## Influencing Factors of Employee Performance in Telecommuting an Analysis Model based on System Theory

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**Abstract.** By summarizing the research path of the influencing factors of employee performance under the traditional work mode, and comparing the traditional work mode with the remote work mode, based on the system theory, it is pointed out that the fundamental reason for the difference between the traditional work mode and the telecommuting mode lies in the change of the relationship between individual and environment, and from this point of view, the new factors that affect the performance of telecommuting employees are communication and trust, organizational support. Ability to manage work and non-work boundaries.

**Keywords:** Telecommuting; Employee performance; System theory.

### 1. Introduction

With the rise of a knowledge economy and the development of information and communication technology, more and more enterprises allow their employees to complete the same work in the traditional workplace at the right time, place and in the way they like, that is, telecommuting. The implementation of telecommuting not only helps to reduce social benefits such as abandoned ranking, traffic jams, and traffic accidents, but also helps enterprises to save office costs, flexibly globalize employment, and meet the needs of employees for work-life balance. Some enterprises have a good family human resource management strategy to attract and retain excellent employees. As far as employees are concerned, they are free to arrange their work and lifetime, while home workers can take care of their families while working, as well as saving transportation costs and time by reducing commuting, which is popular with many employees. However, the performance of telecommuting workers is not satisfactory, and some studies have even shown that telecommuting harms performance. [1]

Since telecommuting became popular, scholars have begun to explore this issue in order to help organizational managers provide the basis on which solutions will be specified. Because of the particularity of telecommuting, it is challenging to fully understand the impact of telecommuting on performance results, because the research on this topic comes from many fields, including psychology, management, transportation, communications and information systems, and the results are often conflicting (Watson-Manheim,&Swan,2013;Fay&Kline,2012;Golden&Veiga,2005). Generally speaking, although there are many researches on telework, they pay less attention to the performance of employees in telecommuting, and the only part of the research is from a certain path of the relationship among employees, leaders, organizations, and so on. to analyze a factor or some factors that affect employee performance, but telework is rarely regarded as a system and a performance model for telecommuting employees is proposed as a whole.Therefore, in practice, there is a lack of theoretical model about telecommuting performance management like traditional performance management, which leads to the lack of theoretical guidance in the practice of telecommuting performance management. [2]

According to the classical employee job performance model, employee job performance is affected by individual factors, organizational factors and work characteristics, such as individual ability, belief, and goal setting, motivation, organizational motivation, performance feedback, leadership behavior, and collective work process. On this basis, an employee performance model including individual and environmental factors is proposed. These factors and models provide effective ideas for a comprehensive analysis of the factors affecting the job performance of remote employees. However, as a new way of work, telecommuting is quite different from traditional work

in a workspace, working time, work autonomy and so on. Then, whether the influencing factors in the past employee performance model also affect telecommuters, are there any new influencing factors, and is there any new regularity behind them? As the relationship between individual and environment has changed, many other relationships have changed, such as employee-environment relationship, employee-organization relationship, employee-employee relationship. Therefore, the applicability of the original theoretical basis is open to question.

This paper takes telecommuting as a system, puts forward a new performance model based on the system view to try to answer these questions, and explores the new influencing factors of employee performance from the characteristics of office style. First of all, by reviewing the literature, this paper sums up the research path of the influencing factors of employee performance under the traditional work mode, and through the comparison between the traditional office model and the telecommuting model, it is pointed out that the difference between traditional and telecommuting methods lies in the change of individual-environment relationship, and from this point of view, this paper explores the new factors that affect the performance of telecommuting employees. [3]

# 2. The Research Path of the Influencing Factors of Employee Performance under the Traditional Office Mode

The discussion on the influencing factors of employee performance is very rich. from the perspective of the research path, most studies analyze the influencing factors of employee performance from a certain path, such as employees, leaders, organizations, etc., or combine more than two kinds of factors. however, very few studies will put forward an integrated model of performance factors. For example, Rhodes S R (1983) explores the relationship between age and employee performance, and holds that physiological aging will affect people's cognitive ability and exercise ability, and then affect the level of performance; the meta-analysis of Waldman D A and Avolio B J (1986) also confirmed that age is a significant factor affecting employee performance, but it is also affected by occupational field and job complexity. According to the theory of social exchange, Wilson K S, Sin H P&Conlon D E (2010) found that when leaders give employees certain benefits, employees will feedback the corresponding behavior as a reward, but the exchange quality formed by the communication process between different leaders and different employees is also different, which leads to different bilateral relations; Vondey M (2010). It is found that individual-organization fit can regulate the impact of service-oriented leadership on subordinate organizational citizenship behavior. These discussions do contribute to the study of employee performance, but the research background is the traditional office mode by default, lack of attention to telecommuting. [4]

#### 3. Factors Affecting Employee Performance in Telecommuting

According to system theory, everything in the world can be regarded as a system, and the system is universal, and the elements of the system are interrelated and influence each other; if one element of the system changes, then other elements will also be affected. and the relationship between elements and elements, elements and systems, systems and the environment will also change. According to the point of view of system theory, in an enterprise, the enterprise itself can be regarded as a system, employees are the various elements of the enterprise, and different elements constitute different organizational subsystems. The work of employees is a subsystem, which is composed of employees, work content, working environment, and related relationships, and its purpose is to complete the tasks required by the organization, that is, to achieve work performance. Telecommuting completely subverts the traditional office mode, employees do not need a fixed place to work, and there is no fixed commuting time; employees no longer have a group office form, and there is little direct contact between employees and the organization; the organization's management of employees is flexible, and the environment faced by employees is more complex. The essence of all these changes is a fundamental change in the way employees work, which is a sub-system of the organization.

The change of work style affects both employees and organizations, which in turn affects an employee-employee relationship, employee-organization relationship, and employee-environment relationship. For employees working remotely, the impact of changes in these relationships is in different directions, sometimes beneficial and sometimes harmful. Whether the impact on employee performance is good or bad depends on some new factors, such as communication and trust brought about by changes in the relationship between employees and employees, organizational support factors brought about by changes in the relationship between employees and organizations, the ability to manage work and non-work boundaries brought about by changes in the relationship between employees and the environment. [5]

#### 3.1 Factors of Communication and Trust

Work is not only the main source of contact with others, but also a way for individuals to satisfy their sense of belonging. Interpersonal relationship is an important aspect of organizational life, which helps to strengthen work role identity, and colleagues are the source of social support. Some studies have found that the stronger the relationship between employees, the higher the innovation performance. The requirements of communication and trust between employees in traditional working mode and remote working mode are different.

The requirements of communication and trust between employees in traditional working mode and remote working mode are different. In the traditional office model, employees often work in the same office and form a group office at the same time and space. In the group office, there can be direct face-to-face communication between employees and employees, which makes the relationship between employees and employees easy to go beyond the scope of work, form emotional ties, and promote workplace friendship. In telecommuting, employees are far away from colleagues and superiors, lack of face-to-face communication opportunities with each other, and change the dynamic process of interpersonal communication related to work. If employees need cooperation, they can only communicate with each other with the help of information technology. Such communication has limitations, may lead to misunderstanding or inadequate communication, and scattered physical workplaces may make it difficult for employees to cooperate. This may affect the positive results of telecommuting. Secondly, the mode of communication is different. Under the traditional office mode, the communication structure of the organization is hierarchical and centralized. In telecommuting mode, distributed human resource management forms virtual organization, and the communication structure in the virtual organization is more network structure. To complete tasks, it is necessary to exchange information, transfer knowledge and interact with colleagues. These activities rely on trust among colleagues. Physical separation hinders these interactions to a certain extent and strengthens the importance of trust. [6]

Some studies have shown that the communication mode has an impact on trust and performance, and the level of trust and performance is the highest in the network communication mode. The relationship between communication and trust is mutually reinforcing. As communication increases, perceived trust increases and cooperative behavior increases. Therefore, this paper believes that in the telecommuting mode, employees want to achieve good work performance, although there is resistance to communication, but it is more indispensable, and the requirement of trust is also strengthened.

#### **3.2 Factors of Organizational Support**

The relationship between employees and organizations is not only related to the vital interests of employees, but also has an important impact on performance, innovation and many other aspects. Previous studies have found that the actual effect of human resources incentives will be kind o affected by organizational support. Organizational care and attention to employees is an important reason why employees are willing to stay within the organization and contribute to the organization. Organizational support can increase employees'in-role and out-of-role performance. Organizational

support refers to employees' belief that the organization cares about their welfare, which leads to employees' commitment to the organization.Employees' commitment to the organization can reduce employee turnover, good behavior to organizational goals can improve organizational performance, and perceived organizational support is positively related to the performance of job responsibilities and commitments. Telecommuting is a kind of human resources measure implemented by the organization in order to motivate the employees, and the organization hopes that this f human resource incentive measures can play a positive role for the employees.

According to the theory of social exchange, a high level of organizational support not only makes employees feel committed to their employers but also feels obliged to participate in behaviors that support organizational goals to repay employers. According to the principle of reciprocity, if employees feel that the organization attaches importance to them, that is, in a high-level organizational support environment, human resources incentives will improve employee performance, on the contrary, the impact of human resources incentives on employee performance will not be very significant. Under the traditional office mode, employees work in the fixed workplace of the enterprise, and they are in a "tangible" organization, so they are more likely to feel the existence of the organization and are deeply influenced by the organizational atmosphere. In the telecommuting model, the organization is "invisible", the organizational form has changed, the way of telecommuting will change the relationship between the employee and the organization, and the distance in the work area may cause the psychological distance between the employee and the organization, resulting in a sense of social isolation. Therefore, the support of leaders plays a key role in telecommuting. Because telecommuters often contact the direct leaders related to the task, telecommuters not only complete the work but also have to deal with various challenges from the external environment alone, which need the concern and attention of the organization.

#### 3.3 Factors of Work and Non-work Boundary Management Ability

There is a strong correlation between employees' perception of working environment and their job performance. According to Bronfin Brenner, the innermost layer of the environmental level is the micro-system, which refers to the direct environment of individual activities and communication, which is constantly changing and developing. In the traditional way of working, the working environment of employees' activities and communication is relatively fixed, and employees' cognition of the working environment is also relatively fixed. In the remote working mode, the working environment of employees is changeable, which can be in any place at home, coffee shop or bookstore, and the employees' cognition of the working environment is also constantly changing, which affects the performance of employees. Environments such as home, coffee shop and bookstore are not dedicated to work, in which non-work-related activities are usually carried out, while telecommuting uses technical tools to enable employees to work at any time and anywhere. the physical gap between work and non-work is eliminated, and the work-non-work boundary is becoming more and more permeable. [7]

Many employees choose to work remotely to be able to take care of the family and choose the workplace at home, but this not only leads to gender role-related conflicts within the family, but also makes it easier for workers to encroach on family time, and even lead to longer working hours and more work. Therefore, for individuals who work from home, to achieve a balance between work and family management, it is best to establish clear boundaries with family and friends. Although the organization has a low degree of constraint on teleworkers, giving employees full work autonomy, and employees often switch between work and non-work, not all teleworkers can adapt to these transitions. When employees can manage their work and personal lives flexibly, they can have better work performance.Employees are faced with the problem of work-non-work boundary reconfiguration, which puts forward requirements for employees' ability to manage work-non-work boundaries. [8]

#### 4. Suggestions

From a systematic perspective, this paper analyzes the factors that affect employee performance under telecommuting, and analyzes three main factors from the changes of the three relationships between employees and employees, between employees and organizations, between employees and the environment, and between them and the traditional way of work. they are communication and trust, organizational support and the ability of work and non-work boundary management. In view of these three factors, employees and organizations need to work together to overcome negative effects and promote performance improvement. this paper puts forward the following suggestions: [9]

## 4.1 Strengthen the Relationship between Employees and Employees, Employees and Organizations

Employees and organizations should enhance communication with each other, employees should take the initiative to report work progress to their superiors, superiors should fully grasp the work status of employees, and organizations should pay attention not only to employees' work results but also to employees' ideas in the process of work; organizations can improve the frequency of communication by holding regular teleconference, video conferences, etc. Hold some offline activities to increase the opportunities for face-to-face communication, draw in the distance between employees and employees, and promote emotional communication outside of work; attach importance to the needs of employees, and organizations should not only guide employees in their work but also help them in their lives.

## 4.2 The Company should Make Use of the Autonomy and Flexibility of Telecommuting to Give Employees Full Trust and Support and Give Full Play to their Subjective Initiative

Organizations should attach importance to the growth and development of telecommuting employees, formulate corresponding career plans, provide various forms of learning and growth opportunities, provide real-time online guidance and regular online courses, and pay attention to the improvement of employees' working ability. assign work tasks suitable for employees' characteristics, appropriately relax employees' work authority, provide space for employees to display their workability, and meet the needs of employees' self-value realization; Recognize employees' contributions to the organization, give timely material and non-material rewards, such as salary increases and job promotion, encourage employees to express their opinions on the organization and keep an open attitude to employee feedback; provide employees with corresponding hardware office conditions, such as mobile office equipment and communication facilities, to ensure the smooth development of employees' work; build a performance management system suitable for telecommuting employees and evaluate their work performance objectively and fairly.

#### 4.3 Improve the Boundary Management Ability of Telecommuting Staff from Both Organizational and Personal Aspects

In the process of recruitment, the organization fully considers the matching of the company's needs and the needs of employees, sets reasonable employment standards, strengthens communication with employees, understands work progress, and supervises employees' work; regularly evaluates employees' working ability and psychological status, collects employees' various views on work, understands employees' actual ideas, reasonably arranges employees' work intensity, and reduces employees' work pressure. Maintain the work-family balance of employees, allocate working time reasonably, and adhere to people-oriented. Telecommuting employees can choose places conducive to work, such as a quiet library and a separate room at home, avoid distraction, improve self-management ability, strengthen self-discipline, work responsibility, work initiative and dedication. When telecommuting, employees usually have to face all kinds of difficulties alone. Only by constantly learning and self-updating, and enhancing their problem-solving ability,

learning ability and adaptability can they adapt to telecommuting; reasonably plan their working hours and combine work with rest to avoid conflicts between work and life; fully communicate with family and friends to obtain their understanding and support.

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