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Exploring the relationships between personality and sources of motivation

Badanie związków pomiędzy cechami osobowości a źródłami motywacji

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Abstract

One of the current business problems is the lack of motivation at work. It influences company's performance and job satisfaction of employees. Understanding the relationship between personality traits and motivation is essential for managers to develop an appropriate way of encouraging workers. Based on the theoretical background of the Big Five Personality Model and Motivation Sources Inventory, the relationships between personality dimensions and sources of motivation were examined using correlation analysis. The data was collected within the “Rohlik.cz” company based in Prague, Czech Republic. Extraversion was found to be the strongest positive predictor of Intrinsic Process Motivation. Additionally, Extraversion was positively associated with Instrumental, External Self-Concept, and Goal-Internalization sources of motivation. Conscientiousness and Openness to Experience were linked to Intrinsic Motivation. Neuroticism was negatively related to Intrinsic Motivation and Internal Self-Concept. Agreeableness was found to have no relationships with motivation sources.

Keywords

personality, personality dimensions, Big Five Personality Model, motivation, Motivation Sources Inventory



Streszczenie

Jednym z obecnych problemów biznesowych jest brak motywacji do pracy. To z kolei wpływa na wyniki firmy i zadowolenie pracowników. Zrozumienie związku między cechami osobowymi a motywacją ma kluczowe znaczenie dla menedżerów w opracowaniu odpowiedniego sposobu motywowania pracowników. Opierając się na teoretycznym modelu osobowości Wielka Piątka i zintegrowanym modelu motywacji "Motivation Sources Inventory", analizowano relacje między wymiarami osobowości a źródłami motywacji za pomocą analizy korelacji. Dane zebrano w firmie "Rohlik.cz" Praga, Czechy. Stwierdzono, że ekstrawersja jest najsilniejszym pozytywnym czynnikiem wewnętrznej motywacji. Ponadto ekstrawersja jest pozytywnie skorelowana z następującymi źródłami motywacji: motywacją instrumentalną, zewnętrzną koncepcją samooceny i internalizacją celów. Sumienność i otwartość na doświadczenie skorelowane są z motywacją procesu wewnętrznego. Neurotyczność jest negatywnie skorelowana z instrumentalną motywacją i wewnętrzną koncepcją samooceny. Stwierdzono, że ugodowość nie ma związków ze źródłami motywacji.

Słowa kluczowe

osobowość, cechy osobowości, pięcioczynnikowy model osobowości (Wielka Piątka) motywacja, źródła motywacji



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Introduction

The study of personality and motivation has been in the center of people's interest for centuries. Most of the scientists agree that personality influences all aspects of organizational behavior, and thus person's performance. Lack of motivation at work affects the efficient functioning of a company, productivity and job satisfaction of the employees. Understanding the nature of the relationship between personality and work motivation represents a broad area of research. Diversity at workplace poses a big challenge for present day managers to choose the appropriate way of encouraging the employees.

The main research question of the study asks whether there are any relationships between personality and different sources of motivation. The Big Five Personality Model and Motivation Sources Inventory were chosen to conduct the research. Additionally, it is intended to control the influence of age, gender, and the level of education on motivation. The Big Five Factor Model was extensively investigated, thus, there are a quite number of studies that examine relations between five personality dimensions and different models of motivation. The Motivation Sources Inventory is relatively recent integrated model. Since that, empirical researches that focus on the relationships between the Big Five Personality Traits and Motivation Sources Inventory were not found. The main hypothesis states that there are significant correlations between each Big Five personality dimensions and five sources of motivation. In total, 25 hypotheses will be examined.

In order to achieve the aim of the study, reviewing a theoretical background of the Big Five Personality Model and sources of motivation is needed. The empirical research requires gathering of the quantitative data such as age, gender, level of education, personality traits and preferred motivation sources. A questionnaire was chosen as the method of collecting information. The potential link between each personality dimensions and motivation sources will be examined using descriptive and correlation analysis. At the end of the empirical part of the study the discussion of the results and implications for managers will be provided.



Chapter 1.Theoretical Framework

1. 1.Personality

Psychologists and human resources managers have used personality profiling as a predictor of organizational behavior in various environments for many years. Knowing the personality traits of an employer allows management to organize an environment ideally suited for an individual, which cause the maximization of a person's productivity and job satisfaction.

There is no one unified way to describe personality. The word personality goes back to ancient Greece, where it meant a mask which an actor used in the theater when he played different roles representing different characters.¹ Nowadays theorists use more than fifty different definitions of personality each taking a different perspective.² American Psychology Association refers personality to individual differences in characteristic patterns of thinking, feeling and behaving. The study of personality focuses on two broad areas: One is the understanding individual differences in particular personality characteristics, such as sociability or irritability. The other is the understanding how the various parts of a person come together as a whole.³

Within organizational settings, personality can be determined by specific characteristics of individuals which may be open or hidden and which may determine either commonality or differences in behavior in an organization.²

The study of personality is one of the main topics of interest within psychology. Many scientists have attempted to define this highly abstract term during the years. Researchers in the field of personality assessment face problems with variety personality scales from which to choose, with little guidance and no common accessing tools. There are countless different theories, from the four temperaments of Hippocrates (choleric, melancholic, sanguine, and phlegmatic) to Freud's theory of the unconscious, which conceptualize personality from a variety of perspectives. Each of these studies is essential for the understanding of the individual difference in behavior.

¹ B. Engler, Personality theories: an introduction. 2nd ed., Houghton Mifflin Company, Boston 1985, p.54.

² I. Brooks, Organizational behavior: individuals, groups and organization, Pearson Education, 2008, p.135.

³ Personality, <http://www.apa.org/topics/personality/> (accessed 30.05.2017).



The first detailed typology of personality was created by Hippocrates two and a half thousands years ago. People use his terminology nowadays. He determined four temperaments: sanguine, choleric, melancholic and phlegmatic. At the end of the nineteenth century, Jung developed a theory where human types were approached from two aspects. There are only two basic psychological attitudes (extraversion and introversion) and four psychological functions that manage the adaptation of people to the outside world and their orientation in it. In that way, Jung defined eight types of people using the combination of previous attitudes and function: extraverted thinking, extraverted feeling, extraverted sensing, extraverted intuitive, introverted thinking, introverted feeling, introverted sensing, introverted intuitive.⁴

Later most of the personality theories fall into one of four major perspectives: the psychoanalytic, humanistic, social cognitive and trait perspective. Each of these aspects on personality tries to show different patterns how people differ on an individual level. The psychoanalytic perspective focuses on the early childhood experiences and the unconscious mind. This approach was created by psychiatrist Sigmund Freud. The humanistic perspective of personality emphasizes the psychological growth and personal awareness. It provides the more positive view on human nature and focuses on how each person can reach their individual potential. The social cognitive perspective of personality studies the observational learning, situational influences and cognitive processes. The trait perspective of personality is focused on identifying, describing and measuring the specific traits or dimensions that create human personality. Trait theories of personality assume that personality dimensions are inherent, relatively stable and unchanged throughout a person's lifetime and determine person's behavior. That is why trait approach is the easiest and concrete method to assess personality.⁵

People differ along many various dimensions. Some people are reserved, while others are outgoing; some are trustful, while others are suspicious. The list is endless, but such individual differences are very important. Differences between people are often reflected in their behavior, which has strong effects on the future careers, relationships with colleagues, job performance, and many other work-related issues.

⁴ C. Jung, *Psychological Types*, Princeton University Press, Princeton, New Jersey 1971.

⁵ L. Mullins, *Management & Organisational Behaviour*, Pearson, Edinburgh 2010, p. 344.



Talking about the importance of personality at work, until the early-1980s most of the research on personality on workplace concluded that personality did not matter.⁶ That outcome changed, however, with the creation of the Big Five Factor model of personality, which showed a specific taxonomy for grouping and classifying particular characteristics.

1.2. The Big Five Factor Model of Personality

There are many traits that can describe an individual's personality. So it seems impossible to consider all theories in order to understand the role of personality in organizational behavior. Therefore, several models are created to order the dimensions of personality. One model of personality traits that is particularly useful for analyzing employees' behavior in a company is the Big Five Model of Personality. This theory was chosen to conduct the study. The main idea of this model is that personality can be interpretable in terms of the Big Five traits of personality: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism, often remembered under the acronyms OCEAN or CANOE. It is the result of the descriptive study of language analyzing adjectives which were used to describe a person.⁷ Table 1.1 represents main adjectives that describe high and low scores on each personality dimensions.

Table 1.1 Big Five Personality Traits Adjectives

Dimensions	High	Low
Extraversion	gregarious, assertive, sociable, talkative, active, outgoing	reserved, timid, passive, quiet, careful, thoughtful
Agreeableness	cooperative, warm, trusting, compassionate	cold, hostile, suspicious, irritable, antagonistic.
Conscientiousness	hardworking, organized, tidy, punctual, preserving, achievement oriented	lazy, disorganized, careless, unreliable, negligent
Neuroticism	insecure, anxious, depressed, emotional, temperamental	calm, self-confident, secure, comfortable, emotionally stable

⁶ M. Barrick, M.Mount, The big five personality dimensions and job performance: a meta-analysis, „Personnel psychology” 1991, 44(1), 1-26.

⁷ M. Barrick, M.Mount, The big five....,op.cit..



Openness to Experience	creative, imaginative, curious, cultured, intellectual	practical, conventional, down-to-earth, preference of routine
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Source: Adapted from McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its application. Special Issue: the five-factor model: issues and applications. *Journal of Personality*, 60, 175-215

Evidence of this theory has been growing for many years. The first research was conducted by D. W. Fiske in 1949. Later this approach expanded by other scientists including Norman (1967), Smith (1967), Goldberg (1981), and McCrae & Costa (1987). These five factors have been identified across a number of cultures and different languages and have proven to present a clear measurement framework in personality psychology. It is a broad-based theory of personality dimensions that represent the minimum number of traits needed to describe a person.^{8 9}

Dividing personality traits into these five groups provides a number of benefits, including clearer measurement and greater comparability of the results across studies. As McCrae and Costa state that “many psychologists are now convinced that the best representation of trait structure is provided by the five-factor model.”¹⁰ Several researchers suggest that the Big Five Personality Trait Model is a robust approach for understanding the structure of personality. They identified that The Big Five personality traits are a fundamental base, especially for work environment and companies.¹¹ The Big Five provides a structured and applicable taxonomy for collecting and analyzing empirical data for easier studying the personality.¹² Moreover, the Big Five Personality Trait Model appears to generalize across samples, rating sources, and methods of measurement.¹³ So, the Five Factor model of personality is an appropriate framework for studying individual differences and attitudes towards the work motivation.

⁸ D. Lee- Bagley, A. Delongis, M. Preece, Coping with interpersonal stress: Role of big five traits, „*Journal of Personality*” 2005, 73, 1141-1180.

⁹ R. McCrae, Costa, Validation of the five factor model of personality across instruments and observers, „*Journal of Personality and Social Psychology*” 1987, 52, 81-90.

¹⁰ R. McCrae, P. Costa, Personality trait structure as a human universal, “*American psychologist*” 1997, 52(5), 509.

¹¹ L. Goldberg, The development of markers for the Big-Five factor structure, “*Psychological assessment*” 1992, 4(1), 26.

¹² M. Barrick, M. Mount, The big five..., op.cit.

¹³ O. John, S. Srivastava, The Big Five trait taxonomy: History, measurement, and theoretical perspectives. “*Handbook of personality: Theory and research*” 1999, 2(1999), 102-138.



Extraversion

Extraversion represents individual's level of comfort with relationships and communications with other people. Extraversion describes sociability, talkativeness, energy, willingness to communicate with the outside world. It also can be interpreted as the combination of ambition and sociability. People who score high on extraversion prefer to be in the presence of other people. A low score on Extraversion approaches to individuals that are more introverted or reserved in nature. They often feel drained and exhausted in the surrounding of other people. McCrae & Costa define other six aspects or sub-traits to the extraversion: warmth, gregariousness, assertiveness, activity, excitement seeking, positive emotions.¹⁴ Extraversion is related with motivation to perform despite occupational settings because extroverts have greater confidence in their capability to perform well.¹⁵

Conscientiousness

Conscientiousness characterizes person's reliability, organization, and perseverance. High scorers on conscientiousness tend to be reliable, dependable, hard working, organized, and achievement-oriented. Those with a low score are impulsive, disorganized, unreliable, and laid-back. The six facets of conscientiousness are competence, order, dutifulness, achievement striving, self-discipline, deliberation.¹⁶ The conscientiousness is connected with the capability to deal with life challenges, tidiness and methodical approach to tasks; willingness to work hard, multitasking and goal achievement. Conscientiousness is an important predictor of organizational behavior. The score in this dimension can forecast overall performance because employees with high level of Conscientiousness are likely to follow organizational rules and exert effort. Some psychologists said that conscientiousness is

¹⁴ R. McCrae, O. John, An introduction to the five- factor model and its application. Special Issue: the five-factor model: issues and applications. "Journal of Personality" 1992, 60, 175-215.

¹⁵ T. Judge, R. Ilies, Relationship of personality to performance motivation: a meta-analytic review, "Journal of applied psychology" 2002, 87(4), 797.

¹⁶ R. McCrae, O. John, An introduction to the five- factor ..., op.cit.



the best predictor of both personal and professional success.¹⁷ It is correlated with the leadership in different fields, including business, government, and school.¹⁸

Neuroticism

Neuroticism refers to the tendency to experience negative emotions such as anxiety, insecurity, and psychological distress. Neuroticism is also often called for Emotional Stability in its positive side; these are two extremes of one dimension. It gives the score to which people are emotional, depressed and insecure versus calm, self-confident, and secure. This dimension is connected with the ability to overcome stress, anxiety, and depression. The six sub-traits of neuroticism are anxiety, angry hostility, depression, self-consciousness, impulsiveness, and vulnerability.¹⁹ Individuals who score high on neuroticism tend to express negative emotions very intensely. It is difficult for them to control these emotions. Low neuroticism is described as a more stable experience of emotions. People are more calm and relaxed under the stress and are not likely to lose their temper. They usually rely on their ability to handle stressful situations and resolve problems in common sense. That corresponds to the fact that emotionally stable employees would work better on almost all positions than their angry and nervous colleagues.²⁰

Neuroticism was found to be correlated with the overall employee's job performance in the organization. Low level of Neuroticism can predict great motivation at work. High level of Neuroticism is linked to low-performance motivation.²¹ At the same time, there is an opinion that Neuroticism can both help and hamper performance. Robbins et al. stated that in some occupational situations people who are a little bit worrying, nervous and emotional might perform better.²² Under particular organizational conditions, neurotics can be motivated to exert more effort in accomplishing their tasks.

¹⁷ O. John, S. Srivastava, The Big Five trait taxonomy: History, measurement, and theoretical perspectives. "Handbook of personality: Theory and research" 1999, 2(1999), 102-138.

¹⁸ T. Bogg, B. Roberts, Conscientiousness and health-related behaviors: a meta-analysis of the leading behavioral contributors to mortality, "Psychological Bulletin" 2004,130, 887-919.

¹⁹ R. McCrae, O. John, An introduction to the five-factor ..., op.cit.

²⁰ D. Lee- Baggley, Coping with interpersonal stress..., op. cit.

²¹ T. Judge, R. Ilies, Relationship of personality..., op. cit.

²² S. Robbins, T. Judge, M.Millett, M.Boyle, Organisational behaviour, Pearson Education 2013.



Agreeableness

Agreeableness concerns around the idea of trust, honesty, and compliance. Individuals who are agreeable are more straightforward and tolerant by nature. This trait refers to conformity and ability for being friendly, cooperative, trusting, and compassionate. McCrae & Costa define the following six facets: trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness.²³ High scorers on agreeableness tend to look at everyone from the positive perspective. These people try to be loyal, honest, dependable, and interested in the well-being of others. Individuals who score low on agreeableness seem to be more suspicious of the motives of other people. They have a cynical and skeptical perception of the world around them. Some studies show that Agreeableness relates to the organizational behavior, but not job performance.²⁴ Agreeableness can be a valid predictor in the motivation at work provided that significant interpersonal communications, like helping and nurturing others, are involved.

Openness to experience

Openness to experience focuses on the personal level of general reception to novelty. Individuals who score high on openness to experience tend to be very creative, imaginary, and curious. They are open for new ideas and activities. They are willing to spend their time thinking about new concepts and theories recently learned about. The low score on openness to experience is linked to more conventional thought. Such individuals have a more narrow range of interests and are likely to be more down to earth. The sub-traits of openness to experience include fantasy, aesthetics, feelings, actions, ideas, and values.²⁵ Openness to experience has not been determined as the valid predictor for work motivation. The empirical studies regarding Openness to experience show that this personality trait influences job motivation both positive and negative correlations from different aspects.^{26 27 28} The results

²³ R. McCrae, O. John, An introduction to the five-factor ..., op.cit.

²⁴ T. Judge; B. Livingston; C. Hurst, Do nice guys—and gals—really finish last? The joint effects of sex and agreeableness on income, "Journal of Personality and Social Psychology", 102(2),390–407.

²⁵ R. McCrae, O. John, An introduction to the five-factor ..., op.cit.

²⁶ T. Judge, R. Ilies, Relationship of personality..., op. cit.

²⁷ M. Barrick, M. Mount, The big five personality..., op. cit.

²⁸ J. George, J. Zhou, When openness to experience..., op.cit.



vary along different organizations under specific circumstances. Employees with a high level of Openness to experience tend to deal successfully with changes and contribute to innovative activities, which can affect the worker's source of motivation.²⁹

1.3. Motivation

Along with many factors that affect the performance of an organization, human resources are seen the most influential. Especially motivating employees is vital for any business. There is an organization need to encourage the staff in order to accomplish its stated goals and objectives. Motivated employees usually lead to an increasing of the productivity and achieving higher levels of output.³⁰

The term motivation was developed in the early 1880's. Before that time philosophers and social theorists used the term "will". Motivation was believed to be an entity that forced one to action.³¹ Recently, many researchers have provided specific unique definitions of motivation. Kreitner defined it as the psychological process that gives behavior purpose and direction.³² Higgins stated that motivation is an internal drive to satisfy an unsatisfied need.³³ Under modern organizational settings, motivation can be defined as a management process, which encourages people to work better for improving the performance of the organization, by providing them motives, which are based on their needs.³⁴

Motivation is a complex and difficult task. The manager must understand various types of human needs and feelings in order to encourage people. A number of issues arise for managers with the diversity at workplace. What motivates some employee to perform well may discourage others; therefore it is a big challenge for managers. The great difference between workers in every organization means that there is no best way to deal with such problem. It is necessary for managers to learn, understand and effectively deal with their employee's motivation; since motivated employees' are the important part of a successful

²⁹ J. George, J.Zhou, When openness to experience..., op.cit.

³⁰ V. Vroom, Manage people, not personnel: motivation and performance appraisal, Harvard Business School Press, Boston, Massachusetts 1990, p. 98.

³¹ R. Beck, Motivation: theories and principles, Prentice Hall, Englewood Cliffs, NJ 1978.

³² R. Kreitner, Fundamentals of organizational behavior, McGraw Hill, USA 2007, p. 213.

³³ E. Higgins, A. Kruglanski, Motivational science: Social and personality perspectives, Psychology Press, Philadelphia 2000, p. 115.

³⁴ V. Vroom, Manage people..., op. cit.



organization. Employees that are well-motivated help the company to grow and survive in a fast changing environment. Unmotivated workers may put less effort in their jobs, tend to stay away from the workplace, and neglect quality of work.

Motivation has been extensively researched. Many scientists have tried to formulate a specific theory of motivation but all bring in different ideas. Many conducted researches greatly influenced organizational behavior. In the mid-twentieth century, the most significant motivational theories were designed: Maslow's hierarchy of needs (1943), Herzberg's two-factor theory (1959) and Vroom's expectancy theory (1964).³⁵ Those studies focus more on general motivation and work motivation particularly. It appears that Herzberg and Maslow's theories are still been used today.

Herzberg defined employee motivation as performing a work related action because you want to. He introduced a well-known motivation theory, the two-Factor Theory, where described two different groups of job factors: motivators and hygiene factors.³⁶ He emphasized that the factors can either be motivators or hygiene factors, but can never be both at the same time. According to Staw, Herzberg was one of the first persons who divided intrinsic and extrinsic motivation.³⁷ That distinction provided a clear explanation of motivating employees at the workplace. Herzberg stated that there are some job factors that result in satisfaction while there are others - that prevent dissatisfaction. Intrinsic motivators tend to create motivation when they are present, whereas extrinsic motivators tend to reduce motivation when they are absent. Intrinsic motivators are represented by more emotional needs, such as relationships, recognition, and potential in growth. Extrinsic motivators are more tangible, basic things, like salary, security, status, and fringe benefits.

The two-Factor Theory of Herzberg (1959) is related to Maslow's (1943) theory of motivation. Maslow stated that people are motivated to achieve certain needs and that some needs take precedence over others. In his need hierarchy, Maslow describes five set of goals which are called the basic needs.³⁸ Physiological needs are related to survival of human. These are typically concrete needs such as food, water, warmth, rest. Security needs are to protect against various threats. Social need discloses the need to feel accepted by groups in his family, work, friendship, and intimates. The esteem needs are connected with feeling to be

³⁵ R. Beck, *Motivation: theories and principles*, Prentice Hall, Englewood Cliffs, NJ 1978, p. 45.

³⁶ F. Herzberg, B. Mausner, B. Snyderman, *The motivation to work*, John Wiley & Sons, New York 1959.

³⁷ B. Staw, *Intrinsic and Extrinsic Motivation*, General Learning Press, Morristown, NJ 1976.

³⁸ A. Maslow, A theory of human motivation, "Psychological Review" 1943, 50, 370-396.



respected, accepted and valued by others. The personal development aims to achieve one's full potential, including creative activities. Maslow stated that humans have internal needs forcing them in the way of self-fulfillment.³⁹

The concept of expectancy was originally designed by Vroom. The main idea stands for the fact that action or effort will lead to an outcome. Vroom explained the concept of his theory as: "Where an individual chooses between alternatives which involve uncertain outcomes, it seems clear that his behavior is affected not only by his preferences among these outcomes but also by the degree to which he believes these outcomes to be possible. Expectancy is defined as momentary belief concerning the likelihood."⁴⁰ The greater the value of rewards and the higher the probability of receiving it, the greater the effort would be made by an employee to perform the task.

The base to all the popular theories of motivation is the idea that the managers need to offer something for workers what they believe will be satisfying. However, it is not enough. Employees must believe that it is possible to achieve what they want. Managers should focus not only on the "offering"; the "believing" is important for workers. Employee's confidence involves three separate beliefs. The first belief is that they can perform well enough to get what is offered. The second is that they will get it if they perform well. The third belief is that what is offered will be enough to satisfy the needs. All these beliefs are interrelated because an employee effort leads to some level of performance, the performance leads to outcomes, and the outcomes lead to satisfaction or dissatisfaction. The Expectancy theory of motivation requires the accomplishment of all these three factors.⁴¹

1.4. Motivation Sources Inventory

Motivation has been examined from many perspectives, including psychological, expectancy, need-based, intrinsic, social identity, value-based, goal setting, self-concept-based, and, a developmental perspective.⁴² Many social sciences researchers argued a lot over

³⁹ A. Maslow, A theory of human..., op. cit.

⁴⁰ V. Vroom, Work and motivation, Wiley, New York 1964.

⁴¹ G. Latham, Work motivation: history, theory, research, and practice, SAGE Publications, Thousand Oaks, California 2007.

⁴² J. Barbuto, R. Scholl, Motivation Sources Inventory: Development and validation of new scales to measure an integrative taxonomy of motivation, "Psychological Reports" 1998, 82(1), 1011–1022.



the advantages of each approach. The attempts to create one integrative framework have fallen short. An integrative taxonomy is necessary for better understanding the individual behavior at work. The most accepted and applied taxonomy of motivation was the trichotomy designed and developed by McClelland, which distinguishes three groups of needs—need for power, need for affiliation, and need for achievement.⁴³ However, this trichotomy and its measurement (Thematic Apperception Test) have been extensively criticized. Barbuto et al. showed that the trichotomy of needs ignored two important dimensions of human motivation: intrinsic process and goal internalization.⁴⁴

In order to examine the correlation between personality traits and work motivation, the Motivation Source Inventory was chosen. Leonard, Beauvais, and Scholl proposed an integrative model of motivation based on past research views. They analyzed and integrated several motivation theorists’ perspectives, and identified five sources of motivation. The metatheory of motivation includes intrinsic process, instrumental, external and internal self-concept, and goal internalization.⁴⁵ Table 1.2 provides the complete comparison of the motivation theories.

Table 1.2. Integrative Typology of Motivation Sources

Theorists	Intrinsic Process	Instrumental	Self-Concept External	Self-Concept Internal	Goal Internalization
Alderfer(1969)	Existence	N/A	Relatedness	Growth	N/A
Ashforth&Mael (1989)	N/A	N/A	Social Identity	N/A	N/A
Bandura(1938)	Sensory Intrinsic Physiological	Extrinsic	N/A	Personal Standards Self-Regulation	N/A
Barnard(1938)	N/A	Material Inducements	Social Inducements	N/A	N/A

⁴³ D. McClelland, *The achieving society*, Van Nostrand, Princeton, NJ 1961.

⁴⁴ J. Barbuto, R. Scholl, *Leader’s motivation and perception of follower’s motivation as predictors of influence tactics used*, “Psychological Reports” 1999, 84(2), 1087–1098.

⁴⁵ J. Barbuto, R. Scholl, *Motivation Sources Inventory...*, op. cit.



Bellah et al.(1985)	N\A	N\A	N\A	Individualism	Habits of the Heart
Deci(1975)	Task Pleasure	Extrinsic	Interpersonal Challenges	Overcoming	Outcome Valence
Etzioni(1975)	N\A	Calculative\ Alienative	Social Moral	N\A	Pure Moral
Herzberg(1968)	N\A	Satisfiers	Satisfiers	Motivators	N\A
Kaltz&Kahn(1978)	N\A	Legal Compliance	Membershi p Approval	Role Performance	Internalized Values
Kohlberg(1976)	Heteronomo us	Instrumental	Interperson al	Social System	Principled
Kegan(1982)	Impulsive	Imperial	Interperson al	Institutional	Inter- Individual
Loevinger(1976)	Impulsive	Opportunisti c	Conformist	Conscientio us	Autonomous
Maslow(1954)	Physiological	Safety	Love	Esteem	Self- Actualization
McClland(1961)	N\A	Power	Affiliation	Achievemen t	N\A
Murray(1964)	Intrinsic pleasure	Power	Affiliation	Achievemen t	N\A
Piaget(1972)	Preoperation al	Concrete	Formal	Full-Formal	Post-Formal

Source: Barbuto, J. E., & Scholl, R. W. (1998). Motivation Sources Inventory: Development and validation of new scales to measure an integrative taxonomy of motivation. *Psychological Reports*, 82(1), 1011–1022.

Intrinsic Process Motivation

Intrinsic motivation involves engaging in a behavior because of the personal reward. Individuals perform an activity for its own sake, not for some external benefit. They focus on enjoyment, interest, the satisfaction of curiosity, self-expression, or personal challenge in the



work. This type of motivation appears from an individual satisfaction and engaging in the task. People look for the feeling of inner pleasure in the activity itself. It can be also defined as a compelling that involves well performance without external incentives. In this source of motivation, the work itself acts as the incentive because employees enjoy what they are doing. Past researchers have described intrinsic motivation in a similar way using different terms: heteronomous morality⁴⁶, impulsive⁴⁷, physiological needs⁴⁸ and pre-operational⁴⁹. Some scientists used the term intrinsic motivation to describe personal satisfaction gained from accomplishing of tasks. However, Barbuto and Scholl argued that intrinsic process is separated from the past classical explanation of intrinsic motivation, because the focus is on immediate pleasure during the activity, rather than on the satisfaction that derived from its achievement. This classic motivation is better suited to self-concept internal, as described below.⁵⁰

Instrumental Motivation

The instrumental motivation regards the fulfilling an action to gain external rewards or avoid a negative outcome. Such individuals believe that their behaviors will lead to certain external tangible outcomes, such as job bonuses, bigger salary, incentives and job promotion. Some researchers describe this type of motivation as money and verbal reward, come out from outside of a person; on the other hand, intrinsic motivation comes out from inside the person. This source was integrated using alienative and calculative theory by Etzioni, Barnard's exchange theory, and Katz and Kahn's legal compliance and external rewards.^{51 52} Other researchers described this kind of motivation as concrete operational⁵³, imperial⁵⁴, and opportunistic⁵⁵. Maslow described a similar motive as a need for safety. Instrumental motivation differs from the classic extrinsic or external motivation in that this motive derives

⁴⁶ L. Kohlberg, *Collected papers on moral development and moral education*, Center for Moral Education, Cambridge, MA 1976.

⁴⁷ R. Kegan, *The evolving self*, Harvard Univer. Press, Cambridge, MA:1982.

⁴⁸ A. Maslow, *Motivation and personality*, Harper & Row, New York 1954.

⁴⁹ J. Piaget, *Intellectual evolution from adolescence to adulthood*, "Human Development" 1972, 15,1–12.

⁵⁰ J. Barbuto, R.Scholl, *Motivation Sources Inventory...*, op. cit.

⁵¹ A. Etzioni, *A comparative analysis of complex organizations*, Free Press, Glencoe, IL 1961.

⁵² D. Katz, R. Kahn, *The social psychology of organizations*, Wiley, New York 1978.

⁵³ J. Piaget, *Intellectual evolution...*, op. cit.

⁵⁴ R. Kegan, *The evolving self*, Harvard Univer. Press, Cambridge, MA:1982.

⁵⁵ J. Loevinger, *Ego development*, Jossey-Bass, San Francisco, CA 1976.



from tangible external rewards, whereas the classic definition includes social rewards and interpersonal relations.⁵⁶ In this model extrinsic motivation is divided into two groups: instrumental (tangible) and external self-concept (social).

Self-Concept-External Motivation

This source of motivation is based on external social reward. Individuals seek affirmation, acceptance, and respect from others for their traits, abilities, talent, and values. The main motive of people is to satisfy reference group members, first to get acceptance, and, after reaching that, to gain status. This conception adopted from the theory of role expectations of reference groups. This source of motivation is related to Etzioni's social moral involvement, extrinsic interpersonal motivation, and Barnard's social inducement, conformity to group attitudes, and communion.^{57 58} Other scientists discussed external self-concept as interpersonal⁵⁹, early formal operational⁶⁰, and conformist⁶¹. Maslow called the similar stage of motivation as the need for love, affection, and belonging.⁶² Katz and Kahn in their research also stated that employees seek membership and seniority in organizations, approval from leaders, and approval from groups.⁶³ The set of social rewards or social exchanges is captured by the source of self-concept external motivation.⁶⁴

Self-Concept-Internal Motivation

This source of motivation is based on inner-direction of individuals. People focus on internal standards of traits, competencies, and values that are fundamental for the ideal self. Then they are motivated to engage in work that strengthens these standards and later achieve higher levels of job performance. This concept is based on McClelland's theory of high need

⁵⁶ J. Barbuto, R.Scholl, Motivation Sources Inventory..., op. cit.

⁵⁷ A. Etzioni, A comparative analysis ..., op. cit.

⁵⁸ C. Barnard, The functions of the executive, Harvard Univer Press, Cambridge, MA 1938.

⁵⁹ R. Kegan, The evolving self..., op. cit.

⁶⁰ J. Piaget, Intellectual evolution..., op. cit.

⁶¹ J. Loevinger, Ego development..., op. cit.

⁶² A. Maslow, Motivation and personality, Harper & Row, New York 1954.

⁶³ D. Katz, R. Kahn, The social psychology..., op. cit.

⁶⁴ J. Barbuto, R.Scholl, Motivation Sources Inventory..., op. cit.



for achievement⁶⁵, Deci's internal motivation to overcome challenges⁶⁶ and Katz and Kahn's ideal of internalized motivation derive from role performance⁶⁷. Some researchers described a similar source of motivation as full formal operational⁶⁸, social system⁶⁹, institutional⁷⁰, conscientious⁷¹. In Herzberg's theory, internal self-concept can be related to a category of motivating factors.⁷² This motive has similarly been described as the need for esteem by Maslow.⁷³ Staw's intrinsic motivation to pursue personal achievement is similar to self-concept internal motivation.

Goal Internalization Motivation

The goal internalization motivation occurs when people accept attitudes and behaviors because their content complies with the individual's personal value system. Strong values and beliefs are essential in this motivational source. The individual believes improve a strong sense of duty, and motivate to work harder to achieve the goal of the collective. Goal internalization is distinct from the previous four sources of motivation because there is an absence of self-interest. This type of motivation is related to Kelman's value system⁷⁴, Katz and Kahn's internalized values⁷⁵, and Etzioni's pure moral involvement⁷⁶. The goal internalization motivation is based on following theories: post-formal operational⁷⁷, principled orientation⁷⁸, and autonomous⁷⁹. Maslow described a similar motive as self-actualization.⁸⁰

To sum up, the intrinsic process motivation involves enjoying the work while performing. The instrumental motivation needs an incentive or contingent reward to perform the work. With self-concept-external motivation, people tend to believe that their reputation

⁶⁵ D. McClelland, *Human motivation*, Scott Foresman, Glenview, IL 1985.

⁶⁶ E. Deci, *Intrinsic motivation*, Plenum, New York 1975.

⁶⁷ D. Katz, R. Kahn, *The social psychology...*, op. cit.

⁶⁸ J. Piaget, *Intellectual evolution...*, op. cit.

⁶⁹ L. Kohlberg, *Collected papers on moral development...*, op. cit.

⁷⁰ R. Kegan, *The evolving self...*, op. cit.

⁷¹ J. Loevinger, *Ego development...*, op. cit.

⁷² J. Barbuto, R. Scholl, *Motivation Sources Inventory...*, op. cit.

⁷³ A. Maslow, *Motivation and personality...*, op. cit.

⁷⁴ H. Kelman, *Compliance, identification, and internalization: three processes of attitude change*, "Journal of Conflict Resolution" 1958, 2, 51–56.

⁷⁵ D. Katz, R. Kahn, *The social psychology...*, op. cit.

⁷⁶ A. Etzioni, *A comparative analysis...*, op. cit.

⁷⁷ J. Piaget, *Intellectual evolution...*, op. cit.

⁷⁸ L. Kohlberg, *Collected papers on moral development...*, op. cit.

⁷⁹ J. Loevinger, *Ego development...*, op. cit.

⁸⁰ A. Maslow, *Motivation and personality...*, op. cit.



or image will be better if they achieve a specific goal. Individuals are internal self-concept motivated when there is a need to have a personal challenge to overcome. With goal internalization, workers do not have to be motivated by strong inducements except their own beliefs; they need to believe that the goals can be achieved with their assistance.

1.5. Relationship between personality and motivation

Understanding the nature of the relationship between personality and work motivation represents a broad area of research. Most scientists would agree that there is individual diversity in motivation, and these differences can lead to dispositional tendencies.⁸¹ Dispositional factors (e.g. personalities) have a role in determining motivation.⁸² Personality traits may be essential for motivation, as personality is considered to be a crucial factor in various contexts.

Historically, attempts to link personality traits with motivation have been discouraging. The relationship between personality traits and specifically motivated actions found by scientists usually was not very strong. Gellatly stated that “attempts to empirically link personality characteristics with motivational variables have produced inconsistent results”.⁸³ Kanfer and Heggestad argued: “Until recently, the status of traits in most work motivation theories has been like that of a distant and not well-liked relative attending a family reunion”.⁸⁴ The motivation research has made substantial theoretical progress. With a range of motivation models and theories, the situation has become more unclear. Some researchers noted that the only stable thing about studies of individual differences in motivation is their instability. It can be explained by the lack of unified theoretical perspective for understanding which dispositional factor influences the motivational action and how they operate.

⁸¹ A. Furnham, *Personality and intelligence at work : exploring and explaining individual differences at work*, Routledge, London ; New York 2008.

⁸² M. Barrick, A. Ryan, *Personality and work: reconsidering the role of personality in organizations*, Jossey-Bass, San Francisco 2003.

⁸³ I. Gellatly, *Conscientiousness and task performance: Test of cognitive process model*, “*Journal of Applied Psychology*” 1996, Vol 81(5), 474-482.

⁸⁴ R. Kanfer, E. Heggestad, *Motivation traits and skills: A person-centered approach to work motivation*, “*Research in Organizational Behavior*” 1997, 19, 1–56.



In the fifties of the twentieth-century researchers in personality started to be interested in the experimental analysis of human motivation. Despite the limited number of research, numerous scientists agreed the personality trait is the predictor of attitudes, motivation, and leadership.⁸⁵ They tried to find a positive correlation between work motivation and characteristics of personality. For example, Paspalanov figured out a positive relation between motivation and both extraversion and neuroticism.⁸⁶ Heaven found that work motivation was positively related to extraversion, but was inversely related to neuroticism.⁸⁷

Judge and Illes' concluded that the Big Five personalities are an important source of motivation. Conscientiousness was found to be a factor that prior research has expressly related to motivation.⁸⁸ Barrick, Mount, and Strauss and Gellatly linked Conscientiousness to goal-setting motivation.⁸⁹ ⁹⁰ They also found that neuroticism factor was negatively related to motivation. Some researchers stated that conscientiousness and openness to experience were positively related to intrinsic motivation, but conscientiousness and extraversion related to extrinsic motivation significantly.⁹¹ Barrick et al concluded that there is strong evidence that conscientiousness and neuroticism has an effect on motivational actions.⁹² Conscientiousness was linked to the tendency to set and achieve goals. Whereas Gellatly concluded that Conscientiousness was related to expectancy for success. Neuroticism has also been found to relate to motivation inversely.⁹³ Judge and Illies meta-analytically indicated that conscientiousness and neuroticism were permanently connected with motivation.⁹⁴ There is evidence that neurotic individuals do not tend to be goal-oriented.⁹⁵

No clear guiding framework exists to show the relations between personality and motivation sources. There are some studies that examined the relationship between

⁸⁵ M. Barrick, A. Ryan, *Personality and work: reconsidering the role of personality in organizations*, Jossey-Bass, San Francisco 2003.

⁸⁶ I. Paspalanov, The relation of nAch to extraversion, emotional instability and level of anxiety in people of different social status and success, "Personality and Individual Differences" 1984, 5, 383 – 388.

⁸⁷ P. Heaven, Attitudinal and personality correlates of achievement motivation among high school students, "Personality and Individual Differences" 1990, 11, 705 – 710.

⁸⁸ T. Judge, R. Ilies, *Relationship of personality...*, op. cit.

⁸⁹ M. Barrick, M. Mount, *The big five...*, op. cit.

⁹⁰ I. Gellatly, *Conscientiousness and task performance...*, op. cit.

⁹¹ D. Fontana, *Personality in the workplace* 3rd edition, Macmillan Press, Basingstoke 2000.

⁹² M. Barrick, M. Mount, *The big five...*, op. cit.

⁹³ I. Gellatly, *Conscientiousness and task performance...*, op. cit.

⁹⁴ T. Judge, R. Ilies, *Relationship of personality...*, op. cit.

⁹⁵ M. Barrick, A. Ryan, *Personality and work: reconsidering the role of personality in organizations*, Jossey-Bass, San Francisco 2003.



the Big Five Model of Personality and general work involvement⁹⁶, the Big Five Model of Personality and Herzberg's Two-Factor Theory⁹⁷, Myers-Briggs Indicator Model and Motivation Source Inventory⁹⁸ and others. The researches that focus on relationships between the Big Five Personality Model and Motivation Sources Inventory were not found during reviewing the previous research findings.

⁹⁶ N. Bozionelos, The Big Five of personality and work involvement, "Journal of Managerial Psychology" 2004, p.69-81.

⁹⁷ J. Hart, M. Stasson, J. Mahoney, P. Story, The Big Five and achievement motivation: Exploring the relationship between personality and a Two-Factor Model of motivation, "Individual Differences Research" 2007, p. 267-274.

⁹⁸ J. Barbuto, S. Fritz, J. Lim, Je Xu, Using the MBTI® Instrument and the Motivation Sources Inventory to test the relationships between Jung's psychological types and sources of work motivation, "Journal of Psychological Type" 2008, p. 140-147.



Chapter 2. Empirical Research

2.1. Methodology

In order to examine the relationships between personality and sources of motivation, I need to collect information about each people's Big Five personality traits, and preferable way of motivation. Moreover, it is intended to check the influence of respondents' gender, age, and level of education.

A questionnaire is chosen as a relevant method for data collection. It is one of the most affordable ways to gather quantitative data that reaches a large number of respondents and suitable for statistical analysis. The information is standardized, straightforward and brief.⁹⁹ Moreover, a questionnaire is one of the best methods for studies that investigate the potential relationships between different variables.¹⁰⁰ Also, replies may be received very quickly in questionnaire method. It is an economical way both for the sender and for the respondent in time, effort and cost to accumulate information.

To gather the information needed for analysis I used both Internet survey with the self-completed web-based questionnaire and printed version. The link to the internet page with the questionnaire was sent via email to employees in the participating organization. Printed questionnaire was given to people during workdays to be filled in a free time. Mostly workers can speak English, so questions are formulated in English.

The study is conducted within one organization "Rohlik.cz". It is the Czech second largest online shop after iTesco.cz. The company was founded in 2014 and soon has become the main player in the food distribution. The goods are sold through the web and mobile application and delivered directly to the customer. Rohlik.cz operates in seven largest Czech cities. The first was established in Prague and Brno, and then it was expanded to Pilsen, Liberec, Ústí nad Labem, Hradec Králové and Pardubice in 2017. It is available for 2.5 million inhabitants. According to the internal information, Rohlik.cz has 400 employees in Prague. Questionnaires were distributed among 97 people and got 44 responses back which constitute the response rate of 45%. 3 questionnaires were not fully completed, so the final response rate is 42%. The formula and calculation of minimal sample size are given below.

⁹⁹ M. Denscombe, *The good research guide: For small-scale social research projects*, McGraw-Hill International 2010.

¹⁰⁰ M. Saunders, P. Lewis, A. Thornhill, *Research methods for business students*, Pearson, New York 2012.



$$n = \frac{z^2 \hat{p}(1 - \hat{p})}{M^2},$$

where z -value corresponding to desired confidence level, \hat{p} – estimating the value of the sample proportion, M – margin error.

With the confidence level of 95%, thus $z = 1,96$, value of sample proportion of 0,5 and margin error of 10%, the minimal sample is

$$n = \frac{1,96^2 \cdot 0,5(1 - 0,5)}{0,1^2} = 96,04$$

Personality is measured using the model of Big Five personality traits. There are three common scales to measure the Big Five dimensions: lexically-based Trade Descriptive Adjectives¹⁰¹; questionnaire-based International Personality Item Pool (IPIP-NEO) which is revised NEO Personality Inventory¹⁰²; and short phrases based The Big Five Inventory¹⁰³. The IPIP- NEO was chosen as a method to collect information about personality traits. It contains 50 simple items. Each dimension is measured with 10 items, indicated each statement on a 5-point Likert- scale from 1 - Very Inaccurate, 2 - Moderately Inaccurate, 3 - Neither Accurate Nor Inaccurate, 4 - Moderately Accurate, to 5 - Very Accurate.

Motivation was measured with the Motivation Sources Inventory (MSI).¹⁰⁴ It is a self-assessment instrument which consists of five subscales derived from a total of 30 items, each employing a 5-point Likert-type scale with choices ranging from “completely agree” (5) to “completely disagree” (1). Each of the five subscales consists of six items.

The purpose of this study is to examine the potential relationships between independent (personality traits) and dependent (sources of motivation) variables by testing hypothesis. The null hypothesis is that there is no correlation between any Big Five personality traits and Motivation Sources Inventory. H_0 is rejected when the relationship is not significant with P-value greater or equal 0,1. The alternative hypothesis states there is

¹⁰¹ L.Goldberg, The development of markers for the Big-Five factor structure, “Psychological assessment” 1992, 4(1), 26.

¹⁰² R. McCrae, O. John, An introduction to the five- factor model..., op. cit.

¹⁰³ O. John, E. Donahue, R. Kentle, The big five inventory— versions 4a and 54, University of California, Berkeley 1991.

¹⁰⁴ J. Barbuto, R.Scholl, Motivation Sources Inventory..., op. cit.



statistical significance between two variables of each Big Five personality traits and five sources of motivation. In total, 25 hypotheses will be tested.

It is important to calculate internal consistency before analyzing the data. Cronbach's alpha is a measure used to assess the reliability, or internal consistency, of a set of scale or test items. It is computed by correlating the score for each item with the total score for each observation, and then comparing that to the variance for all individual item scores:

$$\alpha = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum_{i=1}^k \sigma_{y_i}^2}{\sigma_x^2} \right),$$

where k - refers to the number of scale items,

$\sigma_{y_i}^2$ - refers to the variance associated with item i ,

σ_x^2 - refers to the variance associated with the observed total scores.

The resulting coefficient of reliability ranges from 0 to 1. If all of the scale items are entirely independent of one another, then α equal 0; and, if all of the items have high covariances, then α will approach 1. In our case, the higher the coefficient, the more the items measure the same underlying personality dimensions or motivation source.

To test the strength of the relationship between each variable the Pearson correlation will be used. Correlation is a statistical technique that shows whether and how strongly variables are related to each other. Pearson's Correlation Coefficient is a linear correlation coefficient that returns a value of between -1 and +1. A -1 means a strong negative correlation and +1 means a strong positive correlation. A 0 means that there is no correlation (this is also called zero-order correlation). Most statisticians are against using of correlations with rating scales because the mathematics of this parametric method presumes that the difference between numbers is equal. However, other experts stated that if there is an adequate sample size (at least 5–10 observations per group) and if the data are normally distributed (or nearly normal), parametric tests, such as Pearson correlation, can be used with Likert scale ordinal data. The results usually reflect the real world.

Software for statistical analysis is Excel. Moreover, descriptive statistics such as mean, median, mode and standard deviation will be used to describe the spread of the data.

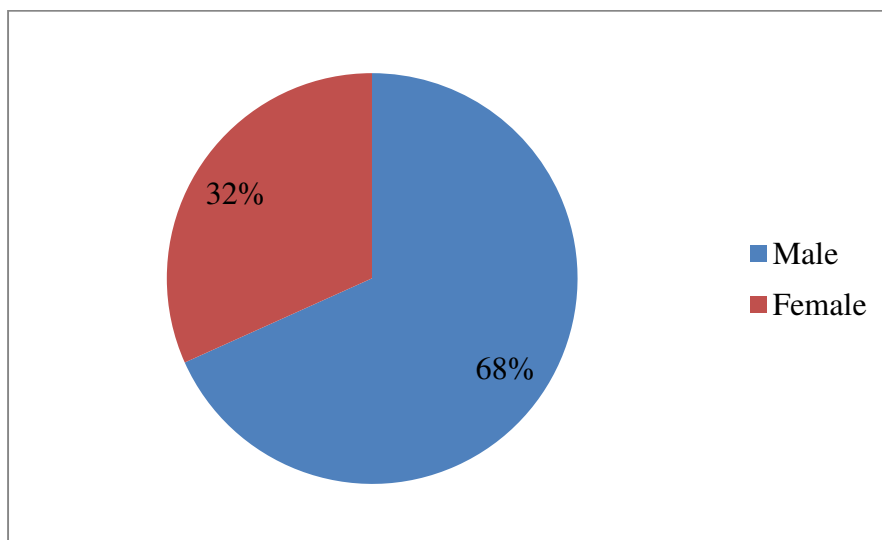


2.2. Descriptive Analysis

Questionnaires were distributed to 97 employees of "Rohlik.cz" company. I received 44 responses which are 45% of the whole sample. After checking the answers 3 questionnaires were taking away as inappropriate and not fully answered. So the final responses rate is 42%.

Participants represent 28 (68%) male and 13(32%) female as shown in Figure 2.1 below.

Fig. 2.1 Gender



Respondents' age is ranged from 24 to 47 years, with an average of 30,1 years and standard deviation of 6,35, as shown in Table 2.1.

Table 2.1 Participant Age

Variable	Age
Observations	41
Mean	30,0976
Standard Deviation	6,34746
Min	20
Max	47
Mode	24

Division of age to the categories represented in Table 2.2 represents that majority of the respondents (46 %) are from 20 to 30 years old and 44% - from 30 to 40 years old.

Table 2.2 Participant Age by Categories

Age	Freq.	Percent	Cum.
20-30 years	19	46%	46%
30-40 years	18	44%	90%
40-50 years	4	10%	100%
Total	41	100%	

Since “Rohlik.cz” offers jobs and internships for students and young people, 34% of all employees have an undergraduate degree. Also, other 34% represents people with Master degree.

Table 2.3 Participant Academic Degree

Academic degree	Freq.	Percent	Cum.
Undergraduate	14	34%	34%
Bachelor	12	29%	63%
Master	14	34%	98%
Doctor	1	2%	100%
Total	41	100%	

In order to see the distribution of answers, I analyzed responses of one item from each group of data. As we can see in Figure 2.2, most people (17) indicated the statement “I talk to a lot of different people at parties” as moderately accurate. It means that employees describe themselves as extroverts.



Fig. 2.2 Extraversion

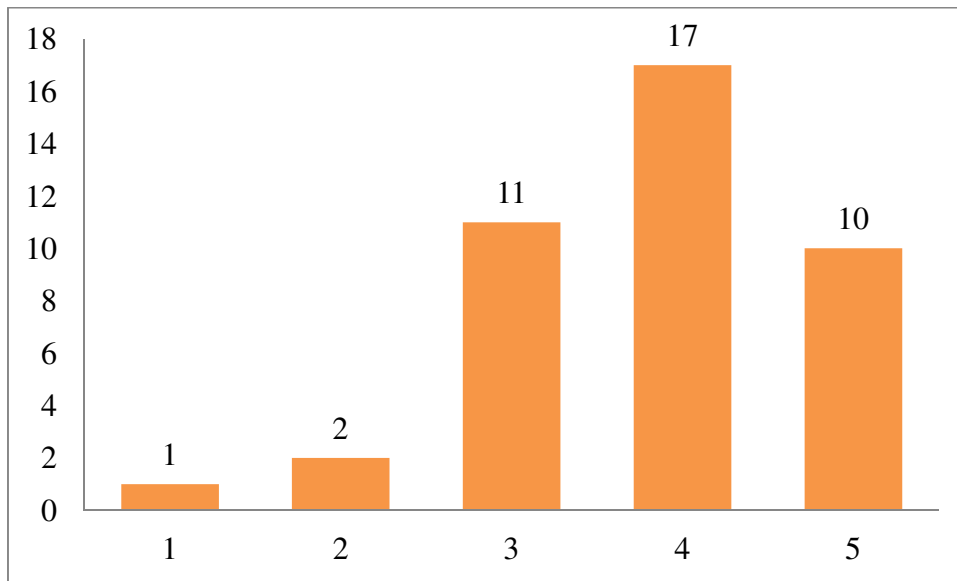
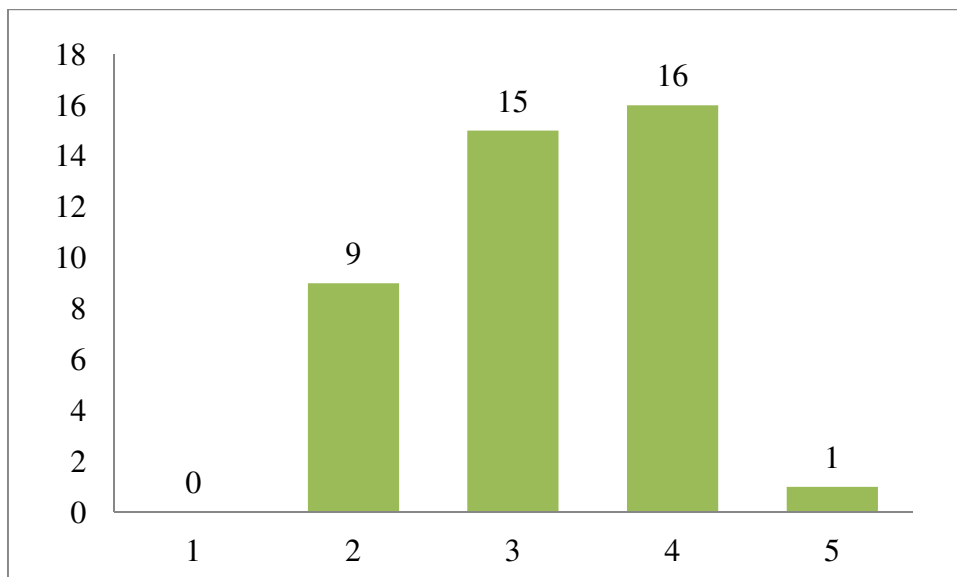


Figure 2.3 shows that 32 people sympathize with others' feelings neutrally or positively. It can predict good and positive atmosphere at work, thus influence company's performance.

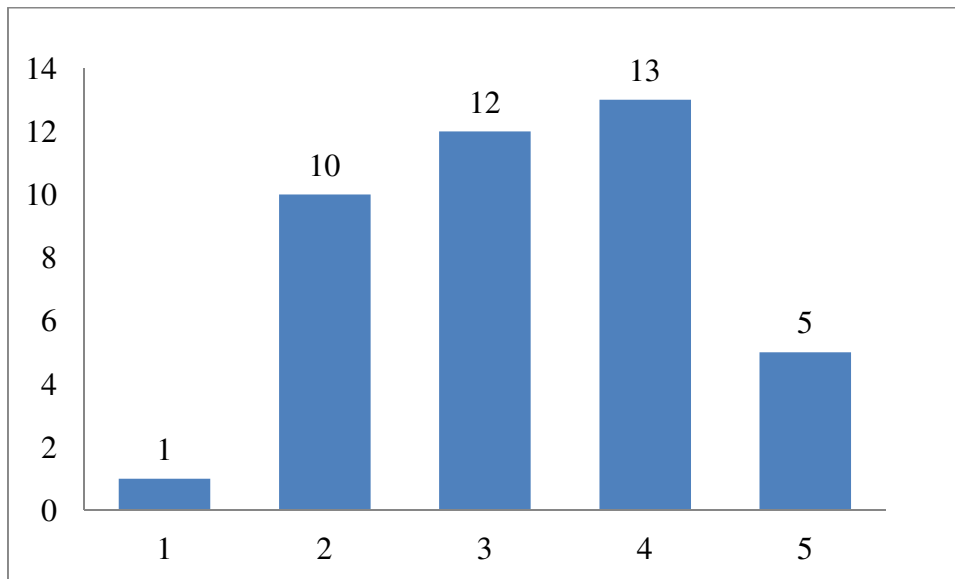
Fig. 2.3 Agreeableness



Conscientiousness affects both personal and professional success. The majority of people follows a schedule and likes order. However, 11 out of 41 respondents describe themselves as disorganized, as shown in Figure 2.4 below.



Fig. 2.4 Conscientiousness



Neuroticism is negatively related to motivation and performance of an organization. 9 people indicated the emotional stability as neither accurate nor inaccurate for them. Most workers do not agree with the statement that they get stressed out easily. Nevertheless, 13 people gave the positive and strongly positive answer, which means they are emotionally unstable.

Fig. 2.5 Neuroticism

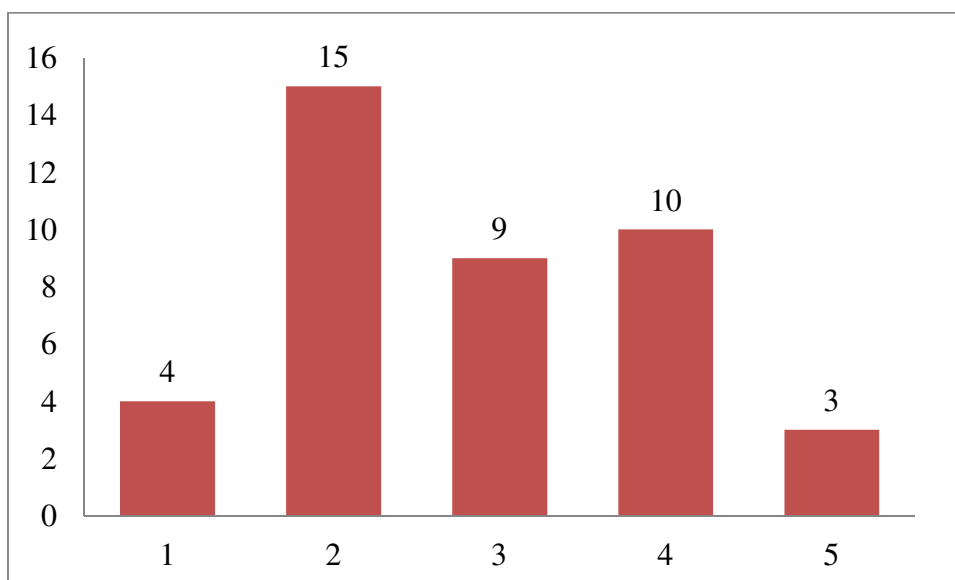
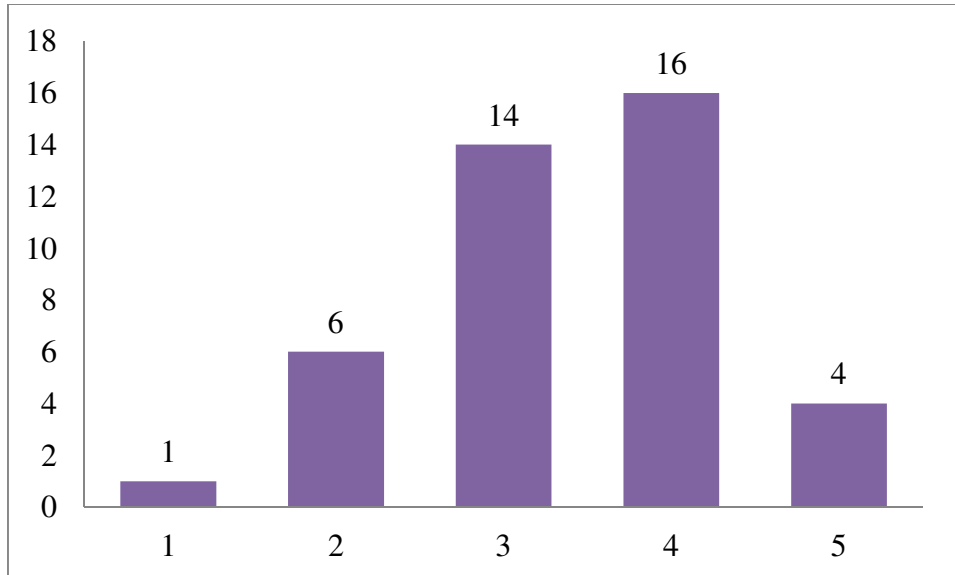


Figure 2.6 shows people's attitude to new ideas. 16 workers are likely to be full of ideas. 4 out of 41 gave a strongly positive response. Others tend not to be curious and



interested in new things. Openness to experience can influence job motivation both positively and negatively from different aspects.

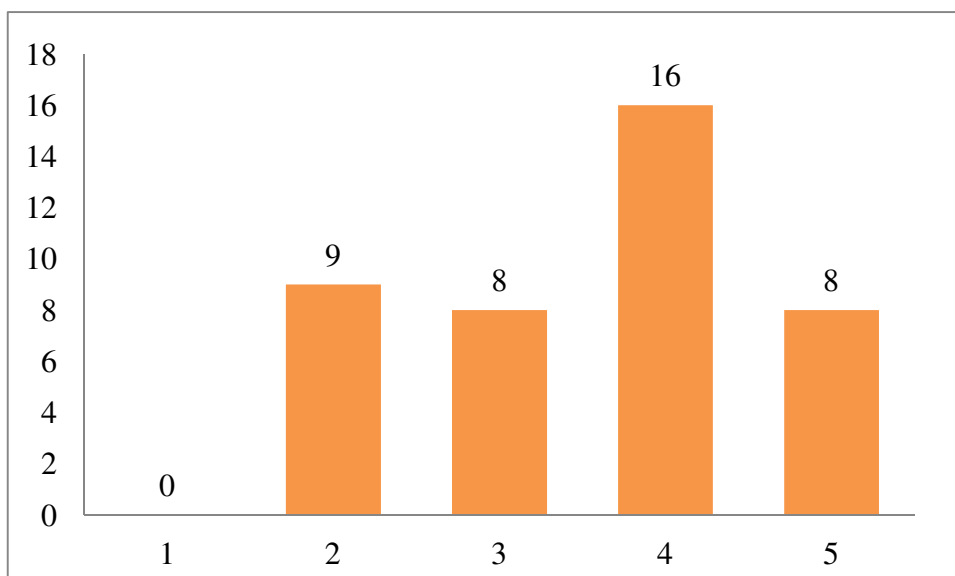
Fig. 2.6. Openness to experience



Motivation Source Inventory consists of five sources of motivation.

Intrinsic Motivation involves doing the job that is more fun and interesting for a person. 8 people chose the answer "strongly agree" on the Likert scale which means that internal benefit and engaging in the process of work is more important than external rewards. The majority of people (16) prefer to do things which they are engaged in. It is suggested that other workers tend to be motivated by Instrumental source of motivation.

Fig. 2.7 Intrinsic Process Motivation



Instrumental source of motivation suits to more than half workers in the sample. 13 people responded neutrally. And only 6 people did not agree with the statement "I would work harder if I knew that my effort would lead to higher pay". There are no people that strongly against higher salary and money incentives. It means that managers should pay attention to external rewards, such as job bonuses, bigger salary, and job promotion, in order to motivate employees.

Fig. 2.8. Instrumental Motivation

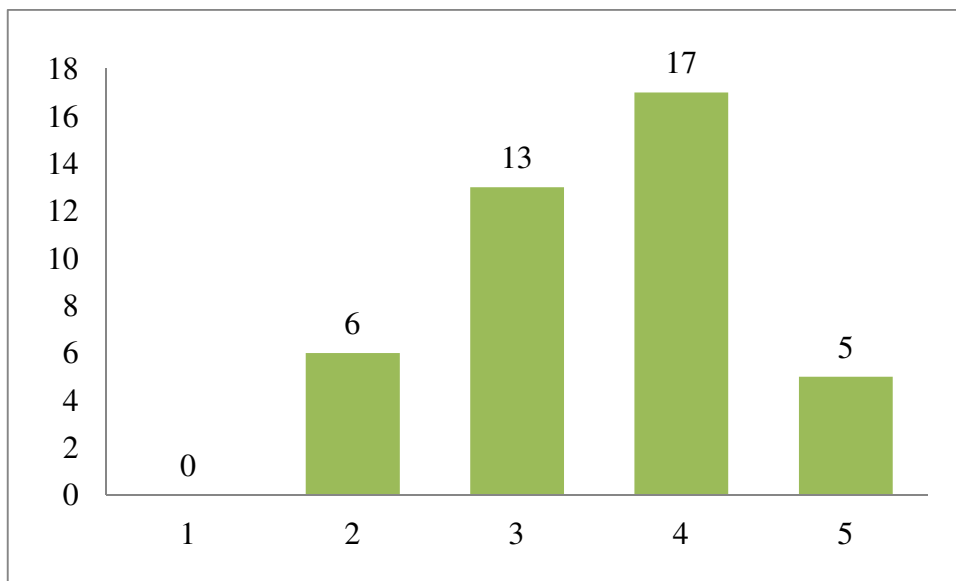
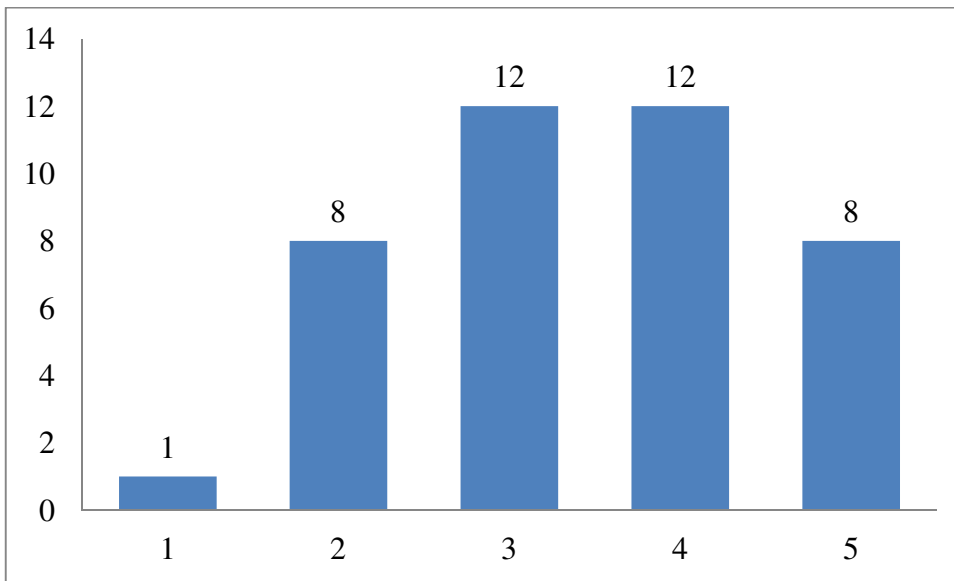


Figure 2.9 shows that neutral and positive answers were given by the same number of respondents. There are many people (8), compare to previous figures, which strongly agree with the statement "It is important to me that others approve of my behavior". It is suggested that positive relationships between colleagues and showing a good approval of job would increase motivation and performance.

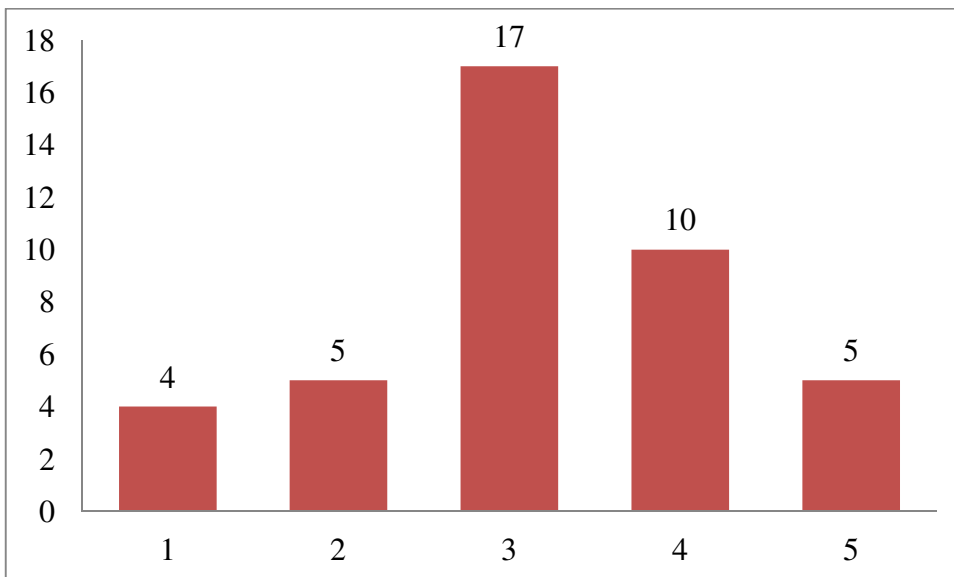


Fig. 2.9 External Self-Concept Motivation



Internal Self-Concept motivation indicates whether person is self-motivated or not. Figure 2.10 represents that 17 people have neutral position concerning this issue. Some workers gave answer “1”, which means that they need to be highly motivated by managers. It is important to indicate appropriate method of motivation for such employees.

Fig. 2.10 Internal Self-Concept Motivation

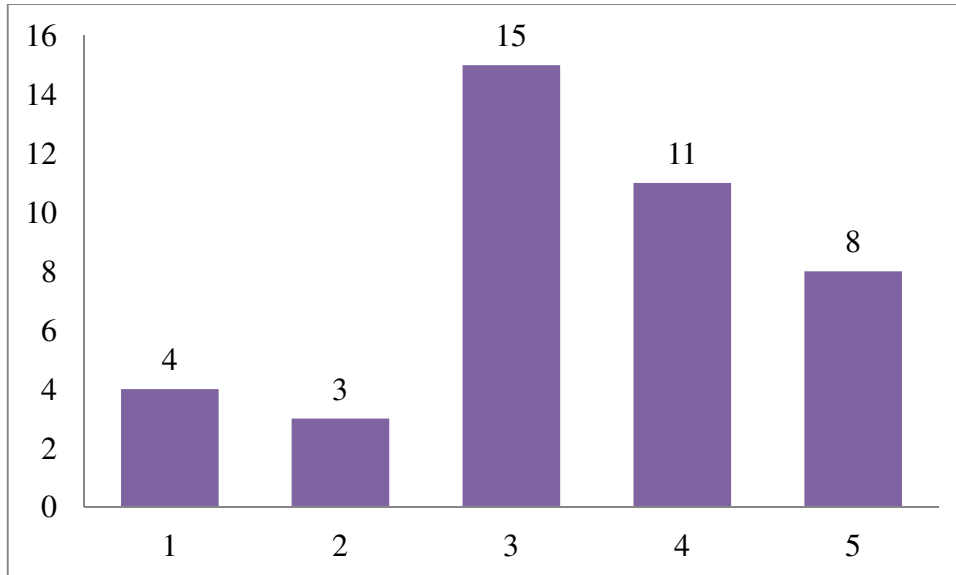


15 respondents out of 41 cannot exactly say if an organization’s mission needs to be in agreement with their values and beliefs or not. However, Figure 2.11 shows that people care



about company’s aims and mission. It is essential for managers to set a goal and direction in order to engage employees to do the best for improving performance of the organization.

Fig. 2.12.Goal Internalization



2.3. Correlation Analysis

Before testing the hypotheses, the dependent and independent variables are needed to be mean-centered in order to reduce the potential problems with multicollinearity. Additionally, the internal validity of the central variables should be checked. In order to do this, I measured means, standard deviations and the internal consistency (Cronbach’s alpha α) of the variables of Big Five personality traits and motivation sources.

Table 2.4.Means, Modes, Standard Deviations and Internal Consistency of the Personality Traits Central Variables

	Mean	Mode	Std. Dev.	α
Extraversion	3,72	4	0,89	0,90
Conscientiousness	3,02	3	1,07	0,73
Neuroticism	2,76	2	1,11	0,94



Agreeableness	3,017	3	0,81	0,85
Openness to Experience	3,28	3	0,95	0,75

Table 2.5.Means, Modes, Standard Deviations and Internal Consistency of the Motivation Sources Central Variables

	Mean	Mode	Std. Dev	α
Internal Process	3,49	4	1,07	0,91
Instrumental	3,56	4	0,89	0,73
Self-Concept Internal	3,13	3	1,02	0,83
Self-Concept External	3,50	4	1,03	0,81
Goal Internalization	3,29	3	1,05	0,86

In this case, Cronbach's alpha of all variables is 0,7 and above. Thus, all variables show the satisfactory values for the internal validity of the measured groups which means the robustness of the questionnaire and that question combined in each category are measuring the same thing.

In order to assess the potential linear relationship and the strength of such relationship between each Big Five personality traits and motivation sources, I used statistical correlation analysis. The results of correlation are represented in Table 2.6 below.

Table 2.6.Correlation Coefficients (r) for Central Variables

	Intrinsic Process	Instrumental	External Self-concept	Internal Self-Concept	Goal Internalization
Extraversion	0,53***	0,28*	0,37**	0,10	0,26*
Agreeableness	0,14	0,13	-0,11	-0,13	-0,03
Conscientiousness	0,37**	0,01	-0,21*	0,02	-0,15



Neuroticism	-0,30*	0,09	0,07	-0,26*	0,02
Openness to Experience	0,32**	0,22	0,12	0,06	0,26*

Note. * $p < 0,1$, ** $p < 0,05$, *** $p < 0,01$

Table 2.7.P-Value for Central Variables

	Intrinsic Process	Instrumental	External Self-concept	Internal Self-Concept	Goal Internalization
Extraversion	0,0004	0,0737	0,0169	0,5151	0,0980
Agreeableness	0,3765	0,4244	0,4818	0,4215	0,8572
Conscientiousness	0,0185	0,9560	0,1833	0,8865	0,3591
Neuroticism	0,0533	0,5597	0,6800	0,0953	0,8939
Openness to Experience	0,0444	0,1725	0,4655	0,7108	0,0947

The results show that almost all Big Five Personality traits significantly correlated with some motivation sources, except Agreeableness which is not significantly correlated with all ways of motivation.

Extraversion shows positive relatively strong correlation with Intrinsic Process Motivation. Table 2.7 shows that this correlation is statistically strongly significant ($p=0.0004$). Moreover, Extraversion is significantly related to External Self-Concept with P-value less than 0,05, and to Instrumental and Goal-Internalization motivation sources with P-value less than 0,1.

Agreeableness has a positive correlation with Intrinsic and Instrumental methods of motivation, however, R-value is close to 0, and P exceeds significant value. It means that relationship is weak. So we cannot say how agreeableness affects each motivation source.

Conscientiousness has a moderately positive correlation with Intrinsic Process Motivation. P-value $< 0,05$ approves that this relationship is significant. Moreover, Conscientiousness is negatively related to External Self-Concept Motivation. Table 2.7 shows that this correlation is significant ($p < 0,1$), but not strongly.



Neuroticism has a negative effect on Intrinsic Process and Internal Self-Concept motivation sources. The correlations are moderately significant, with P-value less than 0,1. R-coefficient with other methods of motivation is close to 0, which means no relationships exist.

Openness to experience is positively related to Intrinsic Process and Goal-Internalization Motivation. The correlation with Intrinsic Process with P-value < 0,05 is more significant than the last mentioned ($p < 0,01$).

2.4. Discussion of the results

The results of descriptive analysis suggest that personality should be aware of personality dimensions when choosing the appropriate way of motivating employees. It would improve the positive atmosphere at the workplace, increase productivity of workers and performance of the company. Additionally, the relationships between five sources of motivation and Big-Five Personality dimensions were tested using correlation analysis. The results suggest that Extraversion is significantly related to almost all sources except Internal Self-Concept Motivation. Thus, this personality trait should be taken into account by human resource manager. The strongest correlation is between Extraversion and Intrinsic Process Motivation, which means that such individuals are mostly motivated by the fun or enjoyment of an activity. It is expected that people with a high score of extraversion tend to require immediate reward and to derive energy from the external environment. Moreover, it is suggested that they are likely to pay attention to the goal and missions of the company. Conscientiousness is positively related to Intrinsic Process, and negatively to External-Self Concept. We can expect that people that are always prepared and like order do not need to be externally motivated. Based on the studies of previous researchers, Neuroticism was assumed to have a negative effect on motivation in general, and on some methods. It is suggested to be true concerning Intrinsic Process and Internal Self-Concept Motivation. It means that emotionally unstable individuals are unlikely to be self-motivated workers. They are rarely involved in the process of work and do not enjoy it. This kind of employees strongly needs to be motivated by managers using different personal ways of engaging. The influence of Openness to Experience varies in different organizations. In our case, we can see the relationships between this personality trait and Intrinsic Motivation. It is suggested that individuals with a vivid imagination, curiosity and excellent ideas are likely to enjoy their work and get immediate gratification. Openness to Experience can also predict Goal-



Internalization Motivation. It is important for such employees that their values and beliefs are supported by the company's missions. Although personality traits are stable during a lifetime, sources of motivation are influenced by social environment, thus can change. Nevertheless, I suggest that information about employee's personality and preferable sources of motivation would help human resource managers to build a great team and improve individual performance.



Conclusion

The study explored the potential link between personality dimensions, represented by the Big Five Personality Traits Model, and integrated Motivation Sources Inventory. Participants of the “Rohlik.cz” company (N=41) completed two questionnaires with Big Five Personality Traits Items and Motivation Source Inventory Items.

Based on the empirical findings and statistical analysis of the data the following conclusions are drawn. Extraversion has the strongest positive relationship with Intrinsic Process Motivation among others. Additionally, this personality trait is positively connected with Instrumental, External Self-Concept, and Goal-Internalization sources of motivation. Conscientiousness and Openness to Experience are positively related to Intrinsic Motivation. Conscientiousness was also found to be negatively associated with External Self-Concept. Openness to Experience has positive relationships with Goal Internalization source of motivation. In previous researches, it was stated that Neuroticism has an overall negative effect on the motivation. Correlation analysis approved that this dimension is negatively related to Intrinsic Motivation and Internal Self-Concept. Agreeableness was found to have no relationships with all motivation sources. Thus, the basis hypothesis was partly approved. Gender, age and the level of education are not proved to be related to any sources of motivation. The study suggests that personality should be taken into account when choosing an appropriate way of motivation employees, however, the preferred sources of motivation may change during the lifetime.



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Appendixes

Appendix 1.Big Five Personality Traits Scale

BIG FIVE PERSONALITY TRAITS SCALE – 50 ITEMS

The International Personality Item Pool

Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Indicate for each statement whether it is

1. Very Inaccurate,
2. Moderately Inaccurate,
3. Neither Accurate Nor Inaccurate,
4. Moderately Accurate,
5. Very Accurate as a description of you.

1. Am the life of the party. (Extraversion+)
2. Don't talk a lot. (Extraversion-)
3. Feel comfortable around people. (Extraversion+)
4. Keep in the background. (Extraversion-)
5. Start conversations. (Extraversion+)
6. Have little to say. (Extraversion-)
7. Don't mind being the center of attention. (Extraversion+)
8. Talk to a lot of different people at parties. (Extraversion+)
9. Don't like to draw attention to myself. (Extraversion-)
10. Am quiet around strangers. (Extraversion-)
11. Feel little concern for others. (Agreeableness-)
12. Am interested in people. (Agreeableness+)
13. Insult people. (Agreeableness-)



14. Sympathize with others' feelings. (Agreeableness+)
15. Am not interested in other people's problems. (Agreeableness-)
16. Have a soft heart. (Agreeableness+)
17. Am not really interested in others. (Agreeableness-)
18. Take time out for others. (Agreeableness+)
19. Feel others' emotions. (Agreeableness+)
20. Make people feel at ease. (Agreeableness+)
21. Am always prepared. (Conscientiousness+)
22. Leave my belongings around. (Conscientiousness-)
23. Make a mess of things. (Conscientiousness-)
24. Pay attention to details. (Conscientiousness+)
25. Get chores done right away. (Conscientiousness+)
26. Often forget to put things back in their proper place. (Conscientiousness-)
27. Like order. (Conscientiousness+)
28. Shirk my duties. (Conscientiousness-)
29. Follow a schedule. (Conscientiousness+)
30. Am exacting in my work. (Conscientiousness+)
31. Get stressed out easily. (Neuroticism+)
32. Am relaxed most of the time. (Neuroticism-)
33. Worry about things. (Neuroticism+)
34. Seldom feel blue. (Neuroticism-)
35. Am easily disturbed. (Neuroticism+)
36. Get upset easily. (Neuroticism+)
37. Change my mood a lot. (Neuroticism+)
38. Have frequent mood swings. (Neuroticism+)
39. Get irritated easily. (Neuroticism+)
40. Often feel blue. (Neuroticism+)
41. Have a rich vocabulary. (Openness to Experience+)
42. Have difficulty understanding abstract ideas. (Openness to Experience -)
43. Have a vivid imagination. (Openness to Experience +)
44. Am not interested in abstract ideas. (Openness to Experience -)
45. Have excellent ideas. (Openness to Experience +)
46. Do not have a good imagination. (Openness to Experience -)
47. Am quick to understand things. (Openness to Experience +)



- 48. Use difficult words. (Openness to Experience +)
- 49. Spend time reflecting on things. (Openness to Experience +)
- 50. Am full of ideas. (Openness to Experience +)

Source: Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. *Personality psychology in Europe*, 7, 7-28.

Appendix 2. Motivation Sources Inventory Items

Intrinsic Process

- I only like to do things that are fun.
- If I did not enjoy doing my job at work I would leave.
- I often put off work so that I can do something else that is more fun.
- When choosing jobs I usually choose the one that sounds like the most fun.
- The people I choose to spend my time with are the most fun to be with.
- If choosing between jobs, the most important criteria is 'which is more fun?'

Instrumental

- Job requirements dictate how much effort I exert during work.
- A day's work for a day's pay.
- I would work harder if I knew that my effort would lead to higher pay.
- When choosing jobs I usually choose the one that pays the most.
- At work, my favorite day of the week is 'payday'.
- People should always keep their eyes and ears open for better job opportunities.

External Self-concept

- It is important to me that others approve of my behavior.
- I often make decisions based on what others will think.
- I work harder on a project if public recognition is attached to it.
- If choosing jobs I want one that allows me to be recognized for success.
- Those people who make the most friends have lived the fullest lives.



I give my best effort when I know that it will be seen by the most influential people in an organization.

Internal Self-Concept

Decisions I make will reflect high standards that I've set for myself.

It is important that I work for a company that allows me to use my skills and talents.

I try to make sure that my decisions are consistent with my personal standards of behavior.

I consider myself a self-motivated person.

I like to do things which give me a sense of personal achievement.

I need to know that my skills and values are impacting organization's success.

Goal Internalization

I would not work for a company if I didn't agree with its mission.

I have to believe in a cause before I will work hard at achieving its ends.

Unless I believe in the cause, I will not work hard.

When choosing companies to work for, I look for one that supports my beliefs and values.

An organization's mission needs to be in agreement with my values and beliefs.

If an organization is accomplishing missions that I agree with, it doesn't matter whatever I was responsible for its success.

Source: Barbuto, J. E., & Scholl, R. W. (1998). Motivation Sources Inventory: Development and validation of new scales to measure an integrative taxonomy of motivation. *Psychological Reports*, 82(1), 1011–1022.

