Study of the Effects of Personality Traits on Team Collaboration and Organizational Performance

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Abstract. Based on the Big Five personality and leadership theory, this paper reviews the research on individual differences and their impact on team collaboration and organizational performance. Firstly, this paper introduces the theoretical framework of personal traits, including the Big Five personality trait theory and the leadership theory model. These theoretical frameworks provide a basis for scholars to analyze individual traits and help establish the connection between individuals and organizational performance. Secondly, this paper summarizes the impact of different individual traits on team collaboration and organizational performance. Communication skills, openness and leadership are positively related to team collaboration. Effective use of personal traits can improve employee satisfaction and organizational performance. Finally, the paper illustrates how personal traits can be used effectively in teams and organizations to provide effective advice and innovative solutions for personal development and organizational management.

Keywords: Personality traits, individual differences, team collaboration, organizational performance.

1. Introduction

The research on the difference in individual traits can be traced back to Galton, the founder of individual psychology. After that, Spearman inherited Galton's work on measuring mental ability and invented the statistical method of factor analysis, which laid the foundation for later research on personality traits. As early as the early 20th century, scholars began to pay attention to the relationship between individual traits and organizational behavior. With the development of disciplines such as psychology and management, research on personal traits has gradually deepened and formed a series of theories and models, such as the Five Personality Traits, Team Dynamics Theory, Leadership Theory, etc. The impact of personal traits on team collaboration and performance has always been a hot topic in the field of team management research. In modern organizations, there is increasing emphasis on the personal traits of employees. This review aims to analyze and leverage employee personal traits to better manage and motivate employees, optimize team collaboration, and ultimately enhance organizational performance and competitiveness.

Existing research has made progress in modeling temperament and personality, thanks in part to the recognition that there are hierarchical levels of personality, yet specific traits vary across different levels [1]. At the highest level are broad traits such as extraversion and openness. At lower levels in decreasing order are more specific traits, including sociability and dominance, which in turn consist of more salient responses, such as talkative performance when talking to others. To date, research on individual differences has focused primarily on lower-level traits, and there has been a lack of research on high-level traits [1].

Due to the influence of national cultural, political, and economic factors, as well as the conditions of the enterprise itself, the internal system of the organization shows the influence of the long-term intervention of the government in the formulation of the enterprise plan. In the process of achieving corporate goals, most enterprises only formally meet the universally defined needs of employees, while ignoring individual differences among employees. Mainly reflected in the excessive pursuit of standardization, lack of personalized management, and centralized decision-making. Some companies overly focus on employees' executive ability, while neglecting their individuality and potential. The lack of personalized management and motivation tailored to different employees has limited their motivation and creativity. Improper leadership mode is easy to lead to employee

dissatisfaction and resistance, which directly affects team collaboration and organizational development.

This article mainly studies individual traits from three aspects: communication, leadership, and openness. Based on leadership theory and the Big Five personality traits, it studies the differences between individuals, explains how individual traits affect team collaboration and organizational performance, and The paper hopes it also inspires theoreticians to address aspects of personalities that have received little attention up to now.

The article mainly focuses on three aspects of individual differences: communication, leadership, and openness. Based on the Competency Model and the Big Five personality traits, to explain how individual differences affect team collaboration and organizational performance and puts forward constructive suggestions. The aim of the article hopes that it can inspire theorists to address aspects of individual differences that have not received much attention so far.

2. Overview of Personality Traits

2.1. Theoretical Model of Personality Traits

Wilson's research shows that individuals tend to have consistent differences in their behavioral tendencies across time and contexts [2]. Individuals differ involve whole suites of behaviours.In parallel, various theoretical models have been devised to explain and predict certain aspects of personality.

2.1.1. Big five personality model

The five-factor model known as the "Big Five" model, is a simple, robust, and comprehensive way to understand basic personality differences. When Tupps and Crostel discovered the existence of the five-factor model of personality, other psychologists devoted a lot of energy to further research [3]. Costa and McCrae extracted five factors from the adjectives describing personality, namely Extroversion: This kind of person has strong social skills, likes to make friends with others, has strong subjective initiative, longs to become a leader in the team, and likes to assign tasks. Agreeableness: This person is a team player, trusting, and humble; Conscientiousness: Individuals with this trait are strong, persevere, methodical, and very responsible; Neuroticism: refers to poor psychological endurance, high emotional ups and downs and more negative emotions; Openness: Most people with this trait are highly intelligent, with a strong desire to explore new things, observation ability and perception ability [4].

Many studies have shown that the Big Five personality has a certain effectiveness in work situations, so the research on this theory has become one of the hot issues in the field of personality psychology, industrial and organizational psychology, and organizational behavior.

2.1.2. Competency Model

The competency model refers to the analysis of the potential ability elements of employees in various categories to complete a certain job, and the determination of the combination of the potential ability elements of employees to produce high performance. Spence's iceberg model of competency and Boyatiz's onion model of competency proposed in 1982 vividly show the composition of competency, which has been widely recognized by the academic community and repeatedly tested by practice.

The iceberg model divides competency into two parts, including six levels: the aquatic part represents explicit ability, including knowledge and skills; The underwater part represents potential competency, including four basic characteristics: social role, self-image, human characteristics, and motivation, which are the key factors determining a person's behavior and performance [5]. The deeper the part hidden under the water surface of the iceberg is, the more difficult it is to observe and measure, but the greater its impact on performance is, and the more selective it is.

The onion model divides competency into three levels: knowledge and skills outside the model, which are the most superficial competency and the easiest part to develop; The four competencies of self-image, social role, attitude, and values are in the middle of the model; The model includes personality and motivation, which are the most difficult parts to develop among the three levels [6]. The onion model of competency shows that the difficulty of observing and measuring the components of competency is deepened layer by layer.

The competency model is a management theory proposed in the 1980s that aims to help organizations better understand the capabilities and potential of their employees to manage talent more effectively. The competency model can help organizations determine the competency standards required for recruitment positions and carry out targeted training programs, to more accurately screen and select qualified talents.

2.2. Personality Trait

2.2.1. Communication traits

Communication is at the heart of positive relationships in the workplace. When individuals can clearly express their thoughts and establish effective communication with others, they will be seen as a reliable and helpful employee in the workplace. In addition to language communication, there are other ways of communication in the workplace communication skills. Employers understand written communication as a form of documentation or writing; Verbal communication refers to a style of interaction, presentation, and chairing meetings; Visual communication skills are understood as data visualization or non-verbal communication.

2.2.2. Leadership traits

The concept of leadership is characterized by diversity and is often viewed as explained by other complex concepts—such as power, management, administration. The article adopts Yukl's definition of leadership: Leadership consists of the process of influencing followers' interpretations of events; positively influencing their dispositions toward the group's or organization's goals; selecting goals for the team or organization; motivating followers to achieve goals; the enlistment of support and cooperation from people outside the group or organization [7].

A growing number of studies indicates that temperament differences or personality traits affect leadership. The evidence appears then that individuals may differ consistently in their intrinsic tendency to adopt the role of leader. Johnstone and Manica found that when conflict is weak, most individuals achieve high levels of disposition by randomly moving toward one's preferred option, achieving convergence through following, whereas when conflict is strong, most individuals are intrinsic leaders, coordination breaks down because members of a group are rarely willing to follow another [8]. When individual movement rules are allowed to evolve, such individuals express relatively greater tendencies to pursue their preferences rather than to follow the other members of the group.

A number of recent scholars have focused on the causes of individual temperament differences. Various models have explored the evolution of individual differences in traits such as extraversion, responsiveness, or trustworthiness, but has been no explicit model of the evolution of temperamental differences in leadership.

2.2.3. Openness traits

Batey and Furnham argue that Within the Five-Factor taxonomy of personality traits, openness to experience is the broadest domain, including a mix of traits relating to intellectual curiosity, intellectual interests, imagination, creativity, artistic and aesthetic interests, emotional and fantasy richness, and unconventionality [9]. Openness is the quality of showing an open attitude towards new ideas, new ideas, and new experiences in the work environment, which is a manifestation of curiosity and exploration.

3. Personality Traits on Team Collaboration and Organizational Performance

Team collaboration has become an increasingly prominent feature of modern organizations, and many innovations occur within the context of collaborative teams. The impact of individual differences in team collaboration is multifaceted. Collision of individual differences in the team leads to high cohesion group collaboration. Positive individual differences can improve the efficiency of team collaboration. Scholars have been exploring the effects of traits such as communication, leadership, and openness on team collaboration and performance for a long time.

3.1. Effects of Communication Traits on Team Collaboration and Organizational Performance

Communication is considered a key factor in team collaboration. Good communication within the team can significantly improve collective effectiveness. 2024 workplace communication statistics show that 86% of employees and executives cite the lack of effective collaboration and communication as the main causes of workplace failures [10]. Therefore, through effective communication, team members can better understand each other's ideas, needs, and expectations, reduce misunderstandings, and improve work efficiency and team satisfaction. The complementarity of knowledge structures among different members and effective communication can enable the team to collide with new views and ideas.

3.2. Effects of Leadership Traits on Team Collaboration and Organizational Performance

When members of a group differ in their preferred course of action, coordination poses a challenge [8]. Leadership offers a way to resolve difficulty. Good leaders build strong teams, the role of the leader is to understand the diverse perspectives held by the individual members of the team and distill ideas into common value goals, thereby promoting team collaboration and improve organizational performance.

3.3. Effect of Openness Traits on Team Collaboration and Organizational Performance

Openness helps foster innovation and the collision of ideas. Employees with openness bring diversified thinking to the team. Hassan and Jinmin explored the interactive effects of innovators' openness personality traits and their peers' extraversion personality traits on the creative quality of products conceived by innovators through the method of questionnaire and experiment [11]. The results show that open innovators who pair up with extroverted peers generate the highest-quality ideas, while open innovators and introverted peers produce low-quality ideas [11]. Openness is an important predictor in the performance appraisal system. Open employees have an optimistic attitude towards change, which can stimulate the vitality and passion of the team, improve employee satisfaction, promote the team to solve problems more effectively and improve performance.

4. Feasible Recommendations for Team Collaboration and Organizational Development based on Personality Traits

4.1. Personalized leadership

Conflict is a naturally occurring process and is necessary for the dynamics of team success. Each member of the team has their characteristics, and many skills will be revealed in the conflict. Therefore, by appropriately enhancing the competition mechanism to identify the personal traits of leaders, individuals who still tend to adhere to their thinking are selected as leaders.

Cultivating comprehensive leadership is the basis for the implementation of personalized leadership. The capabilities that can prepare a well-rounded leader can be distilled into a composite, Five-Dimensional Leadership Competency Model consisting of the following contents Transformational; Transactional; Organic; Contemporary; and Ethical [12]. The five-dimensional Leadership Competency Model incorporates a complex of complementary leadership styles that can

be used individually as the situation demands. This compound model implies that in today's complex world, a patterned leadership will not work, viable a balanced approach to leadership and teamwork is needed [13].

Personalized leadership requires a certain degree of flexibility and the ability to make corresponding adjustments based on the characteristics and personalities of employees. Some employees may require more guidance and support, while others may be more suitable for independent work. Leaders need to make flexible decisions based on actual situations. Make correct work arrangements based on the personality traits, communication style, and personal traits of employees.

4.2. Introducing Flexible Benefits System to Enhance Incentives

The provision of benefits is aimed at improving the quality of work and life of employees, motivating them to create greater benefits for the organization. Some employees value salary rewards more, while others value growth opportunities and recognition more. Flexible benefits allow employees to freely choose the welfare items they need within a certain range of limitations, which enhances their work enthusiasm and initiative, and the incentive of flexible benefits becomes apparent.

Elastic welfare requires integrating employee mental health management into the employee welfare system, strengthening care for employee health, and meeting people's emotional and social needs [14]. The combination of care mechanism and flexible welfare is mainly reflected in various nonmaterial welfare projects, which can be divided into optimization of the physical work environment and optimization of interpersonal relationships.

To optimize a rigid work environment, the first step is to create a good working environment. Starting from the perspective of personal characteristics, such as noise, light, cleanliness, and crowding, we provide diverse spaces for employees with different preferences, making it easier to quickly engage in work. The care for the interpersonal environment is mainly to maintain a healthy interpersonal network within the enterprise, and effective interpersonal communication is an important foundation for improving team collaboration. Provide more opportunities for offline communication and exchange for employees with strong openness and communication traits. Provide remote work, online meetings, brainstorming, and other channels to increase job satisfaction and efficiency for employees with introverted personalities and pleasant traits. Employees with different personal traits and preferences have more autonomy and control, which can better balance work and individuals, improve work motivation and happiness, and thus improve team performance.

4.3. Utilize Technology to Analyze Employee Traits

Using technologies such as technology, artificial intelligence, and big data analysis to analyze employee individual differences can help companies better understand employee traits, tap into their potential, and achieve more effective talent management and team building, thereby improving organizational performance.

Collecting data from employees at work, such as work performance, communication style, decision-making style, and so on. Deeply analyze employees' personality traits and behavioral patterns with the help of AI algorithms and big data analytics. Helps organizations to adjust leadership style, work arrangement and performance appraisal

5. Conclusion

This paper shows through a review of research that personality traits largely influence how individuals perform at work and in life. As a result, team success often depends on the complementarity and harmonization between the individual traits of team members. The positive effects of personality traits of communication, leadership, and openness are effectively utilized. Based on a comprehensive analysis of relevant literature and case studies, the following conclusions are drawn: first, personality traits play a crucial role in teamwork and organizational performance,

reducing misunderstandings and conflicts, and improving decision-making efficiency and team cohesion. Teams with diverse traits that work together effectively tend to cope better with complex challenges and achieve better performance.

Organizations should pay attention to the diversity of individual traits and give full play to the strengths of each member through rational talent allocation and team building. At the same time, it should also pay attention to the diversity and balance of individual traits to create an open and diversified working environment and achieve the common development of the team and the organization. Enterprises can improve employee satisfaction through personalized leadership, optimizing welfare mechanisms, and introducing big data to help them become an enterprise that makes the best use of people's talents.

In future research on personality traits and individual differences, we should focus on methodological innovation and in-depth content. First, it can be from the increase of interdisciplinary research, from the interdisciplinary perspective of psychology, and sociology, in-depth study of the formation, development, and role mechanism of traits. In terms of research methodology, future research can adopt longitudinal research methods, use emerging technologies such as big data technology to collect and analyze individual behavioral data for cross-cultural research, and track the changes of individual traits at different stages of development and their influencing factors. Combine psychology with personality traits to explore the performance and mechanism of action of individual traits in different populations. For example, to study the performance of individual traits in terms of gender, age, educational background and to improve the relevance and practicality of the research. Finally, combining social policy and public service. Combine personal traits research with national policies, public services, and other fields to provide a basis for policy makers. In areas such as employment, education, and mental health, comprehensive policy measures based on personal traits will be formulated to improve the overall welfare of society.

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