

The Impact of Work-related Electronic Communication During Non-working Time on Work Performance

Zheng Li^{1,a,*}

¹*University of Sydney, Business School, Sydney, Australia, 2006*

a. Lee_00001@outlook.com

**corresponding author*

Abstract: With the development of electronic information technology, the use of electronic communication equipment for work communication has become ubiquitous in people's work and life, and has brought a series of positive and negative effects. The purpose of this study is to review and analyze the academic literature on non-work time participation in work-related electronic communication. A significant finding is that most of the existing literature focuses on how non-working electronic communication affects employee initiative, work-family conflict, and time banditry behavior. At the same time, there is relatively little discussion on employee work performance. Therefore, this study aims to analyze the relationship between remote employees engaged in work-related electronic communication during non-working time and their work performance by applying affective events theory, job characteristics model theory, and job demands-resources model theory, to provide effective suggestions for enterprises and employees on how to balance work and life.

Keywords: work-related electronic communication, non-working time, work performance

1. Introduction

With the rapid popularization of the Internet, electronic information and communication technology based on network and electronic technology is changing our lifestyles and modes of communication. Electronic communication relies on information and communication technology and is defined as the electronic form of communication mediated by computers, mobile phones, and other electronic devices (including instant messaging, E-mail, e-newspaper, etc.), including instant messaging, E-mail, e-newspaper, etc. [1]. Statistics show that more than 80% of employees use the Internet, mobile phones, or E-mail for work communication because the use of communication technology allows employees to telecommute from home, telephone work conferences, and other open work time arrangements. But it also makes it difficult for employees to stay away from work during non-working time, such as when employees must complete assigned tasks at night, on weekends or holidays, respond to work group voice calls and customer emails, and even respond to work-related phone calls and messages while employees are eating.

Non-working time work-related electronic communication is a work gap that occurs after employees leave work or during breaks. At present, studies have pointed out that non-working time work-related electronic communication will have an impact on employees' family, work, and work performance [2]. However, the revelation of its internal mechanism is still insufficient. Therefore,

how to control work-related electronic communication in non-working time is an important topic that enterprise employees, organizations, and management scholars attach great importance to. Due to the widespread existence of non-working time and work-related electronic communication in current organizations, it has both negative and positive effects on employees' work performance.

This study aims to discuss "non-working time and work-related electronic communication", this paper systematically sorts out relevant theories such as non-working time and work-related electronic communication, affective events, job characteristics model, and job demands-resources model, examines the impact of non-working time and work-related electronic communication on individual work performance, and further discusses individual characteristics. Based on this, this study aims to study non-working time work-related electronic communication to reduce its negative impact on work performance and strengthen correct management strategies, and improve individual work performance while providing effective suggestions for organizations and employees on how to balance work and life.

2. Literature Review

2.1. The Concept of Non-working Time and Work-related Electronic Communication

In the current era, electronic communication devices have been ubiquitous in work and life. Understanding the concept of non-working time and work-related electronic communication is critical to understanding how it affects work performance. This concept has experienced several stages of development.

Initially, scholars primarily studied "electronic communication" as the central concept, exploring its role and influence within organizations [3]. However, these investigations did not clearly distinguish between working hours and non-working hours. However, with the deepening of the research, because of the impact of electronic communication on traditional work and work boundaries, scholars have gradually realized the impact of electronic communication on working time and the element of "non-working time", and then put forward the saying that the work-related electronic communication conducted by individuals in non-working time is called "non-working time and work-related electronic communication". For example, write, reply, and check work-related emails after work or dinner, answer and make work-related phone calls during holidays and holidays, or use the computer to solve and communicate a series of work-related tasks on weekends. However, at present, scholars have not formed a common name for the concept of "non-working time and work-related electronic communication". But to continue to study the effects of its Behavior, including scholars use "work connectivity behaviors during non-work time" to define the staff working in non-working Time using electronic communications facilities in behavior [4]; Other scholars have taken into account the technological ways in which behavior is based, use of "work-related ICT-use outside work hours" or "work-related smartphone use during non-work hours" [5]. The difference between the two is that the former covers more technical methods than the other, including most electronic communication devices, such as smartphones, tablets, and laptops, while the latter only focuses on smartphone devices [6]. Based on previous literature studies, this article is more integrated and currently uses a higher frequency, namely "work-related electronic communication during non-work time" [7].

2.2. Measurement of Non-working Time and Work-related Electronic Communication

According to existing relevant studies, the measurement of non-working time and work-related electronic communication can be divided into the following categories:

(1) Measuring the frequency of employees using specific electronic communication technologies to deal with work affairs during the non-working time [8], including the frequency of different devices (mobile smartphones, laptops, tablets) and different life scenarios.

(2) Measuring the duration of electronic communication in non-working life scenarios, including different devices, different life scenarios, or fixed cycle (days or weeks) length [9].

(3) Combined with measuring the frequency and duration of electronic communication during non-working time.

(4) Measuring employees' electronic communication during non-working time as a personality trait [10].

(5) The electronic communication of employees working in non-working time is divided into emotional dimension and time dimension for measurement [1]. For example, the time spent on electronic communication during non-working time and the emotional tone of electronic communication during non-working time. In the above range of measurement methods, most scholars believe that the frequency indicator is more reasonable and accurate than the length indicator, because the non-working time of work-related electronic communication is not a continuous behavior, and the duration of each time is not the same. Therefore, in the measurement time unit, there is also a difference in the frequency of electronic communication between non-working time and work, which will bring difficulties to the selection of measurement time units (before work, after work, weekends, holidays, etc.). But employee work performance can be affected not only by personal characteristics but also by external factors, especially based on work-related electronic communications during non-working hours. Therefore, understanding its potential impact on overall employee productivity and well-being is important to explore the relationship between non-working time and work-related electronic communication and work performance. Based on this, this paper believes that it is more appropriate to measure the frequency of employees using electronic communication equipment to process work during non-working time to judge the degree of influence on employees' work performance.

2.3. Work Performance

Work performance is an important standard to measure the achievement and performance of an individual at work. It is usually divided into task performance and peripheral performance [11]. Task performance is directly related to work output and reflects an individual's ability and efficiency in completing work tasks. Peripheral performance is mainly related to interpersonal relationships and job engagement. However, according to the literature review, non-working time and work-related electronic communications can directly affect employees' work performance, but the relationship between work performance and non-working time and work-related electronic communications has not been fully studied. Some scholars have explained that non-working time work-related electronic communication will lead to employees' work-family conflicts, time banditry behaviors, proactive behaviors, etc. [10]. Therefore, this paper draws on existing research results to reveal the role and influence of non-working time work-related electronic communication and employees' work performance through Affective event theory.

3. The Impact of Non-working Time Work-related Electronic Communication on Employees' Work Performance

Nowadays, with the rapid development of science and technology and the increasingly fierce competition in many industries, non-working electronic communication has brought flexibility and convenience to work, but also led to the increasing workload of employees in non-working electronic communication and the frequency of "invisible overtime". On the one hand, Employees

can flexibly strengthen work contact through electronic communication during non-working time, improve work efficiency and work control, and trigger positive psychological experience and work performance. On the other hand, this kind of experience will force employees to continue to work in non-working time, reduce their work autonomy, trigger stress, and easily lead to negative psychological experience and negative work performance.

3.1. The Positive Effects

In terms of employees' work performance, the use of electronic communication technology not only solves the space barrier and brings more flexibility to work, but also provides technical resource support for employees [12]. In addition, through non-working time and work-related electronic communication, employees can better interact and communicate with colleagues or leaders in interpersonal relationships to meet their relationship needs [6], which also indirectly improves employees' positive emotions at work. When employees have positive emotions, they tend to be more concerned about work and enhance their attitude towards work, thus improving their satisfaction with work. From the perspective of Affective events theory, the characteristics of the work environment can trigger individual emotional responses, which in turn can further affect individual attitudes and behaviors. Through the complete chain of "event-emotion-attitude-behavior", this paper reveals the positive effects of non-working time and work-related electronic communication on employees' work performance and improves their work performance.

3.2. The Negative Effects

At present, the negative effects of non-working time and work-related electronic communication on employees' work performance are mainly focused on employees' personal and work outcomes.

From the perspective of employees personally, when employees communicate too much with work-related electronic communication during non-working time, employees' resources will be invaded. From the perspective of the Job demands-resources theoretical model, long non-working time and work-related electronic communication have an impact on the quality and quantity of sleep of employees, which will affect their resource recovery and lead to their job burnout, and then lead to their health loss. When non-working time and work-related electronic communication requirements continue to be high and are not compensated by work resources, employees' energy will continue to be lost during the work process, which may eventually lead to their energy exhaustion (burnout), which in turn hurts employees' work performance.

From the perspective of employees' work outcomes, non-working time and work-related electronic communication will occupy the families of the worker's resources such as time, energy, and attention, causing time, emotional stress, and work-family conflict, the conflict will also strengthen consumption among employees and make it produce energy depletion [7]. It leads to low job satisfaction and low job autonomy behavior of employees, which enhances the counterproductive behavior of their work. In addition, employees' high-intensity non-working time and work-related electronic communication under the arrangement of leaders will reduce the clarity of employees' work tasks, resulting in employees being unable to clarify the beginning and end of work tasks and employees' feedback on the work itself. From the perspective of the interpretation basis of the Job characteristics model, the job characteristics include the autonomy of employees, task integrity, and feedback, and the work performance level of employees can be measured by these key job characteristics. Employees' responses to key job characteristics in high-intensity non-working time and work-related electronic communication can be seen to harm employees' work performance.

4. Policy Suggestions

To improve employees' work performance in the context of non-working time and work-related electronic communication, the following suggestions are put forward.

(1) Based on the characteristics of the work environment based on the Affective events theory, the organization should first relieve the role pressure of employees and weaken the negative emotions generated by employees in the work environment. In addition, more attention should be paid to leaders' non-working time and work-related electronic communication with employees, so that leaders have more autonomy than employees. In this regard, employees should be given the right to make decisions. In this way, employees with the right to make decisions can better understand the tasks and goals of the organization, motivate them to have positive emotions toward work, and then motivate them to work harder to improve their work performance.

(2) According to the Job characteristics model theory, organizations can formulate corresponding human resource flexibility policies. Specifically, quantity flexibility, according to the tasks of employees and the needs of the organization and operation, and adopts the strategy of adding or reducing temporary employees or outsourcing the amount of additional work, to reduce the phenomenon of work overload and lack of focus of employees and enable them to clearly understand the visible results of tasks after completing tasks. Time flexibility, based on the time required to complete tasks and deadlines, to flexibly arrange employees' working time and make them efficient use of working time, enhance employees' work autonomy, and reduce possible role conflicts (such as work-family conflicts). Functional flexibility strengthens the development of employees' skills so that they can adapt to different job requirements, and then realize the diversity of employees' skills, and enhance the organization's support for employees. Salary flexibility: Implement a diversified salary structure system based on employee performance, enhance the degree of direct and clear information related to employee performance, reduce employee job insecurity, and clarify employee work feedback. In a word, by satisfying their job characteristic needs, the intrinsic work motivation of employees can be stimulated and then translated into the high-level work performance of employees.

(3) Employees' high frequency of non-working time work-related electronic communication behaviors will lead to negative effects such as health loss and emotional exhaustion at work. Therefore, organizations should be aware that management methods that allow employees to maintain work contact through electronic communication at any time are not necessarily conducive to long-term employee performance. Based on this, according to the Job demands-resources theory model, the organization can improve the skill level of employees by allowing them to participate in relevant job training, enabling them to complete their work tasks in due working time, reduce the frequency of job-related electronic communication in non-working time, and improve the work efficiency of employees, and achieve their work goals and work performance.

5. Conclusion

The development of electronic information technology makes people's working style more and more flexible, so the new "invisible overtime" phenomenon of work-related electronic communication in non-working time is becoming more and more common. In addition, according to the Job demands-resources theory model, the phenomenon of "invisible overtime" should be inhibited and controlled by sufficient work resources (such as job autonomy and organizational support), and the phenomenon of "invisible overtime" should be inhibited and controlled by improving employees' work involvement and stimulating their motivation, to reduce employees' work overload behavior and improve their focus on work involvement, and then have a positive impact on work performance. Although these electronic communication tools promote employees'

communication, exchange, and interaction at work to a certain extent, however, the negative impact on employees' work performance is greater than the positive impact. Because the energy and resources of most employees are limited, when their resources are violated and threatened by the behavior of "invisible overtime", they will have more negative emotions towards them, which will lead to more inefficient work efficiency of employees and ultimately affect their work performance. What's more, too much work-related electronic communication during non-working time will also cause psychological and physical pressure on employees, weaken their resource recovery effect, and strengthen their health loss process. On the contrary, when there is less job-related electronic communication during non-working hours and the work is easy to solve, employees can more easily generate their positive emotions and work attitudes at work, improve their work autonomy behavior, and thus generate positive work efficiency and work performance.

References

- [1] Byron, K. (2008) *Carrying too heavy a load? The communication and miscommunication of emotion by email.* *Academy of Management Review*, 33(2), 309-327.
- [2] Butts M. M., Becker W. J., Boswell W. R. (2015) *Hot buttons and time sinks: The effects of electronic communication during non-work time on emotions and work-non-work conflict [J].* *Academy of Management Journal*, 58(11):763-788.
- [3] Quan-Haase, A., & Wellman, B. (2005) *Local virtuality in an organization: Implications for community of practice.* *Communities and Technologies*, 215-238.
- [4] Richardson, K., & Benbunan-Fich, R. (2011) *Examining the antecedents of work connectivity behavior during non-work time.* *Information and Organization*, 21(3), 142-160.
- [5] Gombert, L., Rivkin, W., & Kleinsorge, T. (2018) *A diary-study on work-related smartphone use and employees' well-being: The moderating role of basic need satisfaction.* *Zeitschrift für Arbeitswissenschaft*, 72(2), 111-119.
- [6] Ohly, S., & Latour, A. (2014) *Work-related smartphone use and well-being in the evening.* *Journal of Personnel Psychology*, 13(4), 174-183.
- [7] Ferguson M., Carlson D., Boswell W., Whitten D, Butts M. M., Kacmar K. M. (2016) *Tethered to work: A family systems approach linking mobile device use to turnover intentions [J].* *Journal of Applied Psychology*, 101(4), 520-534.
- [8] Boswell, W. R., & Olson-Buchanan, J. B. (2007) *The use of communication technologies after hours: The role of work attitudes and work-life conflict.* *Journal of Management*, 33(4), 592-610.
- [9] Lanaj K, Johnson R E, Barnes C M. (2014) *Beginning the workday yet already depleted? Consequences of late-night smartphone use and sleep [J].* *Organizational Behavior & Human Decision Processes*, 124(1):11-23.
- [10] Derks, D., & Bakker, A. B. (2014) *Smartphone use, work-home interference, and burnout: A diary study on the role of recovery.* *Applied Psychology*, 63(3), 411-440.
- [11] Motowidlo, Stephan J., Walter C. Borman, and Mark J. Schmit. (2014) *A theory of individual differences in task and contextual performance.* *Organizational Citizenship Behavior and Contextual Performance.* Psychology Press, pp.71-83.
- [12] Ou, C. X., Sia, C. L., & Hui, C. K. (2013) *Computer mediated communication and social networking tools at work.* *Information Technology & People*. 26 (2), 172-190.