality - Free online personality tests and quizzes. Available: http://www.yourpersonality.net/ (yourPersonality, 2004). | • Offers various Web-based personality tests.  
• Surveys use scenario based questions. | • No login facility to preserve privacy and cannot store history of participation.  
• Scenarios do not cover all areas in life.  
• Each survey is lengthy and takes time to complete. |
• Provides clear description on what the survey is about and what are the benefits and risks involved. | • Solely focused on the survey and provides no value-added information, materials and links.  
• Survey is lengthy and takes time to complete.  
• All survey questions are in one Web page. |
• Provides introduction to the Big Five personality traits theory.  
• Score results are simple and to the point. | • Focuses solely on the Big Five personality traits survey and results.  
• Score results offer no explanation of extremes and general traits and relation to careers.  
• No login facility to preserve privacy and cannot store history of participation. |
• Provides clear | • Survey is lengthy and takes time to complete.  
• All survey... |
description on what the survey is about and what are the benefits and risks involved.
- Provides login facility to preserve privacy.

- Questions are in one Web page, which makes navigation and reading difficult.
- Summary report on analysis results is free but detailed reports are available at a fee.

Table 2.10: Strengths and weaknesses of existing leadership styles survey systems

<table>
<thead>
<tr>
<th>Existing systems</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
</table>
| Franklin Covey Coaching. Available: https://www.franklincoveycoaching.com (FranklinCovey, 2007) | • Provides simple Web-based survey facility to determine leadership style of participants.  
  • Results are ready to read and understand. | • Focuses solely on leadership concepts.  
  • In-depth analysis and coaching requires a fee.  
  • Application is more of a starting point to the more important coaching services, which comes at a fee. |
  • Results are ready to read and understand. | • Focuses solely on leadership concepts.  
  • Survey is lengthy and takes time to complete.  
  • All survey questions are in one Web page, but page automatically scrolls to next question once an answer is selected.  
  • No login facility to preserve privacy and cannot store history of participation.  
  • Final report needs to be purchased. |
| Performance, Learning, Leadership, & Knowledge. Available: http://www.nwlink.com/~donclark/ | • Provides simple Web-based survey facility to determine                        | • Results are not calculated by the Website, but are processed offline. |

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| leader/survstyl.html (Clark, 2007) | leadership style of participants. | • No in-depth analysis or recommendations are made to participants.  
• Focuses solely on leadership styles.  
• No login facility to preserve privacy and cannot store history of participation. |

### 2.9 SUMMARY

This chapter reviews the literature concerning personality traits, leadership styles and career possibilities theories in general, and makes comparisons between theories. This chapter also reviews existing systems that provide personality traits and leadership styles tests and analysis services.