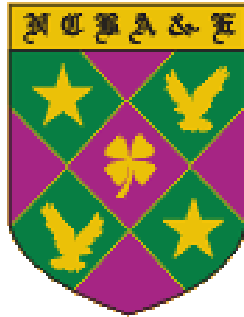


*National College of Business
Administration & Economics
Lahore*



**PROFILING PERSONALITY PATTERNS OF CHAMPIONS
& WORKING TOWARDS DEVELOPMENT OF THE
“SUCCESS-PRONE ATHLETES” PERSONALITY INDEX
(SAPI)-A SPORTS MANAGEMENT PERSPECTIVE**

BY

BINISH KHAN

**MASTER OF PHILOSOPHY
IN
BUSINESS ADMINISTRATION**

MAY, 2014

NATIONAL COLLEGE OF BUSINESS ADMINISTRATION & ECONOMICS

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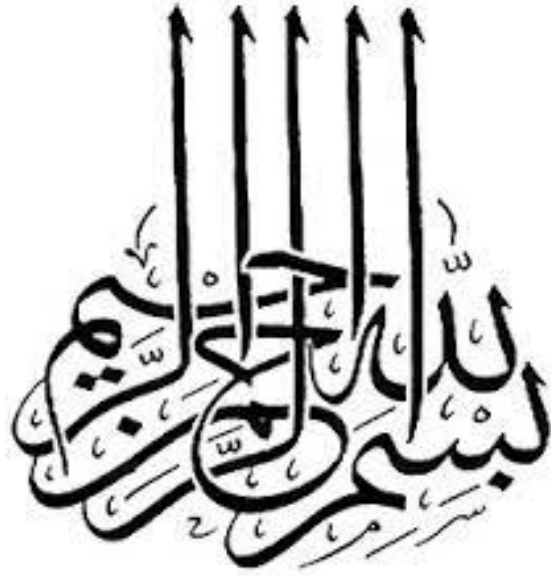
BINISH KHAN

**A dissertation submitted to
School of Business Administration**

**In Partial Fulfillment of the
Requirements for the Degree of**

**MASTER OF PHILOSOPHY
IN
BUSINESS ADMINISTRATION**

May, 2014



***In the Name of ALLAH,
The Most Beneficial,
The Most Merciful,***

**NATIONAL COLLEGE OF BUSINESS
ADMINISTRATION & ECONOMICS
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Dissertation Committee:

Chairman

Member

Member

Rector
National College of Business
Administration & Economics

DECLARATION

It is to declare that this research work has not been submitted for obtaining similar degree from any other university/college.

BINISH KHAN
May, 2014

DEDICATED
TO

Allah,
My Teachers,
My Beloved Parents
&
My Family

ACKNOWLEDGEMENT

In the Name of Allah the Most Gracious and the Most Merciful, and May Peace and Blessings be upon Prophet Muhammad the seal of All Prophets.

I would like thank my Parents, brothers and sisters who supported and encouraged me throughout my education and particularly in completing this thesis. I would always cherish the love and assistance they provided me in all walks of life.

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I am thankful and indebted to all these plethora of scholars who wholeheartedly supported me in my quest for knowledge.

RESEARCH COMPLETION CERTIFICATE

Certified that the research work contained in this thesis entitled **“Profiling Personality Patterns of Champions & Working towards Development of the “Success-Prone Athletes” Personality Index (SAPI) – A Sports Management Perspective”** has been carried out and completed by **Binish Khan** under my supervision during her **M.Phil. Business Administration** Programme.

(Dr. Alia Ahmed)
Supervisor

SUMMARY

Sport has gained a status of a full-fledged independent industry and sport markets yearn for top performers. Who will be the next Muhammad Ali, Tiger Woods, Venus Williams, or Michael Jordan is a billion dollar question. However, predicting success in sports can be quite a daunting task as every top athlete has a specific physical, psychological and sociological make-up, depending upon the type of sport, the age factor, the training received the genetic combination and the innate talent.

The assumption that an athlete has a specific ‘personality’ has been explored, but with contradictory results. However, it is also argued that athlete’s personality is one of the determinants of sports achievement and performance and successful athletes can be judged through their skills, personality and attitudes.

The present study explores this particular area and provides empirical evidence of personality traits peculiar to the high performers or more aptly, the top rankers and the champions.

With all its limitations and weaknesses, the study is an effort that contributes to literature by giving a formula for measuring and ranking performance using a combination of various levels of wins. The said ranking has assisted in developing the ‘success-prone personality index’ (SAPI), which has led to development of personality scorecard. This score card can be further modified into a more sophisticated tool for predicting future champions.

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CHAPTER 1

INTRODUCTION

1.1 STUDY BACKGROUND

Champions aren't made in the gyms. Champions are made from something they have deep inside them – a desire, a dream, a vision.... .

Muhammad Ali

1.1.1 Sports Business Industry

Sport has been professionalized and commercialized since the middle of the last century (Jovanovic, 2011) and now has gained a status of a full-fledged independent industry. Sports activities are not only undertaken at individual level but also at organizational, national and global levels. These have emerged as a wealth creator and an important economic activity. Sports' industry is unique (Braunstein & Ross, 2010) and today's global sports' industry is worth \$480-\$620 billion (Zygband et al., 2011). Sport has evolved to be an important economic activity and wealth creator, as it operates at the individual, organizational, and national levels of a country (Goldman & Johns, 2009).

The sport business industry has been defined as “the market in which the businesses and products offered to its buyers are sports related and may be goods, services, people, places, or ideas”. The sports business management includes athletes, media broadcasters/sponsors and all related activities as well as organizations and businesses that produce, facilitate, promote and organize sports' events and products (Pitts & Stotlar, 2002). Sports is not just a game in its traditional sense, rather it has become an organized and a properly managed business. Sports management has been defined as “A formal process that occurs within the sports organizations that direct and organize resources to meet the stated goals of sports organizations” (Jovanovic, 2011). In the sports sector human resources are key factors in achieving good placement and competitive advantage on the market (Jovanovic, 2011). The global sport events such as tennis, badminton, taekwondo, judo, swimming, karate, rowing, soccer, javelin throw, shot putt, races events, cricket, hockey and shooting etc., have changed the meaning of sports from individual's play to the organized concept of sports. Globalization of sports has led to international marketing

campaigns wherein sports teams and organizations collaborate with corporate sponsors creating opportunities for businesses, organizations and customers.

1.1.2 Role of Athletes in Sports' Business Industry

Today, sport events are being organized, sponsored and marketed through huge complex organizations. However, the center of attraction still is the athletes and their performances that attract consumers and markets. Marketers are using athlete endorsers to create brand personality for their products (Braunstein & Ross, 2010). Studies show an increase in consumer retail spending, when consumers feel an emotional attachment with well-recognized and attractive athletes and purchase athlete endorsed products (Carlson & Dovanvan, 2013).

The star system in sports industry is on the rise and fortunes of a particular sport industry and corporate sponsors depends on rise and fall of sports super stars and who can lose billions with fall of sports icons (Tao & Guohua, 2012). Sport markets yearn for top performers, their thrilling moves, suspense in competitions and their predicted or non-predicted outcomes. The sports organization, thus are constantly on the search for high performers, such as the 'right' coach, the best manager, top CEOs or a new key athlete who can make their business a success (Taylor, Doherty & McGraw, 2008) and give them a competitive edge in sports markets (Jovanovic, 2011).

1.1.3 Role of Organizations in Maintaining Athletes

Sports organizations make every effort to provide extensive trainings coupled with best coaches in a complex and a dynamic environment for maintenance and for attaining high performance from their athletes. These organizations are always on the lookout for success prone athletes and prepare them for competitions (Ranjan, 2009). But despite all efforts, only few reach the top. So far, sports industry has been focusing on impact of training, discipline, lucrative packages, sports branding, sports drugs, medicines, physical strength and stamina etc., and it is since 1960's that research started focusing on relationship between sport and personality. The assumption that an athlete has a specific 'personality' has been explored, but with contradictory results (Shaw et al., 2009).

Various studies have explored sportsmen's physiological, cognitive, psychological and sociological, aspects to understand as also to predict athletic behaviors in sport. Although, the popular belief is that there are no specific

athletic personality traits, however, psychologists have been attempting to identify personality traits that distinguish athletes from non-athletes, as also that distinguish athletes in one sport from another (Hoffman, S., 2013). Research has shown that athletes gained higher score at Agreeableness, Conscientiousness and Extraversion, and lower score at Neuroticism than non-athletes (Talyabee et al., 2013).

Using various personality inventories, like the Sixteen Personality Factor Questionnaire (16PF), athletes have been found to be more physically active than non-athletes, whereas athletes involved in individual sports have found to be more autonomous and more independent than athletes in team sports. Sports have been found to develop personalities and help in character building. On the other hand, negative influences such as aggressiveness, selfishness and over competitiveness have also been noticed in athletes (Instant Notes in Sport and Exercise Psychology by Dave Shaw, Trish Gorely, Rod Corban). Theories of motivation have also been used to measure personality traits, such as mental toughness and leadership skills to improve sports performance. Studies have shown higher degree of extraversion, conscientious and openness in individual sportsmen than team sportsmen (Ilyasi, 2011).

Many psychologists have also explored techniques such as mental imaging and meditation to control anxiety and improve concentration (Mahoney et al., 1977). Athletes' personalities have also been assessed in the context of gender, cultures, desire to win and fear of losing. Significant differences between traditional sport athletes such as tennis and volleyball and alternative sport athletes for example, bull-riders, moto-cross etc. have also been found using Zuckerman's Sensation Seeking Scale and Cattell's 16 Personality Factor Inventory. Results indicate that the alternative sport athletes are more sensation seeking more reserved and self-sufficient as compared to traditional athletes (Rhea and Martin, 2010).

Differences in levels of ambition and confidence have also been spotted in athletes involved in contact sports (where participants come into bodily contact with one another, such as karate, boxing, wrestling, taekwondo etc.), and non-contact sports (Sohrabi et al., 2011). Athletes involved in contact sports are found to be more ambitious, more confident and energetic (Backmand et al., 2001; Ahmadi et al., 2011). Using Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992), a recent study indicated Conscientiousness as a sole predictor of and having positive significant correlation with sport performance (Mirzaei et al., 2013).

1.1.4 Personality and its Theories

“Personality is the dynamic organization within the individual, of those psychophysical systems that determine his unique adjustments to his environment (Allport & Odbert, 1936; Robbins et al., 2010). “The total sum of ways in which individual reacts to and interacts with others (Robbins et al., 2010).”

Many studies have been developed to understand biological, cultural and psychological aspects of personality. There are three well known theories of personality: the trait approach (Javis, 1999), the situational approach (Bandura, 1999) and the interactional approach (Weinberg & Gould, 2011). According to the trait approach, individuals can be categorized according to their personalities and an individual will always react in a certain way according to his/her specific personality trait irrespective of the situation he is in (Javis, 1999). So an aggressive person will be aggressive under any circumstance. The situational approach totally opposes the trait theory and suggests that a personality cannot be categorized and it only manifests itself under specific situations. For example, a person will behave differently when with family/friends and but he may show aggression in a competitive situation. However, the third interactional approach combines traits and situations to define a personality (Bowen, 2013).

Furthermore, psychological and scientific study of personality includes concepts like personality changes, personality development, personality genetics, personality pathology, vicious cycles of maladaptive behavior, personality styles etc. Theories and models for defining personality have been developed to identify e.g. criminal behaviors under criminology, personality disorders in the field of medicine and psychology as also organizational behaviors, work behaviors, leadership traits etc. in areas of business administration/management. Various test like Rorschach Inkblot Test, Minnesota Multiphasic Personality Inventory (MMPI-2), and Thematic Apperception Test (TAT) are available to measure and identify specific personalities. However, it is only recently that psychology is making contribution as a behavioral science for improving sports performance (Tomar & Singh, 2012).

1.1.5 EPI (Eysenck’s Personality Inventory) & Profile of Mood States (POMS)

Eysenck’s Personality Inventory (EPI) is based on the Eysenck Personality Questionnaire developed by (Eysenck & Eysenck, 1975).

Basically, EPI measures a person's temperament, character and how that character is presented. These scale measures three dimensions of personality i.e.

Table 1
EPI (Eysenck's Personality Inventory)

Extraversion	outgoing, impulsive, uninhibited, social, takes part in group activities, takes chances, often acts on the spur of the moment, and generally quite active
Introversion	quiet, reserved, distant, un-impulsive, well controlled, ethical, more passive than aggressive, generally reliable
Neuroticism	High N scores indicate strong emotional instability and over activity, over responsive, encounter difficulties in calming down, high anxieties and irritating emotional feelings. They may develop neurotic disorders when under stress.

Profile of Mood States (POMS), developed by (McNair et al., 1971). It measures six dimensions of a person's mood as well as provides an overall rating of psychological distress.

The six dimensions are:

Table 2
Profile of Mood States (POMS)

1.	Fatigue–Inertia
2.	Vigor–Activity
3.	Tension–Anxiety
4.	Depression–Dejection
5.	Anger–Hostility
6.	Confusion–Bewilderment

The aforementioned were the most popular models for analyzing and to understand athlete's traits and psychological aspects. POMS was used to assess the specific, special and unique traits in elite athletes. Index is defined as a measure formulated by combining or adding various separate indicators of a construct into a score (Neuman, W.L., 2000). There are many indexes which provide a composite measure for measuring distinct dimensions at a point.

1.1.6 Significance of the Study

Selection of right individual, for the right position, right time and for the right task/game is quite challenging for any sports organization and getting hold of highly successful athletes is their main objective.

Managing athletes' performance, their hiring, their retention and decision of choosing athletes that can benefit an organization is not an easy job. In other words to discover and get hold of "success prone" athletes for any sports organization is a difficult task. Organizations endeavor to achieve best performances from their athletes and focus on maintaining the athletes through not only lucrative financial packages but also through best possible sports' relevant environment and extensive trainings. Despite all efforts, only some of the players are able to win contribution to organization success. What goes wrong in the ring/field? What happens to players who excel and show consistent performances during their training periods but lose when faced with real fights/competitions and defy all predictions of potential wins? This study is an attempt to explore any specific or prominent personality traits and "*what triggers winning behaviors in the ring or field and what lacks in non-winners?*"

Understanding personality of these players is one area which has been ignored and this one area might be able to answer these questions. This study aims at understanding, identifying patterns and profiling an athlete's personality and its specific traits that might have a significant impact on his/her performance and generate a sports-specific success-prone personality index using empirical data. The development of such an index might provide a useful insight into a sportsman's personality, allow the organizations to hire truly success prone athletes and the index might also serve as a guide for organizations, coaches and sportsmen themselves to improve their weak personality areas.

CHAPTER 2

LITERATURE REVIEW

2.1 ATHLETE'S PERSONALITY

It is argued that athlete's personality is one of the determinants of sports achievement and performance. Successful athletes can be judged through their skills, personality and attitudes. Personality is also the forward planner of relevant outcomes to multiple organizations (Penney et al., 2011). Successful competitors are known to be enthusiastic, energetic, extrovert, aggressive, affectionate, altruistic, conscientious, non-neurotic/ emotionally stable, intellectual, passion, aggressive, self-determined and open-minded. Studies also show that different levels of personality characteristics partially affect feelings, emotions and behaviours (Nia & Besharat, 2010) which intrun highly influences the performance of individuals. All these traits are presumed to be the part of successful athletes' persona.

Studies have been done to identify or highlight, what is known as an "Athlete's personality", and results have shown effects of various personality traits on performance of athletes at individual or team level performance. The individual event athletes are known as 'autonomous' in nature (Nia & Besharat, 2010). They acquire combination of attitudes, behavioral tendencies and beliefs that lead them to focus on their physical functioning, uniqueness and control over environment (Beck et al., 1983). The team event athletes are known as 'sociotropy'(Nia & Besharat, 2010) and different traits are found according to individual or team events. Athletes' personalities have also been assessed in the context of gender, cultures, desire to win and fear of losing, traditional/alternative sport athletes, contact /non-contact athletes with quite significant differences (Rhea and Martin, 2010; Sohrabi et al., 2011; Ahmadi et al., 2011).

The biographies of the world's greatest athletes, also highlight presence of some prominent personality features, such as aggressiveness, aggression, self-determination and passion that are common to almost all the Great Atheltes (Johnsons, 2010).

Table 2.1
Commonalities: Ability; Strength; Physical Quickness; Stamina

Name	Sport	Statistics	Prominent Traits
Mohammad Ali Louisville Lip; the Greatest 1942	Boxing	Bouts, 61 Knockouts, 37 Bouts won by decision, 19 Knockouts by opponents, 1 Bouts lost by decision, 4	Determination; resilience; Extroversion; Aggression (basher, outspoken);colorful; thrived on crowds;
Laila Ali 'She Bee Stingin' 1977		International Boxing Association female middleweight champion title.	Afraid of facing punches and beating, Laila's career was in danger and she had to be more aggressive to be a successful fighter.
Alexis Arguello 1952		Won 82 out of 90 professional bouts, scored an amazing 65 knockouts, and gained three world championships.	He had an aggressive, nonstop style and became one of the most successful fighters of the 1930's, and won three world championships simultaneously.
Roberto Durán 1951		Bouts, 119 Knockouts, 70 Bouts won by decision, 33 Knockouts by opponent, 4 Bouts lost by decision, 12	Roberto Durán is one of the few boxers to compete in five different decades. He was known for his toughness, endurance, determination and a master of technique. He was praised for his indefinable quickness and punches.
George foreman 1949		Bouts, 81 Knockouts, 68 Bouts won by decision, 8 Knockouts by opponents, 1 Bouts lost by decision, 4	His prominent traits were determination, fearlessness and positive attitude and had two boxing careers for 20 years. Both periods were successful and exciting. When young, George was known as a savage brawler with extreme power. When old he survived on his fighting spirit.
Mike Tyson Also known as: Michael Gerard Tyson (fullname); Iron Mike; Kid Dynamite 1966		Bouts, 58 Knockouts, 44 Bouts won by decision, 6 Knockouts by opponents, 5 Captured his first world heavyweight title at 20 years, 145 days of age—the youngest world heavyweight champion in professional boxing history	Mike Tyson, grew in slums of New York, but became a boxing legend. He rose from the harsh environment with the determination to succeed.

Name	Sport	Statistics	Prominent Traits
Akebono Taro 1969	Sumo wrestling	He rose from the lowest rank to the grand champion in 5 years	For Chad Rowan Sumo was a new venture when he went to Japan, but with his determination and resilience, hard training within five years, rose from the lowest rank to the grand champion, under the ring name of Akebono.
Rulon Gardner 1972	Wrestling	Significant for defeating one of Russia's greatest athletes, Rulon Gardner also became the most outstanding Greco-Roman wrestler in the United States.	Rulon Gardner was the most outstanding Greco-Roman wrestler in the USA. His determination and perseverance allowed him to defeat one of Russia's greatest athletes, and win an Olympic gold medal. His success was one of the most amazing stories of the 2000 Summer Games.
Aleksandr Aleksandrovich Karelin World's Meanest Man; King Kong; the Experiment 1967		Aleksandr Karelin dominated Greco-Roman wrestling from 1987 through 2000. Unbeaten at major international competitions until his defeat at Sydney, He won nine consecutive world championships and three consecutive Olympic titles. His silver medal in the	Aleksandr exhibited a rare combination of physical and mental strength. He was competitive; determined and persistent.

2.2 THE EFFECT OF PERSONALITY ON ATHLETE'S PERFORMANCE

“Personality is the dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment (Allport, 1937; Robbins et al., 2010). Recently, more attention is being diverted to assessing athletes' personality with reference to their performance, physical strength and mood states. There are various studies in sports that are exploring personalities for the purpose of understanding athletes for team based events (Sindik, 2011) such as studies on segregation of individuals who participate in risky sports events (Tok, 2011) and personality differences of participant athletes in individual events and team events (Nia & Besharat, 2010). Another study tests the relationship between hope and Performance of Elite Athletes optimism skills (Schinke & Peterson, 2002).

Research has also tried to sketch differences in clinical symptoms and clinical patterns of athletes' personality in contact and non-contact sports using Millon Clinical Multiaxial Inventory-III manual and Eysenck personality questionnaires (Sohrabi et al., 2011). Other Sport Specific measures such as the Sport Competition Anxiety Test (Martens, 1977) is being used to assess the level of anxiety of athletes during competition. The Competitive State Anxiety Inventory-2 (Martens et al., 1982) is another scale that measures anxiety more accurately. Profile of Mood State (POMS), developed by (McNair et al., 1971) assesses moods of athletes based on six dimensions to create 'the Iceberg profile' (Morgan, 1980). Observational techniques, are also used to assess sports person's traits and behaviors and their facial expressions (Bowen, 2013) by using EPI and Profile of Mood State. This is the only way to analyze the psychological traits and states of athletes. There is a need to check the athlete's performance according to personality traits. However passion (Vallerand, et al., 2003), aggressiveness and self-determination are being dealt as personality traits for a successful athlete.

Performance of individual is the key to organizational success (Betts, 2012) and sports business also relies on it for its growth and development. "Performance in sports is influenced by a combination of physiology, psychology and socio-cultural factors (Athletic, 2013)". It is also defined as typical performance excellence within a specific field where excellence are counted (Hays, 2006) as in sports excellence is highly considerable.

Athlete's performance can be judged according to levels of events and the level of wins (gold, silver and bronze) (RN Kazemi et al., 2009) and these medals are crucial for survival of sports organizations, but there is yet no support to suggest that success in any sporting activity depends on particular type of personality. Who will be the next Muhammad Ali, Tiger Woods, Venus Williams, or Michael Jordan is a question the answer to which is of global interest. However, predicting success in sports can be quite a daunting task as every top athlete has a specific physical, psychological and sociological make-up, depending upon the type of sport, the age factor, the training received the genetic combination and the innate talent. What separates 'the good from the great' or what makes a champion is not only dependent upon good genetics, innate talent and physical strength but it also depends on mental powers and certain personality traits such as their killer instincts, their sharp read- and -react skill to anticipate opponents' moves, passion, emotional stability, mental toughness, positive attitude, focus and competitive nature among others (Twist and Hutton, 2007).

2.3 BIG FIVE PERSONALITY TRAITS

Many personality traits' scales have been developed for the purpose of assessing different personalities of individuals. There are certain models of personality such as three dimensional models, Myers-Briggs Type Indicator (MBIT), Five factor models/ Big Five inventory and many others. This study proposes to use The Big-five Inventory or the Five Factor model as it has been extensively studied and used in different fields. It is being applied with various combinations of different behavioral outcomes (Costa & McCrae, 1992). Big Five was summarized as Big Five provides thrust for new research, while providing (1) empirically derived definition of personality traits, (2) wide range collection of characteristics that fall in Big Five construct and (3) psychometrical measurement tool (Costa & McCrae, 1992). The Big Five personality factors assess personality through an individual's agreeableness, conscientiousness, extroversion, emotional stability, and openness to experience (Daft, 1994; John et al., 2008). The acronym for The Big Five is OCEAN (Costa & McCrae, 2008), which refers to the five personality traits Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism as under:

Table 2.2
Big-Five Model

O	Open- minded, originality, openness to experience, intellect, fantasy, values, actions, aesthetics	John & Srivastave, 1999; Costa & McCrae (2008)
C	Conscientious, control, constraint; competence, self-confidence and achievement striving	John & Srivastave, 1999; Nia & Besharat, 2010
E	Extrovert, enthusiasm, energy, warmth, gregarious, assertiveness. Excitement seeking	John & Srivastave, 1999; Costa & McCrae (2008)
A	Altruistic, Affectionate, agreeable; straight forward; tender-minded; trust and compliance	John & Srivastave, 1999; Nia & Besharat, 2010
N	Nervousness, negative affectivity, neuroticism, Anxiety, Hostility, Depression	John & Srivastave, 1999; Costa & McCrae (2008)

Recently, it has gained importance in almost every field for assessing personality traits in context of employment, health, sports, events and many others.

Previous studies have used this model in the field of sports to highlight the differentiating personality features of top senior basketball athletes on the team of different team's positions (Sindik, 2011). Big-Five has also examined the differences between participants and non-participants of risky sports to

understand whether there were any specific personality traits which segregate the individuals more likely to participate in it (Tok, 2011). One more study explored the differences in traits by comparison of athlete's personality characteristics in individual and team sports (Nia & Besharat, 2010).

This study has used the Big Five, along with Passion (Vallerand et al., 2003), Aggressiveness (Makarowski, K. 2012) and Self-Determination (Deci & Ryan, 2000), to explore association between the personality traits and performance of successful athletes study has incorporated.

2.4 OPENNESS TO EXPERIENCE & PERFORMANCE

Openness to experience is explained as the depth, complexity, originality and breadth of a human's "experiential and mental life" (John & Srivastave, 1999). Furthermore it is defined as seeking enhancement or improvement through senses and mind (Zuckerman, 1984). It is also explained as the extent to which a person has continuum of interest and is creative, imaginative, artistically sensitive and willing/absorbing of innovative ideas (Daft, 1994). These traits if found in athletes will allow them to use their creativity, intellect, imagination and flexibility. Individuals who are open to experiences are also sometimes known as Intellectual or Imaginative (Eswaran et al., 2011) and are typically flexible, creative and intellectually oriented. Openness to experience as a trait, is beneficial for career success (Heineck, 2011) and allows one to use his/her creativity, intellect, imagination and flexibility. Openness to experience in athletes may have a role as a predictor of high performance.

H_{A1a} There is a positive relationship between openness to experience and performance of athletes.

H_{01a} Openness to experience has no impact on performance.

2.5 CONSCIENTIOUSNESS AND PERFORMANCE

The primary definition of conscientiousness is described as "socially prescribed impulse control" which supports task and goal directed behaviors (John & Srivastave, 1999) that make the athlete to work in organized manner and give performance in field. As a trait it is also defined as an extent to which a human is focused on specific goals and is persistent, responsible, and dependable and achievement oriented (Daft, 1994). This is an important trait for an athlete as well as individual goals. Athlete has to be dependable and

responsible to achieve team and individual goal. This trait has been examined in sports but with different angles such as for better understanding of the differences of positions in team (Sindik, 2011; Nia & Besharat, 2010). This study purposes to examine the role of conscientiousness on the performance of athlete in achieving the level of win.

H_{A1b} Conscientiousness is positively associated with performance of athletes.

H_{01b} Conscientiousness is not or is negatively associated with performance.

2.6 EXTROVERSION AND PERFORMANCE

Extroversion is explained as an “energetic approach” towards social world and it also includes assertiveness, activity, sociability and positive emotionality (John & Srivastave, 1999). Extroversion makes a person assertive, outgoing, sociable and comfortable (Daft, 1994). It is argued that high level of extroversion leads to positive emotions such as liveliness, happiness, optimism, activity and high level of energy (David et al., 1997). These qualities also impact an athlete’s performance as he/she can overcome the negative emotions such as hastiness, fear, worry, anger and feeling of guilt (Robinson et al., 2007).

It is also argued that “extroverts tend to be socially oriented (outgoing and gregarious), but also are surgent (dominant and ambitious) and active (adventuresome and assertive)” (John et al., 1991). A study explored the traits of guards and forwarders/ centers in basketball and found positive effects of extroversion on forwarders/center athletes than on guards (Sindik, 2011). This study proposes to explore the positive role of extroversion on an athlete’s performance.

H_{A1c} There is a positive relationship between extroversion and performance of athletes.

H_{01c} There is a no or negative relationship between extroversion and performance of athletes.

2.7 AGREEABLENESS AND PERFORMANCE

Agreeableness has been defined as “pro-social and communal orientation” towards rivalry and it also includes components like altruism, trust, tender mindedness and modesty (John & Srivastave, 1999). Agreeableness makes a human being good natured, forgiving, cooperative, likable, trusting and understanding (Daft, 1994). The study highlights three main components of agreeableness which are altruism, trust and compliance (Nia & Besharat, 2010). The results of a previous study have shown players to be affected negatively by agreeableness than non-players (Bialic et al., 2007). This study is exploring the negative role of agreeableness on athlete’s performance.

H_{A1d} There is a negative relationship between agreeableness and performance of athlete.

H_{01d} There is a positive relationship between agreeableness and performance of athlete.

2.8 EMOTIONAL STABILITY AND PERFORMANCE

Emotional Stability means possessing an even-temper and positive emotionality (John & Srivastave, 1999). It makes a person calm, self-confident and enthusiastic and thus emotionally stable (Daft, 1994). In contrast neuroticism predicts negative emotions like worry, fear, hastiness, guilt and anger (David et al., 1997; Robinson et al., 2007). Emotional stability has been studied in chess players who were found to be more emotionally stable (Bilalic et al., 2007). Similarly, positive impact of emotional stability was seen on forwarder/center athletes and positive or medium high correlation with emotional stability was found existing (Sindik, 2011). On the other hand participants of risky sports have shown lower level of neuroticism (Tok, 2011). This leads to the following hypotheses:

H_{A1e} There is a positive relationship between big five personality dimension emotional stability and performance of athlete.

H_{01e} There is no or negative relationship between big five personality dimension emotional stability and performance of athlete.

2.9 PASSION AND PERFORMANCE

Passion is explained as a “strong inclination” for any activity in a person for which they spend their energy and time (Vallenrand et al., 2003). Passion in an individual is taken as passive when it controls them (Vallenrand et al., 2003). Earlier studies have taken passion to be essential for high-priority goals (Frijda et al., 1991) and has been sub divided into two types which are obsessive passion and harmonious passion (Vallenrand et al., 2003).

There is a dualistic model of passion which has been used in various researches in sports (Lafreniere et al., 2008; Valleneand et al., 2008). Obsessive passion is defined as controlled internalization of any activity in one that produces an internal pressure, which compels a player to perform his favorite (Vallenrand et al., 2003). Harmonious passion is defined as autonomous internalization which leads’ an individual to engage in an activity he/she like (Vallenrand et al., 2003). In sports the concept of passion was proposed as a fundamental source of motivation and its constant involvement contributed to performance (Vallerand et al., 2008). According to a study there are two paths to high-level of performance attainment, viz. harmonious or obsessive passion that triggers involvement in sport (Vallerand^b et al., 2008). Moreover, passion in sports persons make them better sales persons and more capable of attracting and retaining customers (Gasparini & Pichot, 2007).

Passion is treated as the personality trait which leads an individual towards goal attainment and goal commitment which leads to positive relation with goal shielding effects and subsequently self-regulatory behavior (Be langer et al., 2013). This trait is vital in sports competition for attaining a win. Passion can be traced back to Grit in psychology, a positive, non-cognitive personality trait, composed of “perseverance and passion for long-term goals” (Duckworth et al., 2007). Presence of passion gives rise to perseverance and commitment and becomes the differentiating trait that makes an individual highly determined and focused in the face of hardships, challenges and failures. The construct of Grit, passion is composed of 67 traits derived by Webb (1915).

The current study proposes to explore the extent to which passion impacts an athlete’s performance.

H_{A2} There is a positive relationship between passion and performance of athletes.

H₀₂ There is no or a negative relationship between passion and performance of athletes.

2.10 AGGRESSIVENESS, AGGRESSION AND PERFORMANCE

Aggression is a whole process and aggressiveness is defined as personality trait which distinguishes individual from other individual in ambient reality (Makarowski, K. 2012). Aggressiveness in sports is generally defined as “making an all-out effort to win or succeed or competitive” (Makarowski, K 2012; Dictionary, 2014). Aggressiveness consists of three factors which are go-ahead, tripping someone up and assertiveness (Makarowski, K 2012). Go-ahead leads people toward success. It makes an individual active as opposed to being passive. These people can be characterized as: aggressive and assertive (Makarowski, K 2012). Tripping someone up are the activities aimed at preventing the opponent from achieving their goals and thus it increase the probability of one’s achievement (Makarowski, K 2012). Assertiveness signifies not only respecting one’s own rights but also rights of other people (Makarowski, K 2012).

H_{A3} During competition Aggressiveness enhances the performance of athletes.

H₀₃ During competition Aggressiveness has no impact or reduces performance of athletes.

It is argued that competition without aggression is considered as a body without soul, where there is competition there should be aggression (Tomar & Singh, 2012). Aggression is a negative trait (Keeler, 2007) which does not support in enhancing performance of athletes. However one study found that it makes athletes highly motivated, demonstrate the great physical energy and self-confident, fearless from swears fracture or injuries (Silva, 1984). Aggression in sports occurs from frustration (Tomar & Singh, 2012) and from being punished and losing reward values (Tomar & Singh, 2012). There are two different schools of thoughts that believe on their positive and negative effects of performance of athletes. This study argues that aggression is briefly explained as an act unintentional it is just a bodily involvement and an accidental act with no intentions to harm psychologically and emotionally (Mintah, Huddleston, & Doody, 1999). And aggression may also be intentional and is manifested in the form of anger or violent actions but without breaking the game’s rules (Kerr, J.H., 1999). It may hamper the performance of athletes due to aggression. As, aggression consists of four type of aggressions are hostility, anger, physical aggression and verbal aggression. These are known as four subscale of aggression which provides a total score to measure trait of aggressiveness (Keeler, 2007).

H_{A4} Aggression hampers performance.

H₀₄ Aggression does not hamper performance.

2.11 SELF-DETERMINATION AND PERFORMANCE

Self-determination theory (SDT) suggests that people have a desire to feel that they can control their actions (Robbins, Judge, & Vohra, 2010). Self-determination theory is recognized as self-concordance i.e. “the degree to which a person’s reasons for chasing goals are consistent with his core values and interests” (Robbins, Judge, & Vohra, 2010). SDT also suggests a set of universal and basic psychological needs which are autonomy, competence and relatedness and their fulfillment is considered important for vital, healthy human functioning (Ryan, 2009). This theory consists of five mini theories named as CET: Cognitive Evaluative theory, OIT: Organismic integration theory, COT: Causality Orientations theory, BPNT: Basic Psychological Needs Theory and GCT: Goal Contents Theory (Ryan, 2009). SDT has countless practical implications in various domains such as health-care, work, parenting, education, religion, psychotherapy, sustainability and sports/exercise context (Ryan, 2009).

Self-determination plays a great part in performance of athletes too. It is an evolving macro-theory of motivated behavior and human personality (Deci & Ryan, 2000). The theory focuses on the self-determined behavior and a cultural and social condition that endorses it (Ryan, 2009). SDT presents critical distinction between behaviors which are intrinsic motivation behaviors, extrinsic motivation behavior and motivation. Intrinsic motivation is explained as an activity that a person does for his/her inherent satisfaction (Teixeira, Carraca, David, Silva, & Ryan, 2012) and not for discrete outcomes. On the other hand, extrinsic motivation is an activity done for attaining discrete outcomes (Ryan & Deci, 2000) and motivation is the state of lacking intention to do any activity (Ryan & Deci, 2000). It is a motivation theory that is related to the favorable effects of intrinsic motivation and harmful effects of extrinsic motivation (Robbins, Judge, & Vohra, 2010). It is argued that intrinsic motivated persons experience the feeling of enjoyment and personal accomplishment and exercise their skills for excitement (Deci E. , 1975). Similarly, athletes’ intrinsic motivation compels them to exercise their skills for their inherent satisfaction, joy, excitement and personal accomplishment which ultimately lead to high performance.

SDT is measured through autonomy continuum for extrinsic and intrinsic motivation (Ryan & Deci, 2000). There are four extrinsic motivations

namely, external regulation, introjections regulation, identified regulation and integrated regulation. Externally regulated behavior is explained as behaviors which are performed to satisfy an external demand or reward contingency (Ryan & Deci, 2000), **Introjected** regulation is explained as internal regulation that makes people act under pressure in order to avoid anxiety and guilt (Ryan & Deci, 2000), Identification regulation is identification of one's own important behavior and acceptance of one's own regulations (Ryan & Deci, 2000) and integrated regulation occurs when identified regulation has been fully incorporated into self (Ryan & Deci, 2000). Self-determination is grounded on basis of Basic Need Satisfaction. In sports it plays an important role. Basic need theory is defined as "innate psychological nutriment which are important for continuous psychological: growth, integrity and for all individuals (Deci & Ryan, 2000). There is a need of sports-specific measures for self-determination in competition sports context (J.Y.Y. Ng et al., 2011). Hence, the current study is measuring self-determination from Basic Need Satisfaction in sports. Basic Need Satisfaction consists of three dimensions: Competence, Autonomy and Relatedness.

These three components discussed as "innate psychological nutriments" which are important for ongoing psychological development, integrity and wellbeing as well (J.Y.Y. Ng et al., 2011). Self-determination theory defines Competence, Autonomy and Relatedness as follows: Competence: "feeling effective in one's ongoing interactions with social environment and experiencing opportunities to exercise and express one's capacity." Autonomy: "being the perceived origin or source of one's own behavior". Relatedness is "feeling connected to others, to care for and being cared for by those others, to have a sense of belongingness both with other individuals and with one's community".

Previous studies argue that three basic needs satisfaction predicts well-being, intrinsic motivation and positive outcomes in many life domains such as work, education and exercise (Reeve et al., 2003).

There are three main aspects of autonomy which are named as Perceived choice, internal perceived Locus of control (IPLOC) and Volition (Reeve et al., 2003). These are defined as follows: Perceived choice: is "originated from a perception of having decision making flexibility to choose what to do within an activity" (Reeve et al., 2003). IPLOC: signifies "whether an individual believes that his/her actions are initiated and regulated by a personal force" (Reeve et al., 2003). Volition: is an unpressured willingness to engage in an activity or not to do it" (Reeve et al., 2003).

SDT has also been studied in relation to sports. To assess self-determination of athletes, external pressure and compliance have been measures of external regulation. Whereas, self-control, internal reward, ego involvement and punishment have been used for **introjected** regulation. Athlete's personal importance, valuing and choice as identified regulation, synchronization of different activities in their life have been used as integrated regulation and the interest of athlete, curiosity, enjoyment and their inherent satisfaction can be measures of intrinsic motivation (Pelletier, Vallerand, & Philippe, 2007).

H_{A5} Self-Determined athletes perform better in competition.

H₀₅ Self-determined athletes do not perform better in competition

2.12 STUDY VARIABLES & RESEARCH HYPOTHESES

Ten variables have been used in this study. Nine of them have been taken as independent variables that are used to measure multiple dimensions of personality traits and their association is checked with one dependent variable i.e. performance.

Table 2.3
List of Variables

Independent	Dependent
Openness to Experience	Performance
Conscientiousness	
Extroversion	
Agreeableness	
Emotional Stability	
Aggression	
Aggressiveness	
Self-Determination	
Passion	

The associations are tested through the following hypotheses:

Table 2.4
Hypothesis

H_{01a}	Openness to experience has no or negative impact on performance.
H_{A1a}	There is a positive relationship between openness to experience and performance of athletes.
H_{01b}	Conscientiousness is not or is negatively associated with performance.
H_{A1b}	Conscientiousness is positively associated with performance of athletes.
H_{01c}	There is a no or negative relationship between extroversion and performance of athletes.
H_{A1c}	There is a positive relationship between extroversion and performance of athletes.
H_{01d}	There is a no or negative between agreeableness and performance of athlete.
H_{A1d}	There is a negative relationship between agreeableness and performance of athlete.
H_{A1e}	There is no or negative relationship between big five personality dimension emotional stability and performance of athlete.
H_{01e}	There is a positive relationship between big five personality dimension emotional stability and performance of athlete.
H₀₂	There is no or a negative relationship between passion and performance of athletes.
H_{A2}	There is a positive relationship between passion and performance of athletes.
H₀₃	During competition Aggressiveness has no impact on or reduces performance of athletes.
H_{A3}	During competition Aggressiveness enhances the performance of athletes.
H₀₄	Aggression does not hamper performance
H_{A4}	Aggression hampers performance.
H₀₅	Self-determined athletes do not perform better in competition.
H_{A5}	Self-Determined athletes perform better in competition.

2.13 THEORETICAL FRAMEWORK

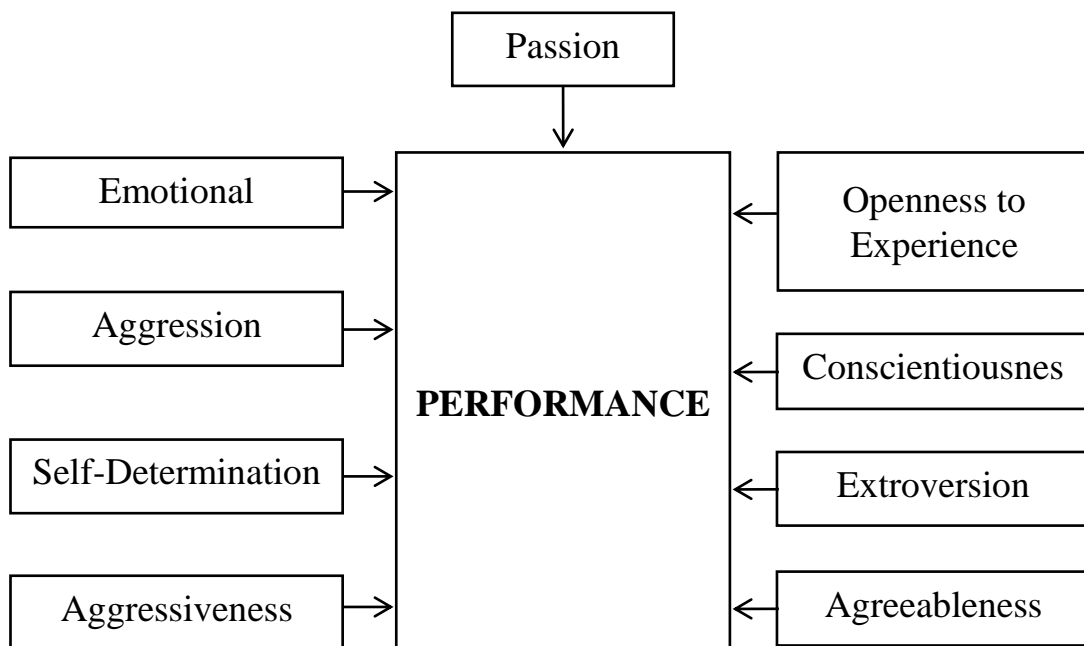


Figure 1: SAP Trait Hypothetical Framework

CHAPTER 3

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN AND OBJECTIVES

According to Sekaran & Bougie (2013), the research design is a blueprint or a plan that leads all the research steps such as measurement, the data collection process and the data analysis. The plan itself is developed in the light of the research objectives and the research questions. The objectives of this research are to explore and highlight the personality traits essential in making of a champion and to be able to formulate a “Success-Prone” Athlete’s Personality Index (SAPI). This index will be helpful in assessment of personality scores which may lead to identifying future champions and will also help in assessing personality weaknesses in athletes.

3.2 POPULATION AND SAMPLING

The target population for this study is the total male and female national champions of karate. 13 teams with at least 13 male members each, generally take part in karate championships, which makes total number of male karate players to be 169. Similarly, 13 teams with 11 members each of female karate players are expected to participate in the National games, which make the total of 143 female karate players. Approximately, 24 champions are expected to emerge as winners in all the events in single championship. Breakdown of teams with reference to gender, weights and events is as under:

Table 3.1
Male Events Breakdown

	Events	Levels	Fights	No. of Players
1.	Kate	Individual	1	4
		Team	3	
2.	Kumite	Individual	7	9
		Team	2	

Table 3.2
Female Events Breakdown

	Events	Levels	Fights	No. of Players
1.	Kate	Individual	1	3
		Team	2	
2.	Kumite	Individual	6	8
		Team	2	

	Teams by Department and Province
1.	WAPDA
2.	ARMY
3.	POLICE
4.	RAILWAYS
5.	PUNJAB
6.	SINDH
7.	BALUCHISTAN
8.	KPK
9.	PAF
10.	HEC
11.	NAVY
12.	BALUCHISTAN
13.	FEDERAL

Table 3.3
Weight-Wise Team Breakdown

	Males	Females
1.	Above 84	Above 68
2.	Below 84	Below 68
3.	Below 74	Below 61
4.	Below 67	Below 55
5.	Below 60	Below 50
6.	Below 55	Below 45
7.	Below 50	Extra 2 players are needed
8.	Extra 2 players are needed	

In view of the objectives of this research, a survey on all the existing National Karate Champions was conducted. The Universe comprised of 32 champions, comprising 17 males and 15 females, who have won the Champions title. In team and individual events, during last three years 2010, 2011 and 2012.26 players responded to the questionnaire, out of which 5 were not useable. The total response rate thus was 65%.

3.3 DATA COLLECTION

The data was collected through a questionnaire, which was developed, tested and validated. It consisted of 75 items (Annexure-B) in conscientiousness, extroversion, emotional stability, agreeableness, openness to mind, passion, aggression, aggressiveness and self-determination. The questionnaire was based on well established, newly developed and reconstructed items tested and validated through prior studies.

3.3.1 The Instrument Development

The questionnaire for the study was developed with the help of multiple questionnaires from different researches, as well as the researcher's personal experiential knowledge. The instrument consisted of the brief measure of Big Five (Gosling et al., 2003) to assess Extroversion, Openness to Experience, Emotional Stability, Conscientiousness and Agreeableness. Accordingly, to assess athlete's overall personality and its impact on performance, other important aspects like Aggressiveness (Makarsawaki, K. 2012), Aggression (Buss and Perry, 1992), Self Determination (Ng, J.Y.Y et al., 2011), Passion (Vallender et al., 2003) were also measured (RN Kazemi et al., 2009).The inclusion of six open ended questions, made it a semi-structured instrument.

For content validation, the questionnaire was sent to the senior researchers/experts and also to senior National champions. The suggestions were accordingly incorporated (Gosling et al., 2003; Ng, J.Y.Y et al., 2011).

3.3.2 Translation of Questionnaire

Another problem highlighted during the validation process was that of the language. Majority of the respondents were not well versed with the English language, and had difficulty in understanding various important items. Hence the instrument was translated into Urdu language in the light of methods adopted by prior studies for getting responses from the participants in

their own language (Van Widenfelt, et al., 2005; Hernandez & Watkins, 2003, Ng, J.Y.Y et al., 2011; Parastatidou, et al., 2012).

For the translation of questionnaire used in this research the procedure of Brislin (1976) was adopted. This procedure consists of five steps: i) *forward translation*, ii) *assessment of forward translation (its clarity)*, iii) *back translation*, iv) *assessment of back translation (conceptual equivalence and addition)s* & v) *testing the final version*. All the aforementioned steps were used for translating the present instrument into Urdu, the native language of the respondents. Forward translation, i.e. from English to Urdu was done by two English/Urdu language experts. The resulting instrument was assessed again by two different assessors, who also had the expertise in both the languages. The identified minor modifications were incorporated and the resulting Urdu version of the instrument, was got translated back into English, by three other translators. Subsequently, a final version of the questionnaire was approved and it was finally rated by five independent experts. The interrater coefficient $r = .974$, which supports its conceptual equivalence.

3.4 QUESTIONNAIRE DISTRIBUTION

The questionnaire, for the study was distributed with the help of the PKF, which sent the same by post to all the national champions, living in different cities of Pakistan. The respondents were briefed through a phone call, about the topic of research, the theme of the questionnaire, the importance of their contribution and for providing answers without being biased.

The **thematizing** technique was used to make the athletes refresh their memories, visualize and feel the tournament temperament, prior to filling up the questionnaires (Kvale, S. 1996). It took almost three months to get the response from all the respondents.

3.5 STUDY VARIABLES

The study had one dependent variable and nine independent variables.

3.5.1 Dependent Variable

Performance was taken as the dependent variable for this study. Performance of athletes was measured through calculating the ratio of achieved gold medals (RN Kazemi et al., 2009) over the number of events.

Contact sport events in Pakistan, are held at different levels. At grass root level there are district, inter-clubs, inter-collegiate competitions and at professional levels there are Provincial, National and International Championships. The target of any commercial or non-commercial sports organization is to achieve maximum Gold medals, followed by silver and bronze medals. Athletes who hit these three levels of championships are presumed to possess specific characteristics that differentiate them from the other unsuccessful athletes (Kazemi, et al., 2009).

3.5.2 Independent Variables

Nine variables are independent that affect the dependent variable which are discussed above in detail. The operationalized definitions of these variables used for this study are specified. *Extroversion* for the purpose of this study is defined as an “energetic approach” comprising assertiveness, activity and positive emotionality (John & Srivastave, 1999). It makes a person comfortable, sociable, assertive and outgoing (Daft, 1994).

Agreeableness is defined as a “pro-social and communal orientation” including altruism, trust, tender mindedness and modesty (John & Srivastave, 1999). It makes a person understandable, trustable, likable, forgiving, cooperative and good natured (Daft, 1994). *Conscientiousness*, another independent variable used for this research, is defined as “socially prescribed impulse control” (John & Srivastave, 1999) which makes a person goal oriented, persistent, responsible, dependable and achievement oriented (Daft, 1994). *Emotional stability* is taken to be a trait composed of “even-temper and positive emotionality” (John & Srivastave, 1999). It makes a person enthusiastic, clam and self-confident (Daft, 1994). This research also included *Openness to experience*, defined as “experiential and mental life” (John & Srivastave, 1999) and a trait that helps in seeking enhancement or improvement through senses and mind (Zuckerman, 1984). People with this trait have continuum of interest, are creative, imaginative, artistically sensitive and willing/absorbing of innovative ideas (Daft, 1994).

The rest of the four traits, i.e. agressiveness, aggression, self-determination and passion have been extracted from the biographies of the world’s greatest athletes, which were found to be common to almost all the Great Atheltes (Johnsons, 2010). *Aggressiveness* is making an all-out effort to win or succeed or being competitive” (Makarowski, K 2012). *Aggression, on the other* is defined as unintentional act but when it is intentional, it is manifested in the form of anger or violent actions but without breaking the game’s rules (Kerr J. H., 1999).

The definition of *Self-Determination* is taken from the Basic Need Theory (Ng, J.Y.Y et al., 2011). Current study perceives self-determination as “innate psychological nutriment which is important for continuous psychological growth and integrity in all individuals (Deci & Ryan, 2000). *Passion can be traced back to Grit* in psychology, a positive, non-cognitive personality trait, composed of “perseverance and passion for long-term goals” (Duckworth et al., 2007). Presence of passion gives rise to perseverance and commitment and becomes the overriding factor which makes an individual highly determined and focused towards achieving their goals, despite experiencing failures and dangers.

3.6 MEASUREMENTS AND SCALES

The questionnaire is based on five different scales of measurement.

3.6.1 Big Five Personality Trait

This study has used the ‘brief 10 items measure’ of Big Five personality dimensions, which can be used in situations where personality is considered with other topics of interest. The items of big five, arranged from 13-22 in table 1 have also been adopted from (Gosling et al., 2003). The other five personality traits as discussed before, consist of two items each. Every dimension consists of one positive and one reverse coded item. For instance, extroversion was measured by two items i.e., 13 and 18, agreeableness by items 14 and 19, conscientiousness by 15 and 20, emotional stability by items 16 and 21 and openness to experience by 17 and 22. Here, 18, 14, 20, 16 and 22 are reverse items. These items are measured on the basis of five point likert scale, where “5=strongly agree to 1= strongly disagree” (Gosling et al., 2003).

3.6.2 Passion

For passion, the Vallerand, et al., (2003) approach, a dualistic model of harmonious and obsessive passion has been used. Passion was measured using 10 items, 5 of harmonious and 5 of obsessive passion. The items 1, 2, 3, 7, 9 were used for harmonious passion and items 4, 5, 6, 8, 10 for measuring obsessive passion. These items again, were measured on the basis of five point likert scale which ranging from “5= always to 1= never”.

3.6.3 Aggression and Aggressiveness

For Aggression, 29 item scale, measured on five point likert scale (“5=strongly agree to 1= strongly disagree”), was constructed using Buss and Perry (1992) questionnaire along with some new items. Items from 1-12 have been adopted from Buss and Perry (1992) aggression questionnaire. The rest of the four dimensions within aggression are measured by four items 1*, 2*, 6*, 7, hostility with three items 8, 10, 11, verbal aggression with 3, 5, 9 and physical aggression consisted of two items 4 and 12.

Aggressiveness was measured by following and modifying the scale developed by Makarowski, K. 2012, which is a Sport specific scale of 15 items. Aggressiveness comprises three factors viz., Go-ahead, Tripping someone up and Assertiveness. The items of dimension Go-ahead consisted of four items which are 1*, 3*, 4*, 8, Tripping someone up was measured using three items 2*, 5, 9 and Assertiveness’s items are 6, 7, 10 in 3rd table of questionnaire. The asterisk (*) associated with each item is to identify the adopted/taken items, rest being the new items introduced.

3.6.4 Self-Determination

For self-determination, items 11-43 have been used, following BNSSS (Basic Needs Satisfaction in Sports Scale) by Ng, J.Y.Y et al., (2011). Items with asterisk (*) are adopted from Ng, J.Y.Y et al.,(2011) and are arranged along with dimensions relating to competence, autonomy, volition and relatedness. Items from 11*, 12*, 13*, 14*, 15, 16, 17 and 18 for Competence, items 19-33 & 37 for Autonomy which further was divided into three dimensions i.e. Perceived choice, items from 21*, 22-25, IPLOC (Internal Perceived Locus of Causality) items 19, 26*- 27*, 28- 29, 36 and 37 and Volition items are 20, 30- 33. The last dimension Relatedness was measured by items 34, 35, 38-44. All the items were measured on a five point likert scale ranging from “5= always to 1= never”.

3.6.5 Performance

Each player is important and contributes significantly in achieving individual or team-based goals and targets. However athletes usually give their best performance in individual events to prove their indispensableness, whereas in team-events their input is often merged in with other team members’ and remains limited to supporting their teams. The performance of champions, for this study, is measured through number of Gold medals divided

by the total number of participated individual-events, during the National Karate championships held by the Pakistan Karate Federation (PKF). Performance index is developed by using the overall achievements, i.e. all the gold, silver and bronze medals won in individual-events. To justify the level of wins, weights were assigned to all the levels, using points for gold medal (15-points), Silver medal (10-points) and Bronze medal (5-points), based on the traditional scale used in the National and International tournaments, and the sum was in turn divided by total weight.

Formula:

$$\text{Performance} = \frac{\text{Number of Gold Medals of Individual}}{\text{Individual's Total Number of Participation}}$$

and also

$$\text{Performance} = \frac{W_1G_i + W_2S_i + W_3B_i}{\text{Individual's Total Number of Participation}}$$

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 DESCRIPTIVE ANALYSIS

This section focuses on the results of the descriptive analysis, regarding respondents' gender, education and also in finding out if there are any prominent personality traits.

4.1.1 Respondent's Demographic Characteristics

In this part of study respondents' characteristics and there demographics have been described.

4.1.2 Respondent's Gender

In this study, 61.9% of respondents are males and 38.1% of them are females, all of whom are past or present champions. However, the gender difference has not been analyzed in the current study.

Table 4.1
Respondent's Gender

	Frequencies	Percentage (%)
Male	13	61.9
Female	8	38.1
Total	21	100

The number of female's respondents was less than that of males.

4.1.3 Respondent's Age

The majority i.e. 57.1% of the participants belonged to the age group ranging from 20-29 years, 23.8 % were under 20 years, whereas, 19% of the champions surveyed were 30-39 years old.

Table 4.2
Respondent's Age

	Frequencies	Percentage (%)
Under 20 years	5	23.8
20-29 years	12	57.2
30-39 years	4	19
Above 40	0	0
Total	21	100

4.1.4 Respondent's Education

The educational status of the respondents reveals that the Majority of athletes are not highly qualified. 23.8% of athletes do not have any academic qualification whatsoever, 9.5% of them only had primary level education. 28.6% of athletes had secondary level, whereas 23.8% of athletes did not complete their graduation, and only 14.3% of the athletes were Master's degree holders.

Table 4.3
Respondent's Formal Education

	Frequencies	Percentage (%)
Masters	3	14.3
Under Graduates	5	23.8
Matriculation	6	28.6
Primary	2	9.5
Nil	5	23.8
Total	21	100.0

4.1.5 Respondent's Departments/Province

21 National Karate Champions, members of Pakistan Karate Federation (PKF) responded to the survey making the response rate to be 65%. The Karate Federation operates at Provincial and departmental levels. The results highlight that out of thirteen department, most of the champions belonged to either the ARMY or the Water and Power Development Authority (WAPDA), 81% of the championship titles have been secured by the WAPDA and 19% by the ARMY.

Table 4.4
Athletes Belongs to which Department/Province

	Frequencies	Percentage (%)
ARMY	4	19
WAPDA	17	81
Total	21	100

4.1.6 Number of years played by the Respondents

Table 4.5 shows that majority of the athletes have played for 6-10 years and none of the players has played for more than 16 years.

Table 4.5
Number of Years Played by the Respondents

Year of experience	Frequencies	Percentage (%)
1-5 years	3	14.3
6-10 years	8	38.1
11-15 years	10	47.6
Above 16	0	0
Total	21	100

4.1.7 Study Variable's Descriptive Analysis

In this research the study variables are descriptively analyzed within the range of 1 (minimum range) to 5 (maximum rate) except for "Performance". The variable of performance is analyzed by calculating the ratio of gold medals won by the responding athletes.

Table 4.6
Descriptive Statistics

	n	Mean	Std. Deviation
Extroversion	21	2.33	1.36
Agreeableness	21	2.80	1.37
Conscientiousness	21	3.73	1.00
Self- Determination	21	4.27	0.40
Aggressiveness	21	3.48	0.90
Aggression	21	3.91	0.64
Emotional Stability	21	3.50	1.29
Openness to Experience	21	3.64	1.43
Passion	21	3.33	1.00
Performance	21	0.65	0.32

As per the results, self-determination seems to be the most prominent trait, with a mean of 4.27, followed by Aggression (mean=3.91), Openness to experience (3.64) and Emotional Stability (3.50).

4.2 RESULTS AND ANALYSIS OF STATISTICAL TESTS

This section presents the results of data analysis linked to various personality dimensions, results of statistical tests applied for finding support for the research hypotheses related to association between personality traits and performance, subsequent development of personality index and identification of champion's personality patterns.

4.2.1 Reliability of Study Variables

First of all, the reliability of the variables' items was calculated through the Cronbach's Alpha. The calculated coefficients lie between .748 to .934 which ensures reliability of all variables are in table 4.7.

Table 4.7
Reliability Coefficients

S#	Variable	Item	Alpha	Level of Reliability
1	Extroversion	2	0.89	Very good
2	Agreeableness	2	0.93	Excellent
3	Conscientiousness	2	0.73	Adequate
4	Self- Determination	31	0.85	Very good
5	Aggressiveness	8	0.88	Very good
6	Aggression	10	0.75	Adequate
7	Emotional Stability	2	0.74	Adequate
8	Openness to Experience	2	0.86	Very good
9	Passion	10	0.87	Very good

4.3 RESULTS OF THE HYPOTHESES TESTING: CORRELATION MATRIX AND REGRESSION ANALYSIS

To explore which of the nine personality traits have significant association with the performance, and to test the null and alternative hypotheses, Pearson's Correlation and Linear regression have been carried out.

Table 4.8
Correlation Matrix

S#	Variables	1	2	3	4	5	6	7	8	9	10
1	Performance	1									
2	Extroversion	.657**	1								
3	Agreeableness	-.115	.102	1							
4	Conscientiousness	.216	.276	-.002	1						
5	Self Determination	.501*	.545*	.076	.534*	1					
6	Aggressiveness	.642**	.602**	-.280	.115	.444*	1				
7	Aggression	.028	-.124	-.027	-.054	.077	.039	1			
8	Emotional Stability	-.177	-.213	.239	-.335	-.424	-.334	-.096	1		
9	Openness-to-Experience	.437*	.333	-.506*	.287	.353	.497*	.295	-.586**	1	
10	Passion	.451*	.314	-.118	.124	.384	.760**	.169	-.233	.161	1

** Correlation is significant at the 0.01 level (1-tailed)

* Correlation is significant at 0.05 level (1-tailed)

The null and alternative hypotheses for both the tests related to **Openness to experience** are:

H_{01a}: Openness to experience has no impact on performance

H_{A1a}: There is a positive relationship between openness to experience and performance of athletes.

Table 4.8 presents the results of the Pearson's correlation test. In case of Openness to experience, Pearson correlation coefficient r , is 0.437, which is statistically significant ($p < 0.05$), implying positive association with an athlete's performance.

From the regression tables, we can see that the R^2 value is 0.148, which indicates that 14.8% of the dependent variable, "Performance", can be explained by the independent variable, "Openness to experience". The

regression model with $\beta = 0.437$ at $p = 0.048 < 0.05$ significantly predicts the outcome variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437 ^a	.191	.148	.30156

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	.407	1	.407	4.477	.048 ^b
Residual	1.728	19	.091		
Total	2.135	20			

a. Dependent Variable: per

b. Predictors: (Constant), Openness to Experience

Coefficients

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.293	.184		1.593	.128
Openness to Experience	.100	.047	.437	2.116	.048

a. Dependent Variable: per

On the basis of the correlation coefficient and the regression model, we reject the null hypothesis and can statistically predict that openness to experience significantly triggers the outcome variable i.e. Performance.

For **Extroversion** the following Hypotheses were formulated:

H_{01c}: There is a no or negative relationship between extroversion and performance of athletes.

H_{A1c}: There is a positive relationship between extroversion and performance of athletes.

From the correlation coefficient $r = .657$ at $p < 0.05$ and the regression model, $\beta = 0.657$ at $p < 0.05$, we again reject the null hypothesis and can predict that extroversion has a significant positive impact on performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.657 ^a	.432	.402	.25268

a. Predictors: (Constant), Extrovert

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	.922	1	.922	14.438	.001 ^b
Residual	1.213	19	.064		
Total	2.135	20			

a. Dependent Variable: per

Coefficients^a

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.288	.111		2.585	.018
	Extrovert	.157	.041	.657	3.800	.001

a. Dependent Variable: per

Similarly, Passion ($r = .452$, $p < .05$), Aggressiveness ($r = .624$, $p < .05$) and Self-Determination ($r = .504$, $p < .05$), are all positively related with performance. On the other hand, traits like **Agreeableness**, **Emotional Stability** and **Conscientiousness** do not show significant relationships with performance, neither is there any evidence to suggest that **Aggression hampers performance**, as can be seen from the Correlation Matrix table 4.8 and summarized regression Table 4.9.

Table 4.9
Linear Regression (Dependent Variable is “Performance”)

Independent variable	R-Square = r^2	Beta	T	Sig
Openness to experience	.191	.437*	2.116	.048
Conscientiousness	.047	.216	.965	.346
Extroversion	.432	.657**	3.800	.001
Agreeableness	.013	-.115	-.506	.619
Emotional Stability	.031	-.117	-.786	.442
Passion	.204	.451*	2.204	.040
Aggressiveness	.412	.642*	3.647	.002
Aggression	.001	.028	.121	.905
Self determination	.251	.501*	2.526	.021

Results show that Openness to experience, Extroversion, Passion, Aggressiveness and Self-Determination have emerged as prominent traits in Karate champions.

4.4 DEVELOPMENT OF SAPI (SUCCESS-PRONE ATHLETE’S PERSONALITY INDEX)

For development of “SAPI” not only the ratio performance but also an overall performance has been taken. On the basis of this index performance is ranked into four categories. Subsequently, all the athlete’s traits were assessed according to the four ranks.

4.4.1 Performance Index

Performance Index is constructed on the basis of number of gold, silver and bronze medals secured by the athlete in his/her playing career. All the three levels of medals are assigned weights i.e. 15 to gold, 10 to silver and 5 to bronze. These weights are based on the traditional scale used in the National and International tournaments.

Using the weighted wins, a formula for calculating performance was developed and the Performances were ranked accordingly:

Formula:

$W_1G_i + W_2S_i + W_3B_i / w_i$ where, G = gold medals. S = silver medals and B = bronze medals; $G \sim 15$, $S \sim 10$, $B \sim 5$ and w_i = total weight

Table 4.10
Performance Index

<i>i</i> = No. of medals, <i>w_i</i> = total weight=30, <i>W₁</i> =15, <i>W₂</i> =10, <i>W₃</i> = 5, <i>G_i</i> =No. of Gold medals, <i>S_i</i> =No. of Silver medals, <i>B_i</i> =No. of Bronze medal								
Players	<i>G_i</i>	<i>S_i</i>	<i>B_i</i>	<i>W₁G_i</i>	<i>W₂S_i</i>	<i>W₃B_i</i>	<i>W₁G_i + W₂S_i + W₃B_i</i>	Formula Results
1	9	2		135	20	0	155	5.2
2	3	5		45	50	0	95	3.2
3	1	4		15	40	0	55	1.9
4	2	1	1	30	10	5	45	1.5
5	1	1	1	15	10	5	30	1
6	5	2		75	20	0	95	3.2
7	5	4	1	75	40	5	120	4
8	2	1	1	30	10	5	45	1.5
9	10			150	0	0	150	5
10	11			165	0	0	165	5.5
11	2	0	1	30	0	5	35	1.2
12	2	1		30	10	0	40	1.4
13	5	2		75	20	0	95	3.2
14	6			90	0	0	90	3
15	1	1	1	15	10	5	30	1
16	6	2	1	90	20	5	115	3.9
17	1	1	1	15	10	5	30	1
18	5	3		75	30	0	105	3.5
19	4	2		60	20	0	80	2.7
20	3	1	1	45	10	5	60	2
21	5			75	0	0	75	2.5

In the next step, the athletes have been separated into groups on the basis of medals i.e. athletes who secured 1) only gold medals, 2) players who won gold and silver medals, 3) those who won gold, silver and bronze medals and 4) winners of gold and bronze medals. The score of performance are obtained by separations and are further ranked accordingly.

Four of the respondents had secured only gold medals. The aggregate of these athlete's performance is divided by number of respondents whereby mean value of 14.0625 is obtained (Table 4.11).

Table 4.11
Gold Medal (Athlete's Performance)

Players Score only Gold Medal		
Player	W_1Gi / No. of Participation	
9	10(15)/10	15
10	11(15)/11	15
14	6(15)/8	11.25
21	5(15)/15	5
Mean	$15+15+11.25+5/4$	14.0625

Eight of our respondents fell in the group that secured gold and silver medals and their mean performance is calculated to be 15.765(Table 4.12).

Table 4.12
Gold & Silver Medalist's Performance

Players Score only for Gold & Silver		
Player	$W_1Gi + W_2Si$ / No. of Participation	Total
1	$9(15)+2(10)/7$	22.14
2	$3(15)+5(10)/6$	15.83
3	$1(15)+4(10)/4$	13.75
6	$5(15)+2(10)/6$	15.83
12	$2(15)+1(10)/4$	10
13	$5(15)+2(10)/7$	13.57
18	$5(15)+3(10)/5$	21
19	$4(15)+1(10)/5$	14
Mean	$22.14+15.83+13.75+21+14/8$	15.765

Eight of the respondents secured gold, silver and bronze medals and their mean performance turned out to be 12.00875(Table 4.13).

Table 4.13
Gold, Silver & Bronze Medalist's Performance

Player Score only Gold, Silver, Bronze		
Player	$W_1Gi + W_2Si + W_3Bi / \text{No. of Participants}$	
4	$2(15)+1(10)+1(5)/4$	11.25
5	$1(15)+1(10)+1(5)/2$	15
7	$1(15)+4(10)+1(5)/7$	8.57
8	$2(15)+1(10)+1(5)/4$	11.25
15	$1(15)+1(10)+1(5)/4$	7.5
16	$6(15)+2(10)+1(5)/5$	23
17	$1(15)+1(10)+1(5)/4$	7.5
20	$3(15)+1(10)+1(5)/5$	12
Mean	$11.25+15+8.57+11.25+7.5+23+7.5+12/8$	12.00875

There was only one respondent who secured bronze medal with a mean performance of 8.75(Table 4.14).

Table 4.14
Gold & Bronze Medalist's Performance

Player Score only Gold, Bronze		
Player	$W_1Gi + W_3Bi / 4$	
11	$2(15)+1(5)/4$	8.75

On the basis of these values the performance is ranked as follows:

Table 4.15
Performance Ranking

Ranking of Performance	
1 st	15.8
2 nd	14.0
3 rd	12.0
4 th	9.0

The first in rank are the athletes who secured gold and silver medals, whereas the athletes who secure only gold medal are ranked at 2nd position. 3rd rank is occupied by the players who have secured all the three gold, silver and bronze medals.

4.4.2 Personality Traits of Athletes according to Ranks

Subsequently, the personality traits were analyzed according to the ranking. It is found that players who secure both medals in their career are high performers. They are high in *self-determination* (4.3), *conscientiousness* (4), *agreeableness* (3.5), *emotional stability* (3.4), *openness to experience* (3.5), *aggression* (3.4) and *aggressiveness* (3.4). Extroversion is found to be low in these players. This shows that all eight personality traits exist in athletes who are 1st in performance ranking(see Table 4.16).

Table 4.16
Personality Traits of 1st Ranked Athletes

Player: G.S.	Aggression	Extroversion	Agreeableness	Conscientiousness	Emotional Stability	Openness to Experience	Aggressiveness	Self Determination	Passion
1	3.5	5	2	4	4	5	5	4.77	4.8
2	3.416	2	5	1.5	4	2	2.375	3.484	2.1
3	2.333	1	3	4	5	1.5	3	3.452	2.2
6	3.333	4	4.5	5	5	3	2.5	4.194	2.2
12	4.083	2	3	4.5	4	2	3.625	4.643	4.2
13	4	3	4	3	1	5	3.625	4.903	3.3
18	3.167	1	3	5	1.5	5	3.875	4.35	4
19	3.417	2.5	4	5	3	4	2.625	4.516	2.2
Mean	3.4	2.6	3.5	4	3.4	3.5	3.4	4.3	3.2

At 2nd rank there are the five athletes who only secured gold medals throughout. The highlighted traits in these athletes are *self-determination* (4.7), *aggressiveness* (4.3), *openness to experience* (4), *conscientiousness* (4), *passion* (3.9) and *extroversion* (3.7). *Aggression* (3.0) is low in these athletes and so are *emotionally stable* (2.4) and *Agreeableness* (1.5)(see Table 4.17).

Table 4.17
Personality Traits of 2nd Ranked Athletes

Player: G	Aggression	Extroversion	Agreeableness	Conscientiousness	Emotional Stability	Openness-to-Experience	Aggressiveness	Self Determination	Passion
9	2.5	5	2	5	2	5	5	4.64	4.1
10	2.5	5	2	3	3	2	5	4.7	4.4
14	3.833	3	1	5	1	5	4.5	4.64	4.8
21	3.08	1.5	1	3	3.5	4	2.65	4.48	2.2
Mean	3.0	3.7	1.5	4	2.4	4	4.3	4.7	3.9

Table 4.18 shows that the 3rd ranked athletes are highly *self-determined* (4.2), and then they have *openness to experience* (4.2), *emotional stability* (4.0), *conscientiousness* (3.6), *aggression* (3.2), and *aggressiveness* (3.4) and also have *passion* (3.4). But they are low in *agreeableness* (2.7) and lowest in *extroversion* (1.8).

Table 4.18
Personality Traits of 3rd Ranked Athletes

Player: G.S.B.	Aggression	Extroversion	Agreeableness	Conscientiousness	Emotional Stability	Openness -to-Experience	Aggressiveness	Self determination	Passion
4	2.583	2	4	4	5	1	3.625	4.194	4
5	2.75	1.5	4	3.5	4	3.5	3.125	4.355	3.7
7	3	1.5	2	4	2	5	2.625	3.903	2.4
8	2.75	2	4	4	4	4	2.75	4.837	2.2
15	3.667	1	1	3	4	5	3.7	3.871	3.4
16	3.667	2.5	1	3	4.5	5	4.5	4.032	4.8
17	3.583	1	3	4	4	5	2.5	3.871	4.2
20	4	1.5	2	3	5	4.5	3.75	4.065	2.2
Mean	3.2	1.7	2.7	3.6	4.0	4.2	3.4	4.2	3.4

There is only one athlete who secures gold and bronze medal and ranked at the last i.e. the 4th level, shows low *extroversion*, *agreeableness*, *conscientiousness* and *openness to experience*.

Table 4.19
Personality Traits of 4th Ranked Athletes

Player	Aggression	Extroversion	Agreeableness	Conscientiousness	Emotional Stability	Openness to Experience	Aggressiveness	Self determination	Passion
	3.416	1	1.5	2	4	2	3.12	4.32	3.6

Comparison of the traits (Table 4.20) with respect to ranks shows that self-determination is the most prominent trait, followed by aggressiveness, passion and openness to experience. But extroversion, though found to be positively related seems to be over all low but high in athletes with only gold wins.

Table 4.20
“Success-Prone” Athlete’s Personality Index (SAPI) & Scorecard

Performance	Aggression	Extroversion	Agreeableness	Conscientiousness	Emotional Stability	Openness –to- Experience	Aggressiveness	Self determination	Passion
1st: G.S: 15.8	3.4	2.6	3.6	4	3.4	3.4	3.3	4.3	3.1
2nd: G: 14.0	3	3.6	1.5	4	2.3	4	4.3	4.6	3.9
3rd: G.S.B: 12.0	3.1	1.6	2.6	3.6	4.1	4.1	3.3	4.1	3.3
4th: G. B: 9.0	3.4	1	1.5	2	4	2	3.1	4	3.6
Means	3.25	2.2	2.3	3.4	3.5	3.4	3.5	4.25	3.5

CHAPTER 5

DISCUSSION AND FINDINGS

5.1 DISCUSSIONS

This research is an attempt to look at the contact sports athletes in Pakistan particularly the national champions of Karate and contributes to sports management literature specifically related to performance and personality traits. Furthermore the research illustrates empirically the peculiar pattern and role of personality traits in achieving performance. The research paves way towards the development of “Success-Prone” Athlete’s Personality Index (SAPI), which is accomplished with the support of performance index that depicts the ranking and lays out a scorecard of personality traits.

This research studied athletes, champions to be more specific, to understand the personality traits that act as overriding factors and make them perform better than others. Though studies have been going on in this area, but yet there is no conclusive evidence to predict with precision an athletic personality or more so a success prone personality.

This study has explored personality-performance association by using Big-Five personality factors along with the biographies of legendary athletes. Hypotheses were analyzed with support of the data collected through a survey.

For statistical testing and analysis, Pearson Correlation and regression were applied. The results have shown support for association between Extroversion, Openness to Experience, Aggressiveness, Self-Determination and Passion with performance. And that the said traits have a positive impact on performance. The gender differences were not taken into account, as the champions do not nor were age a consideration. Mainly because, the performance was measured using the overall playing time of each athlete. The education level also was not taken under consideration as it did not appear to be significantly varied. As far as training is concerned, all the Karate players get an equal opportunity to participate in training camps and get an equal level of coaching. Hence being homogenous, training too was ignored. There appeared no cultural or provincial differences, therefore the study held them insignificant.

No.	Hypotheses	Results
H_{01a}	There is a no or negative relationship between openness to experience and performance of athletes.	Rejected
H_{01b}	Conscientiousness is no or negatively associated with performance of athletes	Accepted
H_{01c}	There is a no or negative relationship between extroversion and performance of athletes.	Rejected
H_{01d}	There is a no or negative relationship between agreeableness and performance of athlete.	Accepted
H_{01e}	There is no or negative relationship between big five personality dimension emotional stability and performance of athlete.	Accepted
H₀₂	There is no or negative relationship between passion and performance of athletes.	Rejected
H₀₃	During competition Aggressiveness no impact on or reduces performance of athletes.	Rejected
H₀₄	Aggression does not hamper performance.	Accepted
H₀₅	Self-Determined athletes do not perform better in competition.	Rejected

Results have shown support for Extroversion, Passion, Self-Determination and Openness to Experience as statistically significant predictors of performance. But Conscientiousness and Emotional stability seem to have no impact on performance, which is a theoretical deviation. Although Conscientiousness is high in the top two ranking groups(see Table 4.20), but it seems to be decreasing with the rank. On the other hand, Emotional Stability appears to be increasing with decrease in rank. Agreeableness and aggression are thought to hamper performance, but there is no evidence to support this contention, neither is there any evidence that it does not hamper performance. All the deviations can probably be assigned mostly to the size of population.

Overall the study has made an effort and has generated an idea of identifying personality factors that can be performance predictors and the ranking index can be used to develop a personality pattern layout. The index has been developed in form of a scorecard, which can enable the organizations and trainers to have an overview of lacking traits and work accordingly.

5.2 PRACTICAL IMPLICATION

This study provides the important implication in the field of sports and for the sports organizations. Sport markets need top performers, and what makes a champion is not only dependent upon good genetics, innate talent and physical strength but it also depends on certain personality traits that can possibly be the differentiating factors.

This research argues that there are five personality traits which are significant and have positive impact on athlete's performance in competitions. Organizations can build up their own sport specific personality inventory and train their potential success prone athletes to achieve highest levels of wins.

5.3 THEORETICAL CONTRIBUTION

Competition involves and demands high level of performance especially in sports. Athletes are focused and their performance is highly focused particularly in the developed countries and in European culture. Research too is being conducted in that part of the world. However, this study is the first of its kind in the context of an Asian country and in an Asian culture. For the first time, National Karate champions in Pakistan have been studied for identification of their peculiar personality traits.

This study also contributes to sports management literature by translating the survey in Urdu by applying and testing the Big-Five, aggressiveness, passion and self-determination personality traits in contact sports champions of Pakistan. Urdu translated version was also validated by inter rater technique. Thus, this effort too contributes in developing personality index of Pakistani athletes.

Another important contribution is provided by the SAPI, the success prone personality index which has emerged as a personality pattern scorecard. This score card can be further modified into a more sophisticated tool for predicting future champions.

5.4 LIMITATIONS

This study has encountered some methodological limitations. First of all the population of interest that is the National Karate champions in Pakistan are small. Though, the whole population was targeted, but the response rate was not hundred percent. Secondly, the current study only undertook research on

one sport, i.e. Karate so it may not be able to give similar results. These limitations compromise the study's external validity and make generalizability restrictive.

Moreover, the study is based on cross-sectional data which means it is not able to provide causal reasoning. There is need for longitudinal studies on this perspective to get more comprehensive and accurate results and to make more conclusive predictions. The data was also collected through a self-administered questionnaire. The responses may be caused by common method biases (Podsakoff et al., 2003).

Furthermore, this study undertook only nine personality factors to analyze the champions, whereas there are bound to be many other factors that need to be studied to identify the actual combination of traits found in athletes. The future study should look at the other personality dimensions for seeking legendary athletic performers.

5.5 CONCLUSION

Sport has been professionalized and commercialized and now has gained a status of a full-fledged independent industry.

Sport markets yearn for top performers, their thrilling moves, suspense in competitions and their predicted or non-predicted outcomes. The star system in sports industry is on the rise too and the fall of sports icon can lead to a loss of billions. The sports organization, thus, are constantly on the search for high performers, such as the 'right' coach, the best manager, top CEOs or a new key athlete who can make their business a success. Who will be the next Muhammad Ali, Tiger Woods, Venus Williams, or Michael Jordan is a billion-dollar question. However, predicting success in sports can be quite a daunting task as every top athlete has a specific physical, psychological and sociological make-up, depending upon the type of sport, the age factor, the training received, the genetic combination and the innate talent.

Hence, sports organizations make every effort, be it extensive trainings, provision of best coaches or a complex and a dynamic environment for maintenance of their super stars. These organizations are always in search of success-prone athletes and prepare them for competitions. But despite all efforts, only few reach the top. Perhaps because so far, sports industry has been focusing only on the external necessities, i.e. training, discipline, lucrative packages, sports branding, sports drugs, medicines, physical strength

and stamina etc. Perhaps there is need to focus more on the internal or what we call psychological factors.

The assumption that an athlete has a specific ‘personality’ has been explored, but with contradictory results. Various studies have explored sportsmen’s physiological, cognitive, psychological and sociological, aspects to understand as also to predict athletic behaviors in sport. Although, the popular belief is that there are no specific athletic personality traits, however, it is also argued that athlete’s personality is one of the determinants of sports achievement and performance and successful athletes can be judged through their skills, personality and attitudes. Studies have been also been done to identify or highlight, what is known as an ‘Athlete’s personality’, and results have shown effects of various personality traits on performance of athletes at individual or team level performance. Athletes’ personalities have also been assessed and significant differences noted in the context of gender, cultures, desire to win and fear of losing, traditional/alternative sport athletes and contact /non-contact athletes.

Though, the research with respect athletic personality has been going on since 1960’s, yet the situation is unclear. There is still no conclusive evidence to predict with precision an athletic personality or more so a success prone personality.

The present study is a very small and humble effort that provides empirical evidence of personality traits peculiar to the high performers or more aptly, the top rankers and the champions. The study can lead to development of sport specific personality identifier/predictor. The pattern development and SAPI can assist organizations and sport trainers to identify and predict potential winners and separate ‘the good from the great’ based on the scores of personality traits. What makes a champion is not only dependent upon good genetics, innate talent and physical strength but it also depends on mental powers and certain personality traits such as their killer instincts, their sharp read- and -react skill to anticipate opponents’ moves, passion, aggressiveness, mental toughness, positive attitude, focus and self-determination among others. The emergent pattern scorecard can be developed into a more sophisticated identifier or a predictor with extensive empirical studies in future. The future studies need to be more comprehensive and more diverse in terms of population, gender, cultures, age, regions etc. Studies should be conducted for all kinds of sports and wider range of personality dimensions for more conclusive predictions in search of future champions.

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ANNEXURE-A

QUESTIONNAIRE

Thank you for taking the time to participation in this important research project. Your response is highly valued and will be admired. Please answer each question as honestly as you can.

<p>A. Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>B. Age: <input type="checkbox"/> Under 20yrs <input type="checkbox"/> 40-49yrs</p> <p> <input type="checkbox"/> 20-29yrs <input type="checkbox"/> 50-59yrs</p> <p> <input type="checkbox"/> 30-39yrs <input type="checkbox"/> 60+yrs</p> <p>C. Professional athlete:</p> <p> <input type="checkbox"/> Part-time <input type="checkbox"/> Full-time</p> <p>D. Name of sport you are playing;</p> <p>_____</p> <p>E. Which Department or Province are you Presenting?</p> <p>_____</p>	<p>F. Length of time playing for this sport</p> <p><input type="checkbox"/> under 1 yr <input type="checkbox"/> 1-2 yrs <input type="checkbox"/> 3-5 yrs</p> <p><input type="checkbox"/> 6-10 yrs <input type="checkbox"/> 11-15 yrs <input type="checkbox"/> 16+yrs</p> <p>G. How many years have you been playing?</p> <p>_____</p> <p>H. How many medals have you won?</p> <p>_____</p> <p>F. Formal education (in years)?</p> <p>_____</p>
---	---

Performance measure scale										
Year	No of National Tournaments	Awards Number of				No of Internatinal Tournaments	Awards Number of			
		Gold	Silver	Bronze	Participation		Gold	Silver	Bronze	Participation
2013										
2012										
2011										
2010										
2009										
2008										
2007										
2006										
2005										
2004										
2003										
2002										
2001										
2000										
1999										
1998										
1997										
1996										
1995										
1994										

Directions: The following statements concern your perception about yourself in a variety of situations. Your task is to rate yourself by circle number from 1 to 5 from the following scale.

I see myself as:		Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
1	Even-tempered *	1	2	3	4	5
2	Easily- flared up	1	2	3	4	5
3	Argumentative	1	2	3	4	5
4	Non-violent *	1	2	3	4	5
5	Easily annoyed	1	2	3	4	5
6	Fly off handle	1	2	3	4	5
7	Show irritation	1	2	3	4	5
8	Suspicious	1	2	3	4	5
9	Friendly *	1	2	3	4	5
10	Bitter	1	2	3	4	5
11	Jealous	1	2	3	4	5
12	Get provoked	1	2	3	4	5
13	Extroverted, Enthusiastic *	1	2	3	4	5
14	Critical, Quarrelsome	1	2	3	4	5
15	Dependable, Self-discipline	1	2	3	4	5
16	Anxious, Easily upset *	1	2	3	4	5
17	Open to new experience, Complex	1	2	3	4	5
18	Reserved, Quiet *	1	2	3	4	5
19	Sympathetic, Warm	1	2	3	4	5
20	Disorganized, Careless *	1	2	3	4	5
21	Emotionally stability, Calm	1	2	3	4	5
22	Conventional, Uncreative *	1	2	3	4	5

Following statements required honest answer as you perceive and do things being a champion.		Never	Often	Sometimes	Frequent	Always
1	I press ahead without being perturbed by anything.	1	2	3	4	5
2	Matters only the victory, not important the way to it.	1	2	3	4	5
3	When I consider my trainer is wrong I say to him.	1	2	3	4	5
4	I go to any extent to win.	1	2	3	4	5
5	I participate in competition with my full force/thrust.	1	2	3	4	5
6	I prefer using attacking strategy.	1	2	3	4	5
7	I prefer to be on the defense. *	1	2	3	4	5
8	I get angry at myself if I make a mistake.	1	2	3	4	5

Following statements required honest answer as you perceive and do things being a champion.		Never	Often	Sometimes	Frequent	Always
9	I feel good when I am successful in damaging opponent.	1	2	3	4	5
10	To win I can stretch my physical limits to any extent.	1	2	3	4	5
11	I can face any challenge in competition.	1	2	3	4	5
12	I am skilled at my sport.	1	2	3	4	5
13	I am good at my sport.	1	2	3	4	5
14	I have the ability to give my best in competition.	1	2	3	4	5
15	I know my weaknesses.	1	2	3	4	5
16	I try not to let my opponent know about my weakness.	1	2	3	4	5
17	I don't let anyone know if I am anxious or afraid.	1	2	3	4	5
18	I control opponent's in mind competition.	1	2	3	4	5
19	I never try to avoid combat.	1	2	3	4	5
20	I never give up.	1	2	3	4	5
21	I make my own choices.	1	2	3	4	5
22	I set goals for myself.	1	2	3	4	5
23	Losing is not an option for me.	1	2	3	4	5
24	Nothing seems impossible to me.	1	2	3	4	5
25	To cheat is not my cup of tea.	1	2	3	4	5
26	I really know my importance to be there.	1	2	3	4	5
27	I feel I am doing what I want to do.	1	2	3	4	5
28	I train a lot particularly before competition.	1	2	3	4	5
29	I use meditation to be focused, calm & overcome fears.	1	2	3	4	5
30	I never think of defeat.	1	2	3	4	5
31	I keep myself physically fit.	1	2	3	4	5
32	I always plan/decide my own winning strategies.	1	2	3	4	5
33	I rehearse my developed and innovative moves for competition in mind.	1	2	3	4	5
34	I learn a lot from my coaches and pay attention to his/her instructions.	1	2	3	4	5
35	I am loyal to my organization & country.	1	2	3	4	5
36	I respect my position as a champion & try my best to not to give it to anyone.	1	2	3	4	5
37	I work with full potential to keep my position.	1	2	3	4	5
38	I listen to my coach and seniors.	1	2	3	4	5
39	I take criticism positively.	1	2	3	4	5
40	My team members are like my family.	1	2	3	4	5
41	I do reply to my fans message.	1	2	3	4	5
42	I do feel at home in the competition area.	1	2	3	4	5
43	I love to see smile on my parents face when I win.	1	2	3	4	5
44	I take care not to disappoint my fans and my team.	1	2	3	4	5

Following statements required honest answer as you perceive and do things being a champion.		Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
1	I am passionate about this sport	1	2	3	4	5
2	Every win gives me a memorable experience.	1	2	3	4	5
3	Competitions allow my unique qualities to emerge.	1	2	3	4	5
4	Winning gives me a high.	1	2	3	4	5
5	I get excited at the thought of a competition.	1	2	3	4	5
6	Thought of winning a competition makes my blood rush.	1	2	3	4	5
7	I look forward to winning tough competitions.	1	2	3	4	5
8	The urge to win is so strong; I can't stop myself from working for it.	1	2	3	4	5
9	I don't back out from a competition/challenge.	1	2	3	4	5
10	I am possessive about my position (being champion).	1	2	3	4	5

1. At times when u feel that u are going to lose, at that time u think about

2. At times when u feel that u are going to lose, at that time u adopt which strategy

3. Do you resort to fouls, when you see yourself losing?

4. What in your view is the unique quality that differentiates you from other?

5. In your opinion, what pushed you to become a champion?

6. Being a champion what would you suggest to other to become like you?

Thank You!

ANNEXURE-B

QUESTIONNAIRE

اس اہم ریسرچ پروجیکٹ میں آپکی شمولیت اور وقت دینے کیلئے شکریہ۔

(1) جنس: مرد عور

(2) عمر:

(1) 20 سال سے کم (2) 20-29 سال (3) 30-39 سال (4) 40-49 سال (5) 50-59 سال (6) 60 سال سے زیادہ

(3) پیشہ ورانہ ٹائٹل: پارٹ ٹائم فل ٹائم

(4) کھیل کا نام جو آپ کھیل رہے رہی ہیں _____

(5) کونسے صوبے یا محکمہ کی آپ نمائندگی کرتے ہیں کرتی ہیں _____

(6) اس کھیل کو کھیلنے کی مدت

(1) 1 سال سے کم (2) 1-5 سال (3) 6-10 سال (4) 11-10 سال (5) 13 سے زیادہ (6) 16 سال سے زیادہ

(7) کتنے سال سے آپ کھیل رہے ہیں _____

(8) تعلیم (سال میں) _____

کارکردگی کا پیمانہ										
سال	قومی ٹورنامنٹ کے نام و تعداد	اعزازات				بین الاقوامی ٹورنامنٹ	اعزازات			
		گولڈ	سلور	براؤنز	حصہ لیا		گولڈ	سلور	براؤنز	حصہ لیا
2013										
2012										
2010										
2009										
2008										
2007										
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1999										
1998										
1997										
1996										
1995										
1994										

حل کرنے کا طریقہ :-

مندرجہ ذیل عبارات کے جواب دیں جواب آپ کے اپنے بارے میں خیالات اور مختلف صورت حال سے تعلق رکھتی ہے۔

مندرجه	متفق ہوں	غیر جانبدار	متفق نہیں ہوں	قطعاً متفق نہیں ہوں	میں اپنی نظر میں.....ہوں
1	5	4	3	2	متوازن مزاج
2	5	4	3	2	آگ بگول ہونا/ہوتی
3	5	4	3	2	بحث کرنے والا
4	5	4	3	2	غیر تشدد پسند
5	5	4	3	2	آسانی سے چڑنے والا/والی
6	5	4	3	2	ہتھے سے اکھڑنے والا/والی
7	5	4	3	2	جھنجھلاہٹ پن ظاہر کرتا/کرتی
8	5	4	3	2	مشکوک
9	5	4	3	2	دوست پرور
10	5	4	3	2	تلخ مزاج
11	5	4	3	2	حاسد
12	5	4	3	2	جلد اکسانے میں آنے والا/والی
13	5	4	3	2	محفل کی جان: شوقین مزاج جوشیلا
14	5	4	3	2	نکتہ چین، جھگڑالو
15	5	4	3	2	نظم و ضبط کا حامل قابل اعتماد
16	5	4	3	2	بے چین، جلد پریشان ہو جاتا/جاتی
17	5	4	3	2	تجرباتی پیچیدہ
18	5	4	3	2	شرمیلہ
19	5	4	3	2	ہمدرد گرم جوش
20	5	4	3	2	بے ترتیب لاپرواہ
21	5	4	3	2	پرسکون
22	5	4	3	2	ذقیانوسی۔غیر تخلیقی

مندرجه	تقریباً ہمیشہ	کبھی کبھار	نہیں	کبھی نہیں	مندرجہ ذیل عبارات کا جواب ایمانداری سے دیں چیمپئن ہونے کی حیثیت سے جواب سوچتے ہیں اور کرتے ہیں
1	5	4	3	2	میں کسی فکر کے بغیر مقابلہ میں اپنی کوشش جاری رکھتا/رکھتی ہوں۔
2	5	4	3	2	سب سے اہم جیت بینہ کو اس کو حاصل کرنے کا طریقہ۔
3	5	4	3	2	اگر مجھے لگے کہ میرے تربیت کار غلط ہے تو میں انکو کہہ دیتا / دیتی ہوں
4	5	4	3	2	میں جیتنے کے لیے کسی بھی حد تک جاسکتا/جاسکتی ہوں۔
5	5	4	3	2	میں مقابلہ میں پورے دل و جان اور قوت سے حصہ لیتا / لیتی ہوں۔
6	5	4	3	2	میں حملہ خیز (چترہانی) حکمت عمل کو اہمیت دیتا/دیتی ہوں۔
7	5	4	3	2	میں دفاعی حکمت عملی کو اہمیت دیتا/دیتی ہوں۔
8	5	4	3	2	اگر مجھ سے غلطی ہو جائے تو میں خود پر غصہ کرتا/کرتی ہوں۔
9	5	4	3	2	میں اپنے مدومقابل کو چوٹ پہنچا کر کامیاب ہونے کی خوشی محسوس کرتا / کرتی ہوں۔
10	5	4	3	2	جیتنے کیلئے میں اپنی جسمانی قابلیت کو کسی بھی درجہ تک بڑھا سکتا / سکتی ہوں۔
11	5	4	3	2	میں مقابلہ کے دوران میں ہر قسم کے چیلنجز کا سامنا کر سکتا / سکتی ہوں۔
12	5	4	3	2	مجھے اپنے کھیل میں مہارت حاصل ہے۔
13	5	4	3	2	میں اپنے کھیل میں اچھا/اچھی ہوں۔

مندر جہ ذیل عبارات کا جواب ایمانداری سے دیں چیمپئن ہونے کی حیثیت سے جواب سوچتے ہیں اور کرتے ہیں	کبھی نہیں	کبھی نہیں	کبھی نہیں	تقریباً ہمیشہ	ہمیشہ	
14	مجھ میں صلاحیت ہے کہ مقابلے کے دوران میں بہترین کارکردگی دوں۔	1	2	3	4	5
15	میں اپنی کمزوری جانتا/جانتی ہوں۔	1	2	3	4	5
16	میں کوشش کرتا / کرتی ہوں کہ میری کمزوری میرے حریف کو نہ پتہ چلے۔	1	2	3	4	5
17	میں کسی کو پتہ نہیں چلنے دیتا / دیتی کہ میں بے چین یا خوف زدہ ہوں۔	1	2	3	4	5
18	میں مقابلے میں حریف کے دماغ کو قابو کر لیتا/ لیتی ہوں۔	1	2	3	4	5
19	مقابلہ سے کبھی گریز نہیں کرتا/کرتی ہوں۔	1	2	3	4	5
20	میں کبھی ہار نہیں مانتا/مانتی۔	1	2	3	4	5
21	میں اپنی مرضی کرتی ہوں۔	1	2	3	4	5
22	میں اپنے لیے خود منزل مقصود کا تعین کرتا/کرتی ہوں۔	1	2	3	4	5
23	ہارنا مجھے پسند نہیں ہے۔	1	2	3	4	5
24	میرے لیے کچھ بھی ناممکن نہیں ہے۔	1	2	3	4	5
25	جھانسا(دھوکا) دینا میرا شیوہ نہیں ہے۔	1	2	3	4	5
26	مجھے اپنے اس مقام پر ہونے کی اہمیت کا پتہ ہے۔	1	2	3	4	5
27	میں محسوس کرتا/کرتی ہوں کہ میں جو کرنا چاہتا/چاہتی ہوں وہی کر رہا / کر رہی ہوں۔	1	2	3	4	5
28	میں خاص طور پر مقابلے سے پہلے بہت مشق کرتا / کرتی ہوں۔	1	2	3	4	5
29	پرسکون رہنے، خوف پر قابو پانے کیلئے مقابلے پر مرتکز رہنے کیلئے مرقبہ کا استعمال کرتا / کرتی ہوں۔	1	2	3	4	5
30	میں ہارنے کا کبھی نہیں سوچتا/سوچتی۔	1	2	3	4	5
31	میں خود ہمیشہ اپنی منصوبہ بندی خود کرتا/کرتی ہوں۔	1	2	3	4	5
32	میں جیتنے کیلئے ہمیشہ اپنی منصوبہ بندی خود کرتا/کرتی ہوں۔	1	2	3	4	5
33	میں اپنی پختہ اور نت نئی چالوں کو مقابلے کیلئے اپنے دماغ میں دھراتا / دھراتی ہوں۔	1	2	3	4	5
34	میں اپنے کوچز سے بہت کچھ سیکھتا/سیکھتی ہوں اور ان کی ہدایات پر دیہان دیتا / دیتی ہوں	1	2	3	4	5
35	میں اپنے ملک اور ادارہ کے ساتھ وفادار ہوں۔	1	2	3	4	5
36	میں اپنے چیمپئن ہونے کے مقام کی قدر کرتا/کرتی ہوں اور حد درجہ کوشش کرتا / کرتی کہ میری جگہ کوئی اور نہ لے۔	1	2	3	4	5
37	میں اپنی پوری قوت استعمال کرتا/کرتی ہوں کہ میں اپنے مقام پر قائم رہوں۔	1	2	3	4	5
38	میں اپنے کوچ اور بڑوں کی بات سنتا/سنتی ہوں۔	1	2	3	4	5
39	میں تنقید کو مثبت انداز میں لیتا/ لیتی ہوں۔	1	2	3	4	5
40	میری ٹیم کے ارکان میری اپنے گھر والوں کی طرح ہیں۔	1	2	3	4	5
41	میں اپنے شائقین کے پیغامات کا جواب دیتا/دیتی ہوں۔	1	2	3	4	5
42	مقابلے کی جگہ پر میں خود کو گھر کے ماحول جیسا محسوس کرتا / کرتی ہوں۔	1	2	3	4	5
43	میں اپنے والدین کے چہرے پر اس مسکراہٹ سے محبت کرتا/کرتی ہوں جو میرے جیتنے پر آتی ہے۔	1	2	3	4	5
44	میں اپنے شائقین اور ٹیم کے مایوس نہ ہونے کا خیال رکھتا / رکھتی ہوں۔	1	2	3	4	5

مندرجہ ذیل عبارات کا جواب ایمانداری سے دیں چیمپین ہونے کی حیثیت سے جواب سوچتے ہیں اور کرتی ہیں۔

ہمیشہ	تقریباً ہمیشہ	کبھی کبھار	نہیں	کبھی نہیں	
5	4	3	2	1	1 مجھے اس کھیل سے جنون کی حد تک لگاؤ ہے۔
5	4	3	2	1	2 ہر جیت مجھے یادگار/تجربہ دے جاتی ہے۔
5	4	3	2	1	3 مقابلے مجھے یکتا صلاحیتوں کو اجاگر کرنے کا موقع دیتے ہیں۔
5	4	3	2	1	4 جیتنے کا مجھے نشہ ہے
5	4	3	2	1	5 میں جیتنے کے خیال سے جوشیلا ہوجاتا/جاتی ہوں۔
5	4	3	2	1	6 جیتنے کے خیال سے میرا خون جوش مارنے لگتا ہے۔
5	4	3	2	1	7 میں سخت مقابلے جیتنے کا انتظار کرتا/کرتی ہوں۔
5	4	3	2	1	8 میری جیتنے کی لگن اتنی زیادہ ہے کہ میں خود /سکتی۔
5	4	3	2	1	9 جیت کے نشے اور کھیل کی لگن اتنی زیادہ ہے کہ میں سخت ترین مقابلوں سے نہیں گھبراتا / گھبراتا
5	4	3	2	1	10 میں نے اپناجو مقام اس کھیل میں بنایا ہے اس کو ہر قیمت پر برقرار رکھنا چاہتی ہوں۔

(1) جس وقت آپ کو لگتا ہے کہ آپ ہارنے والے ہوں۔ اس وقت آپ کیا سوچتی ہوں۔

(2) جس وقت آپ کو لگتا ہے کہ آپ ہارنے والے والی ہوں اس وقت آپ کیا حکمت عملی اپناتے ہیں۔

(3) کیا آپ فائل استعمال کرتے کرتی ہیں جب خود کو ہارتا ، ہارتی دیکھتے ہے۔

(4) آپ کے خیال میں آپکو کونسی چیز دوسروں سے منفرد کرتی ہے۔

(5) آپ کے خیال میں آپ کے چیمپین بننے میں کس چیز کا زیادہ دخل ہے۔

(6) چیمپین ہونے کی حیثیت سے آپ دوسروں کو کیا صلاح دیں گے کہ وہ آپ کی طرح بن سکیں۔

آپ کا شکریہ