EFFECT OF PERSONALITY TRAITS AND WISDOM ON DECISION MAKING AND PROBLEM SOLVING AMONG MANAGERS OF PUBLIC SECTOR ORGANIZATIONS

By

SAJID MAHMOOD ALVI

Registration No: 18-FSS/PHDPSY/F11

Supervisor

DR. ASGHAR ALI SHAH

Assistant Professor

Co-Supervisor

Dr Muhammad Babar Akram

Assistant Professor

Department of Psychology

Faculty of Social Sciences

International Islamic University Islamabad

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SAJID MAHMOOD ALVI

18-FSS/PHDPSY/F11

Department of Psychology

Faculty of Social Sciences

International Islamic University Islamabad

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CERTIFICATION

This is certified that we have read the thesis submitted by Mr. Sajid Mahmood Alvi, bearing Registration No. 18-FSS/PHDPSY/F11. It is our judgment that this thesis is of sufficient standard to warrant its acceptance by International Islamic University, Islamabad, for the degree of Ph.D in Psychology

Committee:

External Examiner-I
Prof. Dr. M. Anis Ul Haque,
Head, Department of Psychology
NUML, Islamabad

External Examiner-II
Prof. Dr. Muhammad Jahanzeb Khan
Department of Psychology
University of Peshawar

Internal Examiner
Dr. Mazhar Iqbal Bhatti,
Assistant Professor,
Department of Psychology,
International Islamic University,
Islamabad

Supervisor
Dr. Syed Asghar Ali Shah,
Assistant Professor,
Department of Psychology,
International Islamic University,
Islamabad

Co- Supervisor
Dr. Muhammad Babar Akram,
Assistant Professor,
Department of Sociology,
International Islamic University,
Islamabad

Acting Chairman
Department of Psychology,
International Islamic University,
Islamabad

Dean 24/10/20
Faculty of Social Sciences,
International Islamic University,
Islamabad

Dedicated To

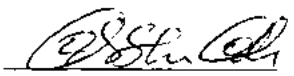
My uncle Muhammad Irfan Alvi

&

My brother Molana Shahid Younas Alvi (Late)

APPROVAL CERTIFICATE

Certified that the contents and form of thesis entitled, "**EFFECT OF PERSONALITY TRAITS AND WISDOM ON DECISION MAKING AND PROBLEM SOLVING AMONG MANAGERS OF PUBLIC SECTOR ORGANIZATIONS**", prepared by **Sajid Mehmood Alvi**, Registration No. **18-FSS/PHDPSY/F11** toward the partial fulfilment of the Degree Program Doctor in Philosophy in Psychology has been approved for the submission to International Islamic University, Islamabad.



Dr Asghar Ali Shah

Supervisor

Assistant Professor

Department of Psychology

Dr Muhammad Babar Akram

Co-Supervisor

Assistant Professor

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Abstract

The present research was aimed to investigate the relationship between Big-Five Personality traits, Wisdom, Problem Solving and Decision Making among managers of public sector organizations. It also intended to investigate the relationship of the big five personality traits with the rational, intuitive, dependent, avoidant and spontaneous dimensions of decision making styles and sensing, intuiting, thinking and feeling Problem-solving styles in managers. In addition, the study intended to investigate the relationship of cognitive, affective and reflective dimensions of Wisdom with Problem-solving and decision making styles. Also, the study aimed to explore gender differences in study variables and comparison related to job experience in Wisdom, Decision making and Problem-solving styles among managers. The data was collected from managers working at six public sector organizations in Islamabad and Hazara division, KPK. The total sample size of the present study was 440 managers. Among them are 260 males and 180 female managers, and their age ranges from 24 to 59 years. The sample was approached through a Stratified Random sampling technique following a cross-sectional survey research design. The psychological assessment instruments used for the present research were Big Five Personality Inventory, Three Dimensional Wisdom Scale, Problem Solving style questionnaire, and General Decision Making Style Questionnaire. The data were analyzed through SPSS (23). Pearson Correlation analysis, Hierarchical Step-wise regression, Independent sample t-test and one-way ANOVA were applied. The findings of the study revealed that all the study variables are significantly related. Personality traits have a significant positive relationship with decision making and Problem-solving. The result reveals that personality trait Extroversion is positively correlated to spontaneous and intuitive decision making, agreeableness trait is positively correlated to dependent decision making, conscientiousness is positively correlated to rational decision making, openness to experience, on the other hand, is positively correlated to intuitive

decision making and spontaneous decision-making style. In contrast, neuroticism is negatively correlated to all thedecision making styles except avoidant decision making where it is positively related. The results also reveal that Extroversion, agreeableness, conscientiousness and openness to experience traits are significantly and positively related to sensing, intuiting, feelingand thinking problem-solving styles, whereas neuroticism is negative related to sensing, feeling, thinking Problem-solving styles. Also, affective and reflective dimensions of wisdom are significantly andpositively correlated with rational, intuitive, dependent, avoidant and spontaneous decision making whereas cognitive dimension is negatively related to dependent decision making and positive to rational, intuitive, avoidant and spontaneous decision making. Dimensions of wisdom are also significantly and positively related to Problem-solving styles. The study further identifies that wisdom, Problem-solving and decision-making abilities are higher in males than female managers, and male managers are more extroverted, agreeable, open to experience than female managers. In contrast, the study finds non-significant differences in conscientiousness and neuroticism traits among male and female's managers. The study also shows that managers with higher job experience can solve problems more, make decisions and score high on wisdom. Overall, Big Five Personality Traits and Wisdom tend to influence the decision making and problem-solving skills of managers.

Keywords: Personality, Wisdom, Problem solving, Decision making, Manager

Chapter 1

Introduction

The internal environment deals with the organization's daily work. In the organization, a manager plays a major role. He/she gives leadership, coordinates employees' activities, delegates subordinates authority, takes significant decisions, resolves problems, takes care of people's relationship activities, acts as the speaker of the organization, and so forth. All of these roles make it very crucial for a manager to operate harmoniously.

The knowledge and expectations from the managers of the companies and their contribution to society and the environment have strengthened organizations' and managers' social obligations (Maxwell, 2013; Pauleen, Rooney, & Holden, 2010). Over the previous two decades, technology has progressed enormously, knowledge and information have expanded considerably and these resources have been managed more efficiently. Managers and the leader will be aided by all of these to take better decisions, problem-solving, and environmental and economic crisis prevention. But, the issue of the strategy, organizations, and activities management that is fundamentally more complex, diversified and uncertain lies in all these new opportunities (Mintzberg, 2011).

Proof of how tough it is to take decisions and to solve problems is everywhere (Intezari, 2013; Olcum & Titrek, 2015). For example according to Hintze, (2006) the collapse of Enron, the Global Financial Crisis of 2009 and contemporary financial and environmental calamities like the Eurozone crisis (Shambaugh, Reis, & Rey, 2012) are examples that support knowledge in itself that does not necessarily lead to truth and certitude (Hearn, Rooney, & Mandeville, 2003; Intezari, 2013) and suggest this;" it is the need of time to reconsider about the traditional approaches that are being used in dealing

within formation, knowledge and technology implementation and contribution to companies, human life and management decisions (Intezari & Pauleen, 2012; Rowley, 2006).

The way a person decides and solves problems also depends on dispositional features such as personality traits (Neuert & Hoeckel, 2013; Pretz & Totz, 2007). Nevertheless, it is insufficient to rely only on personality characteristics to explain decisions and problem-solving. Perhaps it's time to consider what constitutes a "good life"(Yang 2013), like Rooney, McKenna, and Liesch (2010) argue if we go far beyond the accumulated wisdom assumptions (and technology), a much greater future is feasible [that is, the better one which comes fully based on limited cognition, relative wisdom, accumulative assumption of knowledge, perception, and truth].

Wisdom has long piqued the interest of philosophers throughout history, as well as psychologists and organizational and managerial scholars in recent years, as one of the crucial aspects of human life (Ardelt, 2005; Intezari, 2013) that can have a significant impact on personal, organizational and community success (Rowley, 2006). However, there is still a long way to go in determining what its nature is and how it might be properly implemented in the disciplines of organization and management.

Superior decisions and problem-solving (which, in turn, have a beneficial impact on the organizational performance) are considered a significant question (Cantor & Macdonald, 2009). It is, therefore, necessary to understand how decision-making and problem-solving skills are influenced by distinct factors like personality and wisdom.

Personality

Personality cannot be described in a single way. The name personality extends back to Ancient Greece, when it was signified by an actor as mask who played several roles with various theatrical personalities (Engler, 2013). Personality refers to individual variances in thinking, feeling and behavior patterns (Alghamdi, Aslam, & Khan, 2017). Robbins Judge, Millett, and Boyle (2013) stated that personalities are typically defined as a set of quantitative characteristics exhibited by the individual. Personality is "particular features of people who may be opened or hidden and who may influence whether or not they are common or different in an organization" (Brooks, 2008). Espegren and Panicker (2015) use personality definitions within an organization, according to which personality is a "particular feature of person that is open or hidden and can influence whether they are common or have different behavior" (Brooks, 2008).

Personality Traits

Researchers in Psychology have long been interested to study personality traits. The behavioral characteristics or different behavioral patterns posses by a person refer to personality traits (Schacter, Gilbert, & Wegner, 2011). Trait personality theories assume that personality traits are essential for a person's life, relatively stable and unchangeable, and determine a person's conduct (Bleidorn, Klimstra, Denissen, Rentfrow, Potter, & Gosling, 2013; Borkenau, Riemann, Spinath, & Angleitner, 2006; Brooks, 2008).Contemporary psychologists think that there are five primary fields or dimensions of features interacting with one another to produce personality and form a social landscape (Matthews, Deary, & Whiteman, 2003). The 'Big 5' or the 'Five Factor Model' is also known as personality traits (Digman, 1990; Intiful, Oddam, Kretchy, & Quampah, 2019).

Theoretical Elements of Personality

Big Five Personality Traits Model. In the discipline of psychology, there are various models of personality traits. The five-factor model frequently referred to as the Big-Five (Bakker, Van Der Zee, Lewige, & Dollard 2006; Digman 1990; McCrae & John 1992). The model is widely acknowledged and popular in terms of representing individual differences in personality (Berglund, Seva, & Strandh, 2015). Based on the general studies of the personality traits by Cattell (1943) and Fishke (1949), Costa and McCrae (1985), Digman and Takemoto-Chock (1983), a very useful taxonomy for classifying the diverse personality traits is Big Five (Caligiuri, 2006; Mishra & Vaithianathan, 2015).

In surveys, self-descriptions, interviews and physical assessments, the 'Big Five Factor Model' was proved to take account of diverse personality traits without overlapping with others (McCrae & Terracciano, 2005). These features are widely classified as extraversion, agreeableness, conscientiousness, neuroticism, and openness (McCrae & Terracciano, 2005; Vollrath, Hampson, & Juliusson, 2012). According to the research, traits are constant and resistant to change in behavior (McCrae & Costa, 2006). The five personality characteristics are described below:

Extraversion. Extraversion is defined as an active, happy, and socio-economic activity that is predisposed to positive and interpersonal influence (Mooradian & Swan, 2006). Extraversion is connected with self-conceived, confident behavior and excitement seeking (Deniz & Satici, 2017). Extraversion means the comfort of individuals in contacts and discussions with others (Robbins, Judge, Millett, & Boyle, 2013). Individuals with high extraversion interaction and more interpersonal interaction tend to be experienced positive emotions (Deniz & Satici, 2017).

Agreeableness. It emphasizes compliance and individual deferment, friendliness, flexibility, cooperation, forgiveness, and softness (Lounsbury & Gibson, 2009). Agreeable-friendly people are pro-socially oriented towards others and do not oppose thinking, sentiment, and action. They are merciful, kind, forgiving, and faithful, not self-centered. Agreeability is linked to cooperation and self-reliance (Deniz & Satici, 2017). Individuals seem to be more cooperative and confident who have the higher agreeableness in them and contrarily people are unpleasant and aggressive if they possess low levels of agreeableness (Robbins, Judge, Millett, & Boyle, 2013).

Openness to Experience. It employs openness to innovation at a personal level. Those who are eager to encounter fresh ideas and ways will be open-minded (Robbins, Judge, Millett, & Boyle, 2013). They are curious, creative, ingenious, original, and not barren. Openness to experience is linked with intellectual curiosity, fresh ideas, aesthetic sensibility, broad interests, and uncommon processes of thought (Deniz & Satici, 2017).

Neuroticism. Neuroticism compares emotional stability with a proclivity for a variety of troubling emotions and ideas (Camps, Stouten, & Euwema, 2016). Persons high in neuroticism are more likely to experience psychological distress and negative emotions. They're distressed, aggressive, tense, touchy, and not calm. Neuroticism is linked to unrealistic views, self-defeating, mishandling, and psychological fragility (Allen, Greenlees, & Jones, 2011; Deniz & Satici, 2017).

Conscientiousness. Conscientiousness indicates the reliability of the person: individuals with a high level of Conscientiousness are reliable, organized and performance-driven (Robbins, Judge, Millett, & Boyle, 2013). Conscientious individuals are highly organized, persistent and motivated and can delay gratification. They are timely, hard-working, reliable, accountable, effective, and not insufficient (Deniz & Satici, 2017). In such

people, there is Self-discipline, productivity, ethical behavior, a high level of aspiration, and achievement that is related to a conscience (Allen, Greenlees, & Jones, 2011).

These five personality traits are considered to be the most basic personality factors and constitute the basis of modern study. This hypothesis is often utilized to investigate the qualities of employees and managers (Baptiste, 2018; McCrae & Costa, 1987; McCrae & Costa, 2006; Shahzad, Raja, & Hashmi, 2021; Wiggins, 1996). Smith and Canger (2004) said that this model is essential. It is also called the Big Five model, and it was considered significant because, it (a) essentially comprises all characteristics, (b) contributes to meaningful classification of personality characteristics, and (c) provides a framework for research. Considering the literature, personality characteristics are studied thoroughly. In 80s, Research was exploded on the five dimensions of personality, as one of the more investigated theories of personality (Judge & Ilies, 2002).

The Big Five personality structure was found by Beer and Watson (2008) generally accepted in research and practice. Over the years, a major transition has taken place in the Big Five concept. According to the literature evaluated for this study, the Big Five model had more than 300 articles published annually in 2006, whereas the two older constructions (Cattell's 16 three-factor personality models and its personality elements) had less than 50 publications combined. Such performance demonstrates that academics regularly use and accept the Big Five model in empirical investigations in comparison with other constructs of personality (Beer & Watson, 2008).

Studies also showed Big Five Personality Traits have considerable effects on decision-making and problems solving approaches (Myszkowski, Storme, Davila, & Lubart, 2015) of managers and employees, particularly (Bayram & Aydemir, 2017; Connor & Becker, 2003; Ulgen, Saglam, & Tugsal, 2016). This theory can thus study the association of

five main features of personality, Big Five for instance with decision-making and the problem solving styles of managers. There has been a relationship between personality, decision-making, and problem solving in the current literature, as personality characteristic dictates how persons have behaved in particular cases (Byrne, Silasi-Mansat, & Worthy, 2015; Chartrand, Rose, Elliott, Marmarosh, & Caldwell, 1993).

Gender Differences in Personality Traits

In several empirical investigations, gender disparities in personality characteristics have been found. Typically women score higher on extraversion, agreeableness and neuroticism traits of personality whereas men report high on openness to experience and extraversion personality traits (Costa, Terracciano, & McCrae, 2001); In contrast Weisberg, DeYoung and Hirsh in 2011 concluded a non significant differences on sociability, openness to new experiences and punctiliousness with respect to gender. Neuroticism, agreeableness, extraversion, and conscientiousness personality traits are more highly prominent and visible in women than men (Schmitt, Long, McPhearson, O'Brien, Remmert, & Shah, 2017).

Wisdom

Wisdom is a concept recognized and recorded since ancient times in our history. It is able to judge properly in matters of behavior and lives, sound judgments in the choices of methods and ends, and is sometimes less rigorous, especially in practice, which is found in the old English words wis ("of a certainty, to some extent"), and dom ("judgment, or jurisdiction") (Mitchell, Knight, & Pachana, 2017).

Wisdom begins with critical analysis when people deal with personal challenges like employment, financial loss, divorce, death, abuse, actively, and not reactively (Oden, 2011; Staudinger & Baltes, 1996). It enables individuals to confidently and soundly deal with social situations which are becoming increasingly complex. It allows them to build interpersonal ties, support cooperation, and settlement of conflicts (Kramer, 1990). It enables managers to learn from their environment and to take more rational/orsensible and discerning decisions (Oden, 2011; Sternberg, 1985; Warhurst & Black, 2017).

Religious Perspective of Wisdom

Historians have been defining wisdom fora very long. In the earliest Vedas and Egyptian, Hebrew, and Mesopotable literature, the answer of "What is Wisdom?" was found (Crenshaw, 2010). A recurring concept is that wisdom is manifested as a divine gift. In later revealed traditions and can be cultivated via reflection and constelling one's life. Thomas (2006) stated that, when one places the God in the centre of his life he can only then achieve wisdom (Thomas, 2006). However, the wisdom of revelation is merely one sort of religious wisdom. The contemplation or mystical branches are contained in every real religion, including revealed traditions like Christendom and Islam. Walsh (1983) found that meditation, contemplation, yogaare significant, as they promotes better psychological and spirtual health that according to walsh (1983) includes concentration, understanding, emotional maturity, and wisdom (Walsh, 1983).The authenticity of a tradition is a result of Ken Wilber (2005)'s efficiency in promoting transformation at the transpersonal level (Walsh & Vaughan, 1994). Therefore, the legitimacy of a tradition would presumably have to do with its success in fostering translational wisdom (Curnov, 2011).

Scientific Perspective of Wisdom- The Science and Psychology

New viewpoints and meanings of wisdom were born from the recent growth of science and particularly psychological study. Not surprisingly, mental process and capcaities according to Trowbridge (2011) were the focus of the psychological study, on what can be possible evaluation rather than on phronesis. Sadly, there is a minimal crossover between or between present definitions and previous beliefs (Trowbridge, 2011). Given the enormous range of ages, society, attitudes, and views, this is hardly surprising, and given that wisdom "is possibly the most complex trait of people or culture" (Birren & Svensson, 2005).

The background litreature analysis of wisdom has proposed various definitions as psychology emerged.Ardelt (2003), stated that it is the sum of effective, reflective, and cognitive abilities. To Csikszentmihalyi and Rathunde (1990), wisdom is a holistic process of cognition that is capable to guide virtue. Widom defines a person's moral integrity while staying beyond the scope of ordinary logic (Oser, Schenker and Spychiger (1999). Similarly, it has been proposed that knowledge is a balance between knowing and doubting an occurrence, as postulated by Bower (1990). To Webster, Wisdom is the learning from life experience, its reflectivity and its integration of experience in personality (Webster, 2007). Human beings have the ability of subjective and objective reasoning and balance between both these are created by wisdom (Bower, 1990).

Wisdom implies various things in different places at different times (Trowbridge, 2006). When talking about a psycho-social development of a person, Erikson stated that wisdom is a reward for integrity that counteracts despair by entering the hood of late health professionals (Eagle, 1997) and that some theorists regard it as the link that links

intelligence with ages and experience with the characteristic personality (Sternberg, 2001).

Importance of Wisdom in an Organization

Wisdom is a process rather than a real and measurable product within the management field (Nonaka, Chia, Holt, & Peltokorpi, 2014). According to Maxwell (2013), wisdom is more about people than about individuals' (Rennstam & Ashcraft, 2013). It can therefore be interpreted as necessitating the collection of broad and profound knowledge; it is best viewed as a knowledge quality or ability (Warhurst & Black, 2017). Sensitive use of knowledge and adaptability includes the careful selection and application of acquired knowledge (Rooney & McKenna, 2007).

Rowly, (2006) said that exceptional understanding, discernment, knowledge and judgment, all these contribute to personal knowledge and are crucial for an organization's long-term success. The apex of human growth is typically considered wisdom (Baltes & Staudinger, 2000). Jeste and Vahia's (2008) early historical writings defined wise men as humble, insightful, knowledgeable, confident and determined. Wise people were not self-centered and lacked concern for sensuous pleasures. They displayed sympathy, stable emotions, God's belief system and the ability to differentiate among perishable and unperishable actions. Early history also regarded them as participation and a grasp of their social duties in regulated work. Wise people realized their limits, mortality and personal importance (Jeste & Vahia, 2008).

There are standard criteria for wise managers across organizations (Oden, 2011; Moberg, 2008; Rowley & Gibbes, 2008): it includes; (1). Virtuous and ambitious, providing clarification of corporate goals (McKenna, Rooney, & Boal, 2009) (2) enhance decision-making in morals and ethics and enable people to do what is right

rather than just correct things (Hays, 2007; Moberg, 2008; Roca, 2008) (3) concerning nature about personality and character than about performance or strength of position (Staudinger & Baltes, 1996) (4). have more information than product or scenario, and are capable of concentrating on the larger picture, particularly in the context of difficult choices and loss (McKenna, Rooney, & Boal, 2009) (5.) the analyzing capacity, integrating and finding creative solutions to situation's social, ethical , technological, and cultural complexities (Oden, 2011; McKenna, Rooney, & Boal, 2009).

Dimensions of Wisdom

Understanding, wisdom, vision, and intuition make good governance according to Mintzberg (2004). Wisdom's three dimensions cognitive, affective, and reflective are given by Ardelt (2003) that lead to good management of the organization.

Cognitive Wisdom. The ability to view reality as it is, to grasp deeper truths, and in particular how it concerns the intrapersonal and interpersonal components of existence, refers to the cognitive dimension of wisdom. Baltes and Staudinger (2000) are proposing to use people cognitively and intrinsically to tackle life's challenges on their strategies and objectives. The most important resources of wisdom include intellectual capacity and social contact. The ability to understand and solve problems is included by intelligence and wisdom (Oden, 2011). However, intellect only affects the level of wisdom of a person very marginally (Staudinger, Lopez, & Baltes, 1997).

Reflective Wisdom. Wisdom is vital according to Rowley (2006), for an organization's long-term future, especially reflective wisdom (Rowley, 2006). Wisdom's reflecting component helps a person to see phenomena in different ways, including oneself that tend to minimize self-centeredness and overcome subjectivity and projections (Ardelt, 2003). "Wisdom calls for profound reflection and thought"

(Howard, 2010). Thorseth (2008) found that people evaluate the pleasure or disgust of an event and then make a declaration for subsequent use and they rarely try to decide immediately (Thorseth, 2008). The knowledge of future, past and present is possessed by insight which is an important element of wisdom. Wisdom includes, according to Kramer (2000) spiritual or philosophical introspection, positive treatment of life issues, help and guides others (Kramer, 2000). According to Oden, (2011) and Howard, (2010) in terms of the mental, emotional, and spiritual way harder work is required, while growing in the reflective aspect of wisdom.

Affective Wisdom. A person with this wisdom type posses sympathetic nature and has compassion for others.People with a greater understanding of wisdom are less in line with the search for a good existence and more in line with their emotional participation in society and friends. They aim to obtain cooperation, understanding, and personal development (Kunzmann & Baltes, 2003). People who have affective dimension of wisdom tend to show more flexibility and open mindedness and want social contact and empathy (Staudinger, Maciel, Smith, & Baltes, 1998). By employing social engagement and receptivity to common experiences affective wisdom is properly developed (Oden, 2011; Staudinger & Baltes, 1996).

Theoretical Elements of Wisdom

Berlin Wisdom Paradigm. At the Max Planck Institute for Human Development in Berlin, Paul Blates, Staudinger, Smith, and Kunzmann construct this paradigm (Baltes & Smith, 1990; Baltes & Staudinger, 2000).

Wisdom as knowledge was described by them. This word "expert knowledge" usually means wide knowledge and expertise in a given field acquired by purposeful practice in the long term (Ericsson, Krampe, & Tesch-Romer, 1993; Gluck, 2018). The

Berlin group stated that the theme of wisdom is the essentially pragmatic approach of human life, including addressing mortality, settling moral difficulties, or balancing closeness and self-reliance. Therefore, the Berlin Wisdom Paradigm is an expert method of thinking concerning life problems: a paradigmatic measure of knowledge as a competency (Gluck, 2018; Intezari, 2016).

Balance Theory of Wisdom by Sternberg. Sternberg (1998) suggests; relationships between person, situation, and task are fundamental in knowledge (Sternberg, 2004). The Balance Theory proposes that using intellect in the pursuit of a common good is called wisdom (Intezari, 2016; Sternberg, 2004). It declares use of intelligence and experience as values mediator to attain common good aims, by balance of intrapersonal, extra personal and social interests, in the near and distant future, to establish a balance between adaptation to existing surroundings, shaping of existing systems, and selection of innovative environment.

According to this theory, rather than the internal system of functioning such as intellect and impact, wisdom is the result of balanced interaction between the individual and his/her context (Sternberg, 1998). The wisdom and ideas are considered and linked as a further significant part of the theory. The equilibrium between personal interests, achievement and multiple environmental responses are mediated by values (Intezari, 2016).

Grossmann's View of Wise Reasoning

Wise reasoning was described by Igor Grossmann and colleagues (2010), as "applying specific kinds of pragmatic thinking to address major social concerns". Wise thinking incorporates dialectic thinking and intellectual humility as it has been demonstrated, for example in taking multiple points of view, recognizing limitations,

generating flexible forecasts, and finding compromises (Grossmann, Na, Varnum, Park, Kitayama, & Nisbett, 2010). Evidence shows that the ability of people to think wisely fluctuates considerably in their experiential circumstances throughout their lives. In addition, smart thinking changes from scenario to the situation with self-focused situations that limit wise thinking. The experiential, situational, and cultural aspects have been more potent to shape wisdom according to Grossman (2017). In addition, organizational conflict knowledge improves with age and wisdom of individual conflicts or becomes more stable. Kross and Grossmann (2012) have shown that knowledge increases when participants take a detached view (Grossman, 2017).

Gender Differences in Wisdom

Gender differences in wisdom have been evaluated for a very long time. A study conducted by Maroof, Khan, Anwar and Anwar (2015) found that the men have higher levels of the reflective and affective elements of wisdom. However, for the cognitive part no gender disparities have been reported, which shows that women and men on average are equally high in cognitive part (Maroof, Khan, Anwar, & Anwar, 2015). Similarly, Perry and colleagues (2002) in their study found no significant difference in wisdom between male and females (Perry, Komro, Jones, Munson, Williams, & Jason, 2002). Similarly, it was discovered in Ardelt's (2009) study that older adult men tended to be more wise than elder females in cognitive dimension (Ardelt, 2009).

Decision Making

Decisions are a core aspect of daily interactions across organizations; Scott and Bruce laid down it in 1995 as "the learning pattern of a person's habitual behavior in the face of the circumstance of decisions." It is the habit of reacting in some ways in a particular environment of decision (El Othman, Hallit, Obeid, & Hallit, 2020).

Theoretically and practically, it is very important to understand how managers make decisions within the organization.

Decision-makers must make good decisions to adapt to changing environments, preserve social understanding, and achieve objectives (Hastie, 2001). However, various conditions hinder the decision-making process and influence management judgments in terms of quality and adaptability. A decision-maker has to take several aspects into account in generating, evaluating, and selecting an optimal option from several alternatives (Martin & Clore, 2001). For example, while dealing with a set of choices, the decision-making individual has to take into consideration situational elements (such as risk and uncertainty) and personal aspects (like personal values, expectations, and knowledge) (Hastie, 2001).

Moresi (2000) reported that senior managers decide based on qualitative information and strategic value when low-level managers need the information to facilitate regular and more operational decision-making. Furthermore, Mintzberg and Quinn (2001) claim that decisions that do not take organizational culture into account might produce unexpected and unanticipated effects, in other words, influence the organization and manager, how decision is taken.

Decision-Making Style

Decisions range from strategic decisions to management decisions and operational routine decisions depending on decision-making styles.Decision making style has been characterized as a "habitual model for the usage of individuals in decision-making" (Douma, Uiters, & Timmermans, 2020). The style of decision-making was determined by the number of information collected and various alternatives examined in decision-making, Driver, Brousseau, and Hunsaker (1990) said, however

some claim that this refers to variances in people's understanding of data collected.

There are different styles of decision-making measure, and these styles tend to overlap (Geisler & Allwood, 2018; Leykin & DeRubeis, 2010). Scott and Bruce in 1995 offer the most extensively used and dependable and valid styles. Scott and Bruce (1995) presume that people do not have one style, but a style profile. The styles of choice (dependent, avoidant, spontaneous, rational, and intuitive) are five according to them (Douma, Uiters, & Timmermans, 2020).

The coherent search and assessment of alternatives is referred to as rational type. The spontaneous approach is characterized by a tendency to depend on feelings and by attention to detail, while other people's help, consultation, and guidance while making decisions are required independent decision-making. In case of possibilities, Avoidant style tends to delay and procrastinate judgments. On the other hand, by quick and impulsive decisions to quickly avoid the long decision making procedures, spontaneous decision making is distinguished (Bavolar & Orosova, 2015; Douma, Uiters, & Timmermans, 2020; El Othman, El Othman, Hallit, Obeid, & Hallit, 2020).

Cognitively speaking, cognitive scientists typically feel that the decision-making styles "logical" or "intuitive" lead to better results in life decision-making, whereas the decision-making methods "avoidant" and "spontaneous" affect them negatively. On the other hand, "Dependent" decisions were not linked to decision-making (Fischer, Soyez, & Gurtner, 2015; Singh & Greenhaus, 2004). Overall, the most constructive styles were rational and intuitive, with improved results and more effective decision-making, while maladaptive behaviors tend to possess avoidant, dependent, and spontaneous decision making style (Allwood & Salo, 2012; Bruine de Bruin, Fischhoff & Parker , 2007).

Theoretical Elements of Decision making

The Rational Model. A decision concerns the choice of alternatives that produce the desired result. It is not always simple to make decisions, and in particular to make good selections (Bratton, 2007). The rational model of decision-making is often considered a model to explain decision-making (Linstead, Fulop, Lilley, & Banerjee, 2009). This model consists of seven steps; (a). Identification of the problem/or the opportunity; (b). Gather relevant information; (c). Generate alternative solution (d). Evaluation of alternative solutions; (e).Select the most appropriate option; (f). Implementation of the chosen solution; and (g). Evaluation of decisions (Citroen, 2011).

The model considers the whole decision-making process to be a sequential set of activities leading from the initial identification of a problem or opportunities throughout the definition and assessment of alternative action plans and the choice of the preferred alternative to action within the organization (Greenberg & Baron, 1995; Rahman & De Feis, 2009; Citroen, 2011).

The Expected Utility Theory. People make the best option based on their principles and they are looking for the finest choice in the decision making process.The theory of expected utility could be analytically and synthetically interpreted in two ways. According to the analytical approach, decisions constitute revealed preferences that are characterized as supplies, and decision-makers assess the utilities and probabilities in the synthetic examination and integrate those opinions resulting in the conclusion. In the analytical perspective, decision-makers first watch what they are going to select and then determine what they should have expected, while a synthetic is taking place when decision-makers discover what they want (Oliveira, 2007). In contrast, Busemeyer (2015) claimed that behavioural school decision theory is based on behaviours that occur

during the process of decision making and does not evaluate the worth of the outcome, but is focused instead on descriptive processes (Busemeyer, 2015).

Game Theory. On the flip side, game theory is constructed in such a way that decision-makers evaluate the solutions others would choose before deciding what alternatives should be selected. It is expected that the alternatives and probability and results are accurate. While conceivable outcomes depend on possible options for all decision-makers involve in games, the interaction between the various parties is non-important (Oliveira, 2007).

The Organizational Procedures Perspective. The organizational approach aims to interpret decisions as to the performance by organic components of standard operating procedures (Turpin & Marais, 2004). This concept is called the "model programme," by Huber (1981) implying that decisions are pre-programmed in both current procedures and people's habitual thought (Huber, 1981). Das and Teng (1999) refer to this method of avoidance as a systemic process for maintaining the status quo at the expense of innovation (Das & Teng, 1999). Krabuanrat and Phelps (1998) consider this position, on the other hand, positively, in particular by using codified organizational experience (Turpin & Marais, 2004).

Gender Differences in Decision-Making

Several studies reveal that gender plays a crucial role while making a decision. Eagly and Johannesen-Schmidt in 2001 reports that men make more assertive, ambitious, aggressive, independent and competitive decisions than women. Women are loving, helpful, kind, compassionate, interpersonal, and kind. These qualities of their behaviors make them less assertive while making decisions (Eagly & Johannesen-Schmidt 2001). Another research found that while deciding on an organization men are

found to be more intuitive than females (Caprino, 2016).Contrarily that Minasian and Tovmasyan surveys (2020) revealed that women are more intuitive in making decisions than men (Minasyan & Tovmasyan, 2020).

Problem-Solving

Problems solving skills have proved to be one of the major success factors for organizations and personal professions. Krulik and Rudnick (1987) define problem-solving as the means to meet the requirements of an unknown situation by utilizing an individual previously acquired knowledge and skills (Carson, 2007). The procedure that is utilized for resolving an issue, that has no evident answer, is problem solving, as defined by Perveen (2010).

The solution of an issue entails an understanding of the nature of the problem through studying the causes and seeking feasible remedies in distinct problem cases (Kenya Institute of Education, 2008; Matemba, Awinja, & Otieno, 2014). Problem-solving capacities enable managers to meet and accept responsibility for their actions for diverse difficulties and demands in their organizations. Problem-solving is personal and depends on the knowledge and abilities of the problem solver, according to Mayer and Wittrock (2006).

Problem-solving is also seen as an approach for dealing with problems that promote overall competency and adaptation in the actual world. Many of our daily work involves issues (Matemba, Awinja, & Otieno 2014), however, Mayer and Wittrock (2006) argue that problem-solving is critical for managers, because companies/organizations are interested in enhanced capacity for managers to resolve problems.

Problem-Solving Styles

Problem-solving styles are consistent differences between how people choose to plan and execute activities, generate clarity, generate ideas, and prepare for measures (Treffinger, Selby, & Isaksen, 2008). Problem-solving means trying to get an effective account of the problem state (Arslan, 2010). Problem resolution is the problem solver's cognitive ability to conduct physical or mental actions based on his or her knowledge to resolve a problem. The way a person evaluates problem-solving talents influences how he or she reaches the life issues and how he or she manages them (Khan, Younas, & Ashraf, 2016).

Model of Problem-Solving Styles

The initial problem-solving model was based on the notion of the psychological function (Jung, 1923; Khan, Younas, & Ashraf, 2016; Taylor & Mackenny, 2008). The four psychological functions of this approach include thinking, feeling, sensing, and intuition (Ghodrati, Bavandian, Moghaddam, & Attaran, 2014). The following is a description of various styles:

Sensing. Sensing persons are more prone to take particulars, specifics, and actuality into account. They also tend to adopt usual methods that have been successful in the past. They loathe new difficulties but choose any new ones unless having standardized solutions. They favor non-routine work to routine. Usually, these people do not appreciate adaptation to unstructured problems with high environmental uncertainty and are mainly detailed persons. They collect data (factual and specific) from the surroundings using the five senses (Khan, Younas, & Ashraf, 2016; Sutherland, 2002).

Intuition. People utilizing intuitive problem-solving methods are used to attend to the meaningfulness of the information, the relationships among them, and the possibilities of future occurrences that can be envisaged from provided knowledge. They show a possibility to produce new, creative solutions rather than to exploit what has been done before. They like to resolve novel difficulties and are intolerant of usual details. Intuitive persons prefer to recognize the surroundings as entire (Hedjazi, Shakiba, & Monavvarifard, 2012; Khan, Younas, & Ashraf, 2016).

Thinking. People that employ the thinking-problem-solving style tend to use logic and research to resolve the problem. They should also be objective and impersonal in decision-making. They would like to explain facts, models, and principles and try to judge intellectually all the time. These intellectual processes are based on external data or ideas and ideals universally accepted. Thinking types often aim to adapt challenges and answers to standardized principles (Khan, Younas, & Ashraf, 2016; Kim & Choi, 2014).

Feeling. Feeling types are those who generally take ethics and feelings into account in the resolution of problems and Subjectivity and inclination in decision-making. They react to the feelings of others. They sympathize with people and don't like telling them bad things. They tend to make decisions and solve problems that lead to the consensus of others, such as subordinates or co-workers, and to avoid decisions that cause controversy. Friendship can even replace success, efficiency, and living enjoyment and potentially hamper it. A person with a feeling type stresses individual and emotional processes to satisfy life (Altun, 2003; Khan, Younas, & Ashraf, 2016).

Problem-solving is an important task for any management. Kilmann (1979) says, the management essence is based on defining and solving the problem no matter if the challenges are technological, humane or even environmental,well-structured, ill-structured. Organization managers would be considered problem-solving managers despite of the services and goods they offer." According to Arslan, (2010) and Wartenberg, (1996) " Along with Motivation, communication, mentoring, the 21st century mangements also requires plans to resolve conflicts, issue or problem solving, decision-making and change management" (Arslan, 2010; Wartenberg, 1996).

General Problem-Solving Framework

Newell and Simon's work denominate General Problem-solving theories as General Problem Solver (GPS). This theory defined the paradigm of information processing for problem-solving studies. The general problem solver framework requires problem-solving to identify sub-targets and to employ methods (particularly heuristic) to meet the sub-targets (Tuma & Reif, 1980).

The general problem-solving process is as follows (a). Identifying problem (b). Defining the issue (c). Select the specific issue to be resolved (d). Identify possible solutions; (e). Assess the valid possible solutions for choosing the finest (f). To develop and resolve a problem rationally, and action plans to apply the best answer that any discipline can follow. The technique works for any organization when it is utilized in combination with reasoning and decision-making skills. To guide the problem solving procedure to managers is the basic objective of theory (Frederiksen, 1984; Poison & Jeffries, 2014).

Experiential Learning Theory

Kolb's (1984,2006) theory of experiential learning offers an idealized problem resolution procedure that is representative of a person in optimal conditions. He regards "learning" as equivalent to "problem-solving ."According to Kolb, there are four stages to the learning or problem-solving process:

Situation Analysis. This is the initial stage in reviewing the situational context to identify the problem that needs to be addressed. People who are strong in this stage give significance to their feelings rather than thinking therefore, they are oftenly found to be more effective in connection with human beings; are good intuitive decision-makers who thrive in unstructured situations (Kolb, 2006).

Problem Analysis. At this point, the problem is only one major change or impact. People with this tendency value patience, fairness, and common sense. Powerful decision-making in this process emphasizes understanding rather than actual application, concerns about what is right and how things go rather than the practicalities, and focuses on thinking rather than on action. They prefer to produce ideas based on their feelings and opinions.They value patience, fairness and common sense (Kolb, 2006).

Solution analysis. At this stage, various solutions will be developed that can solve this problem according to the criteria described in the previous section. Those who excel in this field have the ability to draw on simple assumptions rather than emphasizing the principle of method or rather than knowledge and evidence. They are comfortable with planned planning, relaxed and complex symptom handling, and technical analysis (Kolb, 2006).

Implementation Analysis. The activities required for the solution's implementation must be defined and structured into a consistent plan with appropriate dates and follow-up assessments at this final stage. At this stage, powerful people actively persuade others and improve the situation. They are more focused on practical uses than in understanding and in doing something other than observing. They are good at working. They are ready to take chances in order to accomplish their objectives. They are also concerned about their effect on the environment and they want to see the results.

They are willing to take risks to achieve their goals. They also appreciate the impact on the environment around them and want to see results (Kolb, 2006).

Each step of learning/problem-solving is linked to human characteristics or talents. Furthermore, each problem-solving stage, as well as the entire process, can be improved, according to Kolb's model (2006), for both the individual and the organization.

Gender Differences in Problem-Solving

Problem-solving refers to cognitive, affective, behavioral processes and the specific abilities employed for solving daily challenges. In many cases, in research studies, gender disparity in the problem has been explored. Miller & Crouch (1991) in their research conducted on problem-solving capacities found significant gender differences or gender interactions with the problem solving context (Miller & Crouch, 1991). Contrarily to that, Sahin, Sahin, and Heppner (1993) found that women have lower problem-solving skills than men.

Relationship between Personality Traits and Decision-Making Styles

Many researchers have assessed the influence on decision-making styles of personality characteristics. There is a link between personality characteristics and decision-making and a 15.4-28.1% variance in decisions was associated with personality traits (Riaz, Riaz, & Batool, 2012). The occurrence of a substantial association in decision styles was attributed to personality traits (Narooi & Karazee, 2015).

The link among personality and decision making styles in management is demonstrated in a study of Ulgen, Saglam and Tugsal (2016). The results imply the positive impact on spontaneous and dependent decision-making of the extraversion characteristics. The personality feature Consciousness has a positive effect on decision making in a rational and intuitive way. It also negatively affects the avoidant domain of decision-making. The negative influence of neuroticism trait is evident on the rational decision-making style but positive for intuitive, avoidable, and spontaneous decision-making.

The relationship among personality traits and styles of decision-making were studied byBairam and Admer (2017). His work has produced many results, such as correlation of intuitiveand rational decision-making style with openness to experimentation, conscientiousness and agreeableness personality traits. The dependent decision-making style demonstrated a positive association with both neuroticism and agreeableness. Similarly, the spontaneous style shows a positive relationship with neuroticism but a negative relationship with conscientiousness and agreeableness. Personality attributes of extroversion had a beneficial impact on spontaneous styles. The agreeableness attribute had a positive impact on the dependent and intuitive style of decision making. Consciousness positively affects rational style, but negatively affects avoidant and spontaneous styles. Neuroticism played a positive influence in the dependent, spontaneous and intuitive style of decision making.

Bayram and Aydemir, (2017) proposed a positive impact on rational decision making by openness personality trait (Bayram & Aydemir, 2017). Similarly, Bajwa, Batool, Asma, Ali, and Ajmal examined link of personality characteristics in decision making (2016). They identified that the personality feature of conscientiousness is related to rational decision-making.

Personality traits and decision-making style are linked, according to El Othman and colleagues (2020). Extraversion was connected to a less rational style of decision making, whereas agreeability and conscientiousness were linked to a more logical decision-making style. Furthermore, El Othman and colleagues (2020) found that greater openness and extroversion were linked to a higher intuition style, whereas greater conscientiousness trait and agreeableness trait were linked to a lower intuition style. Also, more conscientiousness, neuroticism, and agreeableness have been linked to less spontaneous style of decision making. Not any of the characteristics were shown to be significantly linked to avoidant decision-making.

Research has also shown that the favorable effect of strong extraversion trait leads to good decision-making (Krishan & Beena, 2009). But others have found that those with the trend towards extraversion tend to look more accurately, therefore extraversion is linked with the rational process of decision-making (Zhang, Zhao, Cheung, & Lee, 2014). Metin and Camgoz's (2011) study found that the managers, who have a high degree of open-mindedness, show greater performance in financial decision-making.

Durand and colleagues in 2008 postulated that the agreeable individual values the decisions of others while making their own decisions (Durand, Newby, & Sanghani, 2008). Byrne, Silasi-Mansat & Worthy (2015) found that when someone is under pressure, trait aggreeableness is inversely linked to decision-making performance. The decision-making

process for agreeable individuals has a bearing on the social standing and the presence of other human beings. According to Charles & Kasilingam (2014), conscientiousness should be linked to rational and accurate thinking while neuroticism is the aspect of negative emotionality, thus it may be the role of unfavorable situations.

Relationship between Personality Traits and Problem-Solving Styles

Some personality traits were linked to styles of problem solving. Researchers investigated personality and problem-solving relationships (D'Zurilla, Maydeu-Olivares, and Gallardo-Pujol, 2011; McMurran, Egan, Blair, & Richardson, 2001). Studies have found that greatest negative predictor for any single problem solving skill is neuroticism, whereas conscientiousness trait was the most reconcilable predictor for all five styles. A greater problem-solving capacity was indicated by conscientiousness, openness, and agreeableness, while neuroticism suggested a lesser capability (D'Zurilla, Maydeu-Olivares, & Gallardo-Pujol, 2011).

Personality has been shown to be very important in solving problems (Babaei, Mohammadian, Abdollahi, & Hatami, 2018; Cam & Alkal, 2020; Ginevra, Nota, Heppner, Heppner, & Soresi, 2015; Koruklu, 2015). The results of McMurran, Egan, Blair, & Richardson (2001) demonstrated a substantial correlation between the neuroticism dimension of personality and negative problem orientation, and greater problem-solving skills were connected with conscientiousness and openness. Two associated factors are personality and problem-solving (Senel, Colakoglu, Senel, Gulsen, & Ozer 2015; Chartrand, Rose, Elliott, Marmarosh, & Caldwell 1993) among the managers of any organization (Myszkowski, Storme, Davila, & Lubart, 2015).

Relationship between Wisdom and Decision-Making Styles

Relationship between wisdom and decision-making styleswere found in many previousstudies conducted in the past (Hastie & Dawes; 2009; Salavati & Karimi, 2012; Worthy, Gorlick, Pacheco, Schnyer, & Maddox, 2011). For example,Oden (2011) found that Managers' wisdom quality can enable them to make precious decisions based on limited and adequate resources from various policy approaches. While researching the role of wisdom in an organization, Bierly, Kesseler, and Chritiansen (2000) found that wisdom plays an important role in planning, decision-making, and execution of that decision in the form of action.

Intezari (2013), while researching wisdom and decision-making interviewed the executives and managers of different organizations in New Zealand. The finding of his research suggested that the wisdom of decision-makers only develops among managers when they keep on making wise decisions.

The ability to make decisions is directly related to one's level of wisdom (Nonaka & Toyama, 2007).Additionally, Hastie and Dawes (2009) found that cognitive wisdom is important to predict the rationale decision-making within the organization. Worthy, Gorlick, Pacheco, Schnyer, & Maddox (2011) found that reflective and affective wisdom also plays an integral role in making rational decisions, but it is negatively related to avoidant and dependent decision-making styles in an organization (Salavati & Karimi, 2012).

Relationship between Wisdom and Problem-Solving

Unfortunately, not a great amount of work has been done to evaluate the relationship between wisdom and problem-solving. Galli, (2020), wrote that problem solving is a learning process that is iterative and interconnected to wisdom. In a management setting, managers' ability to solve problems is the main and significant component of wisdom and practical knowledge. The finding of his study implies that personal practical knowledge may expand overall greatly if this iterative process of problem-solving and learning is mastered successfully, i.e. if the problem is consistently solved and decisions are taken (Galli, 2020).

Those who value wisdom events from various viewpoints, solve problems, balance diverse interests regularly, enjoy greater receptivity to experiences, and experience the organization's interest (Kunzmann & Baltes, 2003). Grossmann (2017) has shown that increasing wisdom can also help solve problems. Moreover, it can be assumed that every organization, with different contingency conditions and different phases to achieve wisdom and the nature of knowledge is strongly related to problems with solutions to problems. Furthermore, according to diversified definitions of wisdom each organization operates under different environmental pressure and opportunities (Ekmekci, Teraman, & Acar, 2014).

Rationale of the Study

Based on the above literature, decision-making and problem-solving are constructs linked to human behavior and thus receive scientific consideration in the field of psychology. The premise underlying decision and problem-solving research is that the decisions we make and problems we solve daily are an integral part of our work and daily living. All employees are familiar with these procedures, but since it is part of

manager's job, it is for them to make informed decisions and solve problems easily. It is also important for managers to make the right decisions and manage difficulties/or problems, as they affect the overall operation of the company (Intezari, 2013). But what comes before managerial decision-making and problem-solving?

Similarly, the decision making quality along with ability of problem solving are greatly influenced by personality attributes of problem solver and decision maker (Strohhecker & Grobler, 2013). Although training can improve decision-making and problem-solving capabilities, but recruiting personnel with long-term personality traits that encourage particular behaviors will be extremely beneficial (Periatt, Chakrabarty, & Lemay, 2007).

The performance of the organization is mainly determined by the problem-solving abilities of its manager and the quality of their decisions. Decision-making and managerial problem-solving methods are directly affected by differences in the organization's culture and personality traits (Iqbal, Akhter, & Saleem, 2020). Good, efficient and successful problem-solving and decision-making techniques always result in high-quality, organized, understandable and acceptable solutions that require their help in implementation (Nahavandi, Denhardt, Denhardt, & Aristigueta, 2015). Hence, considering the importance of both, the role of personality traits should be understood in decision-making and problem solving within the organizational context.

Along with Personality traits, Individuals within the organization can make decisions and solve problems not only on the ground of knowledge and analytical skills, as well as on the basis of past happenings, emotional concerns, intuition, morals, abilities and deep realization of Wisdom (Ardelt, 2003; Roca, 2008). Moreover, it

motivates shared experience. It improves the organization's eagerness to learn and the capacity to focus on image and competence (Hays, 2007; Rowley & Gibbs, 2008).

Further, Managers are bombarded with information and pressured to get immediate financial outputs. They are required to use their cognitive abilities like wisdom, knowledge and thinking skills as well as learning from past experiences (Sternberg, 2004). Managerial tasks range from handling conceptual difficulties to making informed decision and solving the problem by utilizing the ability of reading and understanding the emotions (Oden, 2011).

Success of any organization is dependent on the managerial wisdom which further facilitates the process of decision-making and problem-solving skills (Oden, 2011). According to Baltes & Smith (2008), psychologists have claimed that wisdom includes contextual information processing, the comprehension and navigation of difficulties in the social world, the facilitation of decision making which leads to the effective resolution of problems (Grossmann, 2017; Santos, Huynh, & Grossmann, 2017). However, there is limited literature on Wisdom, decision-making, and problem-solving within the Pakistani context. Mahar (2021) argued that both theological and modern wisdom is required for solving problems and decision-making.

According to Oden (2011), decisions making and problem solving does not merely require cognitive processes (Oden, 2011). Hays (2007) anticipated that wise organizations are not exclusively dependent on the wisdom of managers but rather they assess the personality traits of individuals before hiring them at the managerial level. Moreover, the study of personality traits (D'Zurilla, Maydeu-Olivares, & Gallardo-Pujol, 2011) and wisdom (Kessler, 2006) within Organizations in scholarly writing are increasing rapidly (Oden, 2011). Hence, the influence of traits of personality and

wisdom on decision making and problem-solving skills in managers needed to be analyzed.

When the decision making and problem solving in corporate organization is understood by making a better understanding of personality traits and wisdom of managers, it will increase organization's profitability (Oden, 2011). Given that personality traits and wisdom are the crucial topic of research in psychology, the current study has a goal to evaluate the relationship between personality traits, wisdom, and other organizational factors like decision-making and problem-solving among managers of public sector organizations. The backbone of Pakistani economy are the managers who are working in public sector of corporate organizations. Human behavior like decision-making and problem-solving in managers is insufficiently explored, especially in the context of Pakistan. It is also essential to comprehend the intricacies of decision-making and problem solving in the relationship with personality traits and wisdom as they are necessary components needed to enhance organizational performance.

The present study helps to investigate the personality types of managers in decision making and problem solving. This research is valuable contribution to the Pakistani public sector organizations in implementing these methods of selecting future managers with high wisdom, decision making, problem solving and better communication skill. Also, the present study can serve as a precious means for the Human resource management of organization to design targeted instruments to improve manager's decision-making abilities, problem-solving skills, knowledge/wisdom and decrease negative personality traits. It can also help to understand the component of wisdoms that are important and play an effective role in decision making along with the problem solving. In addition, this research enables organizations to learn from managers

who are competent enough to provide viewpoints on various challenges, improve production and cooperation, overcome each individual interest for the good of an organization and lead creative thinking about strategic concerns.

Objectives of Study

1. To study the relationship of big five personality traits with Decision-making among managers of public sector organizations.

2. To investigate the relationship of big five personality traits with Problem-solving among managers of public sector organizations.

3. To find out the relationship of wisdom with Decision-making among managers of public sector organizations.

4. To find out the relationship of wisdom with Problem-solving among managers of public sector organizations.

5. To study differences of gender in Big Five Personality Traits, Wisdom, Decision-making, and Problem-solving among managers of public sector organizations.

6. To explore differences on the basis of job experience in Wisdom, Decision-making, and Problem-solving among managers of public sector organizations.

Hypotheses of Study

1. There is a significant relationship of personality traits with decision making stylesamong managers of public sector organizations.

2. There is a significant relationship of personality traits with problem solving styles

among managers of public sector organizations.

3. There is a significant relationship of Wisdom with decision making styles among managers of public sector organizations.

4. There is a significant relationship of wisdom with problem solving styles among managers of public sector organizations.

5. Personality traits predicts decision making among managers.

6. Personality traits predicts problem Solving among managers.

7. Cognitive, reflective and affective dimensions of wisdom predicts decision making among managers.

8. Cognitive, reflective and affective dimensions of wisdom predicts problem solving among managers.

9. Extroversion positively predicts intuitive decision making style among managers.

10. Extroversion positively predicts spontaneous decision making style among managers.

11. Agreeablenesspositively predicts dependent decision making style among managers.

12. Conscientiousnesspositively predicts rational decision making style among managers.

13. Openness to experience positively predicts intuitive decision making style among managers.

14. Neuroticism positively predicts avoidant decision making style among managers.

15. Neuroticism negatively predicts problem solving among managers.

16. Conscientiousnesspositively predicts problem solving among managers.

17. Openness to experience positively predicts problem solving among managers.

18. Agreeableness positively predicts problem solving among managers.

19. Wisdom positively predicts rational decision making among managers.

20. Wisdom positively predicts thinking problem solving among managers.

21. Wisdom positively predicts intuiting problem solving among managers.

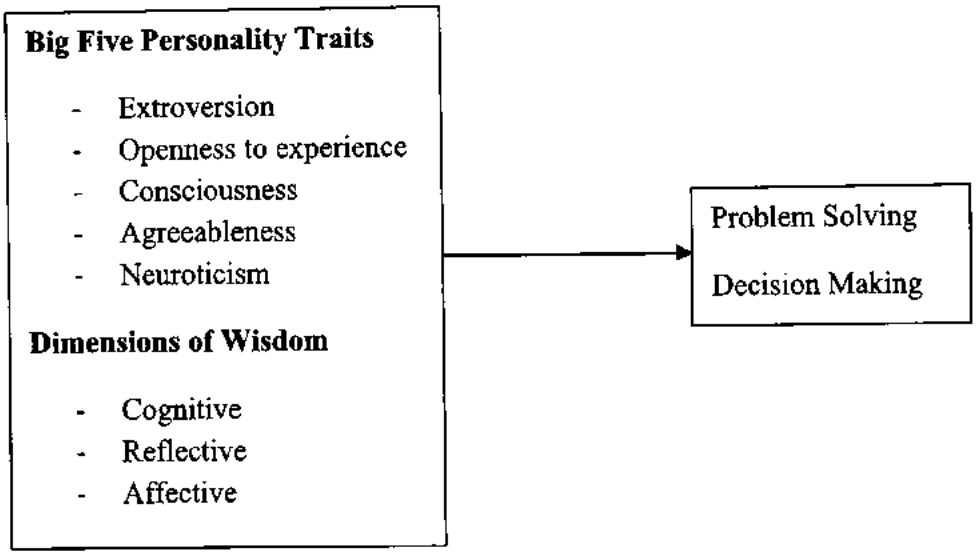
22. Wisdom positively predicts intuitive decision making among managers.

23. There exists differences in the personality traits among male and female managers.

24. There exists the difference between male and female managers of public sector organization with respect to wisdom, decision making and problem solving among male and female.

25. There exists difference on the basis of job experience among managers of public sector organizations with respect to wisdom, decision making and problem solving.

Fig 1: Conceptual Framework for the Present Study



Overall Model

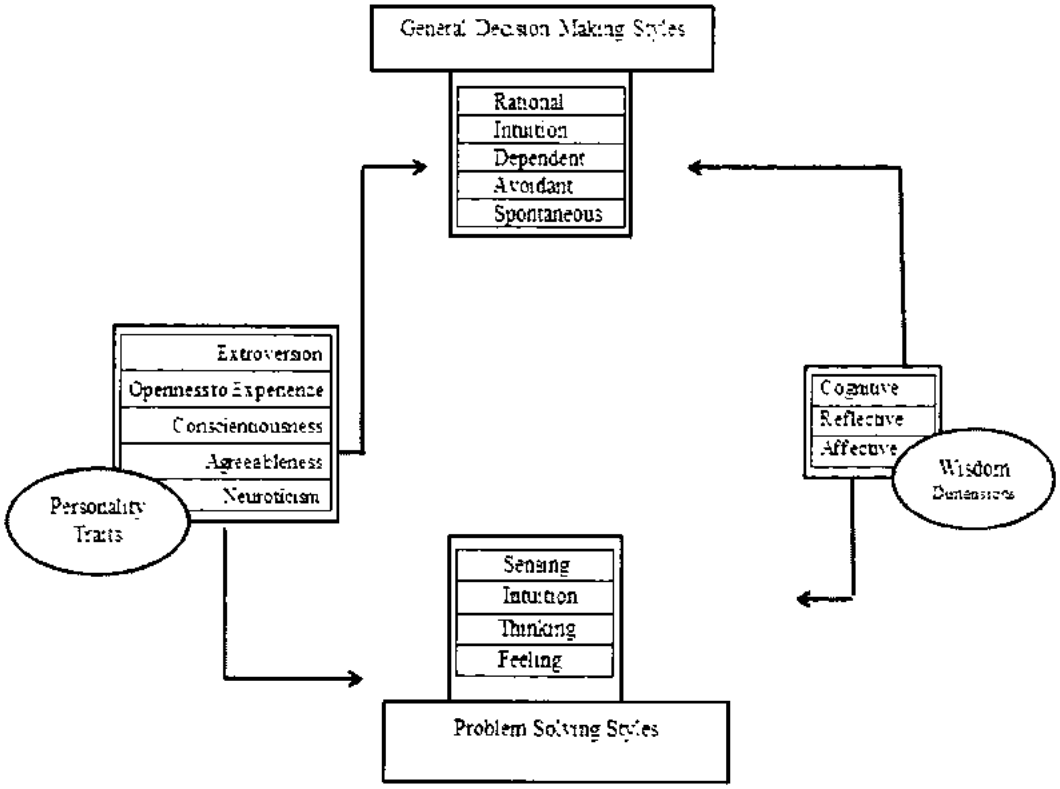


Figure 2: Overall Model of Study

Chapter 2

Method

Research Design

The present study aims to examine the relationship of Big Five Personality Traits (extroversion, openness to experience, consciousness, agreeableness, and neuroticism), and Wisdom with the Decision Making and Problem Solving following cross sectional research design among managers of Public sector organizations.

Sample/Participants

Sample size of 396 was determined by taking Risk ratio (3.5), significance (0.95), confidence interval (95%) and power (80%) (Hajian-Tilaki, 2011). Thus, a sample of 440 managers working at Sui Northern, Telecom, NRTC, TIP, HEC and WAPDA in Islamabad and Hazara division, KPK on respective grades (Grade 17, 18, 19 and above) of public sector and semi government organizations was recruited. Through Probability (Stratified Random Sampling) sampling technique, male (n = 260) and female managers (n = 180) were selected with the respective age range (20-60 years) and education (16 years and above). The participants was included on the basis of their serving status at government institutions on managerial rank, educational level i-e 16 years and above, age range (20-60 years), and their consent to participate voluntary. Participants serving at managerial position of private organization, working at grade 16 and below and not willing to participate were excluded.

Inclusion Criteria

Following participants were included:

- Participants working at government organization on grades 17 and above.
- Participants having education of 16 years and above.

- Participants willing to participate voluntarily.
- Participants who are able to understand English language.

Exclusion Criteria

Following participants were excluded:

- Participants serving at managerial position of private organization.
- Participants working at grade 16 and below.
- Participants not willing to participate.

Operational Definitions of Variables

Following are the operational definitions of study variables:

Extroversion. The state of being gregarious, positive affect and risk taking is characterized as extroversion trait of personality (Mesurado, Mateo, Valencia, & Richaud, 2014). In the present study, extroversion has been operationally defined as scores on extroversion subscale of Big Five Personality Inventory (John & Srivastava, 1999). High scores on the scale will indicate high extroversion and vice versa.

Openness to Experience. The trait utilize to describe the open minded ascept of personality is distinguished as openess to experience (DeYoung, Quilty, Peterson, & Gray, 2014). In the present study, openness to experience has been operationally defined as scores on openness to experience subscale of the Big Five Personality Inventory (John & Srivastava, 1999). High scores on the scale will indicate high openness to experience and vice versa.

Agreeableness. It is the tendency to be naive, humble, altruistic and warm (Graziano, Habashi, Sheese, & Tobin, 2007). In the present study, agreeableness has been operationally defined as scores on agreeableness subscale of the Big Five Personality Inventory (John & Srivastava, 1999). High scores on the scale will indicate high agreeableness and vice versa.

Conscientiousness. Conscientiousness is the personality trait of being careful, or diligent. Conscientiousness implies a desire to do a task well and to take obligations to others seriously (Roberts, Lejuez, Krueger, Richards, & Hill, 2014). In the present study, conscientiousness has been operationally defined as scores on conscientiousness subscale of the Big Five Personality Inventory (John & Srivastava, 1999). High scores on the scale will indicate high conscientiousness and vice versa.

Neuroticism. The propensity to encounter negative affect is characterized as neuroticism (Widiger & Oltmanns, 2017). In the present study, neuroticism has been operationally defined as scores on neuroticism subscale of the Big Five Personality Inventory (John & Srivastava, 1999). High scores on the scale will indicate high neuroticism and vice versa.

Wisdom. Wisdom is a mixture of experience, knowledge, tolerance and deep understanding of life uncertainties (Jeste & Lee, 2019). In the present study, higher scores on the Three Dimensional Wisdom Scale (Ardelt, 2003) show higher level of wisdom whereas the lower scores show lower level of wisdom among managers of public sector organizations.

Decision Making. If some objectives and limitations on resources are given then the process of reaching conclusions about whats actions should be taken in future by an individual, group or organisation is called decision making (Abubakar, Elrehail, Alatailat, & Elci, 2019). In the present study, Decision Making and decision making styles have been operationally defined as scores on the Decision Making Styles Questionnaire (Scott & Bruce, 1995). High scores on the scale will indicate high neuroticism and vice versa.

Problem Solving. The construction and application of mental representations of problems used to find soultions to problems which are encountered everytime is called problem solving (Jonassen & Hung, 2012). In the present study, Problem Solving has been operationally defined as scores on the Problem-Solving Style Questionnaire (Tepper,

Tetrault, Braun, & Romero, 1993). High scores on the scale will indicate high neuroticism and vice versa.

Instruments

Following instruments are used for collection of data:

Demographic Sheet. The demographic sheet comprises of marital status, residential area, family system, industry type, income, experience, birth order, tenure, academic education, job title, age and name of organization.

Big Five Personality Inventory. The Big Five Personality Inventory (John & Srivastava, 1999) was used in the current research. The questionnaire consisted of five personality types including openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. The scale consist of 40 items and it is five point likert scale. Response categories ranges from 1 to 5 with giving the score of 5 to strongly agree', 4 to agree', 3 to neutral', 2 to disagree', and 1 to strongly disagree'. Alpha reliability coefficient of the total scale is 0.88 whereas for noeuroticism (.76), aggreeableness (.66), openness to experience (.71), extroversion (.88) and conscientiousness (.64) (El Othman, El Othman, Hallit, Obeid, & Hallit, 2020). Big Five Personality Inventory is well researched in Pakistan and used by Bajwa, Batool, Asma, Ali and Ajmal in 2016 (Khan, Khan, & Zia, 2019; Riaz, Riaz, & Batool, 2012).

Three Dimensional Wisdom Scale. The Three Dimensional Wisdom Scale (Ardelt, 2003) was used to measure the level of wisdom among the participants of the study. There are 39 items and 3 subscales, which includes: cognitive (14 items), affective (13 items) and reflective (12 items) scales. The scale follows Likert type response pattern, where 1 represents strongly agree; 2 represents agree; 3 represents neutral; 4 represents disagree, and 5 shows strongly disagree as response categories. There were no negative items and cutoff

scores in the scale, therefore high scores on a subscales (cognitive, affective, reflective) indicates high wisdom and low scores on a subscale shows low utilization of dimension of wisdom. Internal reliability of the three dimensions of wisdom ranges from 0.71 to 0.85 that confirms the utility of scale for research purpose (Ardelt, 2003). Three dimensional Wisdom Scale was researched by Arzeen and Haq in 2013 and found that instrument is valid and reliable.

General Decision-Making Style. There are five Decision Making styles: Dependent, spontaneous, avoidant, intiutive and rational. They were measured through General Decision Making Style Inventory (GDMS; Scott & Bruce, 1995). The scale consists of five items for each dimension of Decision Making, which in total forms the 25 questions that are rated on a five point Likert-type response category, where 1 represents strongly agree; 2 represents agree; 3 represents neutral; 4 represents disagree, and 5 shows strongly disagree. The General Decision Making Style is reliable and valid scale for assessing Decision Making. The alpha reliability for all domains ranges between 0.62 and 0.87 that makes it suitability for a research purpose (Loo, 2000; Scott & Bruce, 1995; Spicer & Sadler-Smith, 2005; Thunholm, 2004). Riaz, Riaz and Batool (2012) used General decision making style questionaire and found that scale is valid and reliable (Bajwa, Batool, Asma, Ali, & Ajmal, 2016; Rehman, 2010; Riaz & Haque, 2016).

Problem-Solving Style Questionnaire. Tepper, Tetrault, Braun, and Romero (1993), developed the Problem-Solving Style Questionnaire. The scale consisted of 20 item and four subscales. It has four subscales included sensing, thinking, intuiting and feelings. The scale comprised of Likert type response pattern, where 1 represents strongly agree; 2 represents agree; 3 represents neutral; 4 represents disagree, and 5 shows strongly disagree were response categories. The alpha reliability coeffient of the scale range from .74-.76 (Tepper, Tetrault, Braun, & Romero, 1993). Problem solving style questionaire is used by Khan,

Younas, and Ashraf (2016). Based on their results, Problem solving style questionaire is valid and reliable.

Statistical Analysis

Data was analyzed by using SPSS version 23. To examine the statistical association between variables, Pearson correlation coefficient test was used. For parametric data, an independent sample t-test was used to assess the mean difference between two groups. To check differences between two or more groups One-way anova was used and to find prediction of IV on DV, regression analysis was performed.

Ethical Considerations

Ethical approval was attained from Ethical Review Board, Department of Psychology, IIUI, Ethics Committee, along with head of the institutes. In addition to that inform consent was taken from the study participants after ensuring them regarding privacy and confidentially.

Procedure

Researcher provided a brief introduction of him to the participants and then introduced the nature, purpose and significance of the study. Privacy of the information was ensured before the participants by stating that the study is an academic research and all the information obtained from the participants will only be used for research purpose. The sample was collected from employees of Sui Northern, Telecom, NRTC, TIP, HEC and WAPDA. After the introduction phase, brief instructions were given and written informed consent was obtained from the respondents, after obtaining the informed consent, questionnaires was distributed. The researcher remained attentive during the completion of the scales and facilitated the participants when they faced some problems in understanding some questions. After the completion of the scales, the researcher checked the questionnaires

in order to conform that information was not missing and questions were not left blank either intentionally or unintentionally. In case, if some questions were blank, the researcher requested the participants to provide the missing information. After taking complete data from research participant they were thanked for their cooperation in the study. In order to do data analyses, pearson correlation, one-way anova, regression and t-test analyses through SPSS were used.

Chaper III

Results

The data analyis was carried out using Statistical Package of Social Sciences (Version 23.0). Overall, inferential and descriptive statistics was used. Descriptive statistics including mean and standard deviation were used to represent continous variables, however, for categorical variables percentages and frequencies were used to represent range of demographics or responses. Further on, regression analysis was used to investigate the hypothesized relationship between variables under investigation. Similalry, t-test, ANOVA were used for determing any group differences as hypothesized, however, before carrying out regression, t-test, and ANOVA, parametric assumptions including normal sampling distribution and heteroscedasticity were assesed.

Table 1

Socio-demographic Characterstics of the Sample under Investigation (N = 440)

Characterstrics	Gender		
	Male *f*(%)	Female *f*(%)	*f*(%)
Martial Status			
Single	29 (41)	41 (59)	70(100%)
Married	231 (62)	139 (38)	370(100%)
Family system			
Nuclear	143 (56)	112 (44)	255(100%)
Joint	117 (63)	68 (37)	185(100%)
Residential Area			
Rural	77 (66)	39 (34)	116(100%)
Urban	183 (57)	141 (43)	324(100%)
Industry type			
Semi-government	55 (65)	30 (35)	85(100%)
Government	205 (58)	150 (42)	355(100%)
Income			
30-50 thousand	69 (50)	70 (50)	139(100%)
51-70 thousand	146 (63)	85 (37)	231(100%)
71-90 thousand	41 (66)	21 (34)	62(100%)
Above 90 thousand	5 (56)	4 (44)	9(100%)
Experience			
Less than 5 years	79 (53)	69 (47)	148(100%)
5-10 years	113 (62)	70 (38)	183(100%)
10-20 years	20 (56)	16 (44)	36(100%)
More than 20 years	48 (66)	25 (34)	73(100%)
Academic education			
Bachelor	104 (68)	50 (32)	154(100%)
Master	150 (63)	89 (37)	239(100%)
M. Phil	6 (13)	41 (87)	47(100%)
Birthorder			
First born	47 (42)	64 (58)	111(100%)
Middle born	107 (71)	43 (29)	150(100%)
Last born	106 (59)	73 (41)	179(100%)

Table 1(Cont...)

Other			
Tenure			
0-5 years	121 (52)	114 (48)	235(100%)
6-10 years	73 (66)	38 (34)	111(100%)
11-14 years	19 (86)	3 (14)	22(100%)
More than 15 years	47 (65)	25 (35)	72(100%)
Job Title			
17 grade	123 (55)	100 (45)	223(100%)
18 grade	125 (65)	66 (35)	191(100%)
19 grade	12 (46)	14 (54)	26(100%)
Age			
20-30 years	70 (47)	78 (53)	148(100%)
31-40 years	96 (50)	95 (50)	191(100%)
41-50 years	86 (92)	7 (8)	93(100%)
51-60 years	8 (100)	0 (0)	8(100%)
Name of organisation			
NRTC	47 (77)	14 (23)	61(100%)
PTCL	60 (65)	33 (35)	93(100%)
WAPDA	60 (67)	29 (33)	89(100%)
SNGPL	41 (45)	50 (55)	91(100%)
HEC	34 (55)	28 (45)	62(100%)
TIP	18 (41)	26 (59)	44(100%)

Table 1 shows the socio-demographic characterstics of the sample by gender (Male= 260, 59.1%; Female=180, 40.9%) on variables like marital status, family system, residential area, industry type, income, acdemic education, experience, birth order, tenure, job title, age and organization name. Frequency tablulation shows that many of the study respondents are married (84.1%), falls in 31-40 years of age (43.4%), earns fifty one thousant to seventy thousand monthly income (52.3%), have Masters degree as academic education (54.3%) and 5-10 years job experience (41.6%). Most of the respondents are on 0-5 years job tenure

(53.4%),17 grade (50.7%), belongs to government sector (80.7%), working in PTCL (21.1%), part of a nuclear family system (58.0%), live in urban area (73.6%) and last born (40.7%).

Table 2

Psychometric Properties of the variables under investigation (N = 440)

Variables	*N*	*M*	*SD*	α	Range Actual	Range Potential	Skew	Kurt
BFPT	440	138.48	26.79	.94	73-193	44-220	-.11	-.35
Extroversion	440	26.09	8.92	.98	8-40	8-40	-.01	-.77
Agreeableness	440	26.74	7.58	.90	9-42	9-45	.10	-.54
Conscientiousness	440	30.34	5.80	.77	17-41	9-45	-.54	-.58
Neuroticism	440	23.93	3.59	.77	17-34	8-40	.53	.13
Openness to Experience	440	32.40	7.76	.89	10-50	10-50	-.23	-.23
Three-DWS	440	128.54	27.40	.93	74-189	39-195	.25	-.79
Cognitive	440	46.03	9.26	.79	26-67	14-70	.38	-.67
Reflective	440	39.67	9.04	.82	22-59	12-60	.16	-.84
Affective	440	42.82	9.52	.81	25-63	13-65	.22	-.85
GDMS	440	87.29	22.51	.97	43-125	25-125	-.06	-.87
Rational	440	17.55	4.37	.82	9-25	5-25	-.08	-.84
Intuitive	440	17.55	4.37	.82	9-25	5-25	-.08	-.84
Dependent	440	18.06	4.05	.79	10-25	5-25	-.17	-.91
Avoidant	440	17.55	4.37	.82	9-25	5-25	-.08	-.84
Spontaneous	440	16.54	5.19	.98	5-25	5-25	.002	-1.22
PSSQ	440	68.34	15.71	.92	38-99	20-100	.04	-1.01
Sensing	440	16.72	4.05	.64	10-25	5-25	.18	-1.06
Intuitive	440	17.64	2.79	.68	11-24	5-25	.20	-.91
Feeling	440	17.05	5.14	.91	7-25	5-25	-.02	-1.05
Thinking	440	16.92	5.03	.88	7-25	5-25	-.06	-1.12

Note. BFPT= Big Five Personality Traits; Three-DWS= Three Dimensional Wisdom Scale; GDMS= General Decision Making Styles; PSSQ= Problem Solving Style Questionnaire

The psychometric properties of the instruments i-e Big Five Personality Traits, Three- Dimensional Wisdom Scale, General Decision Making Styles and Problem Solving Styles Questionaire utlizied in the study are presented in table 2. The findings indicated adequte cronbach alpha reliabitiy ranged from .64 to .98 of various scales and their subscales

used in the study. Similalry the skewness and kurtosis of the scales represent the normal distribution of data. Hence, the scales used in the present study are reliable.

Table 3

Correlation between Study Variables (N = 440)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. **TDWS**	1	.98*	.98*	.99*	.55*	53*	.55*	.55*	.51*	.53*	.69*	.55*	.55*	.54*	.86*	.27*	.23*	.16*	.33*	-.22*	.38*
2. Cognitive	-	1	.94*	.98*	.43*	.40*	.43*	.43*	.43*	.40*	.57*	.42*	.42*	.44*	.83*	.26*	.21*	.15*	.32*	-.22*	.37*
3. Reflective	-	-	1	.97*	.65*	.65*	.65*	.65*	.58*	.653	.79*	.68*	.68*	.64*	.878	.29*	.25*	.18*	.353	-.23*	.41*
4. Affective	-	-	-	1	.53*	.52*	.53*	.53*	.49*	.520	.67*	.54*	.54*	.52*	.842	.25*	.21*	.15*	.307	-.21*	.36*
5. GDMS	-	-	-	-	1	.97*	.99*	.99*	.91*	.977	.93*	.91*	.91*	.89*	.681	.14*	.10*	.05*	.209	-.20*	.25*
6. Rational	-	-	-	-	-	1	.96*	.96*	.81*	1.00	.95*	.96*	.96*	.85*	.673	.22*	.19*	.14*	267	-.20*	.32*
7. Intution	-	-	-	-	-	-	1	1.0*	.93*	.962	.91*	.89*	.89*	.90*	.678	.11*	.08*	.02*	.190	-.19*	.23*
8. Dependent	-	-	-	-	-	-	-	1	.93*	.962	.91*	.89*	.89*	.90*	.678	.11*	.08*	.02*	.190	-.19*	.23*
9. Avoidant	-	-	-	-	-	-	-	-	1	.810	.77*	.70*	.70*	.86*	.611	-.03*	-.06*	-.12*	.073	-.16*	.08*
10. Spontaneous	-	-	-	-	-	-	-	-	-	1	.95*	.96*	.96*	.85*	.673	.22*	.19*	.14*	.267	-.20*	.32*
11. PSSQ	-	-	-	-	-	-	-	-	-	-	1	.96*	.96*	.90*	.800	.29*	.25*	.18*	.343	-.22*	.38*
12. Sensing	-	-	-	-	-	-	-	-	-	-	-	1	1.0*	.85*	.656	.27*	.24*	.19*	.311	-.20*	.35*
13. Intuition	-	-	-	-	-	-	-	-	-	-	-	-	1	.85*	.656	.27*	.24*	.19*	.311	-.20*	.35*
14. Feeling	-	-	-	-	-	-	-	-	-	-	-	-	-	1	.618	.11*	.09*	.03*	.187	-.09*	.16*
15 Thinking	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	.37*	.32*	.24*	.429	-.30*	.50*
16. Big Five	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	.96*	.93*	.839	-.23*	.92*
17. Extraversion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	.94*	.731	-.27*	.84*
18. Agreeableness	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	.655	-.26*	.79*
19. Conscientiousness	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-.39*	.86*
20. Neuroticism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-.44*
21. Openness	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Note. TDWS Three Dimensional Wisdom Scale; GDMS General Decision Making Styles; PSSQ Problem Solving Style Questionnaire; * = ρ < .05. The correlation coefficients between the variables under investigation are presented in table 3 and results shows that all the study variables are significantly correlated (*p<.05).

Table 4

Pearson Product Moment Correlation of Big Five Personality Traits and Decision Making Styles among Managers (N=440)

Measures	1	2	3	4	5	6	7	8	9	10	11	12
BFPT	-	.96**	.93**	.83**	-.18**	.92**	.14**	.11*	.11*	-.03	.11*	.29**
Extroversion		-	.94**	.73**	-.20**	.84**	.10**	.08	.18**	-.06	.04	.26**
Aggreableness			-	.65**	-.22**	.79**	.05	.02	.02	.12**	.02	.22**
Consientiousness				-	-.30**	.86**	.20**	.19**	.19**	.07	.19**	.30**
Neuroticism					-	-.37**	-.19**	-.19**	-.19**	.18**	-.19*	-.18**
Opneness to Experience						-	.25**	.23**	.23**	.08	.23**	.37**
Decision Making Styles							-	.99**	.99**	.91**	.99**	.91**
Rational								-	1.00**	.93**	1.00**	.89**
Intuitive									-	.93**	1.00**	.89**
Dependent										-	.93**	.68**
Avoidant											-	.89**
Spontaneous												-
N=440												

Note: BFPT= Big Five Personality Traits, **p<.01, *p<.05

Table 4 shows that big five personality traits are positively correlated to decision making styles (r=.14, $p<.01$). Extroversion is significantly related to intuitive decision making, r=.18, $p<.01$ and spontaneous decision making r=.26, $p<.01$; r=.53, $p<.01$ respectively. Rational, Dependent and Avoidant decision making styles are not related to extroversion (r=.08, r=-.06, r=.04; p=n.s). Aggreeableness is positively related to dependent decision making style (r=.12, $p<.01$) and spontaneous decision making style (r=.22, $p<.01$)but it is unrelated to rational (r=.02), intuitive (r=.02) and avoidant (r=.02) decision making styles (p=n.s). Conscientiousness is positively related to rational decision making (r=.19, $p<.01$)while neuroticism is negative correlated to all the decision making styles ($p<.01$) except avoidant decision making where it is positively related ($p<.01$). Also, Openness to experience is positive correlated to intuitive decision making (r=.23, $p<.01$).

Table 5

Pearson Product Moment Correlation of Big Five Personality Traits and Problem Solving Styles among Managers (N=440)

Measures	1	2	3	4	5	6	7	8	9	10	11
BFPT	-	.96**	.93**	.83**	-.18**	.92**	.29**	.35*	. 21*	.22**	.27*
Extroversion		-	.94**	.73**	-.20**	.84**	.25**	.30**	.19**	.19**	.24**
Aggreableness			-	.65**	-.22**	.79**	.19**	.23**	.11*	.14**	.19**
Consientiousness				-	-.30**	.86**	.34**	.39**	.29**	.26**	.31**
Neuroticism					-	-.37**	-.19**	-.23**	-.09	-.19**	-.17**
Opneness to Experience						-	.38**	.46**	.26**	.32**	.35**
Problem Solving Styles							-	.98**	.68**	.95**	.97**
Sensing								-	.68**	.92**	.93**
Intuiting									-	.46**	.53**
Feeling										-	.96**
Thinking											-
N=440											

Note: BFPT= Big Five Personality Traits, **p<.01, *p<.05

Table 5 shows that big five personality traits are positively correlated to problem solving (r=.92, $p<.01$). Extroversion, aggreableness, conscientiousness and openness to experience is significantly related to sensing (r=.30, r=.23, r=.39, r=.46 respectively; $p<.01$), intuiting (r=.19, r=.11, r=.29, r=.26 respectively; $p<.01$), feeling (r=.19, r=.14, r=.26, r=.19 respectively; $p<.01$) and thinking (r=.24, r=.19, r=.31, r=.35 respectively; $p<.01$) problem solving styles whereas neuroticism is negatively related to sensing, feeling, thinking problem solving styles (r=-.23, r=-.19, r=-.17; $p<.01$ respectively) and is not related to intuiting problem solving style (r=-.09, p=n.s).

Table 6

Pearson Product Moment Correlation of Three Dimensions of Wisdom and Decision Making Styles among Managers (N=440)

Measures	1	2	3	4	5	6	7	8	9	10
T-DWS	-	.97**	.97**	.97**	.55**	.55**	.55**	-.51**	.55*	.49**
Cognitive		-	.91**	.97**	.41**	.42**	.42**	.43**	.42**	.33**
Reflective			-	.97**	.67**	.66**	.66**	.58**	.66**	.64**
Affective				-	.53**	.53**	.53**	.49**	.53**	.48**
Decision Making Styles					-	.99**	.99**	.91**	.98**	.91**
Rational						-	1.00**	.93**	1.00**	.89**
Intuitive							-	.93**	1.00**	.89**
Dependent								-	.93**	.68**
Avoidant									-	.89**
Spontaneous										-
N=440										

Note: T-DWS=Three Dimensional Wisdom Scale, **p<.01

Table 6 shows that dimensions of wisdom are positively correlated to decision making styles (r=.55, $p<.01$). Cognitive, Affective and reflective dimension of wisdom are significantly related to rational decision making, r=.42, $p<.01$; r=.66, $p<.01$; r=.53, $p<.01$ respectively. Intuitive decision making is also correlated significantly to cognitive (r=.42, $p<.01$) affective (r=.66, $p<.01$) and reflective (r=.53, $p<.01$) dimension of wisdom. Findings also show that Cognitive dimension is negatively related to dependent decision making (r=.43, $p<.01$) whereas Affective and reflective dimension of wisdom is positively related to dependent decision making (r=.58, $p<.01$; r=.49, $p<.01$). Also, cognitive, affective and reflective dimesion is positively related to avoidant decision making (r=.42, $p<.01$; r=.66, $p<.01$; r=.53, $p<.01$) and spontaneous decision making (r=.33, $p<.01$; r=.64, $p<.01$; r=.48, $p<.01$) respectively.

Table 7

Pearson Product Moment Correlation of Three Dimensions of Wisdom and Problem Solving Styles among Managers (N=440)

Measures	1	2	3	4	5	6	7	8	9
T-DWS	-	.97**	.97**	.99**	.67**	.75**	.73**	.53*	.55**
Cognitive		-	.91**	.97**	.56**	.65**	.77**	.38**	.42**
Reflective			-	.97**	.78**	.84**	.69**	.67**	.68**
Affective				-	.66**	.73**	.71**	.52**	.54**
Problem Solving Styles					-	.98**	.68**	.95**	.97**
Sensing						-	.68**	.92**	.93**
Intuiting							-	.46**	.53**
Feeling								-	.96**
Thinking									-
N=440									

Note: T-DWS=Three Dimensional Wisdom Scale, **$p<.01$

Table 7 shows that dimensions of wisdom are positively correlated to problem solving styles (r=.67, $p<.01$). Cognitive, Affective and reflective dimension of wisdom are significantly related to sensing problem solving, r=.65, $p<.01$; r=.84, $p<.01$; r=.73, $p<.01$ respectively. Intuiting problem solving is also correlated significantly to cognitive (r=.77, $p<.01$) affective (r=.69, $p<.01$) and reflective (r=.71, $p<.01$) dimension of wisdom. Findings also show that Cognitive, Affective and reflective dimension of wisdom is positively related to feeling problem solving (r=.38, $p<.01$; r=.67, $p<.01$; r=.52, $p<.01$) and thinking problem solving skills (r=.42, $p<.01$; r=.68, $p<.01$; r=.54, $p<.01$) respectively.

Table 8

Multiple Regression Analysis Predicting Decision Making from Big Five Personality Traits (N=440)

	Model		
	Decision Making		
		95% CI	
Variable	B	UL	LL
Constant	88.75***	[111.47 ,	66.02]
Extroversion	.36	[1.14 ,	-.41]
Agreeableness	-1.47***	[-.67 ,	-2.28]
Conscientiousness	-.33	[.34 ,	-1.02]
Neuroticism	-.60	[.011 ,	-1.21]
Openness to Experience	1.63***	[2.30 ,	.96]
R^2	.13		
F	13.21***		

Table 8 indicates that overall regression model was significant [F (434, 5) = 13.21, ***p<.001]. The variance accounted by the multiple predictors i-e extroversion, agreeableness, conscientiousness, neuroticism and openness to experience is 13% (R^2 = .13), in decision making style. The results of the Multiple regression analysis indicates that agreeableness, conscientiousness and neuroticism negatively predicts decision making whereas openness to experience and extroversion positively predicts decision making. But overall big five personality traits significantly and positively predicts decision making among managers (***p<.001).

Table 9

Multiple Regression Analysis Predicting Problem Solving from Big Five Personality Traits (N=440)

	Model		
	Problem Solving		
		95% CI	
Variable	B	UL	LL
Constant	54.03***	[69.34 ,	38.71]
Extroversion	.44	[.96 ,	-.08]
Agreeableness	-1.02***	[-.48 ,	-1.56]
Conscientiousness	-.04	[.41 ,	-.50]
Neuroticism	-.22	[.19 ,	-.63]
Openness to Experience	1.13***	[1.58 ,	.68]
R^2	.19		
F	20.43***		

Table 9 indicates that overall regression model was significant [F (434, 5) = 20.43, ***p<.001]. The variance accounted by the multiple predictors i-e extroversion, agreeableness, conscientiousness, neuroticism and openness to experience is 19% (R^2 = .19), in problem solving. The results of the Multiple regression analysis indicates that agreeableness, conscientiousness and neuroticism negatively predicts problem solving whereas openness to experience and extroversion positively predicts problem solving. But overall big five personality traits significantly and positively predicts problem solving among managers (***p<.001).

Table 10

Multiple Regression Analysis Predicting Decision Making from Wisdom (N=440)

	Model		
	Decision Making		
		95% CI	
Variable	B	UL	LL
Constant	42.00***	[48.35 ,	35.64]
Cognitive	1.87***	[1.25 ,	2.48]
Reflective	5.51***	[6.12 ,	4.91]
Affective	-2.04***	[-1.05 ,	-3.03]
R^2	.70		
F	341.33***		

Table 10 indicates that overall regression model was significant [F (434, 5) = 341.33, ***p< .001]. The variance accounted by the multiple predictors i-e cognitive, affective and reflective dimension of wisdom is 70% (R^2 = .70), in decision making. The results of the Multiple regression analysis indicates that cognitive and reflective wisdom positively predicts decision making whereas affective wisdom negatively predicts decision making. Overall dimensions of wisdom significantly and positively predicts decision making among managers (***p<.001).

Table 11

Multiple Regression Analysis Predicting Problem Solving from Wisdom (N=440)

	Model		
	Problem Solving		
		95% CI	
Variable	B	UL	LL
Constant	22.72***	[26.52 ,	18.92]
Cognitive	-.35	[.008 ,	-.72]
Reflective	4.03***	[4.39 ,	3.66]
Affective	-2.28***	[-1.69 ,	-2.87]
R^2	.78		
F	517.89***		

Table 11 indicates that overall regression model was significant [F (434, 5) = 517.89, ***ρ<.001]. The variance accounted by the multiple predictors i-e cognitive, affective and reflective dimension of wisdom is 78% (R^2 = .78), in problem solving. The results of the Multiple regression analysis indicates that cognitive and affective wisdom negatively predicts problem solving whereas reflective wisdom positively predicts problem solving. Overall dimensions of wisdom significantly and positively predicts problem solving among managers (****p*<.001).

Table 12

Linear Regression Analysis Predicting Intuitive Decision Making from Extroversion (N=440)

	Model	
	Intuitive Decision Making	
		95% CI
Variable	B	UL LL
Constant	16.48***	[17.75, 15.22]
Extroversion	.14**	[.08, .05]
R^2	.07	
F	13.09***	

Table 11 indicates that overall regression model was significant [F (438, 1) = 13.09, $\rho < .001$]. The variance accounted by the predictor i-e extroversion personality trait is 7% ($R^2 = .07$), in intuitive decision making. The results of the Linear regression analysis indicates that extroversion positively predicts intuitive decision making among managers ($\beta = .18$, $\rho < .001$].

Table 13

Linear Regression Analysis Predicting Spontaneous Decision Making from Extroversion (N=440)

	Model		
	Spontaneous Decision Making		
		95% CI	
Variable	B	UL	LL
Constant	11.82***	[13.55,	10.08]
Extroversion	.18***	[.24,	.11]
R^2	.06		
F	32.01***		

Table 13 indicates that overall regression model was significant [F (438, 1) = 32.01, $\rho < .01$]. The variance accounted by the predictor i-e extroversion personality trait is 6% (R^2 = .06), in spontaneous decision making. The results of the Linear regression analysis indicates that extroversion positively predicts spontaneous decision making among managers (β=.26, $\rho < .001$].

Table 14

Linear Regression Analysis Predicting Dependent Decision Making from Aggreableness (N=440)

	Model Dependent Decision Making		
		95% CI	
Variable	B	UL	LL
Constant	19.84***	[21.23,	18.46]
Agreeableness	.06***	[.01,	.11]
R^2	.01		
F	6.91***		

Table 14 indicates that overall regression model was significant [F (438, 1) = 6.91, ρ< .001]. The variance accounted by the predictor i-e agreeableness personality trait is 1% (R^2 = .1), in dependent decision making. The results of the Linear regression analysis indicates that agreeableness positively predicts dependent decision making among managers (β=.12, ρ< .001].

Table 15

Linear Regression Analysis Predicting Rational Decision Making from Conscientiousness (N=440)

	Model Rational Decision Making	
		95% CI
Variable	B	UL LL
Constant	13.20***	[15.34, 11.05]
Conscientiousness	.14***	[.21, .07]
R^2	.03	
F	16.48***	

Table 15 indicates that overall regression model was significant [F (438, 1) = 16.48, ρ< .001]. The variance accounted by the predictor i-e conscientiousness personality trait is 1% (R^2 = .1), in rational decision making. The results of the Linear regression analysis indicates that conscientiousness positively predicts rational decision making among managers (β=.19, ρ< .001].

Table 16

Linear Regression Analysis Predicting Intuitive Decision Making from Openness to Experience (N=440)

	Model Intuitive Decision Making	
		95% CI
Variable	B	UL LL
Constant	13.35***	[15.07, 11.63]
Openness to Experience	.13***	[.18, .07]
R^2	.05	
F	24.48***	

Table 16 indicates that overall regression model was significant [F (438, 1) = 24.48, $\rho < .001$]. The variance accounted by the predictor i-e openness to experience personality trait is 5% ($R^2 = .05$), in intuitive decision making. The results of the Linear regression analysis indicates that openness to experience positively predicts intuitive decision making among managers ($\beta = .23$, $\rho < .001$].

Table 17

Linear Regression Analysis Predicting Avoidant Decision Making from Neuroticism (N=440)

	Model Avoidant Decision Making	95% CI
Variable	B	UL LL
Constant	23.27***	[25.98, 20.56]
Neuroticism	.23***	[.12, .35]
R^2	.03	
F	17.56***	

Table 17 indicates that overall regression model was significant [F (438, 1) = 17.56, $\rho < .001$]. The variance accounted by the predictor i-e neuroticism personality trait is 3% ($R^2 = .03$), in avoidant decision making. The results of the Linear regression analysis indicates that neuroticism positively predicts avoidant decision making among managers ($\beta = .19$, $\rho < .001$].

Table 18

Linear Regression Analysis Predicting Problem Solving from Neuroticism (N=440)

	Model	
	Problem Solving	
		95% CI
Variable	B	UL LL
Constant	88.63***	[98.36, 78.90]
Neuroticism	-.84***	[-.44, -1.25]
R^2	.03	
F	17.17***	

Table 18 indicates that overall regression model was significant [F (438, 1) = 17.17, $\rho < .001$]. The variance accounted by the predictor i-e neuroticism personality trait is 3% ($R^2 = .03$), in problem solving. The results of the Linear regression analysis indicates that neuroticism negatively predicts problem solving among managers ($\beta = -.19$, $\rho < .001$].

Table 19

Linear Regression Analysis Predicting Problem Solving from Conscientiousness (N=440)

	Model	
	Problem Solving	
		95% CI
Variable	B	UL LL
Constant	40.22***	[47.59, 32.84]
Conscientiousness	.92***	[1.16, .68]
R^2	.11	
F	58.17***	

Table 19 indicates that overall regression model was significant [F (438, 1) = 58.17, $\rho < .001$]. The variance accounted by the predictor i-e conscientiousness personality trait is 11% ($R^2 = .11$), in problem solving. The results of the Linear regression analysis indicates that conscientiousness positively predicts problem solving among managers ($\beta = .34$, $\rho < .001$].

Table 20

Linear Regression Analysis Predicting Problem Solving from Openess to Experience (N=440)

	Model	
	Problem Solving	
		95% CI
Variable	B	UL LL
Constant	43.11***	[48.95, 37.26]
Openness to Experience	.77***	[.95, .60]
R^2	.14	
F	76.09***	

Table 20 indicates that overall regression model was significant [F (438, 1) = 76.09, $\rho < .001$]. The variance accounted by the predictor i-e openness to experience personality trait is 14% ($R^2 = .14$), in problem solving. The results of the Linear regression analysis indicates that openness to experience positively predicts problem solving among managers ($\beta = .38$, $\rho < .001$].

Table 21

Linear Regression Analysis Predicting Problem Solving from Aggreeableness (N=440)

	Model	
	Problem Solving	
		95% CI
Variable	B	UL LL
Constant	57.77***	[63.08, 52.46]
Agreeableness	.39***	[.58, .20]
R^2	.03	
F	16.52***	

Table 21 indicates that overall regression model was significant [F (438, 1) = 16.52, $\rho < .001$]. The variance accounted by the predictor i-e agreeableness personality trait is 3% ($R^2 = .03$), in problem solving. The results of the Linear regression analysis indicates that agreeableness positively predicts problem solving among managers ($\beta = .19$, $\rho < .001$].

Table 22

Linear Regression Analysis Predicting Rational Decision Making from Wisdom (N=440)

	Model		
	Rational Decision Making		
		95% CI	
Variable	B	UL	LL
Constant	6.26***	[7.91,	4.61]
Wisdom	.088***	[.10,	.07]
R^2	.30		
F	189.91***		

Table 22 indicates that overall regression model was significant [F (438, 1) = 189.91, ***ρ<.001]. The variance accounted by the predictor i-e wisdom is 30% (R^2 = .30), in rational decision making. The results of the Linear regression analysis indicates that wisdom positively predicts rational decision making among managers (β=.55, ***ρ<.001].

Table 23

Linear Regression Analysis Predicting Thinking Problem Solving from Wisdom (N=440)

	Model		
	Thinking Problem Solving		
		95% CI	
Variable	B	UL	LL
Constant	3.75***	[5.64,	1.87]
Wisdom	.10***	[.11,	.08]
R^2	.31		
F	197.72***		

Table 23 indicates that overall regression model was significant [F (438, 1) = 197.72, $\rho < .001$]. The variance accounted by the predictor i-e wisdom is 31% ($R^2 = .31$), in thinking problem solving. The results of the Linear regression analysis indicates that wisdom positively predicts thinking problem solving among managers ($\beta = .55$, $\rho < .001$].

Table 24

Linear Regression Analysis Predicting Intuitive Problem Solving from Wisdom (N=440)

	Model		
	Intuitive Problem Solving		
		95% CI	
Variable	B	UL	LL
Constant	7.98***	[8.83,	7.13]
Wisdom	.07***	[.08,	.06]
R^2	.54		
F	520.29***		

Table 24 indicates that overall regression model was significant [F (438, 1) =520.29, $\rho < .001$]. The variance accounted by the predictor i-e wisdom is 54% ($R^2 = .54$), in intuitive problem solving. The results of the Linear regression analysis indicates that wisdom positively predicts intuitive problem solving among managers ($\beta = .73$, $\rho < .001$].

Table 25

Linear Regression Analysis Predicting Intuitive Decision Making from Wisdom (N=440)

	Model		
	Intuitive Decision Making		
		95% CI	
Variable	B	UL	LL
Constant	6.26***	[7.91,	4.61]
Wisdom	.08***	[.10,	.07]
R^2	.30		
F	189.91***		

Table 25 indicates that overall regression model was significant [F (438, 1) = 189.91, $\rho < .001$]. The variance accounted by the predictor i-e wisdom is 30% ($R^2 = .30$), in intuitive decision making. The results of the Linear regression analysis indicates that wisdom positively predicts intuitive decision making among managers ($\beta = .55$, $\rho < .001$].

Table 26

Mean differences between Male and Female in terms of Big Five Personality Traits (N=440)

	Gender							
	Female (n=180)		Male (n=260)			95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t(438)*	*LL*	*UL*	Cohen's d
Extroversion	24.80	9.53	26.98	8.38	2.53**	.49	3.87	0.24
Agreeableness	25.49	7.74	27.60	7.36	2.89**	.67	3.54	0.27
Conscientiousness	29.86	5.87	30.67	5.74	1.43	-.29	1.91	0.13
Neuroticism	23.92	4.09	23.94	3.21	.05	-.66	.70	0.005
Openness to Experience	31.28	8.50	33.18	7.12	2.5**	.43	3.37	0.24

Note **p<.01

Table 26 shows that males are more extrovert than females (t=2.53, **p<.01). Also, males show more agreeableness (t=2.89, **p<.01) and they are open to experience in comparison to females (t=2.5, **p<.01). Result also shows non significant differences in conscientiousness (t=1.43; p=n.s) and neuroticism among male and females (t=.05; p=n.s).

Table 27

Mean differences between Male and Female in terms of Decision Making, Problem Solving and Wisdom (N=440)

Variable	Male (n = 260)		Female (n = 180)				95% CI		Cohen's *d*
	M	*SD*	*M*	*SD*	*t (438)*	*p*	LL	UL	
Cognitive Wisdom	3.3317	0.71168	3.1496	0.62295	2.775	.006	.05310	.31107	.27
Reflective Wisdom	3.4571	0.72126	3.1611	0.6777	4.337	.000	.16187	.43011	.29
Affective Wisdom	3.3905	0.7455	3.1556	0.69314	3.345	.001	.09690	.37306	.27
Wisdom Total	3.3931	0.71745	3.1554	0.65772	3.534	.000	.10549	.36987	.27
Intuitive Decision Making	3.6431	0.805	3.3222	0.93937	3.837	.000	.15650	.48521	.30
Dependent Decision Making	3.6431	0.805	3.3222	0.93937	3.837	.000	.15650	.48521	.30
Avoidant Decision Making	3.6877	0.74253	3.5056	0.89078	2.329	.020	.02846	.33582	.29
Rationale Decision Making	3.5985	0.96326	3.1389	1.06359	4.714	.000	.26796	.65118	.44
Spontaneous Decision Making	3.5985	0.96326	3.1389	1.06359	4.714	.000	.26796	.65118	.31
Decision Making Total	3.6342	0.83026	3.2856	0.95884	4.062	.000	.17993	.51727	.30
Thinking Problem Solving	3.4046	0.78459	3.1556	0.7325	3.363	.001	.10352	.39460	.31

Table 27 (Cont.)

Feeling Problem Solving	3.7215	0.56596	3.4167	0.68434	5.095	.000	.18727	.42247	.29
Sensation Problem Solving	3.6038	0.95042	3.0667	1.00257	5.699	.000	.35193	.72243	.49
Intuitive Problem Solving	3.6038	0.95042	3.0667	1.00257	5.699	.000	.35193	.72243	.51
Problem Solving Total	3.585	0.71649	3.188	0.77608	5.522	.000	.25572	.53830	.40

An independent sample t-test was performed to explore the mean difference between male and female with respect to problem solving, decision making and wisdom. Findings indicated that on average males scored significantly higher on all of the measures including wisdom (t=3.53, ***p<.001), decision making (t=4.06, ***p<.001) and problem solving (t=5.52, ***p<.001) and their components as compared to females (For details see table 27).

Table 28

One Way Analysis of Variance across Job Experience on Problem Solving Components (N = 440)

Components	Groups	*N*	*M*	*SD*	95% CI		Statistics *F*, *ρ*	Post hoc Analysis (LSD)
					LL	*UL*		
Thinking	> 5 (A)	148	3.4054	.79178	3.2768	3.5340	11.71, .00	D < A**
	5-10 (B)	183	3.4230	.82497	3.3026	3.5433		D < B**
	10-20 (C)	36	3.1833	.36528	3.0597	3.3069		
	< 20 (D)	73	2.8521	.55078	2.7235	2.9806		
Feeling	> 5 (A)	148	3.5203	.59647	3.4234	3.6172	14.72, .00	A < B**
	5-10 (B)	183	3.7650	.53461	3.6871	3.8430		A > D**
	10-20 (C)	36	3.7722	.96351	3.4462	4.0982		B > D**
	< 20 (D)	73	3.2438	.57276	3.1102	3.3775		C > D**
Sensation	> 5 (A)	148	3.2041	.89791	3.0582	3.3499	18.94, .00	A<B**
	5-10 (B)	183	3.6962	.94295	3.5586	3.8337		A<C**
	10-20 (C)	36	3.7167	1.29736	3.2777	4.1556		D<A**
	< 20 (D)	73	2.8027	.86634	2.6006	3.0049		D<B**
								D<C**
Intuition	> 5 (A)	148	3.2041	.89791	3.0582	3.3499	18.94, .00	A<B**
	5-10 (B)	183	3.6962	.94295	3.5586	3.8337		A<C**
	10-20 (C)	36	3.7167	1.29736	3.2777	4.1556		D<A**
	< 20 (D)	73	2.8027	.86634	2.6006	3.0049		D<B**
								D<C**

Note. * ρ < .05; * ρ < .01

One way analysis of variance indictaed significant differences across four groups of job experience of all of four components of problem solving (See table 28). The results indicate that manager with 5-10 years of experience significantly scored high on thinking problem solving ($M=3.42$, $p<.01$). Further, managers with 10-20 years of experience scored significantly high on feeling problem solving ($M=3.77$, $p<.01$), sensation ($M=3.71$, $p<.01$) and intuition problem solving ($M=3.71$, $p<.01$).

Table 29

One Way Analysis of Variance across Job Experience on Decision Making Components (N = 440)

Components	Groups	*N*	*M*	*SD*	95% CI		Statistics *F*, *ρ*	Post hoc Analysis (LSD)
					LL	*UL*		
Intuition	> 5 (A)	148	3.5514	.86461	3.4109	3.6918	18.394, .000	D < A**
	5-10 (B)	183	3.7257	.72274	3.6203	3.8311		D < B**
	10-20 (C)	36	3.5444	1.32459	3.0963	3.9926		D < C**
	< 20 (D)	73	2.8795	.67226	2.7226	3.0363		
Dependent	> 5 (A)	440	3.5118	.87582	3.4298	3.5939	18.394, .000	D < A**
	5-10 (B)	148	3.5514	.86461	3.4109	3.6918		D < B**
	10-20 (C)	183	3.7257	.72274	3.6203	3.8311		D < C**
	< 20 (D)	36	3.5444	1.32459	3.0963	3.9926		
Avoidant	> 5 (A)	73	2.8795	.67226	2.7226	3.0363	16.237, .000	D < A**
	5-10 (B)	440	3.5118	.87582	3.4298	3.5939		D < B**
	10-20 (C)	148	3.7324	.78716	3.6046	3.8603		D < C**
	< 20 (D)	183	3.7552	.70036	3.6530	3.8573		
Rationale	> 5 (A)	36	3.5389	1.23086	3.1224	3.9554	18.294, .000	A < B**
	5-10 (B)	73	3.0521	.60095	2.9118	3.1923		D < A**
	10-20 (C)	440	3.6132	.81047	3.5372	3.6891		D < B**
	< 20 (D)	148	3.3703	1.00485	3.2070	3.5335		D < C**
Spontaneous	> 5 (A)	183	3.6962	.88599	3.5669	3.8254	18.294, .000	A < B**
	5-10 (B)	36	3.5500	1.45435	3.0579	4.0421		D < A**
	10-20 (C)	73	2.7068	.81587	2.5165	2.8972		D < B**
	< 20 (D)	440	3.4105	1.02949	3.3140	3.5069		D < C**

Note. * ρ < .05; * ρ < .01

One way analysis of variance indictaed significant differences across four groups of job experience of all of five components of decision making (See table 29). The results indicate that manager with 5-10 years of experience significantly scored high on intuition decision making ($M=3.72$, $p<.01$). Further, managers with 10-20 years of experience scored significantly high on dependent decision making ($M=3.72$, $p<.01$) and rationale ($M=3.61$, $p<.01$) decision making. Managers with more than 20 years of experience scored high on avoidant decision making ($M=3.75$, $p<.01$) whereas managers with >5 years experience scored high on spontaneous decision making ($M=3.69$, $p<.01$).

Table 30

One Way Analysis of Variance across Job Experience on Wisdom Components (N = 440)

Components	Groups	*N*	*M*	*SD*	95% CI		Statistics *F, ρ*	Post hoc Analysis (LSD)
					LL	*UL*		
Cognitive	> 5 (A)	148	3.2921	.67990	3.1817	3.4025	5.57, .001	D < A**, B** & C**
	5-10 (B)	183	3.3127	.73369	3.2057	3.4197		
	10-20 (C)	36	3.4103	.33454	3.2971	3.5234		
	< 20 (D)	73	2.9715	.60995	2.8292	3.1139		
Reflective	> 5 (A)	148	3.3004	.69276	3.1879	3.4130	11.13, .000	D < A**, B** & C**
	5-10 (B)	183	3.4603	.73453	3.3531	3.5674		
	10-20 (C)	36	3.6132	.47329	3.4531	3.7734		
	< 20 (D)	73	2.9600	.68288	2.8006	3.1193		
Affective	> 5 (A)	148	3.2994	.73208	3.1805	3.4183	6.69, .000	D < A**, B** & C**
	5-10 (B)	183	3.3745	.75410	3.2645	3.4845		
	10-20 (C)	36	3.5150	.43391	3.3681	3.6618		
	< 20 (D)	73	2.9747	.71255	2.8085	3.1410		

Note. * $\rho < .05$; * $\rho < .01$

One way analysis of variance indictaed significant differences across four groups of job experience of all of three components of wisdom (See table 30). The results indicate that manager with 10-20 years of experience significantly scored high on cognitive wisdom ($M=3.41$, $p<.01$). Likewise, managers with 10-20 years of experience scored significantly high on reflective wisdom ($M=3.61$, $p<.01$) and affective wisdom ($M=3.51$, $p<.01$).

Chapter 4

Discussion

The current study goal was to explore the role of personality traits and wisdom in decision making and solving of problems among managers serving at public sector organizations. Within organizations, wisdom (Alammar & Pauleen, 2016), personality traits (Lounsbury, Sundstrom, Gibson, Loveland, & Drost, 2016), problem solving (Karakaya & Yılmaz, 2013) and decision making (Safi & Burrell, 2007) are significant element of managerial jobs.

Within an organization personality traits have been considered crucial and according to Espegren and Panicker (2015), the "particular features or different behaviors of person either open or hidden, whether or not common refers to personality traits" (Brooks, 2008). Management activities entail frequently taking decisions, and decisions are impacted mostly by the decision maker's personality traits and wisdom. Considering that, the study hypothesized there is a significant relationship of Big Five Personality traits with decision making styles among managers of public sector organizations. Hence, the present study reveals that big five personality traits are correlated positively to decision making. Also, study finds that Extroversion is significantly and positively associated to spontaneous and intuitive style of decision making whereas it is not associated to Rational, Dependent and Avoidant styles of decision making. Aggreeableness trait is positively associated to dependent and spontaneous style of decision making but it is unrelated with rational, intuitive and avoidantdecision making styles. Conscientiousness is positively associated to rational style of decision making while neuroticism is negative correlated to all the decision making styles except avoidant decision making where it is positively related. Also, Openness to experience is positively correlated to intuitive decision making. Study results are consistent

with the research conducted by Erjavec and colleagues in 2019. They concluded that decision makers with traits "extraversion, conscientiousness, agreeableness, and openness" make better decisions. These decisions are spontaneous, intuitive and rational. In contrast to that, agreeableness and neuroticism negatively influence assurance in decisions (Erjavec, Popovic, & Trkman, 2019). Managers with neurotic traits mostly avoid decision making and agreeable personalities takes opinions from others and consider spontaneous decisions (El Othman, El Othman, Hallit, Obeid, & Hallit, 2020; Igen, Saglam, & Tugsal, 2016).

Problem solving is often necessary when dealing with complex problems in an organization. One of the reasons that can decide problem-solving skills of individuals is their personality dispositions, because personality characteristics influence numerous individual behaviors, and individuals with different personality traits use different problem solving skills (Park & Antonioni, 2007). Hence, it was hypothesized that there is a significant relationship of Big Five Personality traits with Problem solving styles among managers of public sector organizations. The current study identified that problem solving is positively and significantly related to big five personality traits. Extroversion, aggreableness, conscientiousness and openness to experience is significantly related to sensing, intuiting, feeling and thinking problem solving styles whereas neuroticism is negative related to sensing, feeling, thinking problem solving styles and is not related to intuiting problem solving style. The relationships between five personality traits and problem solving skills were explored by McMurran, Egan, Blair and Richardson (2001) and found similar results. The personality of all dimensions except Neuroticism has been proven to be positively connected to all problem solving skills. Problem solving dimensions and big five personality traits are related significantly in managers (Colakoglu, Colakoglu, Senel, Gulsen, & Ozer, 2015; Myszkowski, Storme, Davila, & Lubart, 2015).

Similarly, the element of wisdom has been seen as an important factor for managers working in highly influential organizations. Researchers had employed that wisdom enables managers to learn from their environment and to take more rational/or sensible and discerning decisions (Oden, 2011; Sternberg, 1985; Warhurst & Black, 2017). Considering that, the study hypothesized there is a significant relationship of Wisdom with decision making styles among managers of public sector organizations. The present study shows that wisdom and its dimensions are positively associated to decision making. Cognitive component is inversely related to dependent style of decision making whereas Affective and reflective dimension of wisdom are significantly and positely associated with spontaneous, dependent, intuitive, avoidant and rational style of decision making. Also, rational, intuitive, dependent, avoidant and spontaneous decision making styles are positively related to cognitive dimension of wisdom. Stewart (2006) concluded that managers are evaluated on the basis of their decisions and that both objectives and decisions are handled in a wise manner (Intezari & Pauleen, 2014). Other research study shows that organizational wisdom can aid in all decision-making stages (Bierly III, Kessler, & Christensen, 2000).

People who encourage wisdom in an organization, despite their personal interest, can consider and solve problems with regard to their broader environment, and may behave with prudence and best interest (Rowley, 2006). Mayer and Wittrock (2006) argue that problem solving is critical for managers, because organizations are interested in enhanced capacity for managers to resolve problems. Hence, the study hypothesized there is a significant relationship of Wisdom with Problem solving styles among managers of public sector organizations. In the present study, the dimensions of wisdom are positively correlated to problem solving styles. Cognitive, Affective and reflective dimension of wisdom are significantly related to sensing, intuiting, feeling and thinking problem solving. Wisdom is frequently seen as the peak of human growth (Baltes & Staudinger, 2000) and is able,

especially in the midst of adversity, to focus on the big picture (McKenna, Rooney, & Boal, 2009). As a fundamental pragmatics of life wisdom is highly related to human behaviors like problem solving skills (Ardelt, 2004).

In any organization decision making and problem solving skills are unavoidable task that a managers needs to perform (Intezari & Pauleen, 2014). According to Barrachina and Cabrales (2019), among the primary activities of senior manager in any organization, the decision making and problem solving are one of his/her most important duties. Along with examining the relationship of personality traits i-e big five and wisdom in decision making and problem solving through pearson correlation analysis among managers of public sector organization, Hierarchical regression analysis was utilized in the present study to determine predictor predictability (i-e personality traits and wisdom) on outcome variables (i-e decision making and problem solving). The study hypothesized Big Five Personality Traits predicts decision making and problem solving among managers. The present study identified that Big five personality traits accounts a variance of 13% in decision making and 19% in problem solving. Riaz, Riaz and Batool (2012) concluded 28.1% variance in styles of decision making to big five personality traits. Koruklu (2014) explained 25% of variance in problem solving by big five personality traits.

Similarly, the study hypothesized Cognitive, Reflective and Affective dimensions of Wisdom predicts decision making and problem solving among managers. The results furthermore depicted that Cognitive, Reflective and Affective dimensions of wisdom 70% positively predicts decision making and 78% problem solving. The results are consistent with previous research. Increasing wisdom can also help solve problems and make decisions (Grossmann, 2017). Decision making domains are predicted by wisdom with a variance of 61% (Skagerlund, Forsblad, Tinghog, & Vastfjall, 2021). Sub and Kretzschmar (2018)

concluded that complex cognitive abilities like wisdom are a 16% predictor of problem solving abilities.

Initial models of human choice in making decision and problem solution were usually considered as products of cognitive processing skills as wisdom and problem solving (Skagerlund, Forsblad, Tinghog, & Vastfjall, 2021) and Big Five personality traits (El Othman, El Othman, Hallit, Obeid, & Hallit, 2020). Previous studies have shown that personality traits of extroversion have a positive influence on spontaneous style (Bayram & Aydemir, 2017) and intuitive style (El Othman, El Othman, Hallit, Obeid, & Hallit, 2020) whereas conscientiousness trait of personality is linked with rational style of decision-making (Bajwa, Batool, Asma, Ali, & Ajmal, 2016). Narooi and Karazee (2015) identified a positive association of dependent and intuitive style of decision making with trait i-e agreeableness and openness respectively. Further, trait of neuroticism has a negative outcome on the style i-e avoidant type of decision making.

Considering the previous literature, the current study utilizes linear regression analysis to understand the prediction of extroversion, neuroticism, agreeableness, conscientiousness and openness traits of personality to rational, dependent, avoidant, intuitive and spontaneous styles of decision making. Thus, it was hypothesized that Extroversion positively predicts intuitive and spontaneous decision making style; Agreeableness positively predicts dependent decision making style; Conscientiousness positively predicts rational decision making style; Openness to experience positively predicts intuitive decision making style and Neuroticism positively predicts avoidant decision making style among managers. The findings demonstrates that trait Extroversion predict positive spontaneous and intuitive decision making style at 7% and 6% variance, while Agreeableness characteristic positively predict dependent style of decision making and trait conscientiousness predicts positively

rational decision making by 1%. On the other hand, Openness to experience personality predicts positively intuitive style of decision making by 5% and trait neuroticism predicts positively avoidant style of decision making by 3%. These findings are in line with previous researches (Bajwa, Batool, Asma, Ali, & Ajmal, 2016; El Othman, El Othman, Hallit, Obeid, & Hallit, 2020; Riaz, Riaz, & Batool, 2012).

Personality characteristics and ways of problem solving are highly related (Hosseinkhanzadeh, Niyazi, Mosavi, & Zahedi, 2011). Considering that it was hypothesized Neuroticism negatively predicts problem solving; Conscientiousness, Openness to experience and agreeableness positively predicts problem solving among managers. The present study shows that neuroticism personality trait negatively predicts problem solving skills with 3% variance whereas conscientiousness personality positively predicts problem solving with 11% variance. Similarly, Openness to experience and agreeableness personality positively predicts problem solving trait with a variance of 14% and 3% respectively. The results are compatible to D'Zurilla, Maydeu-Olivares, & Gallardo-Pujol (2011) study. They concluded that problem solving skills are significantly and highly predicted by openness to experience, conscientiousness and agreeableness while negatively predicted by neuroticism (Babaei, Mohammadian, Abdollahi, & Hatami, 2018; Cam & Alkal, 2020).

Adaptation and survival of organizations depend, in part, on the ability of mangers to effectively solve problems and make decisions in complex, socio-technical environments (Hastie & Dawes, 2001). Thus, it was hypothesized that Wisdom positively predicts rational and intuitive decision making among managers. The present research finds a 30% of variance in rational and intuitive decision making by wisdom among managers. Rocha Neto and Iida (2018) shed light on rational and intuitive decision making as a capability of higher cognitive aspects like wisdom.

Furthermore, organizational problem solving occurs in multiple stages at multiple levels, each of which requires different skills and cognitive abilities like wisdom (Connelly, 1996; Intezari & Pauleen, 2014). Hence, the study hypothesized Wisdom positively predicts thinking and intuiting problem solving among managers. Result of present study shows that wisdom positive predicts thinking and intuitive problem solving with 30% and 54% variance respectively. Ekmekci, Teraman, and Acar, (2014) highlight that Problem solving abilities like intuitive and thinking problem solving is strongly related to wisdom (Kunzmann & Baltes, 2003).

Gender is a crucial part of our identity and acts as a thinking and behavioral category (De AcedoLizarraga, De Acedo Baquedano, & Cardelle-Elawar, 2007). The study also determine gender differences in personality traits, wisdom and other psychological factors such as decision making and problem solving. It was hypothesized there exists differences in the big five personality traits among male and female managers. The study reveals that Male managers are more extroverts, agreeable, open to experience than females whereas study finds non-significant differences in conscientiousness and neuroticism among male and female's managers. Gensowski (2018) found men are high on extraversion trait. Differences in the methodology utilized and the demographic features of the investigated populations will likely explain instances of variations in these studies. Costa, Terracciano, and McCrae, (2001) finds no significant gender difference in Conscientiousness and Neuroticism (Ismatullina & Voronin, 2017) at the Big Five trait level whereas men tend to score higher on the openness to experience trait (Weisberg, DeYoung, & Hirsh, 2011) and agreeableness trait (Whyte, Brooks, Chan, & Torgler, 2019).

The study also hypothesized there exist the difference between male and female among managers of public sector organization with respect to Wisdom, Decision Making and

Problem Solving among male and female. Present study reveals males scores significantly higher than women managers on all criteria, including wisdom, decision making and ability of solving problems. Gluck. Strasser, and Bluck (2009) found that men score slightly higher on wisdom then women's. Males have higher problem solving skills than females (Evola, 2001; Kusumaningsih & Herman, 2018; Zhu, 2007). Decision making processes are higher in males than females (De Acedo Lizarraga, De Acedo Baquedano, & Cardelle-Elawar, 2007; Delaney. Strough, Parker, & de Bruin, 2015).

Most specialists and common people agree that learning through experiences of life is a precondition of wisdom or knowledge, decision-making and the solution of problems (Staudinger & Gluck, 2011). So, the study hypothesized there exists difference on the basis of job experience among managers of public sector organizations with respect to Wisdom, Decision Making and Problem Solving. Present study reports that managers with higher job experience are more capable to solve problems, make decisions and score high on wisdom. Higher competencies and job experience results in higher problem solving skills (Yoon, Hur, & Kim, 2020) and decision making (Deming, 2021). Ardelt, Pridgen and Nutter Pridgen (2018) pointed that individuals with advanced education are exposed more to learning and hence may be additional receptive and eager to master from life and build better understanding and wisdom (Ardelt, 2003; Cheraghi, Kadivar, Ardelt, Asgari, & Farzad, 2015; Webster, Westerhof, & Bohlmeijer, 2014).

Managers today are forced to take judgments and to solve issues every day, analyzing their environment and considering their personal properties such as personality and wisdom. During this process, this study therefore provides important information about the characteristics or traits of personality, the wisdom, decision making and ability of solving problems in managers.

Conclusion

The purpose of this study is to explore the relationship of big five personality traits (extroversion, openness, consciousness, agreeableness and neuroticism) and wisdom on the decision making and problem solving skills in managers of public sector organizations. The present study showed that Big Five characteristics were closely associated to decision-making and problem solving. The present study exposed that Big Five personality traits correlated significantly to decision making and problem solving. Aggreeableness trait is positively correlated to dependent style of decision making; conscientiousness, in contrast, is positively correlated with rational decision making Extroversion and oppenness trait is positively correlated to intuitive style of decision making and spontaneous style of decision making, whereas neuroticism is correlated negatively to all the decision making styles except avoidant decision making where it is positively related. Furthermore, Big five personality traits correlated positively and significantly with problem solving styles. Extroversion, aggreableness, openness and conscientiousness traits are significantly related to sensing, intuiting, feeling and thinking problem solving styles whereas neuroticism is negative related to sensing, feeling, thinking problem solving styles. Also, Affective and reflective dimension of wisdom are significantly associated to rational, dependent, intuitive, spontaneous, and avoidant style of decision making whereas dependent decision making is negatively related to cognitive wisdom except for affective and reflective wisdom where it is positively associated. Moreover, the dimensions of wisdom are positively correlated to problem solving styles. Cognitive, Affective and reflective dimension of wisdom are significantly related to sensing, intuiting, feeling and thinking problem solving.

The study identifies that wisdom, problem solving and decision making abilities are higher in male than female managers. Also, Male managers are more extroverts, agreeable,

open to experience than females whereas study finds non-significant differences in conscientiousness and neuroticism among male and female's managers. The study further highlights that managers with higher job experience are more capable to solve problems, make decisions and score high on wisdom.

Implications

- The concerned theme of this research is novel to the organization of the Pakistan and there are not many research conducted in the past within society of Pakistan therefore this study has shaped the course of new in depth studies in this particular area.
- With increasing interest in manager's personality traits and wisdom, this research provides the basis for additional research into wisdom, dimensions of wisdom, relation of age and wisdom in managers.
- Furthermore, stratified sampling technique employed for drawing the sample of the respondents was of great worth as it provides better coverage of the study population.
- For enterprises, study results are important in considering the employment of wise individuals and how the personality of an individual complements the type of job.

Limitations and Suggestions

The current study was restricted only to the public sector of Pakistan. It is important to study these variables among the private sector managers too. Furthermore, the number of participants in terms of gender was not equal. There were 59.1% (260) male and 40.9% (180) were females. In order to get more comprehensive results especially related to gender differences it is important for future researchers to take equal number of male and female participants or managers. Furthermore, the present research does not have equal number of

participants from different age ranges. In order to get more appropriate results, it is advised that an equal number of managers in all age groups must be taken by future researchers.

Similarly, the present sample is not a representative sample of whole Pakistani population. Therefore, to get more generalizable results, there is a need to gather data from all over the Pakistan to get a clearer picture of study variables. This study assessed the specific areas of wisdom, personality traits, decision making and problem solving with well-established tool. Further investigations should be carried out qualitatively to investigate in detail about the relationship of these study constructs. Also, Emotional intelligence is an important factor in making decisions and solving problems. In future researches, the variable "wisdom" along with emotional intelligence, decision making and problem solving can be studied. These future researches will broaden the knowledge spectrum by evaluating how wisdom and emotional intelligence is important for decision making and problem solving in managers. Moreover, the present study is conducted in public sector of organizations, there is need to conduct the future studies in private sector to evaluate the significance of these elements among the mangers. Thus, it will help the researchers to discover any differences regarding the study variables in public and private sectors of Pakistan.

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ANNEXURE

Informed Consent

Dear Participant,

I am a student of PhD in the Department of Psychology at International Islamic University, Islamabad. I am conducting a research study in order to investigate about wisdom and personality traits impact on decision making and problem solving in managers. For this, I am requesting your voluntary participation. However, your information is completely anonymous, and responses will only be used for research purposes. Any questions you may have about your rights as a research subject or research topic will be answered. Kindly provide your consent to participate. Return of the questionnaire will be highly appreciated.

Participant Signature

Thank you

Sincerely,

Sajid Mehmood alvi

sajidmalvi@yahoo.com

Demographic Sheet

- Marital Status (Single, Married)
- Family system (Nuclear, Joint)
- Residential area (Rural, Urban)
- Industry type (Semi-Government, Government)
- Income (30 to 50 thousand, 51 to 70 thousand. 71 to 90 thousand, above 90 thousand)
- Experience (less than 5 years. 5 to 10 years, 10 to 20 years, 21 to 30 years, 31 to 40 years, 41 to 50 years, 51 to 60 years)
- Birth order: _____
- Academic Education: _____
- Tenure: (0-5 years, 6-10, 11-14, More than 15 years)
- Job Title: _____
- Age: _____
- Name of organization: (PTCL, WAPDA, SNGPL, HED, TIP, NRTC)

Three Dimensional Wisdom Scale

Sr. No	Statements	Strongly agree	Agree	Undecided	Disagree	Strongly disagee
1	Ignorance is bliss.	1	2	3	4	5
2	It is better not to know too much about things that can 't be changed.	1	2	3	4	5
3	In this complicated world of ours, the only way we can know what 's going on is to rely on leaders or experts who can be trusted.	1	2	3	4	5
4	There is only one right way to do anything.	1	2	3	4	5
5	A person either knows the answer to a question or he/she doesn't.	1	2	3	4	5
6	You can classify almost all people as either honest or crooked.	1	2	3	4	5
7	People are either good or bad.	1	2	3	4	5
8	Life is basically the same most of the time.	1	2	3	4	5
9	A problem has little attraction for me if I don 't think it has a solution.	1	2	3	4	5
10	I try to anticipate and avoid situations where there is a likely chance I will have to think in depth about something.	1	2	3	4	5
11	I prefer just to let things happen rather than try to understand why they turned out that way.	1	2	3	4	5
12	Simply knowing the answer rather than understanding the reasons for the answer to a problem is fine with me.	1	2	3	4	5
13	I am hesitant about making important decisions	1	2	3	4	5

	after thinking about them.					
14	I often do not understand people's behavior	1	2	3	4	5
15	Things often go wrong for me by no fault of my own.	1	2	3	4	5
16	I would feel much better if my present circumstances changed.	1	2	3	4	5
17	I try to look at everybody 's side of a disagreement before I make a decision.	1	2	3	4	5
18	When I 'm upset at someone, I usually try to —put myself in his or her shoesǁ for a while.	1	2	3	4	5
19	I always try to look at all sides of a problem.	1	2	3	4	5
20	Before criticizing somebody, I try to imagine how I would feel if I were in their place.	1	2	3	4	5
21	I sometimes find it difficult to see things from another person 's point of view.	1	2	3	4	5
22	When I am confused by a problem, one of the first things I do is survey the situation and considers all the relevant pieces of information.	1	2	3	4	5
23	Sometimes I get so charged up emotionally that I am unable to consider many ways of dealing with my problems	1	2	3	4	5
24	When I look back on what has happened to me, I can 't help feeling resentful.	1	2	3	4	5
25	When I look back on what 's happened to me, I feel cheated.	1	2	3	4	5
26	I either get very angry or depressed if things go wrong.	1	2	3	4	5
27	I am annoyed by unhappy people who just feel sorry for themselves.	1	2	3	4	5
28	People make too much of the feelings and	1	2	3	4	5
	sensitivity of animals.					

29	There are some people I know I would never like.	1	2	3	4	5
30	I can be comfortable with all kinds of people	1	2	3	4	5
31	It's not really my problem if others are in trouble and need help	1	2	3	4	5
32	Sometimes I don 't feels very sorry for other people when they are having problems.	1	2	3	4	5
33	Sometimes I feel a real compassion for everyone.	1	2	3	4	5
34	I often have not comforted another when he or she needed it.	1	2	3	4	5
35	I don 't like to get involved in listening to another person 's troubles.	1	2	3	4	5
36	There are certain people whom I dislike so much that I am inwardly pleased when they are caught and punished for something they have done.	1	2	3	4	5
37	Sometimes when people are talking to me, I find myself wishing that they would leave.	1	2	3	4	5
38	I 'm easily irritated by people who argue with me.	1	2	3	4	5
39	If I see people in need, I try to help them one way or another.	1	2	3	4	5

Decision Making Questionnaire

Sr. No	Statements	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1	When I make decisions, I tend to rely on my intuition.	1	2	3	4	5
2	I rarely make important decisions without consulting other people.	1	2	3	4	5
3	When I make a decision, it is more important for me to feel the decision is right than to have a rational reason for it.	1	2	3	4	5
4	I double-check my information sources to be sure I have the right facts before making decisions.	1	2	3	4	5
5	I use the advice of other people in making my important decisions.	1	2	3	4	5
6	I put off making decisions because thinking about them makes me uneasy.	1	2	3	4	5
7	I make decisions in a logical and systematic way.	1	2	3	4	5
8	When making decisions I do what feels natural at the moment.	1	2	3	4	5
9	I generally make snap decisions.	1	2	3	4	5
10	I like to have someone steer me in the right direction when I am faced with important decisions.	1	2	3	4	5
11	My decision making requires careful thought.	1	2	3	4	5
12	When making a decision, I trust my inner feelings and reactions.	1	2	3	4	5

13	When making a decision, I consider various options in terms of a specified goal.	1	2	3	4	5
14	I avoid making important decisions until the pressure is on.	1	2	3	4	5
15	I often make impulsive decisions.	1	2	3	4	5
16	When making decisions, I rely upon my instincts.	1	2	3	4	5
17	I generally make decisions that feel right to me.	1	2	3	4	5
18	I often need the assistance of other people when making important decisions.	1	2	3	4	5
19	I postpone decision making whenever possible.	1	2	3	4	5
20	I often make decisions on the spur of the moment.	1	2	3	4	5
21	I often put off making important decisions.	1	2	3	4	5
22	If I have the support of others, it is easier for me to make important decisions.	1	2	3	4	5
23	I generally make important decisions at the last minute.	1	2	3	4	5
24	I make quick decisions.	1	2	3	4	5
25	I explore all of my options before making a decision.	1	2	3	4	5

Problem-Solving Style Questionnaire

Sr. No	Statement	Strongly agree	Slightly agree	Not Sure	Slightly disagree	Strongly disagree
1.	Most people think that I am objective and logical	5	4	3	2	1
2.	Most people would say that I am emotional and rather motivating	5	4	3	2	1
3.	Most people believe that I know the details of my job and do it very accurately	5	4	3	2	1
4.	Most people agree that I am a complex and intellectual person	5	4	3	2	1
5.	I tend to focus on immediate problems and let others worry about the distant future	5	4	3	2	1
6.	I try to please others and need occasional praise myself	5	4	3	2	1
7.	When I face a problem, I try to analyze all the facts and put them in systematic order	5	4	3	2	1
8.	I'm more interested in long-range implications and am often bored with minor here and now details	5	4	3	2	1
9.	I'm usually more people oriented than task oriented	5	4	3	2	1
10.	Before I put energy into a project, I want to know what's in it for me	5	4	3	2	1
11.	I normally solve problems quickly without wasting a lot of time on details	5	4	3	2	1
12.	When I have a job to do, I do it, even if others' feelings might get hurt in the process	5	4	3	2	1

13.	I get bored with routine and prefer to deal with new and complicated challenges	5	4	3	2	1
14.	I'm a pretty good judge as to how others feel about problems	5	4	3	2	1
15.	I don't let problems upset me, no matter how difficult they are	5	4	3	2	1
16.	I like to do things that I do well, but I'm not comfortable trying to learn new skills	5	4	3	2	1
17.	I prefer harmony in a work group—otherwise efficiency suffers	5	4	3	2	1
18.	I really enjoy solving new problems	5	4	3	2	1
19.	I am a quick learner, but I don't like theoretical, futuristic concepts	5	4	3	2	1
20.	When necessary, I have no trouble making tough, hard-nosed decisions	5	4	3	2	1

The Big Five Inventory

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spends time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

I see Myself as Someone Who...

Sr. No	Statements	Disagree Strongly	Disagree A Little	Neither Agree/ Nor Disagree	Agree A Little	Agree Strongly
1	Is talkative	1	2	3	4	5
2	Tends to find fault with others	1	2	3	4	5
3	Does a thorough job	1	2	3	4	5
4	Is depressed, blue	1	2	3	4	5
5	Is original, comes up with new ideas	1	2	3	4	5
6	Is reserved	1	2	3	4	5
7	Is helpful and unselfish with others	1	2	3	4	5
8	Can be somewhat careless	1	2	3	4	5
9	Is relaxed, handles stress well	1	2	3	4	5
10	Is curious about many different things	1	2	3	4	5
11	Is full of energy	1	2	3	4	5
12	Starts quarrels with others	1	2	3	4	5
13	Is a reliable worker	1	2	3	4	5
14	Can be tense	1	2	3	4	5
15	Is ingenious, a deep thinker	1	2	3	4	5
16	Generates a lot of enthusiasm	1	2	3	4	5
17	Has a forgiving nature	1	2	3	4	5
18	Tends to be disorganized	1	2	3	4	5
19	Worries a lot	1	2	3	4	5

20	Has an active imagination	1	2	3	4	5
21	Tends to be quit	1	2	3	4	5
22	Is generally trusting	1	2	3	4	5
23	Tends to be lazy	1	2	3	4	5
24	Is emotionally stable, not easily upset	1	2	3	4	5
25	Is inventive	1	2	3	4	5
26	Has an assertive personality	1	2	3	4	5
27	Can be cold and aloof	1	2	3	4	5
28	Perseveres until the task is finished	1	2	3	4	5
29	Can be moody	1	2	3	4	5
30	Values autistic, aesthetic experiences	1	2	3	4	5
31	Is sometime shy, inhibited	1	2	3	4	5
32	Is considerate and kind to almost everyone	1	2	3	4	5
33	Does thing efficiently	1	2	3	4	5
34	Remains calm in tense situation	1	2	3	4	5
35	Prefer work that is routine	1	2	3	4	5
36	Is outgoing, sociable	1	2	3	4	5
37	Is sometime rude to others	1	2	3	4	5
38	Makes plan and follow through with them	1	2	3	4	5
39	Gets nerves easily	1	2	3	4	5
40	Likes to reflect, play with ideas	1	2	3	4	5
41	Has few autistic interest	1	2	3	4	5
42	Likes to cooperate with others	1	2	3	4	5
43	Is easily distracted	1	2	3	4	5
44	Is sophisticated in art, music or literature	1	2	3	4	5