

**DEVELOPING A FRAMEWORK TO MEASURE THE EFFECT  
OF CYBERLOAFING ON TEACHERS' ORGANIZATIONAL  
OUTCOME BY USING JDR MODEL: A STUDY OF  
UNIVERSITY FACULTY IN PUNJAB**

Thesis Submitted for the Award of the Degree of

**DOCTOR OF PHILOSOPHY**

in

**MANAGEMENT**

By

**Zahir Ahmed Shaikh**

**Registration Number: 11914847**

**Supervised By**

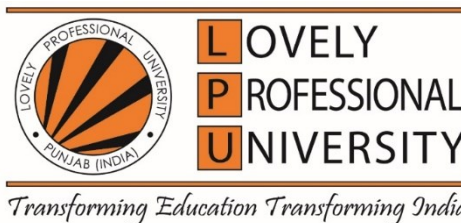
**Dr Dinesh Kumar (28661)**

**Assistant Professor**

**Mittal School of Business**

**Lovely Professional University, Punjab,**

**India**



**LOVELY PROFESSIONAL UNIVERSITY, PUNJAB**

**2025**

## **DECLARATION**

I, hereby declare that the presented work in the thesis entitled “Developing a framework to measure the effect of cyberloafing on teachers’ organizational outcome by using JDR Model: a study of university faculty in Punjab” in fulfillment of degree of **Doctor of Philosophy (Ph.D.)** is outcome of research work carried out by me under the supervision Dr. Dinesh Kumar, working as Assistant Professor, in Mittal School of Business, Lovely Professional University, Phagwara, Punjab. India. In keeping with the general practice of reporting scientific observations, due acknowledgments have been made whenever the work described here has been based on the findings of another investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.



**(Signature of Scholar)**

Name of the scholar: Zahir Ahmed Shaikh

Registration No.: 11914847

Department/School: Mittal School of Business

Lovely Professional University,

Punjab, India

## **CERTIFICATE**

This is to certify that the work reported in the Ph. D. thesis entitled “Developing a framework to measure the effect of cyberloafing on teachers’ organizational outcome by using JDR Model: a study of university faculty in Punjab” submitted in fulfillment of the requirement for the reward of degree of **Doctor of Philosophy (Ph.D.)** in the Mittal School of Business, is a research work carried out by Zahir Ahmed Shaikh (Registration No.) 11914847, is a bonafide record of his original work carried out under my supervision and that no part of the thesis has been submitted for any other degree, diploma or equivalent course.



**(Signature of Supervisor)**

Name of supervisor: Dr. Dinesh Kumar

Designation: Assistant Professor

Department/school: Mittal School of Business

Lovely Professional University

Punjab, India

## **Abstract**

The role of faculties working in universities has undergone significant evolution in the 21st century, necessitating a multifaceted approach to their responsibilities. In today's fast-paced world, teachers are educators and facilitators of comprehensive learning experiences that prepare students for modern challenges. They must possess in-depth subject knowledge and practical communication skills to engage students in discussions, group work, and individualized support. Additionally, teachers are pivotal in fostering a supportive and inclusive learning environment where diversity is embraced, and collaboration is encouraged. Another crucial aspect of their role is equipping students with practical skills and knowledge for the workforce, requiring hands-on training and industry connections.

Furthermore, university faculty must prioritize their professional development to stay abreast of advancements in their field and continually enhance their teaching methodologies. However, amidst these responsibilities, a contemporary challenge arises cyberloafing. Cyberloafing is defined as internet use for non-work-related purposes during working hours; cyberloafing threatens productivity and job performance. While extensive research exists on its impact on students, its effects on faculty and organizational outcomes remain understudied, particularly in academic settings like Punjab. To address this gap, this study aims to develop a framework using the Job Demands-Resources (JDR) Model to measure the effect of cyberloafing on teachers' organizational outcomes. The JDR Model suggests that job demands, such as cyberloafing, can negatively affect job outcomes but may be mitigated by job resources, like social support. By conducting this study among university faculty in Punjab, valuable insights into the impact of cyberloafing on university faculty' job satisfaction, commitment, and turnover intentions can be gained. This research seeks to contribute to a better understanding of cyberloafing's implications for academic professionals and provide strategies for managing this behavior to enhance organizational outcomes.

### **Objectives of the study**

1. To study the level of job demand, job resources, cyberloafing on burnout, and work engagement faced by university faculty in Punjab.
2. To study the relationship between job demand and cyberloafing, job resource and cyberloafing, cyberloafing and burnout, cyberloafing and work engagement, job demand and work engagement, job resource and work engagement faced by university faculty in Punjab.

3. To study the impact of job demand and cyberloafing, job resources and cyberloafing, cyberloafing and burnout, cyberloafing and work engagement, job demand and work engagement, job resource and work engagement.

4a. To explore the moderating effect of cyberloafing on the relationship between job demand and burnout.

4b. To explore the moderating effect of cyberloafing on the relationship between job demand, and work engagement.

5a. To explore the moderation effect of cyberloafing on the relationship between job resources

and burnout. 5b. To explore the moderation effect of cyberloafing on the relationship between job resources and work engagement.

### **Hypotheses**

To study the following objectives, the following hypotheses will be framed:

H<sub>1</sub>: There is a significant positive relationship between cyberloafing and burnout.

H<sub>2</sub>: There is a significant positive relationship between cyberloafing and work engagement.

H<sub>3</sub>: There is a positive relationship between Job demands and work engagement.

H<sub>4</sub>: There is a positive relationship between Job resources and burnout.

H<sub>5</sub>: There is a positive relationship between Job resources and work engagement.

H<sub>6</sub>: There is a positive relationship between Job resources and work engagement.

H<sub>7</sub>: There is a significant positive relationship between job resources and cyberloafing.

H<sub>8</sub>: There is a significant positive relationship between job resources and cyberloafing.

H<sub>9</sub>: Cyberloafing moderates the between job demands and burnout.

H<sub>10</sub>: Cyberloafing moderates between job demands and work engagement.

H<sub>11</sub>: Cyberloafing moderates between job resources and burnout.

H<sub>12</sub>: Cyberloafing moderates between job resources and work engagement.

## **Research Design**

A descriptive, cross-sectional research design has been adopted for the present study. The survey was administered to professors, associate professors, and assistant professors at selected public and private universities. The universities are chosen according to the National Institute Ranking Framework (NIRF) 2022. Out of eight universities, we selected four public and private universities. The universities are chosen according to their NIRF ranking. The survey was administered both online and offline. Efforts were made to gather as much as possible offline, but sometimes, due to university faculty duties and commitment, the survey must be administered online. Overall, 470 questionnaires were used in the survey, out of which 337 were found suitable for the analysis. The questionnaire method was used for measuring the variables in the conceptual model. The questionnaire used a Likert-type scale for measuring Cyberloafing, Job Demands, Job Resources, Burnout, and Work Engagement. Cyberloafing was used as a moderating variable for testing the relationship between Job Demands, Job Resources, Burnout, and Work Engagement. SmartPLS-4 was used to test the structural relationship between the variables. After testing the relationship and the framed hypotheses, the study findings were reported in the thesis.

## **Findings**

1. Cyberloafing positively relates to Burnout and Work Engagement.
2. Job Demands are positively related to Burnout and Cyberloafing. On the other hand, it is negatively associated with Work Engagement.
3. Job Resources positively relates to Cyberloafing and Work Engagement .
4. Cyberloafing does not mediate the relationship between Job Demands, Burnout, Job Resources, and Work Engagement.
5. Cyberloafing mediates the relationship between Job Demands, Work Engagement, Job Resources, and Burnout.

## **Conclusion**

The study concludes that the burnout and work engagement model for Indian higher educational institutions aligns with the widely utilized job demands-resources model proposed by Bakker and Demerouti (2007). Among teachers in Indian higher educational institutions, this model proves to be the most effective in assessing burnout and work engagement. Job demands and work engagement are pivotal factors influencing teachers' burnout and work engagement. This research offers fresh insights into the job demand-resource model tailored explicitly to university faculty, presenting innovative strategies to enhance teachers' work engagement. By integrating the

cyberloafing approach into the dominant job demand-resource model and evaluating its impact within the university faculty context, the study advocates for incorporating cyberloafing strategies in universities. It emphasizes the importance of sustaining teachers' continuous engagement in their work. These insights advocate for implementing and validating an adapted job demand-resource model aimed at fulfilling teachers' fundamental psychological needs to foster sustained engagement in their professional duties. These findings are significant for ongoing discussions surrounding teachers' burnout and work engagement. The study underscores a positive correlation between job demands and burnout, coupled with a negative impact on organizational outcomes. It suggests that heightened job demands can lead to burnout, especially without sufficient resources to cope with these demands.

Conversely, job resources are linked to increased work engagement and positive organizational outcomes, indicating that adequate resources, alongside job demands, promote employee engagement and organizational success. These results align with previous research findings (Hakanen et al., 2006; Bakker & Demerouti, 2007). Furthermore, the study reveals that cyberloafing significantly and positively moderates the relationship between job demands and burnout. Utilizing cyberloafing strategies appears to mitigate burnout, particularly in high-demand work environments. Additionally, cyberloafing positively moderates the relationship between job resources and work engagement, contributing to enhanced work engagement and organizational outcomes. The research introduces innovative insights into the job demand-resource model tailored to the context of teachers in higher education institutions, proposing novel strategies to boost teachers' work engagement. It emphasizes the importance of educational institutions supporting their employees by managing increasing job demands by providing adequate resources and support. Overall, the study enriches the job demands-resources model's applicability for teachers by integrating cyberloafing strategies, offering a comprehensive approach to understanding and enhancing work engagement in universities.

## **Acknowledgement**

*I want to express my sincere thanks to my esteemed supervisor, Dr. Dinesh Kumar, for his guidance, motivation, and encouragement during the programme. I want to extend my heartfelt gratitude to the Mittal School of Business, LPU, especially Prof. Sanjay Modi and Prof. Rajesh Verma, for their valuable suggestions during this research programme. I want to extend my gratitude to Prof. Rupesh Rajak, Symbiosis Law School, Hyderabad, for his valuable insights and recommendations.*

*I am profoundly grateful to my parents, Abba (Father) and Mummy Ji (Mother), and my Wife for their boundless strength, continuous motivation, and encouragement. I dedicate this thesis to my dear Late Grandparents, who have always supported me through all challenges.*

*I am also thankful to my colleagues and friends, especially Dr. Nahid Akhtar, Dr. Tahir ul Gani Mir, Dr. Atif Khurshid Wani, Mr. Saikat Sena, Mr. Nirdesh Ranjan, and Mr. Yogesh Chaudhary, for their constant encouragement and support throughout my Phd journey.*



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# Chapter 1

## Introduction

The role of teachers in universities in the 21st century has evolved significantly from what it used to be in the past. In today's fast-paced and rapidly changing world, the role of teachers has become increasingly complex and multifaceted. One of the essential responsibilities of university teachers is to provide students with a comprehensive education that prepares them for the challenges of the modern world. It requires teachers to be knowledgeable about their subjects and to communicate that knowledge effectively to their students. Teachers must be able to engage students in meaningful discussions, facilitate group work, and provide individualised support to help students reach their full potential (Ben-Peretz, 2011).

In addition to their role as educators, university teachers also play an essential role in adopting a supportive and inclusive learning environment. They create a welcoming classroom atmosphere that encourages students to participate, collaborate, and learn from one another. They also accommodate the needs and challenges of diverse student populations and work to create an inclusive and equitable classroom culture. Another important aspect of teachers' roles in universities is preparing students for their careers. Teachers must help students develop the competencies required for success in their chosen careers. It can involve providing hands-on training, connecting students with industry professionals, and assisting students in developing their critical thinking and problem-solving skills. University educators must be proactive contributors to their professional growth and development. It entails maintaining up-to-date knowledge of advancements in their respective fields, participating in workshops and conferences, and engaging in collaborative efforts with peers to exchange best practices and enhance pedagogical methodologies.

The role of teachers in universities in the 21st century is dynamic and constantly evolving. Teachers play a critical role in preparing students for success in the modern world, and their work is essential for building a robust and vibrant society. The widespread availability and use of the Internet bring new opportunities for communication and information exchange. However, the widespread adoption of Internet technology also presents significant challenges that require careful consideration. One major issue is cybersecurity threats, including risks such as malware, phishing attacks, and data breaches, which pose substantial difficulties in safeguarding digital systems and sensitive information.

Furthermore, the explosion of online platforms raises substantial concerns regarding privacy violations, as the collection and storage of vast quantities of personal data leave individuals

vulnerable to unauthorized surveillance and potential exploitation of their information by malicious actors. Moreover, the digital divide exacerbates existing disparities in access to internet resources, amplifying socioeconomic inequalities and impeding marginalized communities' participation in the digital realm. Information overload presents another significant challenge, as online content complicates the discernment of accurate information from misinformation, thereby undermining informed decision-making processes. Concurrently, the internet's anonymity facilitates harmful behaviours such as cyberbullying and harassment, which pose significant risks to mental health and well-being, particularly among vulnerable populations. Additionally, the phenomenon of digital addiction emerges, characterized by excessive reliance on digital devices and platforms, leading to adverse effects on productivity, mental health, and social relationships. The erosion of social skills due to the predominance of digital communication methods raises concerns about interpersonal interaction and effective communication in contemporary society. Addressing these challenges requires collaborative efforts across various sectors to develop comprehensive strategies that encompass cybersecurity measures, digital literacy initiatives, infrastructure development, and promotion of responsible online behaviour, all aimed at securing an equitable and inclusive digital environment.

Cyberloafing is defined as using the Internet for non-work-related purposes during working hours (Rosen et al., 2013). This behaviour has significantly impacted productivity and job performance (Turel et al., 2013). In the academic setting, cyberloafing among teachers can substantially affect their organizational outcome, including job satisfaction, commitment, and turnover intentions (Chiu & Wang, 2016). The literature on cyberloafing in the academic setting has focused primarily on students and their behaviour. However, there has been little research on the impact of cyberloafing on teachers and their organizational outcomes.

To address this gap in the literature, the present study aims to develop a framework to measure the effect of cyberloafing on teachers' organizational outcomes using the Job Demands-Resources (JD-R) Model. It proposes that job demands, such as cyberloafing, may adversely affect job outcomes yet can be alleviated by job resources, such as interpersonal support from colleagues and supervisors (Demerouti et al., 2001). This study is conducted among university faculty in Punjab, where the impact of cyberloafing on teachers' organizational outcomes has not been extensively studied.

## **1.1. Background of the Study**

The widespread use of the internet brings new opportunities for communication and information exchange but has also introduced challenges, including cyberloafing (Rosen et al., 2013). This behaviour significantly impacts productivity and job performance (Turel et al., 2013). The rapid advancement of technology and the widespread use of the internet have transformed how people work, communicate, and access information. In recent years, the impact of cyberloafing on employee productivity and organizational outcomes has been the subject of numerous studies. However, there is limited research on the effect of cyberloafing on teachers' organizational outcomes, particularly within the context of university faculty in Punjab. In the academic setting, cyberloafing among university faculty can significantly affect their organizational outcome, including job satisfaction, commitment, and turnover intentions (Fakoor Saghih & Nosrati, 2020). The literature on cyberloafing in the academic setting has primarily focused on students and their behaviour, with limited research on the impact of cyberloafing on teachers and their organizational outcomes (Yildiz Durak & Saritepeci, 2019).

The JD-R Model provides a valuable framework for understanding the impact of cyberloafing on university faculty. It proposes that job demands, such as cyberloafing, may adversely affect job outcomes but can be mitigated by job resources, such as interpersonal support from colleagues and supervisors (Demerouti, Bakker, de Jonge, et al., 2001). The JD-R Model, developed by Bakker and Demerouti (2007), offers a comprehensive framework for understanding the relationship between job demands, job resources, and employee well-being.” According to the JD-R Model, job demands are the physical, psychological, social, or organizational aspects of a job that require sustained physical or mental effort. In contrast, job resources encompass the facets of a profession that help employees accomplish work objectives, alleviate job demands, and foster personal advancement and growth. The JD-R Model advances the notion that job demands and resources influence employee well-being, thereby impacting organizational outcomes.

In the context of university faculty, job demands may include high teaching loads, research expectations, and administrative responsibilities. However, these factors might also adversely affect organizational outcomes, including job satisfaction, commitment, and performance. In India, the impact of cyberloafing on teachers' organizational outcomes has not been well-studied. A few studies have investigated the prevalence of cyberloafing among university students in Punjab and its impact on their academic performance (Rosen et al., 2013). These studies suggest that



cyberloafing is common among university students and can negatively affect their academic performance. However, the impact of cyberloafing on faculty's organizational outcomes in the Indian context remains largely unknown. The scope of the study is limited to Punjab due to time constraints that prevented nationwide coverage. Second, the large sample size poses a significant challenge. Third, no funding was received to support a nationwide study. Fourth, we have identified the need for a pan-India study, which we plan to conduct in our next project with funding from government agencies. Finally, Punjab has become an emerging hub of education, which is another reason for limiting the scope of our research to this geographical location. In summary, the current investigation aims to enhance our comprehension of the influence of cyberloafing on educators' organizational outcomes by developing a framework utilizing the JD-R Model for measurement. The outcomes of this research endeavour are anticipated to furnish guidance on methods to encourage job satisfaction and organizational outcomes among university faculty in Punjab.

## **1.2. Rationale of study**

The rationale for studying the effect of cyberloafing on university faculty organizational outcomes using the JD-R model is supported by the need to understand the impact of cyberloafing on employee well-being and performance. Recent research highlights the prevalence of cyberloafing in educational settings, including among preservice university teachers. Additionally, studies explore the factors affecting cyberloafing behaviour in academic environments, emphasizing the need to understand the consequences of cyberloafing on students and teachers. The JD-R model, which explains how job demands and resources impact employee well-being and performance, provides a theoretical framework to investigate the relationship between cyberloafing and teachers' organizational outcomes. Using the JD-R model, the study aims to contribute to understanding how cyberloafing affects teachers' well-being, job satisfaction, and ability to cope with workplace demands. This research is essential for educational institutions to develop strategies to manage cyberloafing effectively and ensure that university faculty have the skills and knowledge needed to succeed in the future job market. The study of cyberloafing in educational settings is significant due to its potential impact on student learning and the overall academic environment. Therefore, investigating the effect of cyberloafing on teachers' organizational outcomes using the JD-R model is crucial for addressing the challenges associated with cyberloafing in educational institutions and its impact on university faculty.

### **1.3. Organization of the Thesis**

The present study is organized into six chapters.

**Chapter One** provides an overview of cyberloafing and the JD-R Model, discusses the status of educators in the nation's universities, outlines the objectives and justifications, and delineates the scope and methodology of the current research endeavour.

**Chapter Two** reviews the literature on cyberloafing, burnout, work engagement, and additional variables related to the JD-R model.

**Chapter Three** elaborates extensively on the model development, elucidates the research methodology employed in the study, and delineates the formulation of hypotheses. The JD-R model is adopted and specifically adapted for educators, with proposed modifications.

**Chapter Four** examines the hypotheses formulated in the preceding chapter and empirically validates the proposed model.

**Chapter Five** encapsulates the research findings.

**Chapter Six** examines their implications and inherent limitations and delineates avenues for future investigations into cyberloafing.

## **Chapter 2**

### **Review of Literature**

#### **2. Introduction**

This chapter provides a comprehensive overview of cyberloafing, including its definition, associated consequences, theoretical underpinnings, and empirical studies on teachers from a global and Indian perspective. The subsequent section explores the JD-R model, interpreting its conceptual framework, relevant literature, theoretical foundations, empirical investigations, and applicability in assessing cyberloafing within this framework. Additionally, this chapter identifies research gaps, describes research objectives, explains the rationale behind the study, and formulates hypotheses to guide subsequent empirical investigations.

Today's businesses rely on the Internet to carry out their daily operations, including processing electronic payments, interacting with clients through online support, researching potential new products, creating and managing social media brands, and collaborating on global projects with partners. Although numerous techniques exist to increase job productivity, employees frequently use the Internet for personal purposes (Jandaghi et al., 2015; Hussain & Parida, 2017). The World Wide Web has transformed how businesses function by facilitating timely communication and providing greater access to information (Blanchard & Henle, 2008). For example, it allows companies to shorten product cycle times, reduce costs, and optimize the sale of goods and services (Lieberman, Seidman, McKenna, & Buffardi, 2011). Additionally, the World Wide Web offers individual employees enhanced work flexibility, social connections, creativity, and educational opportunities (Blanchard & Henle, 2008). Employees engage in activities such as emailing friends and family, online shopping, downloading media, social networking, online gambling, and potentially viewing explicit content (Henle et al., 2009; Lieberman et al., 2011). The World Wide Web has thus revolutionized business operations by enabling efficient communication and broadening access to information, which in turn helps companies improve product cycle times, reduce costs, and optimize goods and services (Lieberman, Seidman, McKenna, & Buffardi, 2011).

Furthermore, individual workers benefit from increased job autonomy, camaraderie, creativity, and educational opportunities facilitated by the World Wide Web (Henle & Blanchard, 2008). As a result, workers with internet access are more likely to acquire information and abilities that will increase their value to their employers. However, Henle and Blanchard (2008) argue that there are drawbacks to internet use in the workplace, and employers should not provide unrestricted access without first assessing the associated risks. Although the World Wide Web

offers numerous advantages to both companies and employees, it can also negatively impact productivity (Lieberman et al., 2011). Cyberloafing has been observed in private and public universities (Fakoor Saghih & Nosrati, 2020). The primary goal of this study is to develop a framework to measure the effect of cyberloafing on teachers' organizational outcomes using the Job Demand-Resource Model, focusing on university faculty in Punjab.

Cyberloafing is a deviant work behaviour classified under the production irregularity category. Blanchard and Henle (2008) define it as the intentional use of Internet and email facilities at the workplace by employees during working hours, which should not occur. According to Askew et al. (2014), cyberloafing behaviour has a strong inverse relationship with job performance, the ability to conceal cyberloafing being another predictor of cyberloafing behaviour at work. Ozler & Polat (2012) find that multiple factors affect cyberloafing in the organisation, with both positive and negative impacts. Liberman (2011) examines individual and organisation factors and their relationship with cyberloafing behaviour at work engaging in cyberloafing behaviour at work. According to Vitak et al. (2011), cyberslacking behaviour affects job satisfaction and engagement levels within an organization; lower job satisfaction leads to greater indulgence in cyberslacking, indicating an inverse relationship between job satisfaction and cyberslacking behaviour. Blanchard and Henle (2008) found that cyberloafing activities often start on a minor scale for work-related purposes but can evolve into counterproductive work activities. It has been discovered that, despite many employees' claims, these brief online activities frequently extend to several hours during a regular workweek. Employee cyberloafing is estimated to occur between 10 and 12.5 hours per week on average (Greenfield & Davis, 2002; Mills, Hu, Beldona, & Clay, 2001). According to Lim (2002), 84% of workers drafted emails unrelated to their jobs, and 90% acknowledged using the internet for leisure purposes while at work. Furthermore, studies indicate that cyberloafing lowers work productivity by 30% to 40%.

Consequently, firms incur higher production costs due to declining employee productivity. Martin, Brock, Buckley, and Ketchen (2010) report that the annual cost of lost earnings from cyberloafing to U.S. firms is approximately \$759 billion. The implications of cyberloafing extend beyond lost wages and pose serious potential harm to organizations. For instance, cyberloafing can overwhelm an organization's computing resources, leading to congested bandwidth and reduced system performance (P. P. Lim et al., 2021). Additionally, if an employee engages in illegal internet activities, such as gambling, or sends or views objectionable content, they expose the organization to significant legal repercussions (Blanchard & Henle, 2008; Burney et al., 2009). The American Management Association (2008) reports that 28% of businesses have terminated an employee for using a fake account. As a result, cyberloafing exposes companies to a wide range of legal risks (Blanchard & Henle, 2008; Henle et al., 2009; Liberman et al., 2011).

## 2.1 Cyberloafing

Most businesses today rely on the Internet to support their daily operations. It includes researching potential new product ideas, processing electronic payments, interacting with customers online, monitoring their online reputation on social media, and collaborating on projects with people worldwide. Corporations use the Internet to market products, shorten product life cycles, and provide adequate services. Despite the existence of many strategies to improve business efficiency, employees frequently use the office internet for personal purposes. Technology, including the internet and laptops, has expanded opportunities for employees to 'loaf' at work. While appearing to be engaged in work-related tasks on the office computer, employees can respond to personal emails and messages, browse entertainment websites, conduct personal business transactions, and maintain personal blogs. Such misuse can result in additional damages, including those caused by computer viruses, legal liabilities, lawsuits, and the inadvertent disclosure of personal data. If employees use the company's network to distribute harmful or protected content, view pornography, or post offensive comments online, the company may face legal action. The line between work and home has blurred due to the internet, allowing work to infiltrate personal life and vice versa (Lim & Teo, 2005). Globalization has made it essential for companies to use the internet and innovative communication devices to gain a competitive edge. IT tools such as computers, tablets, and smartphones are widely used in the workplace for communication.

Nevertheless, it has also been noted that employees' improper use of company-provided internet for personal rather than work-related objectives contributes to declining employee performance. This behaviour is known as 'cyberloafing,' which occurs when employees use the internet during working hours for non-work-related activities. Cyberloafing involves using company resources for personal tasks. Other names for cyberloafing include goldbricking, office internet entertainment, personal internet usage, cyberslacking, cyber hacking, and cyberdeviance (Lim, 2002; Lim & Teo, 2022). Cyberloafing involves using company resources for individual tasks such as online shopping, messaging, emailing, chatting, watching YouTube, and spending excessive time on social media platforms like Facebook, WhatsApp, Instagram, Messenger, Twitter, and other entertainment apps, including job searching. Researchers often use interchangeable terms like 'goldbricking,' 'workplace internet leisure,' and 'cyberloafing' to describe the misuse of the internet for non-work-related activities. This inefficient use of the internet during working hours is commonly referred to in organizations as 'cyberloafing,' which specifically refers to the misuse of the internet at work.

Lim (2002) defines cyberloafing as employees using their company's internet connection during free time to browse personal websites, read private messages, and engage in other non-work-related activities. Blau et al. (2006) categorize cyberloafing into three distinct types, with a focus on intelligent cyberloafing and chasing relevant but unrelated emails. Some scholars argue that cyberloafing is a waste of time and detrimental to organizations. The term 'cyberloafing' continues to evolve in current research, with definitions such as 'an activity involving the use of smart mobile devices and personal computers at the workplace for personal activities by employees' emerging due to the increasing use of PCs, tablets, and mobile internet access (Jandaghi, Alvani, Matin, & Fakheri, 2015). According to Coker (2011) and Ugrin & Pearson (2013), cyberloafing is the behaviour of using the internet for non-work or personal purposes without authorization while at work. However, many researchers argue that cyberloafing can be beneficial for organizations in various situations. Multiple studies reveal that using the Internet at work positively impacts employee satisfaction, as it helps employees feel more comfortable in their environment, thereby improving performance and productivity.

***Aspects of cyberloafing:*** Most of the time, people associate "cyberloafing" with bad things. Numerous studies highlight the beneficial and harmful elements of cyberloafing. "The benefits of cyberloafing include stress reduction, creativity, flexibility, friendship, encouraging the work environment, and facilitating information access" (Blanchard & Henle, 2008; Vitak, Crouse, & LaRose, 2011). The term "loafing" does refer to being indolent. The benefits of cyberloafing have been established, yet there is still a negative correlation with thinking in general. Cyberloafing has two distinct aspects: mild and major.

***Minor cyberloafing*** - Sending personal emails or visiting a website unrelated to work while at work are examples of minor cyberloafing. According to Blanchard and Henle (2008), which was cited by Zoghbi & Manrique-de-Lara (2012), modest cyberloafing was considered harmless.

***Serious Cyberloafing*** - Serious cyberloafing includes using adult-oriented websites, playing online games, and visiting insecure websites that could harm the company. In the workplace, serious cyberloafing is less harmful than light cyberloafing.

## **2.2. Why do people engage in cyberloafing?**

There are a variety of reasons why individuals choose to work carelessly at their jobs rather than engage in non-work-related online activities. First, those who find their occupations monotonous or boring are more inclined to use the Internet for entertainment. Additionally, workers may be motivated to engage in cyberloafing to relax if they experience severe job stress or burnout. The chronic nature of cyberloafing is another potential explanation. Because cyberloafing occurs so

frequently, employees may engage in it without conscious awareness. For example, some individuals may check their phones incessantly without realizing it.

Perceived workplace norms significantly influence employees' cyberloafing behaviour. Individuals typically act in ways that conform to social norms, so employees may perceive cyberloafing as acceptable if they observe their co-workers engaging in it. Over time, this can lead to the development of a cyberloafing culture within the organization. Additionally, individuals with high levels of self-regulation are less likely to engage in cyberloafing. It is also posited that mistreated employees may engage in cyberloafing as a form of retaliation against the organization, effectively reducing their productive work hours.

### 2.3. Why employees do cyberloafing?

Numerous studies examine the reasons behind employees' cyberloafing, often suggesting that it is a response to workplace harassment. According to Vivien Lim, Thompson Teo, and Geok Leng Loo (2003), employees perceive cyberloafing as acceptable in situations where they must exert extra effort to find the data or tools necessary to complete their tasks, when they are expected to perform unpaid overtime, or when they face competing demands.

Excessive boredom increases the likelihood that employees will engage in cyberloafing when they perceive mistreatment by their employer, such as through unfavourable work outcomes, policies, or interpersonal interactions. While many factors contribute to cyberloafing, these three categories account for the majority of cases.

- i. ***Dissatisfaction.*** Unhappy employees are likelier to cyberloaf to show their superiors or fellow workers how disrespectful they are. Employees who display this kind of abnormal conduct often take part in one of the following:
  - Dissatisfied with the job profile.
  - Challenging working environment
  - Unfairness at work or within the organisation
- ii. ***Inability to differentiate between personal and professional lives.*** Some employees engage in cyberloafing because they are unaware that their actions fall outside the scope of their employment. Employees frequently cyberloaf because their managers promote internet use, even when it is intended for professional purposes. Many cyberloafers interpret this as implicit approval for widespread internet use. When employees observe others cyberloafing, they are likely to be influenced to do the same.

- iii. ***Sleep Deprivation.*** Another study discovers that sleep deprivation may be a root cause of cyberloafing. Researchers find that workers who do not get enough sleep struggle to limit their time online. Subjective norms, behavioural attitudes, and concealment ability are crucial precursors to cyberloafing intentions, with cyberloafing itself being a significant predictor. The Theory of Planned Behavior (TPB) is used to explain cyberloafing in the context of technology use, gender emerges as the most important determinant. People may use technology in diverse ways (Durak, 2020). Andreassen, Torsheim, and Pallesen (2014) report that women use the Internet and social networking sites for non-business-related activities more frequently and for longer durations than men do during working hours.

## **2.4. Consequences of cyberloafing**

People associate cyberloafing with negative things. Numerous studies highlight the beneficial and harmful effects of cyberloafing.

***Positive effects of cyberloafing.*** Positive impacts of cyberloafing include enhanced creative work behaviour, relief from burnout, and increased job satisfaction. However, cyberloafing also reduces productivity, demonstrating an inverse relationship between anxiety reduction and constructive working behaviour (Stanton, 2002; Oravec, 2002; Anandarajan & Simmers, 2005; Beugre & Kim, 2006; Garrett & Danziger, 2008; Malhotra, 2013; Vitak et al., 2011; Ozler & Polat, 2012). Some of the positive effects of cyberloafing include:

- i. **Recovery and Stress Reduction:** Cyberloafing can offer therapeutic benefits to employees, enhancing productivity and reducing stress. It helps employees refocus between tasks and manage workplace stress, ultimately contributing to higher job satisfaction and mitigating the adverse effects of workplace culture ([Zhong et al., 2022](#)).
- ii. **Creativity and Problem-Solving:** Engaging in cyberloafing activities can alleviate stagnation in jobs that require creativity, problem-solving, and analytical skills. It allows workers to return to their tasks with renewed vigour, potentially enhancing their creativity and problem-solving abilities ((Chandak, 2022; Zhong et al., 2022).
- iii. **Resource Recovery:** Cyberloafing can help employees recover or supplement resources through temporary detachment from work. It serves as a means of recovery, reducing discomfort at work and restoring positive affect, which may contribute to enhanced well-being and improved job performance (Chandak, 2022; Zhong et al., 2022).
- iv. **Coping Mechanism:** Cyberloafing can serve as a coping mechanism for employees to address workplace boredom and stress. It is considered a natural response to workplace



boredom and may not necessarily be viewed as negative behaviour, particularly when practised in moderation ([Pindek et al., 2018](#)).

- v. Learning and Development: Cyberloafing can facilitate development by allowing employees to upgrade skills and knowledge. It provides opportunities for employees to engage in activities that contribute to their personal and professional growth.

***Negative effects of cyberloafing.*** Adverse effects of cyberloafing include employee unemployment, time wastage, productivity loss, decreased performance, work inefficiencies, confidentiality breaches, procrastination, and computer and mobile device infections (Lim & Teo, 2005; Blau et al., 2006). Although email and the internet have revolutionized corporate operations by facilitating quicker communication and simpler information access and sharing, cyberloafing still presents challenges for companies. Employees who use computer resources for personal purposes risk blocking bandwidth and degrading system performance. Cyberloafing also increases the risk of computer viruses, reduces productivity, and raises safety concerns.

Additionally, it exposes companies to legal ramifications, including harassment, copyright infringement (e.g., when employees use unlicensed internet clip art), defamation (e.g., when disgruntled employees circulate rumours about a supervisor), and negligent hiring practices. Cyberloafing can significantly impact burnout, a state of emotional, physical, and mental exhaustion caused by prolonged and excessive stress. The following outlines how cyberloafing affects burnout and reduces job satisfaction.

- i. It can contribute to burnout, as employees may feel like they are not performing to the best of their abilities.
- ii. Increased stress: Cyberloafing can also increase stress levels, particularly if employees fall behind on work tasks. It contributes to feelings of burnout, as chronic stress leads to emotional exhaustion and a sense of being overwhelmed.
- iii. Lack of fulfilment: When employees engage in cyberloafing, they may experience a lack of fulfilment in their work, which can contribute to feelings of burnout. It is particularly true if employees believe they are not utilizing their skills and abilities to their fullest potential.
- iv. Reduced motivation: Engaging in cyberloafing can also reduce an employee's motivation to work, thereby contributing to burnout. When employees perceive that they can engage in personal activities at work without consequences, they may become less invested in their work tasks, leading to decreased motivation and a sense of disengagement.

Overall, cyberloafing can contribute to burnout in a variety of ways. Both Individuals and organisations need to be aware of the potential negative impacts of cyberloafing on burnout and take proactive steps to mitigate it. It includes establishing clear internet usage policies and promoting effective time management and productivity. By implementing these measures, individuals can reduce stress and enhance their overall well-being, leading to a more fulfilling and productive work experience.

## **2.5. Theories on cyberloafing**

The majority of the research in our selection had a solid theoretical foundation. Specifically, the theoretical frameworks of planned behaviour, general deterrence, and social learning are frequently utilised to identify the factors contributing to cyberloafing. According to the theory of planned behaviour, a deviancy like cyberloafing is caused by subjective standards, attitudes towards behaviour, and perceived behavioural control (Lee et al., 2007; Pee et al., 2008; Strader et al., 2011; Askew et al., 2014; Sheikh et al., 2015; Askew & Buckner, 2017; J-Ho et al., 2017; Khansa et al., 2018; Munkh-Erdene, & Park, 2019; Hensel & Kacprzak, 2020; Shaddiq et al., 2021). On the other hand, social learning theory postulates that learning is a cognitive process that occurs via observation of established group norms and the reinforcement or punishment of acts (Blau et al., 2006; Henle & Blanchard, 2008; Khansa et al., 2017; Zoghbi-Manrique-de-Lara, & Viera-Armas, 2017; Song et al., 2021). Current business standards and practices impact workers' behaviour in cyberloafing. Accordingly, the global deterrence theory asserts that people can be prevented from engaging in undesired behaviour by employing potent disincentives and penalty countermeasures (Schuessler, 2009).

Other theories include the ABCD model of work-computer deviance (Mastrangelo et al., 2006), border theory (Ashforth et al., 2000; Clark, 2002), equity theory (Adams, 1965), rational choice theory (Browning et al., 2000), role theory (Rushing, 1965), social exchange theory (Blau, 2017), trait activation theory (Tett & Burnett, 2003), Task-technology fit (TTF) theory (Furneaux, 2012), the unified theory of acceptance and use of technology (UTAUT) (Williams et al., 2015), and the job demand resource theory (Bakker et al., 2004; Bakker & Demerouti, 2007). Let us discuss each theory one by one.

## **2.6. Studies on Cyberloafing**

Cyberloafing, defined as the behaviour wherein employees engage in non-work-related online activities during designated work hours, has been the focus of considerable scholarly inquiry since the early 2000s. Studies during this period examine various aspects of cyberloafing, including its definition, antecedents, consequences, and management. Researchers employ different theoretical

frameworks to understand and explain cyberloafing behaviour, such as the theory of planned behaviour, social cognitive theory, and self-regulation theory (Ho et al., 2017). The evolution of cyberloafing research is illustrated through citation-based literature reviews, which identify distinct knowledge streams, influential papers, and future research directions (J.-N. Wu et al., 2021). Additionally, studies explore the phenomenon of cyberloafing in various contexts, including educational settings, and propose recommendations for addressing the associated challenges. Overall, research on cyberloafing provides valuable insights into the factors contributing to this behaviour and aids organizations in developing targeted approaches for managing it (Frimpong & Mohammed, 2022).

**Table No 2.1**

*Studies on Cyberloafing*

<b>Author(s) Year</b>	<b>Methodology</b>	<b>Findings</b>
Lim, 2002	One hundred eighty-eight responses were collected through online surveys in Singapore, supplemented by focus group discussions involving twenty participants.	Higher Internet usage at work was associated with decreased job satisfaction and productivity.
Lim & Teo, 2005	Two hundred twenty-six electronic questionnaire responses were gathered from working adults with Internet access in their workplace.	Applying the neutralization technique significantly moderated the associations between cyberloafing and distributive justice, procedural justice, and interactional justice.
Anandarajan & Simmers, 2005	Three hundred sixteen qualitative open-ended responses were collected from MBA students and working professionals in the northeastern region of the United States.	Senior executives assess personal internet usage to possess moderate dysfunctional and constructive potential. Middle managers perceive a more significant constructive potential and a lower dysfunctional potential. Lower-level managers perceive the highest potential for both dysfunctional and constructive use. Professionals view the potential for misuse as moderate, with a higher potential for constructive outcomes.
Blanchard & Henle, 2008	Two hundred and one survey responses were obtained from MBA students currently employed and enrolled at a university in the United States.	The employees' interpretation of the norms established by their coworkers and supervisors exhibited a positive correlation with minor instances of cyberloafing. Yet, no such relationship was observed

		concerning more severe forms of cyberloafing.
Anandarajan et al., 2011	The Q-methodology was refined through two distinct phases using data from 315 interviews conducted with part-time MBA students in the United States.	Distinct profiles of Personal Web Usage were identified, including the cyber-bureaucrat, cyber-humanist, and cyber-adventurer, each holding varying perspectives on the regulation of cyberloafing.
Askew et al., 2014	A study conducted in two phases involved 429 survey responses from both student and non-student employees, along with 202 pen-and-paper survey responses from employees working in the downtown area of a prominent metropolitan city in the United States.	The primary Theory of Planned Behavior (TPB) model explained 32% and 37% of the variability in cyberloafing in Studies 1 and 2, respectively. Cyberloafing demonstrated correlations with all withdrawal behaviours and overall withdrawal, with the most influential predictors being the intention to cyberloaf, ability to conceal, attitudes, and descriptive norms. Age and gender did not show significant associations with cyberloafing behaviour.
Fathonah & Hartijasti, 2014	Data from 222 web-based survey responses were collected from individuals employed across diverse industrial sectors.	The extensive utilization of the Internet for non-work-related activities, spanning from 2 to 4 hours daily, was influenced by respondents' perceptions of inadequate recognition and rewards for their commendable performance, significantly reducing task completion rates. Organizations perceived This behaviour as deviant due to its adverse impact on employee performance, whereas employees regarded it merely as brief intervals to alleviate stress.
Askew & Buckner, 2017	Two hundred and two survey responses were collected from employees representing diverse sectors across Florida.	The visibility of an individual's computer screen affects cyberloafing by enhancing one's self-efficacy in concealing such behaviour.
Dursun et al., 2018	An online survey targeting 996 gainfully employed individuals across various corporate entities in Turkey and 1339 students	The findings present that students showed higher cyberloafing scores than employees, while males demonstrated higher cyberloafing scores than females. Employees

	enrolled in Turkish educational institutions.	tended to engage in cyberloafing activities primarily centred around online shopping, whereas students were more inclined towards gaming, accessing online content, and updating real-time information. Notably, cyberloafing behaviours across distinct categories showed no significant differences between genders, except in the domain of gaming/gambling, where males exhibited higher engagement levels than females.
Andel et al., 2019	An online survey targeting 258 part-time students working in different industries.	Cyberloafing acts as a moderator in the context of workplace stress arising from verbal and physical aggression; specifically, heightened levels of cyberloafing attenuate the association between workplace aggression and resultant strain, indicating a weakened relationship under conditions of increased cyberloafing.
K. L. Askew et al., 2019	Study one involved an online survey comprising 447 subordinate participants and 130 supervisory individuals representing a range of industries. In Study 2, data were collected from 220 employees employed across various sectors in the United States.	Distinct contributions to the variance in cyberloafing were observed from perceived supervisor cyberloafing and perceived coworker cyberloafing. Furthermore, supportive evidence indicates a preference for adhering to coworker-prescribed norms over those established by supervisors.
Canova & Nicolini, 2019	Over one year, from March 2013 to February 2014, researchers conducted daily observations of online price searches using TrovaPrezzi.it, the preeminent Italian shopbot. This dataset encompasses approximately one billion queries submitted by customers.	Price searches exhibit greater volume during weekdays, particularly on Mondays and during adverse weather conditions. The day of the week influences price searches across different devices, with desktop usage favoured on Mondays, suggesting a phenomenon of cyberslacking. Weather conditions exert a similar impact across various devices.
Yildiz Durak & Saritepeci, 2019	An online survey garnered 194 responses from teachers affiliated with dedicated teacher pages on Facebook in Turkey.	Nine distinct models, developed independently for assessing both cyberloafing and burnout, yielded noteworthy results. Demographic

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		factors emerged as predictors of occupational burnout among teachers. Notably, the foremost determinant elucidating teachers' cyberloafing behaviours were identified as their utilization of information and communication technology (ICT).
Baskaran et al., 2020	An online survey garnered 423 responses from individuals aged between 20 and 40 years, representing the youth demographic in Malaysia.	Cyberloafing aimed at developmental, recuperative, or deviant objectives demonstrates noteworthy associations with job performance. However, the correlation between addiction-related behaviours and job performance lacks significance.
Batabyal & Bhal, 2020	Nineteen in-person interviews were conducted with managerial professionals employed across diverse organizational settings in India.	Managers in professional roles employ diverse technological resources, including office desktops, personal laptops, smartphones, office-provided wireless internet, and personal mobile data, to engage in cyberloafing activities. Employees utilize a variety of nine neutralization techniques and six ethical logics, each imbued with normative implications, in a networked manner when assessing the moral dimensions of cyberloafing behaviour.
Hensel & Kacprzak, 2020	Data on computer usage from 379 employees during four months was combined with a survey.	Examining Job Overload, Organizational Commitment, and Motivation as Precursors to Cyberloafing: Insights from Employee Monitoring Software.
Elciyar & Şimşek, 2021	Quantitative data was gathered from a cohort of 240 employees. Subsequently, informed by the quantitative findings, interview questions were formulated, and qualitative data collection was conducted, involving twenty participants.	Positive emotions associated with cyberloafing and social influences positively impact cyberloafing intention. Social factors demonstrate a positive correlation with roles, rules, and self-concept. Habits and intentions contribute to heightened cyberloafing behaviours among employees. The predominant cyberloafing activities entail messaging and reading news.

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Elrehail et al., 2021	Five hundred and thirty-four questionnaire responses were collected from faculty members affiliated with universities.	Job demands are associated with heightened job stress and increased cyberloafing tendencies. Conversely, job resources foster greater work engagement while mitigating cyberloafing behaviour. Elevated job stress is linked to heightened cyberloafing behaviour, whereas increased work engagement is associated with its reduction. Both job stress and job resources serve as mediators in the relationship between job demands and cyberloafing behaviour. Additionally, employee motivation diminishes cyberloafing behaviour and moderates the relationship between job stress and cyberloafing tendencies.
Kaptangil et al., 2021	Survey data comprised ninety-seven responses from hospitality industry employees in the Sinop and Samsun regions of Turkey.	Engagement in cyberloafing behaviour for social reasons enhances both internal and external motivation. Socially motivated cyberloafing exhibits a negative association with organizational identification, whereas learning-oriented cyberloafing demonstrates a positive relationship with organizational identification.
Chavan et al., 2022	Ninety semi-structured interviews were conducted with postgraduate students possessing prior work experience.	Young adults belonging to the millennial generation perceived cyberloafing as a minor form of workplace misconduct, considering it a prevalent social and cultural practice within their demographic. Cyberloafing was regarded as a strategy to expedite work processes and improve productivity over the long run.
Metin-Orta & Demirtepe-Saygılı, 2023	The study cohort comprised 267 undergraduate participants who completed questionnaires assessing cyberloafing behaviours, positive and negative effects, and demographic variables encompassing internet and mobile technology usage.	The results underscore the significance of assessing cyberloafing within the context of students' psychological well-being rather than solely as a factor linked to academic performance. Additionally, the study's findings provide insights for researchers and educators on crafting suitable

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## **2.2. Job Demand Resource (JDR) Model**

### **2.2.1 Introduction**

The JD-R Model, introduced by Demerouti, Bakker, Nachreiner, and Schaufeli (2001), has gained significant popularity among researchers. It is now considered one of the prominent models for job stress, alongside Karasek's (1979) Job Demands-Control (JD-C) model and Siegrist's (1996) Effort-Reward Imbalance (ERI) model. As of March 2023, a Google Scholar search reveals that two key papers focusing on the JD-R model (Demerouti et al., 2001; Schaufeli & Bakker, 2004) have been cited more than 15,865 times. The popularity of the JD-R model can be attributed to several factors. One explanation is its similarity to the JD-C and ERI models. The JD-R model posits that an individual's health and well-being are determined by balancing positive (resources) and negative (demands) job characteristics. Since the JD-C and ERI models had already introduced the concept of balance to researchers and practitioners, the JD-R model was well-received. However, unlike the JD-C and ERI models, the JD-R model does not restrict itself to specific job demands or resources. Instead, it suggests that any demands or resources can impact an employee's health and well-being. The JD-R model has a broader scope than others, as it encompasses all job demands and resources. Its applicability to a wide range of work settings makes it more flexible than other models. Consequently, researchers are drawn to the model for its broad scope, while practitioners value its flexibility.

The popularity of the JD-R model stems from its adaptable and versatile characteristics. Unlike other models, such as ERI and JD-C, which establish specific interconnections between sets of concepts, the JD-R model is heuristic. It offers a framework for understanding how job and personal attributes influence an employee's health, well-being, and motivation. Consequently, even if the two studies use different concepts, they may still explore the underlying assumptions of the JD-R model. However, this flexibility can sometimes present challenges, as no singular, precisely defined JD-R model exists.

### **2.2.2 Overview of the JDR Model**

According to the JD-R model, job demands require effort and have the potential to induce physical or psychological strain, as exemplified by factors such as time constraints, workload, and emotional requirements. Conversely, job resources help employees achieve work-related goals and mitigate the adverse effects of job demands, including elements such as social support, autonomy, and feedback. The model proposes that job demands and resources interact differently to influence employee well-being and performance.



It suggests that high job demands coupled with low job resources may lead to burnout, while abundant job resources can mitigate the detrimental effects of high job demands. Moreover, high job resources can enhance engagement and motivation, resulting in improved performance and productivity. Thus, the JD-R model underscores the importance of managing job demands and resources to promote employee well-being and organizational success. The JD-R model provides a valuable framework for understanding the complex dynamics among job demands, resources, and employee well-being and performance, and it applies across diverse organizational settings, enhancing employee job satisfaction and productivity.

**Table No. 2.2**

*Studies on the JD-R Model*

Author	Objective of the study	Method of Analysis	Participants (N)	Study Design
(Bakker et al., 2004) Netherlands	To predict burnout and job performance	Structural Equational Modelling	146	Cross-Sectional
(Bakker & Demerouti, 2007) Finland	To examine the role of the JD-R Model in job resources and pupil engagement.	Hierarchical regression analysis	805	Cross-Sectional
(Hakanen et al., 2005) Finland	To examine job resources, work engagement, and job demands of Finnish dentists employed in the public sector.	Hierarchical regression analysis	1919	Cross-Sectional
(Hakanen et al., 2008) Finland	To examine health impairment and motivational processes in the JD-R Model.	Structural Equational Modelling	2555	Longitudinal
(Hakanen et al., 2021) Finland	To examine the relationship between job	Discriminant analysis	11,468	Cross-sequential

	resources and work engagement.				
(Brauchli et al., 2013) Switzerland	To examine the relationship between stable and changing components of the JD-R model.	Structural Equational Modelling	3045	Longitudinal	
(Brough et al., 2013) Australia and China	To examine longitudinal research design with samples from Australia and China to predict strain and work engagement.	Cross- Sectional	9404	Hierarchical multiple regression analysis	
(Consiglio et al., 2013) Italy	To examine the integration of social cognitive theory with the JD-R model.	Cross- sectional	5405	Multilevel structural equational modelling	
De Beer et al. (2013) South Africa	To investigate the reversal causes of burnout and engagement in the JD-R Model.	Structural Equational Modelling	593	Longitudinal	
Hu et al. (2017) China	The study used a person-centric approach to examine the relationship between job demands and job resources.	Principal component analysis	172 nurses 273 officers	Longitudinal	
Korunka et al. (2009) Austria	To examine the adverse effects of job resource and burnout.	Structural Equational Modelling	846	Cross-sectional	
Kotze (2018) Africa	To examine the relationship between personal and job resources and life	Structural Equational Modelling	407	Cross-sectional	

	satisfaction and its effects on the JD-R model.			
Lorente Prieto et al. (2008) Spain	To examine the extension of the JD-R model.	Longitudinal	274	Hierarchical multiple regression analysis
Peterson et al. (2008) Sweden	To investigate the relationship of burnout with healthcare workers' physical and mental health.	Cross-sectional	3719	Linear Discriminant Analysis
Patience et al. (2020) South Africa	To examine whether job demands and job resources predict job engagement.	Cross-sectional	420	Regression analysis
Salmela-Aro and Upadyaya (2018) Finland	Integrating life span life approach with the JD-R model.	Cross-sectional	1415	Structural Equational Modelling
Schaufeli et al. (2009) Netherlands	Using JD-R model to hypotheses.	Longitudinal	201	Structural Equational Modelling
Van den Broeck et al. (2017) Belgium	To validate JD-R across sectors.	Cross-sectional	2585	Structural Equational Modelling
Vinod Nair et al. (2020) Austria	Investigate how job demands are a challenge and how they influence exhaustion and motivation.	Cross-sectional	171	Structural Equational Modelling
Chowhan & Pike (2022) Canada	To explore the pressure of workload and work-life balance.	Cross-sectional	4997	Structural Equational Modelling

#### **2.2.4. Revising the Base Model**

The JD-R model is among the first to comprehend the causes of burnout (Bakker & Demerouti, 2007). This model is based on the structural model of burnout from the Maslach Burnout Inventory and a meta-analysis (Lee & Ashforth, 1996). Eight work demands and thirteen job resources are identified as potential causes of burnout (Leiter & Schaufeli, 1996). The foundation of the Job Demands-Resources (JD-R) model integrates concepts from two areas of literature: work motivation and workplace stress. Similar models are briefly reviewed before discussing the JD-R model.

##### ***Two-factor theory***

Herzberg's two-factor theory highlights two sets of conditions: motivation and hygiene. Motivation factors drive employees to perform their best, while hygiene factors are associated with job satisfaction. Employees experience job dissatisfaction when hygiene factors are absent from the workplace. Hygiene factors, also known as dissatisfiers, include poor working conditions, corporate regulations, interpersonal relationships, and supervision.

Conversely, when motivation factors are present, employees are generally more satisfied with their jobs. Herzberg identifies motivation factors such as achievement, responsibility, promotion, and recognition. Consequently, changes in hygiene factors impact employees' job satisfaction. The two-factor theory, which distinguishes between hygiene and motivational factors, has faced scrutiny in several studies. According to Ambrose and Kulik (1999), criticisms of the two-factor model include variability in results depending on methodology and limited evidence supporting its effectiveness in predicting job satisfaction.

##### ***The Job Characteristics Mode***

The theory highlights that employees are motivated only by their tasks. This approach seeks to identify individual and group work characteristics related to significant work outcomes, including employee performance, satisfaction, and absenteeism. It has been revised per the instructions once job characteristics have been recognised. Employee motivation is anticipated to increase, leading to more productive work. Core work features include autonomy, feedback, task identity, significance, and skill variation (Hackman & Lawler, 1971). When combined, these five fundamental job traits create a motivating factor for a job, which in turn influences the attitudes and behaviour of employees while at work. Job rotation and job enrichment are two methods for increasing skill variety and job challenges. According to Hackman & Oldham (1975), three psychological states are associated with an employee's motivation: the significance of the work, responsibility, and knowledge of the results.

Meaningful work refers to activities that employees engage in that are not repetitive and are connected to their jobs. Fundamental intrinsic motivation stems from the nature of the work itself being motivating. Additionally, 'responsibility' refers to the employee's autonomy and the potential for success and failure. This autonomy allows the individual to learn new skills and modify their behaviour while at work. Moreover, information is crucial in work for two reasons. First, it enables workers to learn from their mistakes by applying their knowledge to the task's success. Second, workers need to understand the purpose of their work and how others use their outcomes, facilitating an emotional connection to their functions.

### ***3.4.3 The Demand-Control Model***

In the demand-control model (DCM), high work demand combined with inadequate job control results in high strain, commonly referred to as high-strain jobs (Theorell et al., 1990). The demand-control model's active learning theory suggests that jobs with a high degree of job control and elevated levels of job demands offer significant potential for personal development, enjoyment, and learning. Due to the intense demands of these tasks, individuals are likely to utilize all available skills if they have sufficient decision autonomy. Karasek terms these positions as 'active learning jobs' (Theorell et al., 1990). The demand-control model (DCM) has also secured a prominent place in the literature as a framework for understanding occupational characteristics.

### ***3.4.4 The Effort-Reward Imbalance Model***

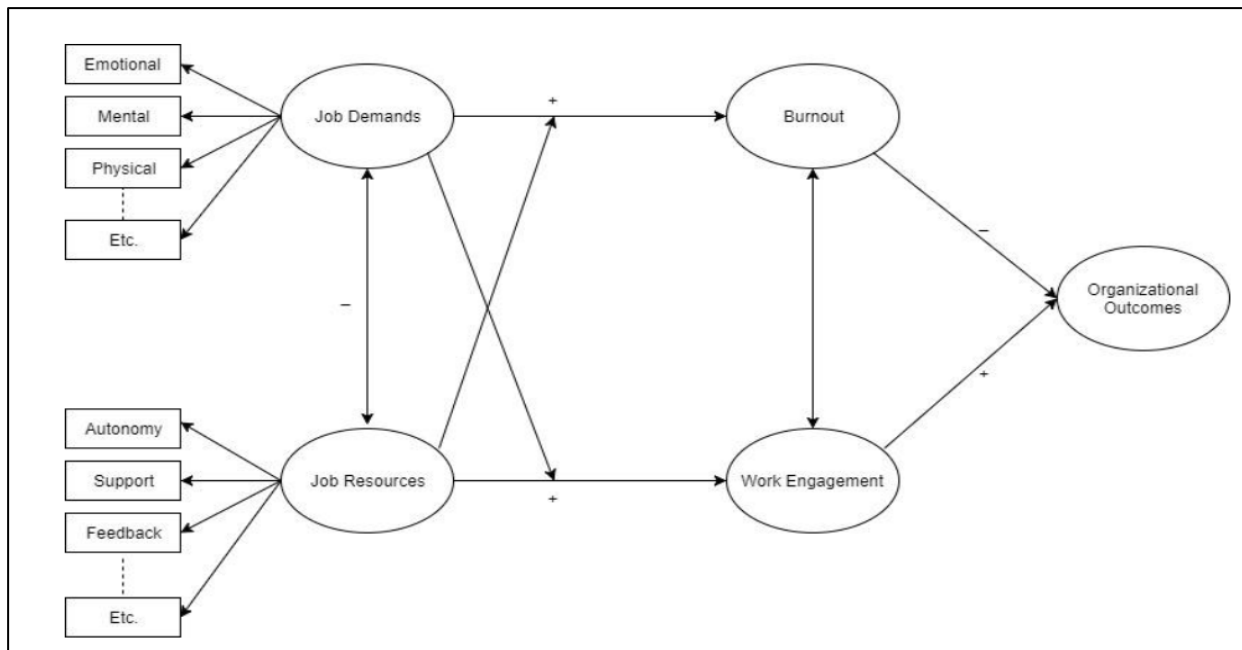
The effort-reward imbalance (ERI) model developed by Siegrist (2016) emphasizes incentives over the job's management structure. The ERI model is based on the concept that an imbalance between effort (external job demands and internal motivation to meet these demands) and reward (in terms of income, respect, and job security or opportunities—such as promotion prospects, job security, and status consistency) results in job stress. Consequently, employees may experience various heart-related problems and other stress-related issues in environments characterized by high effort and low reward. For instance, a stress imbalance occurs when a worker performs optimally under conditions of high job demand without job stability and lacks opportunities for promotion (Siegrist, 2016; Tsutsumi & Kawakami, 2004). In contrast to the demand-control model, the effort-reward imbalance model includes over-commitment as an individual component. This component encompasses a person's mindset, behaviour, and emotions, reflecting excessive effort and a deep yearning for acceptance and recognition. According to the model, excessive commitment may influence the relationship between effort-reward imbalance and employee well-being.

The explanation of the constructs of the model is as follows. The number of research on the employment demand-resource model has consciously increased during the past several years

(Bakker & Demerouti, 2007; Demerouti & Bakker, 2011). In addition to being used to anticipate organisational outcomes such as sickness, absenteeism, and job performance. The job demand resources model is also used to forecast employee burnout, work engagement, and organisational outcomes (Bakker et al., 2004; Bakker & Demerouti, 2007; Lewig et al., 2007; W. B. Schaufeli et al., 2009; Demerouti & Bakker, 2011). Numerous quantitative studies, meta-analyses, and other evidence demonstrate how completely developed the model has become into a theoretical model (Alarcon, 2011; W. B. Schaufeli & Taris, 2014; Lesener et al., 2019; Mazzetti et al., 2021). Therefore, utilising the job demand-resources model, it is possible to anticipate employee well-being and job performance, including work engagement, burnout, health, and motivation

**Figure 3.1**

*Theoretical Model for Demand-Resource Model by (Bakker & Demerouti, 2007) .*



## 2.7. Research Gap

The JD-R model helps measure the effects of cyberloafing on employee well-being and performance. Cyberloafing, or using the internet for personal purposes during work time, is considered a job demand that distracts employees from their work tasks and can contribute to stress and burnout. Using the JD-R model, organizations can assess the impact of cyberloafing on job demands and resources. Cyberloafing is viewed as a demand that consumes time and attention, thereby reducing the resources available for work tasks. It can also lead to a lack of autonomy and control over work, as employees may resort to personal internet use to alleviate boredom or stress. By applying the JD-R model, organizations can implement strategies to mitigate the adverse effects

of cyberloafing. It may involve providing additional resources, such as training or support for time management and productivity, or adjusting job demands to allow for greater flexibility and autonomy.

Additionally, organizations can develop policies and guidelines for acceptable internet use during work hours, promoting the responsible and efficient use of resources. The JD-R Model: Review the literature on the JD-R model, including its origins, key concepts, and theoretical underpinnings. Discuss how the model has been applied to different workplace contexts, including education. The JD-R model (Bakker & Demerouti, 2007; Demerouti et al., 2001) is based on the premise that job characteristics can be divided into two broad categories: job demands and job resources. This categorization allows for a universal model applicable to various occupational contexts, regardless of the specific demands and resources involved. Job demands are physical, social, or organizational aspects that require sustained mental or physical effort and are associated with typical physiological and psychological costs. For instance, examples of job demands include dealing with demanding clients, work pressure, and encountering emotionally challenging situations (Demerouti et al., 2001).

On the other hand, job resources include tangible, psychological, social, or organizational elements that facilitate the achievement of work objectives, alleviate job demands and their resulting physiological and psychological burdens, or promote individual growth and development. Examples of job resources include autonomy in scheduling work tasks, supervisor feedback, and social support from co-workers (Demerouti et al., 2001). Another core tenet of the JD-R model posits that job stress and burnout occur when job demands, such as increased workload and cognitive requirements, are high and job resources, such as autonomy and feedback, are inadequate (Demerouti et al., 2001). Prior research indicates that poorly designed jobs or demanding job requirements can deplete employees' physical and mental energy, leading to exhaustion and health issues (Bakker, Demerouti, & Schaufeli, 2003; Demerouti et al., 2001)

The JD-R model suggests that job resources can mitigate the negative impacts of job demands on an individual's well-being, such as burnout and work engagement (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003). This hypotheses aligns with the demand-control model while extending it to propose that diverse job resources may serve as protective factors against various job demands. The job demands and resources affecting a particular organization are contingent upon the unique job attributes. Whereas the demand-control model underscores autonomy as a protective factor against excessive workload and job-related stress, the JD-R model adopts a broader perspective, proposing that various job demands and resources may interact to anticipate

stress levels. According to Diener and Fujita's (1995) research, numerous resources are capable of fulfilling goals or demands. It suggests that diverse resources may influence various objectives.

The buffering hypotheses of the JD-R model have been well-supported by empirical studies, as detailed in Bakker and Demerouti's (2008) overview, in a survey of teachers, Bakker, Demerouti, and Euwema (2005) discovered that autonomy, social support, positive supervisor relationships, and feedback were effective in reducing the negative impact of job demands (such as work overload and emotional demands) on burnout. The negative impact of job demands on burnout is alleviated when employees have access to social support, feedback, developmental opportunities, and job control. Similar outcomes are observed regarding work engagement in this study (Xanthopoulou et al. 2007).

Researchers have studied and explored burnout since its inception. Initially identified by Freudenberg (1974), burnout was further examined and more precisely understood by Maslach (1976), Jackson and Maslach (1982), and Maslach and Jackson (1984), who later developed the Maslach Burnout Inventory (MBI) Scale to measure burnout. Initially, burnout research focused primarily on nursing (Firth & Britton, 1989; Duquette et al., 1994; Kilfedder et al., 2001; Deary, Watson, & Hogston, 2003; Poncet et al., 2007; Patrick & Lavery, 2007). However, researchers began exploring burnout in other sectors, including engineering, information technology, manufacturing, aviation, and hospitality (Tripathy, 2002; Salanova & Schaufeli, 2000; Lingard, 2004; Martinussen & Richardsen, 2006; Pawlowski, Kaganer, & Cater III, 2007; Hetland, Sandal, & Johnsen, 2007; Walters & Raybould, 2007; Ronen & Pines, 2008; Pienaar & Willemse, 2008; Fanjoy et al., 2010; Hall, Schmader, & Croft, 2015). Researchers shifted their focus from negative psychology to positive psychology, with Maslach and Leiter (1997) leading this shift. Within two decades of burnout research, work engagement emerged as a key outcome. Burnout and work engagement are distinct fields of study that require different measurement scales. Consequently, the Utrecht Work Engagement Scale (UWES) was developed to measure engagement (Schaufeli & Bakker, 2000).

Researchers studying burnout and work engagement recognize that examining these phenomena in isolation is insufficient. Consequently, they begin to explore integrated approaches to understanding work engagement and burnout (Cordes & Dougherty, 1993; Langelaan et al., 2006; Wang & Qin, 2009). This approach extends to the academic sector as well (Lackritz, 2004; Talmor et al., 2005; Hakanen et al., 2006; Bakker et al., 2007; Demerouti & Bakker, 2007; Azeem & Nazir, 2008; Prieto et al., 2008; Skaalvik & Skaalvik, 2009, 2010; Bezuidenhout & Cilliers, 2010; Bakker, 2011; Parker et al., 2012; Barkhuizen et al., 2014; Schubert-Irastorza & Fabry, 2014; Rajak & Chandra, 2017; Oosthuizen et al., 2018). Researchers exploring integrated approaches to



work engagement and burnout identify considerable opportunities for further investigation. Much can be explored regarding the structure, variables, and organizational setup (Schaufeli, 2010).

Further, the researcher found that only integrating burnout and work engagement is insufficient for fruitful results. Factors such as structure, organizational dynamics, and various workplace variables influence both individual and group behaviour. Therefore, it is necessary to identify additional variables that impact both burnout and work engagement (Bakker et al., 2005; Bakker et al., 2006; Wang & Qin, 2009; Bakker et al., 2014; Salmela-Aro et al., 2019). This study determines which other factors impact both burnout and work engagement, finding that cyberloafing significantly affects both outcomes.

Cyberloafing is a deviant work behaviour that is included in the production irregularity category. Lim and Teo (2002) defined cyberloafing as counterproductive work behaviour used by employees during working hours. Cyberloafing affects work engagement, which further affects burnout by having negative and positive effects. (Oravec, 2002; Stanton, 2002; Lim, 2002; 2011; 2012, Anandarajan and Simmers, 2005; Blau et al., 2006; Beugre and Kim, 2006; Garrett and Danziger 2008; Doorn 2011; Liberman 2011; Vitak et al, 2011; Ozler & Polat, 2012, Malhotra, 2013; Lim & Teo 2005; Garrett & Danziger 2008; Kay et al., 2009; Lara & Mesa 2010; Weatherbee, 2010; Rajah and Lim 2011; Ugrin & Pearson 2013; Yasar 2013; Betts et al., 2014; Sheikh and Adibzadegan 2015; Yogun 2015; Yilmaz et al., 2015; Stoddart 2016; Oosthuizen et al., 2018). Cyberloafing studies were done on students, lawyers, engineering, manufacturing, information technology, and management professionals. (Cheg and Tang, 2006; Lim and Teo, 2005; Henle and Blanchard, 2008; Hartijasti and Fathonah, 2014; Sheikh, Atashgah, & Adibzadegan, 2015; Zoghbi Manrique deLara, Verano Tacoronte, & Ting Ding, 2006). Research should be done on this sector because today's education sector is not untouched by the rapidly changing dynamics of IT in education. This area's investigation of cyberloafing and teaching is still developing. Further, minimal studies have been done on burnout and work engagement, taking cyberloafing as a moderator in private and public college settings faced by university faculty.

Further, Cyberloafing uniquely impacts faculty in several ways. Firstly, it diverts time and attention away from work tasks, leading to inefficiencies and potential delays in project completion. Secondly, it diverts time and attention away from work tasks, leading to inefficiencies and potential delays in project completion. Thirdly, it diverts time and attention away from work tasks, leading to inefficiencies and potential delays in project completion. Fourthly, it diverts time and attention away from work tasks, leading to inefficiencies and potential delays in project completion. Fifthly, it diverts time and attention from work tasks, leading to inefficiencies and

potential delays in project completion. Finally, it diverts time and attention away from work tasks, leading to inefficiencies and potential delays in project completion.

## **2.8. Research Objectives**

Developing a framework to measure variables in the JDR Model by exploring its antecedents and examining the effect of cyberloafing on university faculty working in Punjab.

1. To study the level of job demands, job resources, cyberloafing on burnout, and work engagement faced by university faculty in Punjab.
2. To study the relationship between job demands and cyberloafing, job resources and cyberloafing, cyberloafing and burnout, cyberloafing and work engagement, job demands and work engagement, job resources and work engagement faced by university faculty in Punjab.
3. To study the impact of job demands and cyberloafing, job resources and cyberloafing, cyberloafing and burnout, cyberloafing and work engagement, job demand and work engagement, job resources and work engagement.
- 4a. To explore the moderation role of cyberloafing between job demands and burnout.
- 4b. To explore the moderation role of cyberloafing between job demands and work engagement.
- 5a. To explore the moderation role of cyberloafing between job resources and burnout.
- 5b. To explore the moderation role of cyberloafing between job resources and work engagement.

## **2.9. Hypotheses Development**

The present study utilizes the JD-R model initially developed by Bakker and Demerouti (2007). This study adapts the existing model to investigate its applicability within the Indian context. The JD-R model posits that job demands and resources are distinct constructs, influencing employees through different pathways. Specifically, the model delineates two primary processes: an energetic process and a motivational process. Hakanen et al. (2006) propose that the energetic process suggests high job demands deplete employees' mental and physical resources, leading to burnout and decreased organizational outcomes.

On the other hand, the motivational process posits that job resources enhance work engagement and organizational outcomes. Moreover, the compensatory regulatory-control model suggests that higher organizational demands can mitigate the energetic process, leading to improved institutional outcomes (Hockey, 2000). This model elucidates that individuals experiencing anxiety in their roles must balance meeting performance goals with managing mental

strain, necessitating the allocation of resources toward their work. Increased job demands also involve administrative challenges, requiring compensatory efforts to manage the heightened workload while maintaining performance levels, which incurs both physical and mental costs. The continual mobilization of compensatory efforts depletes employees' energy, potentially leading to burnout and diminishing organizational outcomes in the long term (Gaillard, 2001).

**Hypotheses 1 (H1).** There is a significant positive relationship between cyberloafing and burnout.

Cyberloafing refers to employees' internet use for personal entertainment, business, or social connections during work hours (Lim, 2002). Burnout is defined as fatigue or emotional exhaustion. The studies show that cyberloafing has a significant impact on job burnout among knowledge workers and can partially mediate the link between workload variables and organizational commitment (Aghaz & Sheikh, 2016; X. Li & Liu, 2022; P. K. Lim et al., 2020a, 2020b, 2020a; J. Wu et al., 2020; Metin-Orta & Demirtepe-Saygılı, 2021; Mishra & Tajeja, 2022), cyberloafing behaviour is positively linked to burnout (Lim et al., 2021). Cyberloafing behaviours demonstrate a positive correlation with the duration of the internet or mobile technology usage. They are linked to emotional exhaustion among subordinates, thereby prompting cyberloafing as a coping strategy. However, some studies suggest that cyberloafing may be advantageous to employee well-being, as it is related to positive emotions, buffers the effects of boredom at work, and has a negative relationship with work strain.

**Hypotheses 2 (H2).** There is a significant positive relationship between cyberloafing and work engagement.

Evidence indicates a noteworthy positive association between cyberloafing and work engagement. Although cyberloafing is commonly perceived as a detrimental behaviour, certain studies have indicated its potential to enhance employee well-being and performance (Pindek et al., 2018) found that employees with a higher level of cyberloafing during remote work experienced higher job-related anxiety, leading to lower job performance. However, the study also found that job resources and demands can moderate the relationship between cyberloafing and job performance. Similarly (Aghaz & Sheikh, 2016) found that cyberloafing behaviours were positively correlated with work engagement. Cyberloafing can allow employees to cope with work stress and enhance work engagement. (Zhong et al., 2022). These findings suggest that cyberloafing can positively and negatively affect employee well-being and performance, depending on the context and individual factors. Therefore, organizations need to address cyberloafing and promote a positive work environment to maximise the positive effects of cyberloafing and minimise the adverse effects.

**Hypotheses 3 (H3).** There is a significant positive relationship between Job demands and burnout.

The association among job demands, job resources, and the perceived levels of burnout among municipality workers was examined. The research revealed a positive correlation between job demands and burnout (Yener & Coşkun, 2013). This hypotheses suggests that job resources are negatively related to burnout, whereas burnout is positively associated with job demands (W. B. Schaufeli & Bakker, 2004). Job resources exhibited a correlation with elevated work engagement and diminished levels of burnout. Furthermore, social support served as a buffer, attenuating the positive association between job demands and burnout. (Broeck et al., 2017). Burnout has been linked to escalated health issues, diminished work productivity, absenteeism, and heightened intentions to leave employment (Bunjak et al., 2021). Job demands exhibit a positive correlation with burnout, whereas job resources demonstrate a positive correlation with work engagement. Additionally, it was substantiated that a deficiency in job resources predicts burnout (Galanakis & Tsitouri, 2022). There is a notable positive correlation between job demands and employee burnout. (Crawford & Detar, 2023). These studies indicate that job demands exhibit a positive association with burnout, whereas job resources are negatively correlated with burnout and positively correlated with work engagement. Therefore, organisations must provide employees with adequate job resources to prevent burnout and promote employee well-being.

**Hypotheses 4 (H4).** There is a positive relationship between Job demands and work engagement.

The study investigates the relationship between job demands, positive emotions, and work engagement through the lens of the Broaden-and-Build theory and the job demands-resources model. The findings revealed a positive correlation between job demands, positive emotions, and work engagement (Elkheloufi & Yean, 2022). Job resources prompt favourable emotions and proactive problem-solving coping mechanisms, thereby enhancing the inclination to allocate energy toward executing work-related responsibilities (Mazzetti et al., 2021). Job resources are positively associated with work engagement, particularly when job demands are high. (Galanakis & Tsitouri, 2022). Collectively, these investigations indicate that both job demands and job resources can influence work engagement. While job demands may elicit favourable emotions and enhance willingness to invest energy in work-related duties, job resources can offer learning prospects and job control, thereby fostering work engagement. Therefore, organisations must balance job demands and resources to promote work engagement and employee well-being.

**Hypotheses 5 (H5).** There is a positive relationship between Job resources and burnout.

The hypotheses suggest a positive correlation between job resources and burnout. Job resources encompass diverse workplace factors that help employees attain their objectives, sustain motivation, and avert burnout. Examples comprise performance feedback, job autonomy, social support, and opportunities for professional growth and development. In instances where job resources are abundant, employees are inclined to feel more engaged and less susceptible to experiencing burnout, typified by feelings of exhaustion and disengagement (W. B. Schaufeli & Bakker, 2004). This hypothesis aligns with the JD-R model, which suggests that job resources counteract the adverse effects of job demands, thereby reducing burnout. Numerous studies have indeed found a strong inverse relationship between job resources and burnout, supporting the idea that having access to adequate resources helps mitigate burnout risk; for example, job resources such as rewards, job control, feedback, recognition, and participation have been linked to lower levels of burnout (Scanlan & Still, 2019).

In summary, the hypothesis that there is a positive relationship between job resources and burnout implies that when employees possess sufficient resources within their jobs, they are less prone to developing symptoms of burnout. The studies suggest a negative relationship between job resources and burnout. Job resources were negatively related to burnout (Yener & Coşkun, 2013; Van den Broeck et al., 2017; Bunjak et al., 2021).

**Hypotheses 6 (H6).** There is a positive relationship between Job resources and work engagement.

The hypotheses state a positive relationship between job resources and burnout. Job resources refer to various workplace conditions that help employees achieve their goals, maintain motivation, and prevent burnout. Examples include performance feedback, job control, social support, and opportunities for growth and development. When job resources are abundant, employees tend to feel more engaged and less likely to experience burnout, characterized by exhaustion and disengagement (Bakker et al., 2004). Job resources are conducive to enhanced individual motivation or work engagement (Weigl et al., 2014). Job resources can diminish the effect of job demands on work engagement (Van Heerden et al., 2022). Job resources are positively associated with work engagement, mainly when job demands are high. (Galanakis & Tsitouri, 2022). These findings suggest that job resources can contribute to work engagement, positively affecting employee well-being and organizational outcomes. Therefore, organizations must provide employees with adequate job resources to promote engagement and prevent burnout.

**Hypotheses 7 (H7).** There is a significant positive relationship between job demands and cyberloafing.

The study advances a proposition regarding the potential impact of job characteristics on workplace cyberloafing, utilizing the job demands and resources theory as the theoretical framework supporting their assertion (Alshuaibi et al., 2014).”The influence of job demands and job resources on cyberloafing behaviour through the mediating role of job stress and work engagement (Elrehail et al., 2021). Both job demands and stress are positively related to cyberloafing (Koay et al., 2017). These studies suggest that job demands can influence cyberloafing behaviour. When job demands are high, employees may engage in cyberloafing behaviour to cope with their jobs' demands. Therefore, organizations must address job demands and promote employee well-being to prevent cyberloafing.

**Hypotheses 8 (H8).** There is a significant positive relationship between job resources and cyberloafing.

The study advances a proposition regarding the potential impact of job characteristics on workplace cyberloafing, utilizing the job demands and resources theory as the theoretical framework supporting their assertion (Alshuaibi et al., 2014). The impact of job demands and job resources on cyberloafing behaviour is explored, with a focus on the mediating mechanisms of job stress and work engagement. (Elrehail et al., 2021). Cyberloafing had a weak, significant positive relationship with employee productivity, while work incivility and job stress had a negative association with employee productivity. (Chandak, 2022). The studies suggest that the relationship between job resources and cyberloafing is complex and may depend on other factors such as job demands, job-related anxiety, and work engagement.

**Hypotheses 9 (H9).** Cyberloafing moderates between job demand and burnout.

The hypotheses “Cyberloafing moderates job demand and work engagement proposes that cyberloafing behaves differently” depending on the level of job demands and work engagement experienced by employees. These hypotheses are based on the premise that cyberloafing might serve as a buffer against high job demands when employees also exhibit elevated levels of work engagement. Job demands and resources can influence cyberloafing behaviour, impacting burnout (Alshuaibi et al., 2014). Both facets of cyberloafing (activities and behaviours) significantly impact job burnout among knowledge workers. The study also found that cyberloafing moderates the relationship between job demands and burnout (Aghaz & Sheikh, 2016). Cyberloafing behaviour mediates the relationship between job demands and stress, affecting burnout. The study also found that job resources moderate the relationship between job demands and cyberloafing

behaviour (Elrehail et al., 2021). Job demands and resources can influence cyberloafing behaviour, which can impact burnout. (Alshuaibi et al., 2014). High job demands often lead to increased stress and decreased work engagement due to excessive workloads, tight deadlines, and lack of resources. As job demands rise, so does the likelihood of cyberloafing since employees may seek relief from these pressures by engaging in non-work activities. Conversely, when employees report elevated levels of work engagement, they typically demonstrate greater resilience, motivation, and productivity, leading to a reduction in cyberloafing. Thus, the interaction between job demands and work engagement influences how much cyberloafing occurs—high job demands paired with low work engagement could result in elevated cyberloafing, whereas high job demands combined with high work engagement would yield lower rates of cyberloafing. These studies suggest cyberloafing can moderate the relationship between job demands and burnout. When job demands are high, employees may engage in cyberloafing behaviour to cope with their job demands, contributing to burnout.

**Hypotheses 10 (H10).** Cyberloafing moderates between job demand and work engagement.

The hypotheses Cyberloafing moderates between job demand and work engagement proposes that the extent of cyberloafing behaviour depends on the combination of job demands and work engagement experienced by employees. Specifically, this hypotheses suggests that under high job demands, cyberloafing tends to increase when work engagement is low, indicating that stressed and demotivated employees are more inclined to engage in cyberloafing. On the contrary, under high job demands, cyberloafing tends to decrease when work engagement is high, suggesting that motivated and focused employees can better manage job demands and resist the temptation of cyberloafing (Zhang et al., 2024). The hypotheses is supported by empirical evidence showing that job demands increase job stress and cyberloafing behaviour, while job resources enhance work engagement and reduce cyberloafing behaviour. Additionally, the hypotheses acknowledges that employee motivation is crucial in moderating the relationship between job stress and cyberloafing behaviour (Elrehail et al., 2021). Cyberloafing behaviour mediates the relationship between job demands and job stress, affecting work engagement. Job resources moderate the relationship between job demands and cyberloafing behaviour. It suggests that when job demands are high, employees may engage in cyberloafing behaviour to cope with their job demands, which can negatively affect work engagement (Elrehail et al., 2021). However, job resources can buffer the adverse effects of job demands on cyberloafing behaviour and work engagement. Therefore, organizations must address job demands and provide employees with adequate job resources to prevent cyberloafing and promote work engagement.

**Hypotheses 11 (H11).** Cyberloafing moderate between job resources and burnout.

The hypotheses Cyberloafing moderates between job resources and burnout posits that the presence of job resources will influence the relationship between cyberloafing and burnout. More specifically, this hypotheses suggests that cyberloafing will not significantly contribute to burnout when job resources are plentiful because employees have the necessary tools and support to cope effectively with their work demands (Aghaz & Sheikh, 2016). Conversely, when job resources are scarce, cyberloafing may exacerbate burnout, as employees turn to non-work activities to escape demanding work situations without the proper resources to handle those demands. This hypotheses is consistent with the JD-R model, where job resources act as protective factors against burnout (Yildiz Durak & Saritepeci, 2019). By investigating whether cyberloafing moderates job resources and burnout, researchers aim to gain insight into the mechanisms through which job resources protect employees from burnout and the potential risks associated with cyberloafing. Confidence in this hypotheses comes from existing research demonstrating the positive correlation between job resources and reduced burnout, along with the established connection between cyberloafing and burnout (Metin-Orta & Demirtepe-Saygılı, 2023b).

Further exploration of these hypotheses could reveal practical applications for improving workplace design and policy to optimize job resources and minimize the occurrence of cyberloafing and burnout. Cyberloafing significantly impacts job burnout among knowledge workers. The investigation also revealed that cyberloafing moderates the association between job demands and burnout (Aghaz & Sheikh, 2016). Cyberloafing can allow employees to cope with work stress and enhance work engagement, but it can also lead to negative outcomes such as job burnout. These findings suggest that cyberloafing can have a complex relationship with job resources and burnout. While cyberloafing can be a coping mechanism for employees, it can also contribute to burnout. Therefore, organisations must address cyberloafing and promote employee well-being to prevent burnout. Additionally, providing employees with adequate job resources can help mitigate the adverse effects of cyberloafing on burnout. (Zhong et al., 2022).

**Hypotheses 12 (H12).** Cyberloafing moderates between job resources and work engagement.

The hypotheses Cyberloafing moderates between job resources and work engagement suggests that the relationship between job resources and work engagement is influenced by cyberloafing behaviour. Specifically, this hypotheses proposes that when job resources are abundant, cyberloafing behaviour will not significantly impact work engagement because employees have the necessary tools and support to manage their work demands effectively. Conversely, when job resources are scarce, cyberloafing behaviour may exacerbate the negative impact of low work engagement, as employees turn to non-work activities to cope with demanding work situations



without the proper resources to handle those demands (O'Neill et al., 2014). These hypotheses are supported by studies demonstrating a positive association between job resources and work engagement, as well as a negative association between cyberloafing behaviour and work engagement. Furthermore, the hypotheses acknowledge the potential mediating role of cyberloafing behaviour between job resources and work engagement, thereby influencing the degree to which job resources affect work engagement. Cyberloafing behaviour mediates the relationship between job demands and job stress, affecting work engagement. The study also found that job resources moderate the relationship between job demands and cyberloafing behaviour. When job demands are high, employees may engage in cyberloafing behaviour to cope with their job demands, which can negatively affect work engagement (Elrehail et al., 2021). Nonetheless, job resources have the potential to mitigate the adverse impacts of job demands on cyberloafing behaviour and work engagement. Hence, organizations should prioritize addressing job demands while ensuring the provision of sufficient job resources to mitigate cyberloafing and enhance work engagement.

## **2.10. Conceptual Definitions**

### **2.10.1. Job Demand-Resource Model**

#### ***Job Demands***

According to (Demerouti, Bakker, Nachreiner, et al., 2001), job demands were characterised “as physical, social, or organizational components of the work that involve persistent physical or mental effort and are consequently connected with specific physiological and psychological costs, work overload, physical lifting, interpersonal conflict, and job uncertainty are examples of employment demands.” This study included job demands such as work pressure, cognitive demand, emotional demand, and role conflict (Bakker et al., 2014).

#### ***Work Pressure***

Work pressure is identified in an ever-growing body of literature as a factor in burnout. Nowadays, workers have many jobs and a brief time to finish with the least resources. Burnout is associated with an increased workload, specifically with tiredness (Cordes & Dougherty, 1993; Maslach et al., 2001; W. Schaufeli & Enzmann, 1998). The ability of employees to satisfy job needs is depleted, and they cannot recover from work demands; this occurs at a vital moment, and it is how mutually qualitative and quantitative work pressure commits to fatigue. Extreme exhaustion is brought on by attending work meetings, deadlines, or other commitments. Burnout does not need to result from an emergency if people can recover during quiet times (Leiter & Maslach, 1988; Rafferty & Griffin, 2006).

#### ***Cognitive Demand***

Cognitive demand relates to requiring more concentration (Demerouti, Bakker, Nachreiner, et al., 2001).

#### ***Emotional Demand***

Issues at work that personally affect people and leave them emotionally depleted are called emotional demands.

#### ***Role Conflict***

Being required to play two conflicting roles at once creates an unclear scenario. Role conflict makes people stressed out and unhappy at work. Role conflict makes burnout unavoidable (Rajak & Chandra, 2017).

### **2.10.2 Job Resources**

Reduced job demands, their associated physical and emotional costs, and the promotion of learning, development, and personal growth are all examples of job resources. Other roles that affect job resources are emotional, social/organisational, physical, and job-specific characteristics that achieve the organisational goals (Bakker, 2011; Bakker & Demerouti, 2007; Bakker et al., 2014). As a result, under the JD-R model, job resources are crucial for meeting job requirements and being signed in and of themselves. We have used job resources, including autonomy, social support, feedback, development chances, and coaching (Bakker et al., 2014).

#### ***Autonomy***

Job autonomy is vital for employees' strength significantly because it increases the likelihood that they will be able to adjust to stressful situations (Bakker et al., 2005).

#### ***Social Support***

Autonomy refers to the freedom from other workers while performing tasks and the ability to choose one's own pace and level of effort. According to a DCM study, autonomy may function as a buffer against the effects of employment demands, workloads, and time strain (Van der Doef & Maes, 1999; Häusser et al., 2010).

#### ***Feedback***

Constructive feedback facilitates representatives in achieving greater success and fosters effective communication between supervisors and employees. When provided in a detailed and precise manner, valuable feedback empowers employees and supervisors to enhance or modify their performance effectively. Regular acknowledgement and support should be provided to all employees who excel in their duties. Conversely, individuals not meeting performance expectations should be provided with constructive feedback and guidance on improvement strategies. Regular performance evaluations serve to motivate employees and encourage optimal performance (Hackman & Oldham, 1975). Positive communication from superiors or supervisors when workers need to improve their performance is crucial and valuable for averting issues, which reduces surprises during performance reviews. For instance, work-related fatigue and interference with personal time can both be lessened by performance reviews because a job well done minimizes the tendency to worry at home (Oldham & Hackman, 2010; Oldham & Fried, 2016).

### ***Opportunities for Development***

Employees are allowed to participate in a workshop or training program to learn how to handle and solve problems at work and be trained to be ready for such difficult situations. Due to their lower energy expenditure and decreased job scepticism, these chances enable people to deal with challenging aspects of their jobs more effectively. Xanthopoulou et al. (2007) observed in their study that employees are challenged to perform when innovative ideas and skills are introduced. As a result, this leads to higher intrinsic motivation and enhanced dedication, energy, and absorption of the work. Employees can effectively manage the demands of their challenging roles with significant power and motivation. Organisations that provide their staff with various growth options serve as both a source of inspiration and a valuable resource for job seekers (Ryan & Deci, 2000; Sansone & Harackiewicz, 2000; Covington & Mueller, 2001; Reiss, 2012).

### ***Coaching***

A good relationship between supervisor and subordinate may lessen the impact of workplace expectations on work. Supervisory encouragement and recognition encourage employees to work harder and see the job needs from different perspectives (Bakker, 2011). Additionally, the supervisor can boost the employees' vitality by discussing their issues, stressing their positive self-perception, and reducing stress by demonstrating interest in and understanding their circumstances (Thomas & Ganster, 1995; Major & Morganson, 2011). Employees can always overcome the stress brought on by their demanding jobs with the support of their supervisors. Employees in organisations where the supervisors are helpful and supportive could overcome burnout (Bakker, 2011; Bakker et al., 2014).

#### **2.10.3 Burnout**

Burnout has been defined as exhaustion, cynicism, and professional effectiveness. Exhaustion refers to a worker's inability to complete a task because all of their energy has been used up, whereas cynicism (mental detachment) refers to a worker's refusal to complete a task as a result of an increased narrow-mindedness of trying (Freudenberger, 1974; Maslach et al., 2001). According to (Karger, 1981; Iliffe & Manthorpe, 2019), research on burnout, professional burnout, and workplace alienation are similar. The most inaccurate indicator of burnout is usually mentioned as being professional effectiveness (Demerouti, Bakker, Nachreiner, et al., 2001; Bakker et al., 2005).

#### **2.10.4 Work Engagement**

Work engagement is a fervent state wherein the employee is dedicated to delivering outstanding work performance and possesses a strong belief in their effectiveness (Schutte et al., 2000; Bakker, 2011). Work engagement is characterized by three dimensions: vigour, dedication, and absorption. Vigour is exemplified by elevated levels of energy and mental resilience during work, a willingness to exert effort in one's tasks, and creativity despite challenges. Dedication entails a sense of significance, enthusiasm, motivation, pride, and challenge in one's work. Lastly, absorption refers to a state of complete and joyful immersion in one's tasks, to the extent that disengagement becomes difficult (Schaufeli et al., 2002).

## **Chapter 3**

### **Research Methodology**

#### **Introduction**

The research methodology chapter is a comprehensive blueprint detailing the procedures and strategies employed in conducting the study. It comprises several sub-sections, each focusing on distinct aspects of the research process. Initially, the chapter delineates the research design, elucidating whether the study adopts a qualitative, quantitative, or mixed methods approach, and provides the rationale for the chosen design's alignment with the research objectives. Subsequently, the research setting and sample characteristics are explained, including details about the target population, sampling techniques, and considerations for sample size. The conceptual framework guiding the study, encompassing key constructs and variables, is elucidated in the model development section, with modifications to the base model discussed if applicable. Adaptations to the original constructs or measures, such as translation into local languages or cultural adjustments, are outlined in the adapted constructs subsection. Methodological procedures, including data collection techniques, sources, and ethical considerations, are detailed in the methodology section. Specifically, if survey research is employed, the survey instrument's development, validation, and administration are expounded upon. Furthermore, the measurement of demographic variables and the sampling strategy employed are thoroughly discussed, along with protocols for data collection and quality assurance measures. Finally, the statistical tools and analytical methods utilized for data analysis are justified, elucidating how they are applied to address the research objectives and hypotheses.

#### **3.1: Research Design**

A descriptive, cross-sectional research design has been adopted for the present study.

##### **3.1.1: Research Topic**

"Developing a framework to measure the effect of cyberloafing on teachers' organisational outcome by using JDR Model: a study of university faculty in Punjab."

##### **3.1.2: Research Setting and Sample**

This survey was administered to assistant professors, associate professors, and professors working in private and public universities in Punjab. We selected two public and two private universities for our research. The universities are chosen according to the National Institute Ranking Framework (NIRF). Table No. 3.1 shows the selection criteria.

**Table 3.1***List of Institutes according to NIRF Ranking in Punjab*

Rank	Name of the Institute	Type of Institute
35	Indian Institute of Technology Ropar	Government
47	Indian Institute of Science Education & Research, Mohali	Government
48	Chandigarh University	Private
57	Thapar Institute of Engineering and Technology	Private
58	Lovely Professional University	Private
80	Guru Nanak Dev University	Public
81	Central University of Punjab	Public
85	Dr B R Ambedkar National Institute of Technology, Jalandhar	Institute of National Importance

Source: NIRF Ranking 2022

We had enlisted eight universities according to the latest NIRF Ranking 2022. Out of eight universities, we selected four public and private universities. The universities are chosen according to their ranking. The first two universities, ranked 35 and 47, had been approached for the initial study but could not get a positive response regarding data collection. After that, we approached Chandigarh and Thapar Institute of Engineering and Technology, and the response was positive.

Similarly, an approach was made to Guru Nanak Dev University and the Central University of Punjab. An initial pilot study was done, and we got a response from Punjab and from all over the country that is used for the accepted research paper and is now in the publishing stage. Table no 3.2 shows the selected institutes. The study compared private and public institutes and their hierarchical level.

**Table 3.2***Selected Institutes*

Rank	Name of the Institute	Type of Institute
48	Chandigarh University	Private
57	Thapar Institute of Engineering and Technology	Private
80	Guru Nanak Dev University	Public
81	Central University of Punjab	Public

Source: NIRF Ranking 2022

### **3.2: Research Instrument**

The study used the existing questionnaire to measure the conceptual model's variables (Figure 3.1). The questionnaire included a 5-point Likert-type scale for measuring Cyberloafing (CO), burnout (BO), work engagement (WE), job demands (JD), and job resources (JR) together with their sub-variables/constructs explained in the conceptual definitions section.

### **3.3 Model Development**

Drawing upon an examination of existing literature on the job demand-resource model, the researcher deemed the following procedures suitable for model development. Several research endeavours have been unsuccessful in generating the interaction effects anticipated by the DCM. The supplementary effects of job control and job demands are frequently evident in the well-being and enthusiasm of the workforce. Many models have failed in the past because of the complexity of today's organizational environments and the overall theoretical limitations or oversimplification of the demand-control model. Not only are resources like coworkers and supervisor support accessible to deal with workplace demands, but social support from these sources may also be helpful (Johnson & Hall, 1988). Due to DCM's inability to handle complicated work environments, researchers have had room to develop another model, the job demand-resources (JD-R) model (Bakker & Demerouti, 2007). The work demand resources model, founded on the idea that every employment has a unique job feature, relies on two key components: job demands and job resources.

### **3.5 Modification to the base Model**

Modification in the base model and other relevant factors were considered for their addition to the model.

#### **3.6.1 Cyberloafing**

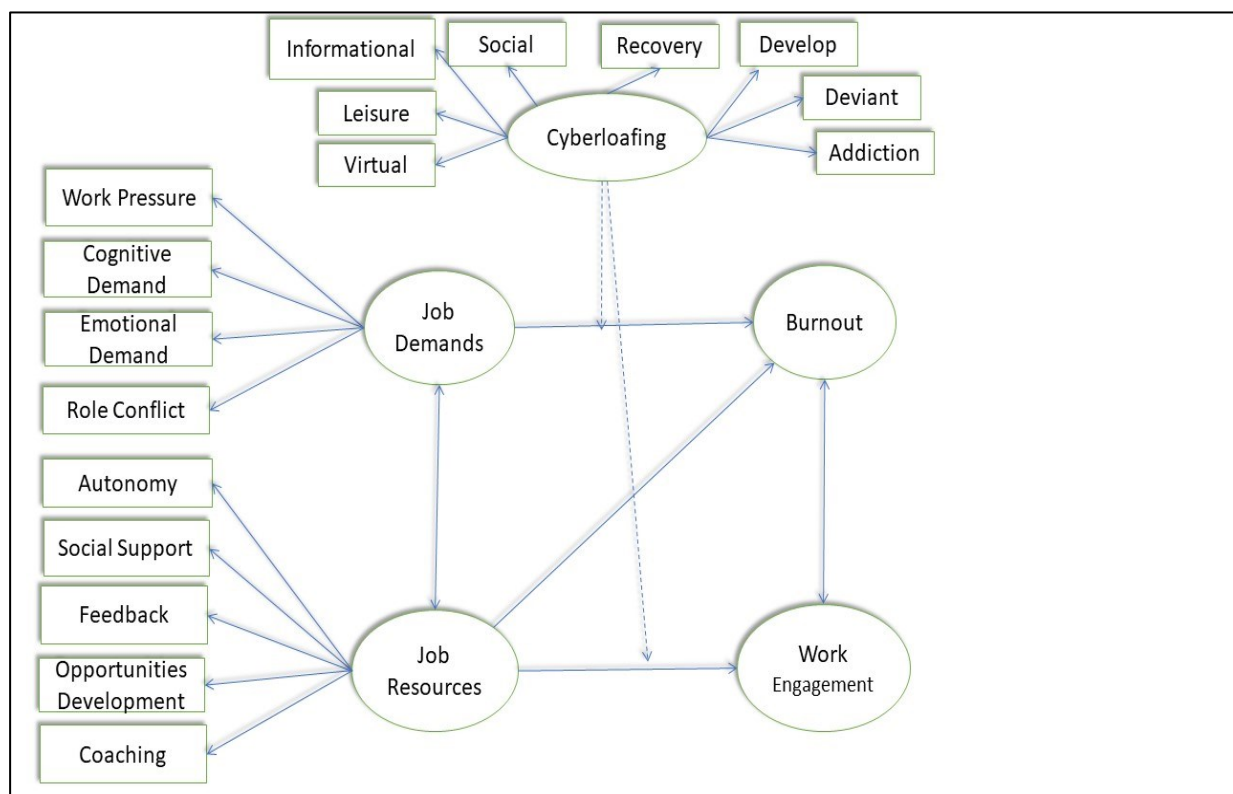
Numerous researchers have researched the base model. Many researchers suggest new findings. However, still, there is a lot to find out. Some researchers suggested finding out the impact of cyberloafing on educational settings (Yuwanto, 2018; Metin-Orta & Demirtepe-Saygılı, 2021). Technological innovation in the workplace offers significant opportunities for the organisation. The internet has been a significant technological discovery in the last century. All internet communication technologies (ICT) are necessary for the organisation and employees today. However, the Internet also allows employees to indulge in non-work-related activities. Although without the internet, they also tend to indulge in non-related work activities. Today, we are used to using the internet for work or non-working purposes. Examples of these online activities are



browsing, shopping, matchmaking, online share/ crypto trading, and using social media for personal use during working hours. All these online activities are called cyberloafing, which is the subject area for this research. Cyberloafing is a new topic in scientific literature and has gained momentum after (V. Lim, 2002) research.

According to Doorn (2011), the research conducted for definitions and dimensions of cyberloafing and internet usage in the workplace has demonstrated a multifaceted structure. In this context, (van Doorn, 2011) has explained four different cyberloafing behaviours in his study. The four cyberloafing behaviours were development, recovery, deviance, and addiction. Firstly, Development behaviour is conceptualized as the capacity for learning inherent in cyberloafing. Secondly, Recovery behaviour is interpreted as engaging in cyberloafing to recuperate from teaching endeavours. Thirdly, Deviant behaviour is defined as involvement in cyberloafing to evade learning activities. The final behaviour pertains to addiction, denoting the compulsive engagement in cyberloafing activities.

**Figure 3.3** *Modification in the Base Model*



Source: Job Demand Resource Model Adapted from (Bakker & Demerouti, 2007)

### **3.8 Methodology**

A thorough literature examination of numerous research publications, syndicated documents, and reports released by the government was the first step in the study's exploration of the constructs, dimensions, and relevant variables and their interactions. The hypotheses derived from this inquiry underwent empirical examination via a survey employing primary data. Primary data collection was facilitated through the utilization of a structured questionnaire.

#### ***3.9.1 Survey Instrument***

The survey questionnaire consists of 70 scale items, which ranged in response from "strongly disagree" to "strongly agree," measured the model variables on a five-point scale. The First section contained the Name, Email, Age, Gender, Designation, and Name of the Institute. In the second section, different scales measure burnout, work engagement, and cyberloafing among university faculty working in Punjab. Maslach Burnout Inventory- General Scale (MBI-GS) (Schaufeli, 1996) was used to measure teachers' burnout. It has been established that the MBI-GS is factorially valid across countries and word-related gatherings (Schutte et al., 2000). The study employed the two scales measuring the center measurements of burnout, specifically exhaustion, and cynicism. Both scales comprise three items. Case items are "I feel emotionally drained from my work" (exhaustion) and "Working all day is strain for me" (cynicism). All items were scored on a five-point rating scale, extending from 1 (Strongly Disagree) to 5 (Strongly Agree). Work Engagement was surveyed with the Utrecht Work Engagement Scale (UWES; (Schaufeli et al., 2002)). The factorial legitimacy of the Finnish form of the UWES has been exhibited in past research (Hakanen, 2002). Likewise, past reviews in different nations have demonstrated that the UWES has tasteful psychometric properties (Schaufeli et al., 2002). The study employed the two scales evaluating vigor (3 items) and dedication (3 items) to survey the center measurements of work engagement. Examples are "The point at which I get up in the morning, I have a craving for going to work" (force) and "I am excited about my Work" (commitment). Five workplace resources (autonomy, social support, feedback, opportunities for development, and coaching) and four job demands (work pressure, cognitive demands, emotional demands, and role conflict) were measured. The variable scales for job demand and. Five workplace resources (autonomy, social support, feedback, opportunities for development, and coaching) and four job demands (work pressure, cognitive demands, emotional demands, and role conflict) were measured. The variable scales for job demand and resources are adapted from (Bakker et al., 2014). I asked A.B. Bakker to utilize the Job Demand-Resource model for the teacher questionnaire. He provided the job demand and resource scale we adopted and modified to suit the Indian context (see Appendix 3).

Each of the five job resources was evaluated using three or four questions, such as "Do you exercise flexibility in the performance of your duties?" (Autonomy); "Do you feel respected by your coworkers at work?"; "I receive enough feedback on the results of my job"; "At work, I have the chance to improve my strong points,"; "My supervisor lets me know if he/she is satisfied with my work" (Coaching). Questions like "Do you have too much work to do?" exemplify job demand items. "Does your work need much concentration?" (Work pressure), "Is your work emotionally demanding?" (Cognitive demand) (Emotional demand), and "I frequently get demands that disagree from different persons" (role conflict). Eight organisational outcome scales obtained from (Kanning & Hill, 2013) were adopted. And modified for this study on a five-point scale. And finally, cyberloafing consists of cyberloafing activities and behaviours adopted (S.-M. Li & Chung, 2006). The four cyberloafing activities and behaviours depicted in Social activities involve interaction with the social network, e.g., *"I engage in Cyberloafing to maintain social network"* and *"I engage in Cyberloafing to search for social support."* The information activities refer to cyberloafing activities that search for information online. e.g., *"I engage in Cyberloafing to find news."* The leisure activities include listening to music and playing games online. e.g., *"I engage in Cyberloafing to listen to music and sometimes save it,"* or *"I engage in Cyberloafing to save a game."* Finally, virtual emotional activities refer to remaining activities on the internet. e.g., *"I engage in Cyberloafing to shop online,"* *"I engage in Cyberloafing to play an online game."* Each of the four activities is represented by three items on a five-point scale ranging from (1) *"Strongly Disagree"* to (5) *"Strongly Agree."*

Development behaviour refers to personal development. For example, I engage in cyberloafing to learn new skills. I engage in cyberloafing to develop myself. Recovery behaviour relates to recovery from work-related tasks. e.g., *"I engage in cyberloafing to recover from work."* Deviant behaviour refers to activities that are devoid of work-related tasks. For example, I engage in cyberloafing to avoid work tasks. Addiction behaviour refers to visiting one or multiple sites out of habit. For example, I engage in cyberloafing by visiting one or multiple sites daily. "Each of the four activities is represented by three items on a five-point scale ranging from (1) *"Strongly Disagree"* to (5) *"Strongly Agree."*

**Table No. 3.4***Scale items for this study*

<b>Cyberloafing</b>	<b>References</b>
<b>Activities</b>	<b>Li and Chung 2006</b>
<b>Social</b>	
<b>Informational</b>	
<b>Leisure</b>	
<b>Virtual Emotional</b>	
<b>Behaviours</b>	
<b>Development</b>	
<b>Recovery</b>	
<b>Deviant</b>	
<b>Addiction</b>	
<b>Job Demands</b>	<b>Bakker, A.B. (2014)</b>
<b>Work Pressure</b>	
Do you have to work at speed?	
Do you have too much work to do?	
How often do you have to work extra hard to reach a deadline?	
Do you work under time pressure?	
<b>Cognitive Demand</b>	
Does your work require a lot of concentration?	
Does your work demand enhance care or precision?	
Do you regard your work as mentally very straining?	
Does your work require your constant attention?	
<b>Emotional Demand</b>	
Is your work emotionally demanding?	
In your work, are you confronted with things that personally touch you?	
Do you face emotionally charged situations in your work	
<b>Role Conflict</b>	
I am unable to fulfill the conflicting expectations of my coworkers	
The expectations of my colleagues are in conflict	

At my work, different groups of people expect opposite things from me	
<b>Burnout</b>	
I feel emotionally drained from my work	<b>Schaufeli et al., 1996;</b> <b>Schaufeli et al., 2002</b>
I doubt the significance of my work	
Working all day is really strain for me	
I feel burned out from my work	
I have become less enthusiastic about my job	
<b>Work Engagement</b>	
At my work, I feel bursting with energy	
I am enthusiastic about my job	
My job inspires me	
At my job, I feel strong and vigorous	
When I get up in the morning, I feel like going at work	
I feel happy when I am working intensely	
<b>Job Resources</b>	<b>Bakker, A.B. (2014)</b>
<b>Autonomy</b>	
Do you have flexibility in the execution of your job?	
Do you have control over how your work is carried out?	
Can you participate in decision-making regarding your work?	
<b>Social Support</b>	
If necessary, can you ask your colleagues for help?	
Can you count on your colleagues to support you, if difficulties arise in your work?	
In your work, do you feel valued by your colleagues?	
<b>Feedback</b>	
I receive sufficient information about my work objectives.	
My job offers me opportunities to find out how well I do my work.	
I receive sufficient information about the results of my work.	

<b>Opportunities for Development</b>	<b>Bakker, A.B. (2014)</b>
In my work, I have the opportunity to develop my strong points.	
In my work, I can develop myself sufficiently.	
My work offers me the possibility to learn new things.	
<b>Coaching</b>	
My supervisor informs me whether he/she is satisfied with my work.	
My supervisor shows consideration for my problems and desires regarding my work.	
I feel valued by my supervisor.	
My supervisor uses his/her influence to help me solve problems at work.	
My supervisor is friendly and open to me.	
<b>Organisational Outcome</b>	<b>Kanning and Hill (2003)</b>
I help coworkers to be more productive.	
I help coworkers who have heavy workload.	
I help coworkers who have been absent.	
I achieve the objectives of my job.	
I fulfil all the requirements of my job.	
I am competent in all areas of my job; I handle tasks with proficiency.	
I perform well in my overall job by carrying out tasks as expected.	

### ***3.9.2 Measurement of Demographic Variables***

Some demographic variables were added to the questionnaire, which are:

- 1) Age in years of the respondents in five categories- 25-30, 31-35, 36-40, 41-45, 46- 50, 51-55, 56-60 and above.
- 2) Gender of the respondents was asked with three options, i.e., male, female, and other.
- 3) Designation of the respondent was asked with three options: Professor, Associate Professor, Assistant Professor,
- 4) Type of institute they are working was asked with four options: Chandigarh University,

Mohali, Thapar Institute of Engineering and Technology, Patiala, Guru Nanak Dev University, Amritsar, and Central University of Punjab, Bathinda.

### 3.9.3 Sampling

Sampling is a crucial process in statistics and research, involving the selection of a portion of a larger group (known as the population) to represent the characteristics of the entire group. The choice of the sample significantly impacts the study's results. Therefore, the selection process must be conducted carefully to ensure that the sample is representative of the population. According to a seminal work by R.A. Fisher, 'To draw a sample is to extract a portion of a population, usually to make inferences about the population from the sample' (Fisher, 1926). In another influential article, W.G. Cochran states, 'The purpose of sampling is to select a portion of a population for study in such a way that the sample will be representative of the population' (Cochran, 1963). The details of Cochran's sample size equation are explained below. By utilizing the formula for an infinite population and estimating the z-score, population proportion, and margin of error, one can determine the necessary sample size.

Nevertheless, this approach is not practical because populations are limited. Therefore, the estimated sample size from the unlimited population formula can be applied to the finite population formula, which accounts for the size of the population of interest and provides a more accurate sample size estimate based on specific requirements. Cochran's formula determines the minimum sample size required for a study, given a desired level of precision, population size, and an estimated proportion of the population. The formula is:

For unlimited population

$$n = \frac{z^2 * \hat{p}(1 - \hat{p})}{\epsilon^2}$$
$$n = \frac{1.96^2 * 0.5(1 - 0.5)}{0.05^2}$$

$$n = 385$$

where:

n is the sample size

z Z-score corresponding to desired confidence level (e.g., 1.96 for 95% confidence)

$\hat{p}$  estimated proportion in the population.

$\epsilon$  desired margin of error (e.g., 0.05 for 5% error)

It is important to note that the sample size calculated using Cochran's formula is a minimum, and a larger sample size may be needed to account for other factors, such as variability in the population or potential loss to follow-up. Given a population of 2756, if you assume  $P=0.5$  and a margin of error of  $E=0.05$ , the sample size required would be 385. Thus, a 95% confidence interval would require a total of 385.

Finite population:

$$n = \frac{n}{1 + \frac{z^2 * \hat{p}(1 - \hat{p})}{\varepsilon^2 N}}$$

Where:

$n = 385$  (Value calculated using the infinite population formula.)

$z = 1.96$  (Based on a 5% margin of error. Data are assumed two-tailed (i.e., a margin of error of 2.5% on each end of a normal distribution curve); thus, a value of 0.9750 will be looked up within the z-score table.)

$\hat{p} = 50\%$  or  $0.50$  (This value is often pulled from previous research/ literature. If unsure, use 50%.)

$\varepsilon = 5\%$  or  $0.05$  (Same value used to get the z-score estimate but provided as a decimal/ percentage.)

$N = 2756$  (This value is inserted if known and is often pulled from research/ literature or some prior background knowledge about the population of interest.)

$$n = \frac{385}{1 + \frac{1.96^2 * 0.50(1 - 0.50)}{0.05^2 * 2756}}$$

$$n = 337$$

Final sample size 337

### 3.10 Data Collection

The questionnaire is prepared in both online and physical forms. A multi-stage purposive random sampling is employed in two stages to select the sample. First, universities in Punjab are shortlisted according to the NIRF 2022 rankings, which include both government and private universities. Twenty-two colleges are initially screened based on the researcher's acquaintance level to avoid a low response rate. A simple random sampling (SRS) technique is then used to select teachers randomly. The sample of selected teachers is divided into two groups. The first group, comprising fifty-five respondents, was chosen initially to conduct a pilot survey to measure the reliability of



the scale used in the questionnaire. Simultaneously, the content validity of the questionnaire is assessed. The Cronbach's Alpha used to measure the scale's reliability is found to be above 0.70, which is within the acceptable range. Specific language issues and ambiguities within the questionnaire are identified and resolved afterward. Subsequently, another group of 285 teachers was contacted personally through university visits and asked to complete the questionnaire. Out of 430 samples, 340 samples with a response rate of 80% were finally collected through this mode of administration. The high response rate is primarily attributed to the persistent follow-up with each respondent from whom responses are sought.

### **3.11. Statistical tools**

The study utilizes advanced statistical tools such as Confirmatory Factor Analysis (CFA) to validate representative factors within the population under investigation. Structural Equation Modeling (SEM) is employed to test the model hypotheses. The statistical package for social sciences (SPSS 23.0) and SmartPLS 4 are used to test the hypotheses and moderation effects. Partial Least Squares Structural Equation Modeling (PLS-SEM) is a statistical method used to estimate complex cause-effect relationships in path models with latent variables. It is a type of structural equation modelling that allows researchers to model and estimate intricate cause-and-effect relationships involving both latent and observed variables. PLS-SEM is considered an alternative to covariance-based SEM (CB-SEM) and is deemed more flexible in handling non-normal, categorical, and ordinal data, as well as small sample sizes, without violating CB-SEM assumptions. PLS-SEM offers several advantages over CB-SEM, particularly when dealing with complex models. For instance, PLS-SEM can manage non-normal, categorical, and ordinal data and small sample sizes without violating CB-SEM assumptions. It also addresses multicollinearity and higher-order constructs using either reflective or formative measurement, whereas CB-SEM can only use reflective measurement.

However, PLS-SEM has certain disadvantages compared to CB-SEM, especially when testing theories and hypotheses. For example, PLS-SEM does not provide a global measure of model fit, unlike CB-SEM, which offers several fit indices such as chi-square, RMSEA, CFI, and SRMR. Additionally, PLS-SEM does not test the significance of model parameters using standard errors and confidence intervals, nor does it account for measurement errors.

PLS-SEM has been used in various fields such as management, marketing, information systems, medicine, engineering, psychology, political and environmental sciences, and education research. However, it is essential to note that PLS-SEM misuse can be avoided, and critical issues related to applying PLS-SEM, research design, model development, and model evaluation should be considered in detail. Therefore, researchers should carefully consider the advantages and

disadvantages of PLS-SEM and choose the appropriate method based on their research questions and data characteristics.

### **3.13 Summary**

This chapter focuses on developing models and hypotheses for the study, along with the methodology employed. The initial model is thoroughly examined and subsequently modified by incorporating additional factors. The hypotheses are derived from the relationships outlined in the original model, with further connections supported by relevant literature. Furthermore, this chapter provides a comprehensive overview of the methodology used to gather pertinent information, investigate the identified factors, and assess their relationships. The methodology includes the sampling approach, development and distribution of the questionnaire, data collection procedures, and statistical analysis methods. The approach used in this study offers an advantage over earlier research as it is comparative. This study also considers the moderating influence of cyberloafing, which has not been explored in previous investigations on teacher burnout and work engagement. The methodology employed in this study is multi-dimensional.

## Chapter 4

### Data Analysis and Results

#### Introduction

The purpose of this chapter is to present the data analysis of the study, focusing on the frequencies of demographic variables, data screening, and the assessment of multivariate normality, outlier detection, linearity, multicollinearity, and another second measure of validation of scales. Additionally, this chapter discusses the reliability and validity of the scales used in the study, followed by testing the model according to the hypotheses developed.

#### 4.1 Frequencies of the Demographic Variables

The frequencies of the demographic variables, viz., age, type of institutions, designation, and gender, were analysed.

##### 4.1.1 Age

Age is classified into seven categories: 25-30 years, 31-35 years, 36-40 years, 41-45 years, 46-50 years, 51-55 years, and 56-60 years. The most frequent age group is 25-30 years, comprising 14.46% of respondents (n=72). The 31-35-year age group accounts for 28.11% (n=140) of respondents. A total of 125 respondents (25.10%) are 36-40 years old. In the 41-45-year age group, 13.86% of respondents are represented, while 7% are in the 46-50-year age group, followed by the 51-55-year age group with 9% (n=32) of respondents. The least frequent groups are the 46-50 and 56-60-year age groups, with 2.21% (n=7) and 1.20% (n=4) of respondents, respectively. Table 5.1 presents the frequencies and percentages of the age groups.

**Table 4.1**

*Age Groups*

Age groups	Frequency	Percent
25 to 30 years	33	10
31 to 35 year	96	28
36 to 40 years	79	23
36 to 40 years	65	19
46 to 50 years	19	7
51 to 55 years	32	9
56 to 60 years	13	4
Total	337	100

### 4.1.2 Type of Institution

The researcher categorised the respondents according to the type of institution they were employed in, resulting in three groups: government institutions and private institutions. The respondents who worked in government were 37.35% (n=186). 234 (46.99%) respondents worked in private higher educational institutions.

**Table 4.2**

*Type of institutions*

Types of Institutions	Frequency	Percent
Government	94	27.89
Private	243	72.10
Total	337	100

### 4.1.3 Designation

All respondents' occupations were the same: teachers in different universities but of different designations- Assistant professor, Associate professor, and Professor. Out of 337 respondents, 240 (71.21%) are assistant professors. 21.66% of respondents are associate professors (n=73) and 7% (n=24) are professors.

**Table 4.3**

*Frequency and Percentage of Designation*

Types of Institutions	Frequency	Percent
Assistant Professor	240	71.21
Associate Professor	73	21.66
Professor	24	7
Total		100

## 4.2 Data Screening

Out of 430 questionnaires distributed via email, social media platforms, and personal interactions, 340 usable responses were obtained, reflecting a response rate of 80%. Subsequently, these 340 responses underwent thorough screening to ensure data validity. Before analysis, all questionnaire items were coded, and a meticulous review was conducted to identify and address any incomplete or aberrant data. It is emphasized that only the 340 validated responses were utilized for data interpretation.

### 4.2.1 Multivariate Normality

Multivariate normality is a statistical concept that deals with the simultaneous distribution of multiple variables within a dataset. It assumes that the collective distribution of these variables

follows a multivariate normal distribution. Under this distribution, each variable individually conforms to a normal (or Gaussian) distribution, while the interrelationships between variables are characterized by their respective means, variances, and covariances. Consequently, the joint distribution of the variables exhibits symmetry and a bell-shaped curve, with any linear combination of them also adhering to a normal distribution pattern. The assumption of multivariate normality is critical in various statistical techniques and analyses, including multivariate analysis of variance (MANOVA), structural equation modelling (SEM), and factor analysis. Deviations from multivariate normality can compromise the validity and reliability of these analyses, potentially leading to biased estimates and erroneous conclusions. Researchers commonly use statistical methods such as multivariate normality tests or diagnostic plots to assess multivariate normality. If violations of multivariate normality are detected, researchers may need to explore alternative statistical approaches or adopt techniques to address non-normality in the data, such as data transformation or robust methods.

To assess normality, the investigators analyze the skewness and kurtosis of all variables. They generate histograms and PP plots (included in Appendix 2) depicting the standardized residuals of dependent variables and the standardized predicted values of independent variables on regression lines. Analysis of these plots reveals that some histograms display slight negative skewness and increased peakedness, while certain PP plots exhibit minor deviations from normality in residual values. Consequently, a minor degree of non-normality is observed. Notably, variables assessing altruistic and biospheric values demonstrate high kurtosis values due to their tendency toward agreement, rendering them leptokurtic. Nevertheless, the deviation from normality is not deemed severe, with skewness indices at 87 and kurtosis indices below 3 and 10, respectively, according to Kline (2011).

#### **4.2.2 Outlier Detection**

Outlier detection, a fundamental process in statistical analysis and data science, involves identifying observations within a dataset that exhibit significant deviations from most of the data points. These outliers, characterized by substantial divergence from the central tendency or broader distribution of the dataset, may arise due to various factors, including measurement errors, sampling variability, or genuine anomalies within the underlying data distribution. Utilizing a range of statistical techniques and methodologies, outlier detection aims to pinpoint these anomalous observations for further analysis and consideration. These techniques include descriptive statistical measures such as the mean, median, and standard deviation, as well as more advanced approaches like Z-score computation, density-based clustering algorithms, and machine learning-based anomaly detection models. Identifying and appropriately handling outliers is

crucial for ensuring the integrity and reliability of subsequent data analysis and modelling efforts, as unaddressed outliers can distort statistical estimates, skew relationships between variables, and compromise the validity of predictive models. Therefore, outlier detection is a critical preprocessing step in the rigorous examination and interpretation of datasets across diverse scientific domains. Outliers can influence analytical outcomes, necessitating their identification. However, a universally endorsed technique for detecting outliers remains elusive within the scientific community (Filzmoser, 2005).

Therefore, a methodologically cautious approach is employed to identify influential cases involving an assessment of Cook's distance. According to Cook's criterion, instances with values exceeding one are considered outliers (Cook, 1982; Stevens, 1992; Kline, 2011). In all scatter plots examined, the highest recorded value of Cook's distance remains below 0.1 (see Appendix 2). Consequently, none of the observations are identified as significantly influential. Additionally, reverse coding is implemented for specific items to identify disengaged respondents; however, no such cases are encountered.

#### **4.2.3 Linearity**

Linearity in research refers to the assumption of a linear relationship between the independent and dependent variables. This assumption implies that the changes in the dependent variable are proportional to the changes in the independent variable. It enables the use of linear models in data analysis and facilitates the interpretation of predictions about the relationship between variables. However, it is important to note that not all real-world relationships are linear, and researchers may need to employ non-linear models to represent the data accurately. In the context of SmartPLS, linearity refers to the assumption that the relationships between variables in a structural model are linear. SmartPLS is a software package commonly used for structural equation modelling (SEM), which examines complex relationships among multiple variables. Linearity in SmartPLS means that the relationships between constructs and their indicators, and the relationships between constructs themselves, are assumed to be linear. Consequently, changes in one variable are expected to result in proportional changes in another, following a straight-line pattern. The importance of linearity in SmartPLS lies in its implications for model estimation and interpretation.

- i. **Model Specification:** When specifying a structural model in SmartPLS, researchers assume linearity between latent variables (constructs) and their observed indicators. This assumption is inherent in the estimation procedure employed by SmartPLS.
- ii. **Interpretation:** The assumption of linearity facilitates the understanding of path coefficients, representing the strength and direction of relationships between constructs. In SmartPLS, path coefficients are interpreted as the change in the

dependent variable per unit change in the independent variable, assuming a linear relationship.

- iii. **Validity of Results:** Violations of the linearity assumption in SmartPLS can lead to biased parameter estimates and inaccurate conclusions about the relationships between variables. Therefore, ensuring that the relationships in the model are linear is essential for obtaining valid and reliable results.

In SmartPLS, researchers commonly verify the linearity assumption by visually inspecting scatterplots to examine the relationships between variables. Furthermore, diagnostic functionalities within SmartPLS, such as bootstrapping and permutation tests, offer tools for assessing the validity of linear model assumptions and identifying potential deviations. If indications of nonlinearity arise, researchers may need to explore alternative modelling strategies or apply transformations to mitigate such concerns.

#### **4.2.4 Multicollinearity**

Multicollinearity is undesirable as it results in independent variables sharing variance in explaining the dependent variable, thereby diminishing the unique explanatory power of each variable. Multivariate regression computed the Variable Inflation Factor (VIF) for each independent variable to assess multicollinearity. VIF values exceeding three and tolerances below 0.10 indicate significant multicollinearity concerns. It was determined that all independent variables exhibited VIF and tolerance values within acceptable thresholds, indicating the absence of severe multicollinearity issues.

### **5.3 Measurement and Validation of Scales**

The researchers adopted most of the scales for their study on the effect of cyberloafing on faculty with the help of the JDR model, while modifying some scales to fit the context. They employ a statistical method called confirmatory factor analysis (CFA) to validate these scales. CFA is a technique used to assess the alignment of measures with the researcher's conceptualization of the construct or factor.

#### **4.3.1 Confirmatory Factor Analysis**

Using CFA and Cronbach's  $\alpha$ , the validity and reliability of the measurement model for construction were tested. The results presented in Table 13 indicate that the values of Cronbach's  $\alpha$  for all the constructs fall within the acceptable range of above .7 and higher, ranging from .786 to .945 (Hair et al., 1998). Chin et al. (1997) suggested that a minimum threshold of 0.6 for factor loading values should be met. In the present study, the factor loading values ranged from 0.71 to 0.95, which exceeded the recommended threshold. The composite reliability values for all

constructs in the study were within the range of 0.79 to 0.95, which exceeded the recommended threshold of 0.6 (Bagozzi & Yi, 1988). Furthermore, the evaluation of both convergent and discriminant validity was measured. The assessment of convergent validity was based on three factors: factor loading, variance extracted (AVE), and composite reliability (CR). According to Hair et al. (1998), the standard limit for the AVE is above 0.5. In the study, AVE ranges from .54 to .87. The square root of the AVE of each construct was more significant than the correlation between the constructs, ensuring adequate discriminant validity (Chin, 1998).

#### 4.4 Reliability and Validity

##### 4.4.1 Reliability of scales

Evaluating the internal consistency and dependability of each scale is crucial. Cronbach's alpha coefficient was utilised to assess this, and the outcomes are presented in Table 20. As per the results displayed in the table, Cronbach's alpha values for each construct were 0.744 to 0.966. Hence, it was concluded that Cronbach's alpha values were within the satisfactory range, and all scales' internal consistency and dependability were confirmed.

**Table 4.4:**

*Result of factor loading reliability and validity.*

Constructs	Items	Factor Loadings	Cronbach's $\alpha$	CR	AVE
WP	3	0.76-0.80	0.715	0.833	0.624
COGN	3	0.76-0.82	0.726	0.745	0.597
EMO	3	0.76-0.86	0.758	0.764	0.673
RCON	4	0.78-0.82	0.813	0.819	0.638
AUTO	3	0.87-0.90	0.846	0.851	0.767
SOC	3	0.83-0.92	0.859	0.868	0.781
FEEDB	3	0.81-0.93	0.836	0.838	0.754
OPPOR	3	0.88-0.93	0.891	0.891	0.821
COACH	5	0.74-0.87	0.882	0.888	0.681
SOCI	3	0.45-0.51	0.687	0.842	0.756
INF	3	0.70-0.85	0.658	0.69	0.598
LES	3	0.83-0.93	0.872	0.871	0.798
VE	3	0.82-0.86	0.776	0.797	0.700
REC	3	0.85-0.92	0.874	0.879	0.800
DEVT	3	0.88-0.89	0.863	0.878	0.783
DEV	3	0.84-0.92	0.866	0.877	0.789
ADD	3	0.84-0.90	0.852	0.854	0.772
BO	6	0.70-0.85	0.872	1.264	0.537
WE	5	0.70-0.91	0.847	0.854	0.686

Note - WP(Work Pressure), CONG(Cognitive Demands), EMO(Emotional Demand), RCON(Role Conflict), AUTO(Autonomy), SOC(Social support), FEEDB (Feedback), OPPOR(Opportunity), COACH(Coaching), SOCIAL (SOCI), INF(Information), LES(Leisure),



VE(Virtual Emotional), REC(Recovery), DEVT(Deviant), DEV(Develop), ADD(Addiction), BO(Burnout), WE(Work Engagement).

#### 4.4.2 Content Validity

Content validity pertains to the degree to which a measurement tool, such as a test or questionnaire, effectively encompasses the entirety of the targeted construct it aims to evaluate. This assessment involves determining whether the items within the tool sufficiently encapsulate the breadth and depth of the construct thoroughly and suitably. Typically, content validity is evaluated by domain experts who scrutinize the items or queries within the tool to ascertain their adequacy in capturing the relevant content domain. This scrutiny entails assessing the items for their pertinence, inclusiveness, and clarity with the construct under examination. The content validity of a construct pertains to the extent to which the measurement instrument captures the theoretical essence of the construct (Rungtusanatham, 1998). In this investigation, the content validity of the instrument was ensured through consultation with expert professionals within the field of education.

**Table 4.5**

*Reliability of Scale*

<b>Scale</b>	<b>Cronbach' Alpha</b>
Work Performance	0.715
Cognitive Demands	0.728
Emotional Demands	0.758
Role Conflict	0.813
Autonomy	0.846
Social Support	0.859
Feedback	0.836
Opportunity	0.891
Coaching	0.882
Social	0.687
Informational	0.702
Leisure	0.872
Virtual Emotional	0.776
Recovery	0.874
Deviant	0.863
Development	0.866
Addiction	0.852
Burnout	0.872
Work Engagement	0.847

**Table 4.6***Validity Measure of Scale (CR, AVE)*

Scales	CR	AVE
Work Performance	0.833	0.624
Cognitive Demands	0.745	0.597
Emotional Demands	0.764	0.673
Role Conflict	0.819	0.638
Autonomy	0.851	0.767
Social Support	0.868	0.781
Feedback	0.838	0.754
Opportunity	0.891	0.821
Coaching	0.888	0.681
Social	0.842	0.756
Informational	0.69	0.598
Leisure	0.871	0.798
Virtual Emotional	0.797	0.700
Recovery	0.879	0.800
Deviant	0.878	0.783
Development	0.877	0.789
Addiction	0.854	0.772
Burnout	1.264	0.537
Work Engagement	0.854	0.686

#### 4.4.3 Construct validity

As the scales were adopted from earlier studies and slight re-specification was made to them, their construct validity was already ascertained. So, the researchers went for further validation of the scales.

#### 4.4.4 Convergent Validity

Convergent validity pertains to the degree to which different methods of measuring a variable produce comparable results (O'Leary-Kelly and Vokurka, 1998). Composite Reliability (CR) based on Cronbach Alpha and Average Variance Explained (AVE) can be used to establish convergent validity. To ensure convergent validity, the following conditions must be fulfilled:  $CR > 0.7$ ,  $CR > AVE$ , and  $AVE > 0.5$  (Hair et al., 2010). In this study, the alpha value of all the constructs was more significant than 0.7, indicating that the criteria for convergent validity were met. AVE of all individual constructs was found to be greater than 0.5 (see Table 5.7 reliability scale).

#### 4.4.5 Discriminant Validity

Discriminant validity refers to the degree to which the measurements of distinct latent variables are distinctly different (Campbell & Fiske, 1959). Discriminant validity is confirmed when the correlations of a construct are not excessively high with other constructs that it should differ from (O'Leary-Kelly and Vokurka, 1998). Average Variance Explained (AVE) and Maximum Shared

Variance (MSV) are considered to confirm discriminant validity. The following criteria must be met to ensure discriminant validity:  $MSV < AVE$  and  $ASV < AVE$  (Hair et al., 2010). This study determined the MSV and ASV for each of the five individual constructs to evaluate discriminant validity. The results indicate that the measurement model has established discriminant validity since the MSV and ASV of each construct were lower than their respective AVE estimates. As shown in Table validity measurement, the square root of AVE for all constructs is greater than or equal to the correlations of any other factor. It indicates that the discriminant validity of all constructs has been confirmed. The correlation matrix is shown in Appendix 3.

**Table 4.7**

Results of factor loadings

Items (Constructs)	Loading Before	Loading After Deleted Items
Cyberloafing		
Social		
S1	0.432	Deleted
S2	0.501	Deleted
S3	0.512	Deleted
Information		
INF1	0.710	0.698
INF2	0.598	0.590
INF3	0.624	0.601
Leisure		
L1	0.746	0.746
L2	0.598	0.598
L3	0.524	0.524
Virtual Emotional		
VE1	0.631	0.631
VE2	0.564	0.564
VE3	0.537	0.537
Development		
DEV1	0.590	0.598
DEV2	0.581	0.772
DEV3	0.642	0.778
Recovery		
REC1	0.533	0.529
REC2	0.594	0.745
REC3	0.585	0.752
Deviant		
D1	0.626	0.598
D2	0.690	0.772
D3	0.677	0.778
Addiction		
A1	0.708	0.789
A2	0.678	0.777
A3	0.664	0.751

## JOB DEMANDS

### Work Pressure

WP1	0.690	0.691
WP2	0.644	0.644
WP3	0.650	0.649
WP4	0.655	0.655

### Cognitive Demands

CONG1	0.723	0.708
CONG2	0.713	0.698
CONG3	0.671	0.654
CONG4	0.699	0.683

### Emotional Demands

EMO1	0.682	0.666
EMO2	0.771	0.775
EMO3	0.704	0.709

### Role Conflict

ROLCON1	0.716	0.717
ROLCON2	0.748	0.749
ROLCON3	0.733	0.734
ROLCON4	0.782	0.783

## JOB DEMANDS

### Autonomy

AUTO1	0.695	0.673
AUTO2	0.637	0.621
AUTO3	0.651	0.658

### Social Support

SOC1	0.497	0.497
SOC2	0.517	0.517
SOC3	0.559	0.559

### Feedback

FEED1	0.730	0.73
FEED2	0.810	0.776
FEED3	0.784	0.761

### Opportunity

OPPOR1	0.808	0.767
OPPOR2	0.794	0.751
OPPOR3	0.522	0.627

### Coaching

COACH1	0.651	0.64
COACH2	0.663	0.65
COACH3	0.673	0.672
COACH4	0.714	0.741

### Burnout

BO1	0.803	0.786
BO2	0.776	0.756
BO3	0.778	0.757

BO4	0.761	0.784
BO5	0.792	0.811
BO6	0.811	0.822
Work Engagement		
WE1	0.656	0.653
WE2	0.900	0.899
WE3	0.883	0.881
WE4	0.921	0.922
WE5	0.894	0.896
WE6	0.911	0.913

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Source: Primary Data collected by the researcher.

#### 4.5 Hypotheses Testing

Hypotheses testing is crucial in analysing data and concluding various research fields, including partial least squares structural equation modelling (PLS-SEM) (Kock, 2016). In PLS-SEM, hypotheses testing is typically conducted by calculating p-values for each path coefficient, where a p-value of  $\leq 0.05$  is considered statistically significant, and the hypotheses is accepted. However, researchers can also use confidence intervals as an alternative or additional approach for hypotheses testing in PLS-SEM. Confidence intervals provide a range of plausible values for the population parameter, and if the interval does not include the null value, the hypotheses is rejected. This approach allows for a more nuanced interpretation of the results and can be particularly useful when dealing with complex models and latent variables.

4.5.1. To study the level of job demand, job resource, cyberloafing on burnout and work engagement faced by university faculty in Punjab.

Construct Reliability and Validity

**Table 4.8**

*Discriminant Validity*

	Burnout	Cyberloafing	Job Demands	Job Resources
Burnout				
Cyberloafing	0.786			
Job Demands	0.758	0.782		
Job Resources	0.739	0.798	0.800	
Work Engagement	0.768	0.782	0.700	0.756

**Table 4.9***Reliability*

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Burnout	0.877	0.878	0.907	0.619
Cyberloafing	0.916	0.922	0.929	0.525
Job Demands	0.926	0.928	0.936	0.493
Job Resources	0.908	0.911	0.923	0.547
Work engagement	0.930	0.936	0.947	0.75

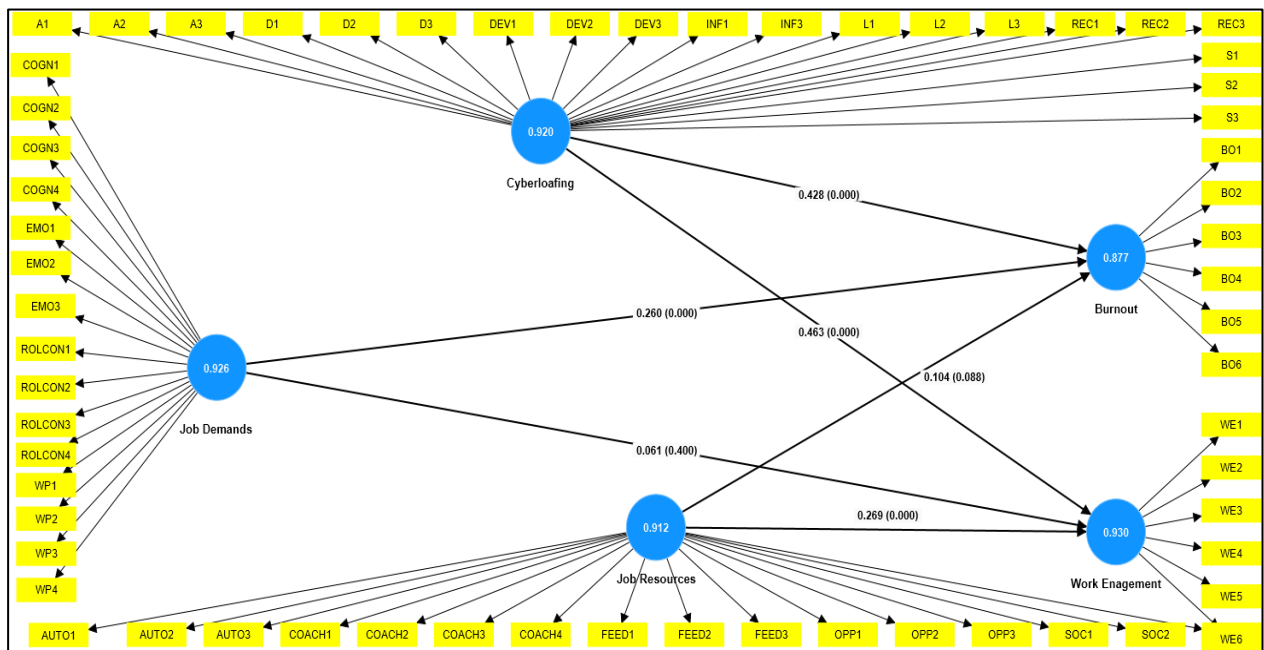
Table 4.10 presents the convergent validity results as the first step in assessing the measurement model. First, for the items level, the analysis shows that the indicator loadings and communality surpassed the threshold levels of 0.7 and 0.5, respectively. Secondly, the constructs level analysis indicates that Cronbach's alpha, composite reliability and AVE exceeded the threshold levels of 0.7, 0.7, and 0.5, respectively, which suggests that the convergent validity was met. Consequently, the Eornell-Larcker analysis shows that the square root of the AVEs for each construct was more significant than the correlations with other constructs (see Table 5.10). Thus, the discriminant validity of all constructs was established. Likewise, all HeteroTrait-MonoTrait (HTMT) values were lower than the threshold of 0.85 (Henseler et al., 2015), which confirms discriminant validity (see Table 4.11). As a result, convergent and discriminant validity was met, allowing us to proceed to assess the structural model.

**Table 4.10***Results of Path Relationships*

Hypotheses	Coefficient	Standard deviation	t-statistics	p-values
H1: Cyberloafing -> Burnout	0.428	0.073	5.852	0.000
H2: Cyberloafing -> Work engagement	0.463	0.068	6.808	0.000
H3: Job Demands -> Burnout	0.260	0.063	4.164	0.000
H4: Job Demands -> Work engagement	0.061	0.072	0.842	0.400
H5: Job Resources -> Burnout	0.104	0.061	1.710	0.088
H6: Job Resources -> Work engagement	0.269	0.059	4.572	0.000

**Figure 4.1**

*Path Model*



**Table 4.11**

*Results of hypotheses testing*

Hypotheses	Hypotheses	Result
H1	Cyberloafing and burnout are positively related.	Accepted
H2	Cyberloafing and work engagement are positively related.	Accepted
H3	Job demands and burnout are positively related.	Accepted
H4	Job demands and work engagement are positively related.	Rejected
H5	Job resources and burnout are positively related.	Rejected
H6	Job resources and work engagement are positively related	Accepted

Table 4.11 indicates that H1 seeks to assess whether cyberloafing significantly impacts burnout. The hypotheses results revealed that cyberloafing significantly impacted burnout ( $\beta = 0.428$ ,  $t = 5.882$ ,  $p = .000$ ). Therefore, cyberloafing would positively impact burnout. Hence, Hypotheses H1 was validated. H2 seeks to assess whether cyberloafing has a significant impact on work engagement. The hypotheses revealed that cyberloafing significantly impacted work engagement ( $\beta = 0.463$ ,  $t = 6.808$ ,  $p = .000$ ). Therefore, cyberloafing would positively impact work engagement. Hence, Hypotheses H2 was validated. H3 seeks to assess whether job demands have a significant

impact on burnout. The results of the hypotheses revealed that job demands had a considerable impact on burnout ( $\beta = 0.260$ ,  $t = 4.264$ ,  $p < .000$ ). Therefore, job demands would positively impact burnout. Hence, Hypotheses H3 was validated. H4 seeks to assess whether job demand significantly impacts work engagement. The results of the hypotheses revealed that job demands significantly impacted work engagement ( $\beta = 0.061$ ,  $t = 0.842$ ,  $p < .000$ ). Therefore, job demands would have a positive impact on work engagement. Hence, Hypotheses H4 was rejected. H5 seeks to assess whether job resources have a significant impact on burnout. The results of the hypotheses revealed that job resources had a substantial impact on burnout ( $\beta = 0.104$ ,  $t = 1.710$ ,  $p = 0.088$ ). Therefore, job resources would have a positive impact on burnout. Hence, Hypotheses H5 was rejected. H6 seeks to assess whether job resources significantly impact work engagement. The results of the hypotheses revealed that job resources had a significant impact on work engagement ( $\beta = 0.269$ ,  $t = 4.572$ ,  $p < .001$ ). Therefore, job resources would have a positive impact on work engagement. Hence, Hypotheses H6 was validated.

4.5.2. To study the impact and relationship between job demand and cyberloafing, job resources, and cyberloafing, cyberloafing and burnout, cyberloafing and work engagement, job demand and work engagement, job resources, and work engagement faced by university faculty in Punjab.

**Table 4.12**  
*Construct Reliability and Validity*

Constructs	Cronbach's alpha	Composite reliability ( $\rho_a$ )	Composite reliability ( $\rho_c$ )	Average variance extracted (AVE)
Burnout	0.877	0.886	0.906	0.617
Cyberloafing	0.916	0.923	0.929	0.524
Job Demands	0.914	0.923	0.928	0.546
Job Resources	0.899	0.913	0.920	0.567
Work Engagement	0.930	0.938	0.947	0.750

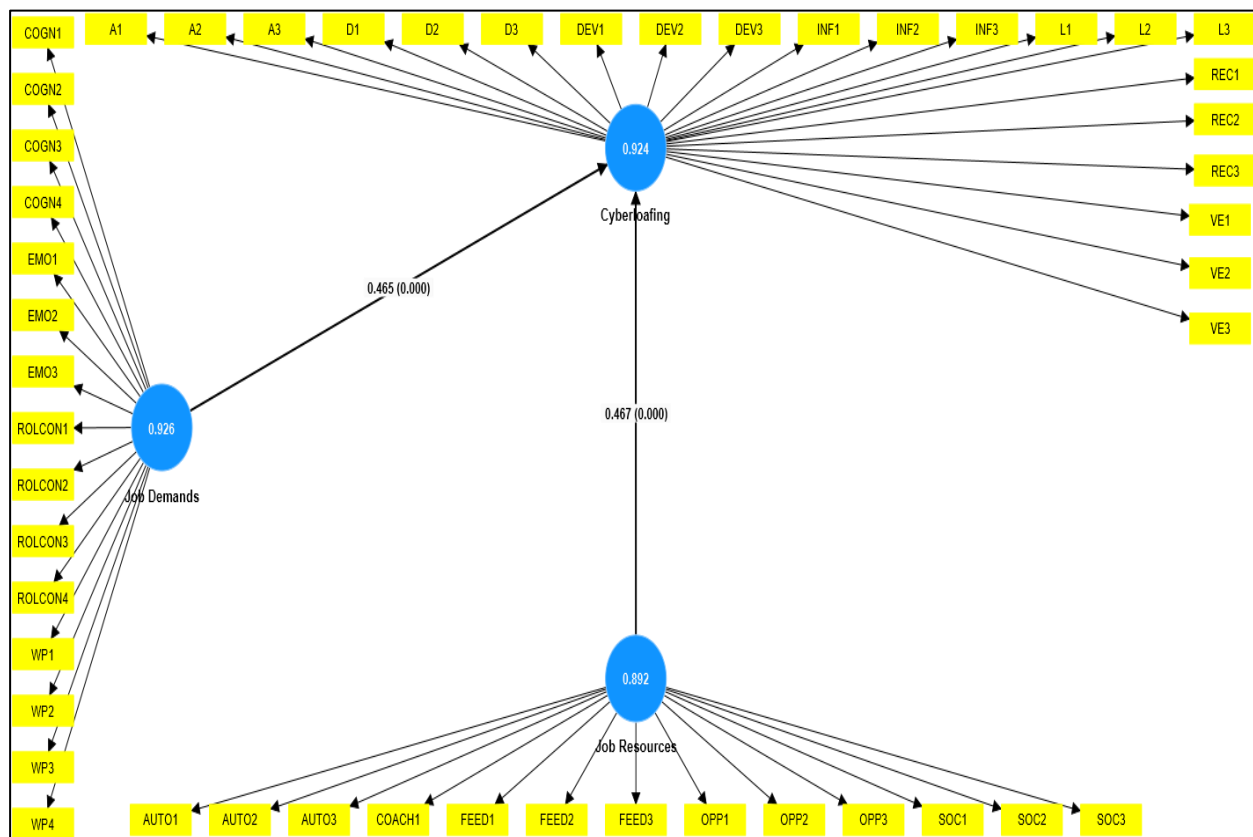
**Table 4.13**  
*Discriminant Validity- HTMT Ratio*

	Burnout	Cyberloafing	Job Demands	Job Resources	Work Engagement
Burnout					
Cyberloafing	0.697				
Job Demands	0.711	0.903			
Job Resources	0.686	0.805	0.772		
Work Engagement	0.768	0.746	0.692	0.714	



**Table 4.14***Results of Path Relationships*

Hypotheses	Coefficient	Standard deviation	t-statistics	p-values
H7: Job Demand -> Cyberloafing	0.465	0.037	12.477	0.000
H8: Job Resources -> Cyberloafing	0.466	0.035	13.283	0.000

**Figure 4.2***Path Model*

4.5.3. To explore the moderating effect role of cyberloafing on the relationship between job demands and burnout

**Table 4.16**

*Construct Reliability and Validity*

	Cronbach's alpha	Composite reliability (rho <sub>a</sub> )	Composite reliability (rho <sub>c</sub> )	Average variance extracted (AVE)
Burnout	0.877	0.878	0.907	0.618
Cyberloafing	0.896	0.905	0.916	0.55
Job Demands	0.926	0.93	0.936	0.493

**Table 4.17**

*Discriminant Validity- HTMT Ratio*

	Burnout	Cyberloafing	Job Demands	Cyberloafing x Job Demands
Burnout				
Cyberloafing	0.782			
Job Demands	0.758	0.869		
Cyberloafing x Job Demands	0.468	0.559	0.531	

**Table 4.19**

*Results of hypotheses testing*

Hypotheses No.	Hypotheses	Result
H9	Cyberloafing moderates job demand and burnout.	Rejected

H9 seeks to assess whether cyberloafing moderates job demand and burnout. The results of the hypotheses revealed that cyberloafing moderates job demand and burnout ( $\beta = -0.030$ ,  $t = 1.259$ ,  $p < 0.208$ ). Therefore, cyberloafing would moderate job demand and burnout. Hence, Hypotheses H9 were validated.

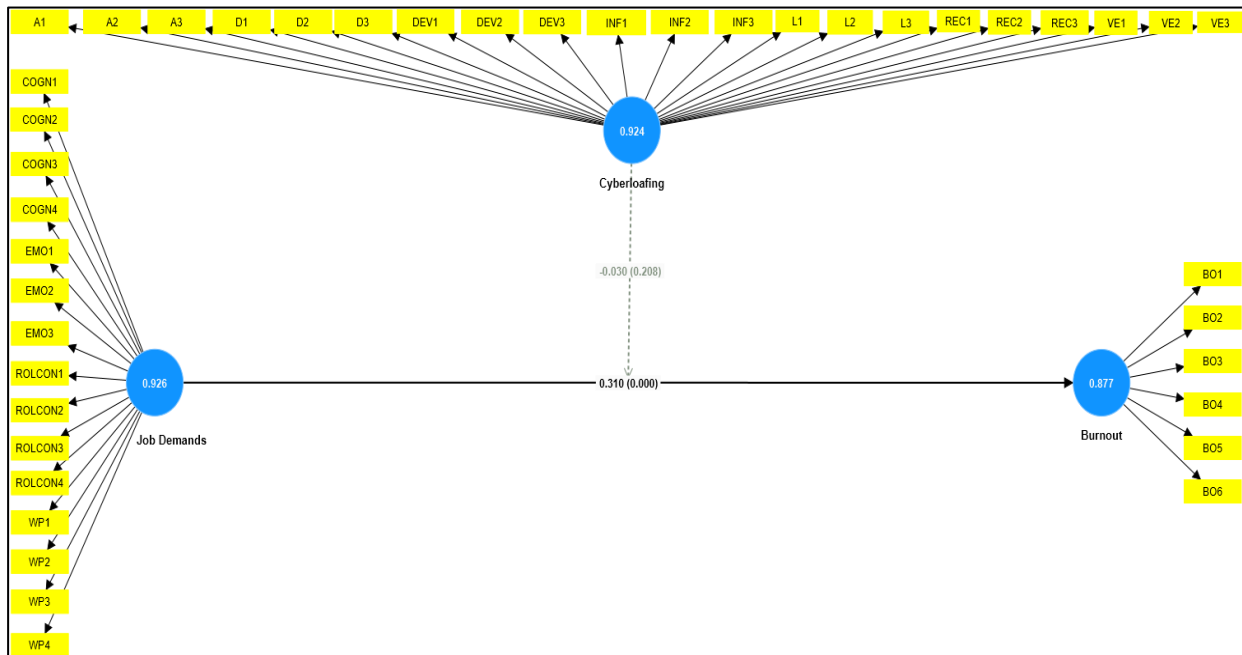
**Table 4.18**

*Results of Path Relationships*

	Coefficient	Standard deviation	t-statistics	p-values
Cyberloafing -> Burnout	0.444	0.064	6.948	0.000
Job Demands -> Burnout	0.310	0.063	4.943	0.000
H9: Cyberloafing x Job Demands -> Burnout	-0.030	-0.024	1.259	0.208

**Figure 4.3**

*Path Model*



4.5.4. To explore the moderating effect of cyberloafing on the relationship between job demand and work engagement.

**Table 4.20**

*Construct Reliability and Validity*

Constructs	Cronbach's alpha	Composite reliability (rho <sub>a</sub> )	Composite reliability (rho <sub>c</sub> )	Average variance extracted (AVE)
Cyberloafing	0.916	0.92	0.929	0.525
Work Engagement	0.93	0.937	0.947	0.75
Job Demands	0.91	0.915	0.927	0.566

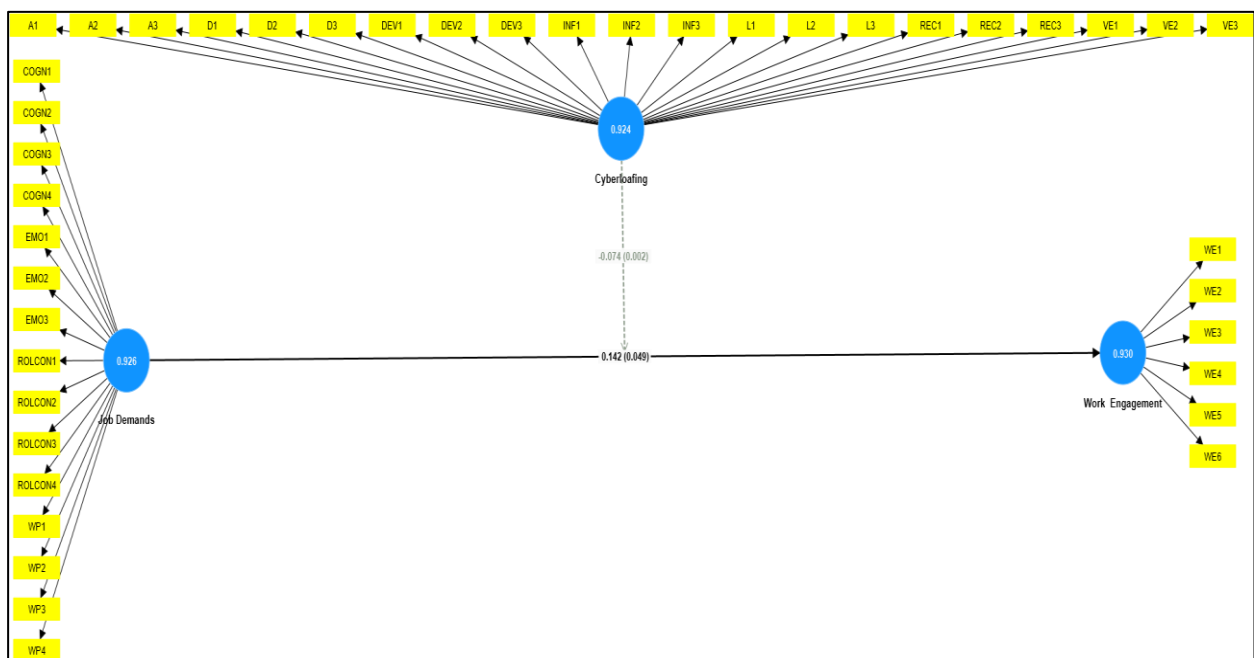
**Table 4.21**

Discriminant Validity- HTMT Ratio

Constructs	Cyberloafing	Work Engagement	Job Demands	Cyberloafing x Job Demands
Cyberloafing				
Work Engagement	0.746			
Job Demands	0.69	0.687		
Cyberloafing x Job Demands	0.554	0.485	0.558	

**Table 4.22***Results of Path Relationships*

	Coefficient	Standard deviation	t-statistics	p-values
Cyberloafing -> Work engagement	0.497	0.063	7.955	0.000
Job Demand -> Work Engagement	0.155	0.064	2.429	0.015
Cyberloafing x Job Demands -> Work Engagement	-0.102	0.024	4.162	0.002

**Figure 4.4***Path Model***Table 5.23***Results of hypotheses testing*

Hypotheses No.	Hypotheses	Result
H10	Cyberloafing moderates job demand and work engagement.	<b>Accepted</b>

H10 seeks to assess whether cyberloafing moderates job demand and work engagement. The hypotheses revealed that cyberloafing significantly impacted job demand and work engagement ( $\beta = 0.102$ ,  $t = 4.162$ ,  $p < .002$ ). Therefore, cyberloafing would positively impact job demand and work engagement. Hence, Hypotheses H14 was validated.

4.5.5. To explore the moderating effect of cyberloafing on the relationship between job resources and work engagement.

**Table 4.24**

*Construct Reliability and Validity*

Constructs	Cronbach's alpha	Composite reliability (rho <sub>a</sub> )	Composite reliability (rho <sub>c</sub> )	Average variance extracted (AVE)
Cyberloafing	0.916	0.92	0.929	0.525
Job Resource	0.899	0.907	0.92	0.566
Work engagement	0.93	0.938	0.947	0.75

**Table 4.25**

*Discriminant Validity- HTMT Ratio*

	Cyberloafing	Job Resource	Work Engagement	Cyberloafing x Job Resource
Cyberloafing				
Job Resource	0.761			
Work Engagement	0.746	0.742		
Cyberloafing x Job Resource	0.535	0.604	0.495	

**Table 4.26**

*Results of Path Relationships*

	Coefficient	Standard deviation	t-statistics	p-values
Cyberloafing -> Work Engagement	0.461	0.051	8.961	0.000
Job Resource -> Work Engagement	0.142	0.072	4.603	0.000
Cyberloafing x Job Resource -> Work Engagement	-0.064	0.022	2.990	0.003

**Table 4.27**

*Results of hypotheses testing*

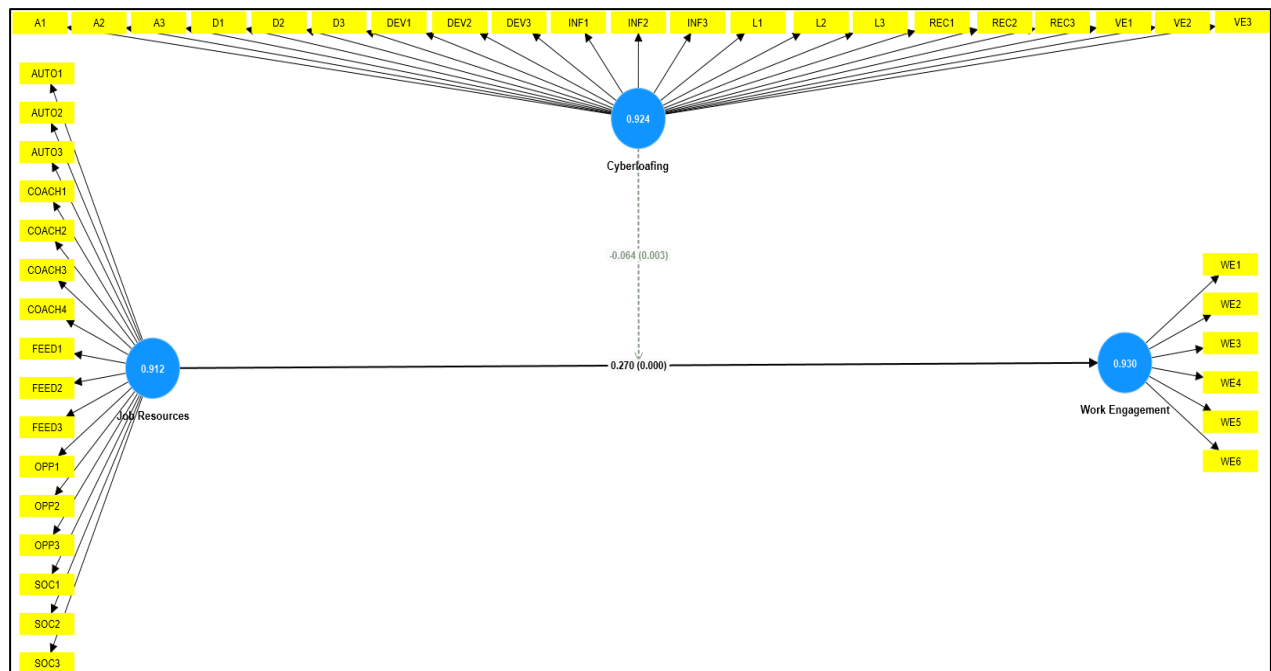
Hypotheses No.	Hypotheses	Result
H11	Cyberloafing moderates job resources and work engagement.	Accepted

H11 seeks to assess whether cyberloafing moderates job resources and work engagement. The hypotheses revealed that cyberloafing significantly impacted job resources and work engagement

( $\beta = -0.102$ ,  $t = 2.990$ ,  $p < .003$ ). Therefore, cyberloafing would positively impact job resources and work engagement. Hence, Hypotheses H13 were validated.

**Figure 4.5**

*Path Model*



4.5.6. To explore the moderating effect of cyberloafing on the relationship between job resources and burnout.

**Table 4.28**

*Construct Reliability and Validity*

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Burnout	0.848	0.854	0.89	0.618
Cyberloafing	0.916	0.926	0.928	0.524
Job Resources	0.899	0.899	0.919	0.563

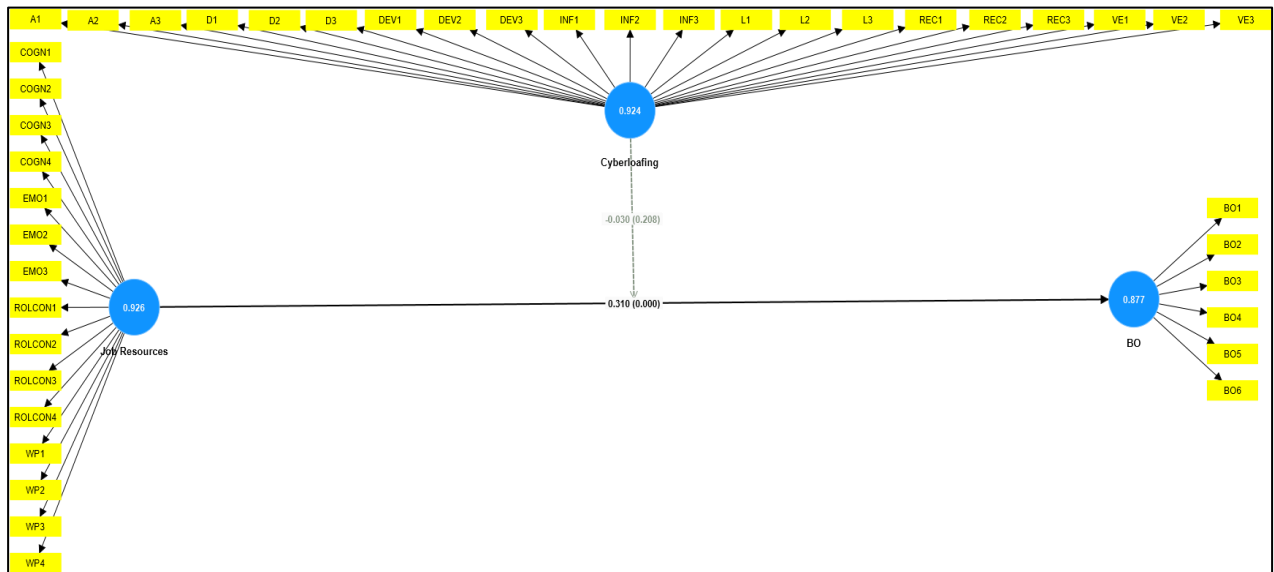
**Table 4.29**

*Discriminant Validity- HTMT Ratio*

	Burnout	Cyberloafing	Job Resources	Cyberloafing x Job Resources
Burnout				
Cyberloafing	0.717			
Job Resources	0.702	0.761		
Cyberloafing x Job Resources	0.511	0.536	0.606	

**Table 4.30***Results of Path Relationships*

	Coefficient	Standard deviation	t-statistics	p-values
Cyberloafing -> Burnout	0.444	0.064	6.279	0.000
Job Resources -> Burnout	0.310	0.063	5.332	0.000
Cyber x Job Resources -> Burnout	-0.030	0.024	1.259	0.208

**Figure 4.6***Path Model***Table 4.31***Results of hypotheses testing*

Hypotheses No.	Hypotheses	Result
H12	Cyberloafing moderates between job resources and burnout	<b>Rejected</b>

H12 seeks to assess whether cyberloafing moderates job resources and work burnout. The hypotheses revealed that cyberloafing significantly impacted job resources and burnout ( $\beta = -0.030$ ,  $t = 1.259$ ,  $p < .208$ ). Therefore, cyberloafing would have a positive impact on job resources and burnout. Hence, Hypotheses H14 were validated.

## **Chapter 5**

### **Discussion**

This chapter provides a comprehensive culmination of the investigation, presenting significant discoveries, conclusions, contributions, and implications for managerial practice and future scholarly inquiry. Section 5.1 explains the findings discovered throughout the study. Section 5.2 engages in a thorough examination of the study's discussions. Section 5.3 deliberates upon the conclusive insights derived from the study. Section 5.4 delves into the implications of these findings for researchers and practitioners alike. Finally, Section 5.5 outlines prospective avenues for further scholarly investigation.

#### **5.1. Findings**

1. Cyberloafing positively relates to Burnout and Work Engagement
2. Job Demands are positively related to Burnout and Cyberloafing. On the other hand, it is negatively associated with Work Engagement.
3. Job Resources positively relates to Cyberloafing and Work Engagement
4. Cyberloafing does not mediate the relationship between Job Demands, Burnout, Job Resources, and Work Engagement.
5. Cyberloafing mediates the relationship between Job Demands, Work Engagement, Job Resources, and Burnout.

#### **5.2 Discussion**

In India, the growth of primary education has increased dramatically during the past 50 years (Kingdon and Rao, 2010). There have been several unforeseen repercussions from this exponential growth with constrained resources. In several jurisdictions, the government has hired teachers contractually to accommodate the instructors' increasing needs. These educators, whose conditions of employment differ from those of the state's regular cadre of teachers, are typically referred to as para teachers or contract teachers. The state governments have significantly increased the intake of contract teachers because their ongoing costs are lower than regular teachers. Some states, like Chhattisgarh, have entirely stopped recruiting regular teachers. (Kingdon & Rao, 2010). Together with different work conditions and positions, these contract instructors typically make far less money than regular teachers. With most pupils currently belonging to socially and economically disadvantaged sectors and being first-generation learners, the makeup of the class has also changed over time, placing additional strain on instructors (Ramachandran, 2005). Like other workers,



teachers have experienced extreme burnout at work. According to Janssen (2005), teaching is one of the most unpleasant jobs. However, the profession is not given much credit because of its high workload, low pay, large class sizes, uneasy atmosphere, student misbehaviour, and other factors (Carlson & Thompson, 1995; Hakanen et al., 2006). Most recently, Bhuin (2017) noted that professors at private business schools are experiencing worrying levels of work-related stress based on a study. According to Privadarshini et al. (2015), academics at Higher Educational Institutions (HEIs) have seen a significant rise in stress levels over the last ten years. According to Singh (2014), the tasks and obligations of medical and engineering university professors also cause stress. Reddy and Poornima (2012) noted that teachers experience significant levels of stress and burnout because of being overworked owing to understaffing.

The teaching profession is renowned for harbouring numerous job demands, which, as supported by this study, were strongly linked with burnout (Hakanen et al., 2006; Cooper, 1996). Furthermore, our findings underscore the dual function of job resources. Educators who have access to job resources such as autonomy, supervisory support, mentoring, developmental opportunities, and feedback may experience heightened engagement and dedication, characterized by increased absorption in their work and a stronger sense of commitment. Moreover, our results indicate that the lack of essential job resources necessary to address job demands correlates with burnout, potentially diminishing work engagement and leading to reduced organizational outcomes. The research highlights the interdependence between job resources and demands, suggesting that they do not exist entirely in isolation from each other.

Against the backdrop of the challenges faced by university faculty, as discussed in the previous paragraph, this study aims to acquire a more comprehensive understanding of the antecedents, consequences, and moderators of job burnout among Indian primary school teachers. The study has undertaken cyberloafing as a moderating variable with others in the JD-R framework to achieve this objective. A simple random sampling of 340 university faculty working in private and public universities in different regions of Punjab participated in the current study. We had enlisted eight universities according to the latest NIRF Ranking 2022. Out of eight universities, we selected four public and private universities, the details of which have been shown in Table No. 3.2. The data is collected via personally visiting universities and distributing the questionnaires to the faculty. All questions have been prepared in English. We had requested each faculty to fill out the questionnaire on the same day and provided all the necessary help in filling out the questionnaire as and when needed.

### **5.2.1. Effect of Cyberloafing on Burnout and Work Engagement.**

The findings suggest a direct and positive relationship between cyberloafing and burnout. In other words, they indicate that higher levels of cyberloafing are associated with increased levels of burnout. The findings support the hypotheses that cyberloafing behavior is positively associated with burnout. The studies conducted on university staff members exhibiting elevated levels of burnout discovered a propensity for engagement in cyberloafing activities during their designated work periods. These findings underscore a discernible association between burnout and cyberloafing, implying that individuals experiencing burnout are more likely to engage in internet-based activities unrelated to work obligations while on the job (Seçkin et al., 2021). Organizations should consider addressing cyberloafing behavior as part of their efforts to mitigate burnout and promote employee well-being. Research within the knowledge-intensive sector demonstrates a substantial influence of cyberloafing on job burnout among knowledge workers. Cyberloafing contributes to eliciting job burnout among employees operating within knowledge-intensive environments (Aghaz & Sheikh, 2016). Cyberloafing behaviour and work engagement have a direct and positive relationship. This hypotheses suggests that higher levels of cyberloafing, which involves using the internet for personal or non-work-related activities during work hours, are associated with increased work engagement. The findings support the hypotheses that cyberloafing behaviour is positively associated with employee work engagement, as evidenced by the statistical significance. Studies have indicated that employees who participate in cyberloafing behaviours during working hours may experience heightened levels of work engagement, attributed to the perceived alleviation of workplace stress and the potential for skill development (Chandak, 2022). The impact of cyberloafing on job burnout indicates that effectively managing cyberloafing behaviours can enhance work engagement and job satisfaction among employees in knowledge-intensive sectors (Aghaz & Sheikh, 2016). Organizations should consider addressing cyberloafing behaviour to enhance work engagement and employee productivity.

### **5.2.2 Effect of Job Demands on Burnout and Work Engagement**

There is a positive relationship between job demands and burnout among employees. Specifically, higher levels of job demand, which refer to the workload, time pressure, and other stressors inherent in a job, are associated with increased levels of burnout. Job demands and burnout consistently exhibit a positive correlation, as increasing job demands are linked to burnout, with employees feeling overburdened by their work. The findings support the hypothesis that job demands positively affect employee burnout. High job demands, such as excessive workload and time pressure, can lead to increased burnout among employees, mainly when job resources are insufficient to cope with these demands (Van Heerden et al., 2022). Job demands contribute to

emotional exhaustion and cynicism, critical components of burnout syndrome (Emmerik & Riet, 2008). It implies that organizations should actively manage and mitigate excessive job demands to prevent or reduce burnout among university faculty.

A positive relationship exists between job demands and work engagement among university faculty. Research shows that in specific contexts, high job demands can lead to increased stress and reduced work engagement, highlighting the importance of balancing job demands with adequate resources and support to maintain high levels of engagement (Chavarria, 2016). Job demands perceived as challenges rather than hindrances can positively impact work engagement, emphasizing the role of individual perceptions and coping strategies in moderating the relationship between job demands and work engagement (Mockało & WiderszalBazyl, 2021). The findings do not support a meaningful relationship between job demands and work engagement. Considering the broader context and potential moderating factors that may influence the dynamics between job demands and work engagement in different organizational settings is essential. The findings indicate no statistically significant relationship between job demands and work engagement among university faculty.

### **5.2.3. Effect of Job Resource on Burnout and Work Engagement.**

The findings suggest a relationship between the availability of job resources and levels of burnout among individuals. Specifically, it indicates that as job resources increase, burnout levels may also increase or decrease depending on the nature of those resources. Although the statistical analysis does not show a significant relationship between job resources and burnout in this research, it is essential to consider that job resources play a crucial role in buffering the negative impact of job demands on burnout (Chavarria, 2016). Job resources, such as autonomy, support, and development opportunities, mitigate the effects of job demands on burnout by providing employees with the necessary tools and support to cope effectively with work-related stressors (Van Heerden, 2015). These results imply that while there may be a trend indicating a potential impact of resources on burnout, further investigation is warranted to ascertain the nature and strength of this relationship. The statistical analysis in this study does not support a significant relationship between job resources and burnout. However, it remains crucial to recognize the protective role that job resources play in preventing burnout and promoting employee well-being in the workplace.

Furthermore, a positive relationship exists between job resources and employee work engagement. This relationship suggests that the resources available to employees in their work environment, such as social support, autonomy, training opportunities, and adequate equipment, influence their level of work engagement. Job resources and work engagement are always

positively associated. Job resources, such as autonomy, performance feedback, and social support, create a positive working environment that promotes employee engagement by providing the necessary tools and support for employees to excel and remain motivated (Burnett, 2019). Job resources enhance employee commitment, job satisfaction, and overall well-being, which are critical components of work engagement in various organizational settings (Van Heerden, 2015). The JD-R Model suggests that job resources play a crucial role in fostering work engagement by reducing job stress and providing employees with the support and resources needed to thrive. The findings support the hypotheses that job resources positively affect employee work engagement. It implies that organizations should consider providing sufficient resources and support to employees to enhance their work engagement and overall well-being.

#### **5.2.4. Effect of Job demand on cyberloafing**

The findings indicate a relationship between job demands and cyberloafing behaviour among employees. Specifically, elevated job demands encompassing workload, time pressure, and task complexity are correlated with increased levels of cyberloafing. Thus, a positive association between job demands and cyberloafing is observed, as job demands contribute to both burnout and cyberloafing. This objective elucidates that job demands are a significant factor in employee burnout. This finding aligns with existing research demonstrating that job demands can elevate job stress and promote cyberloafing behaviour among employees (Elrehail et al., 2021). High job demands contribute to stress, which can drive employees to engage in cyberloafing activities as a coping mechanism (Koay et al., 2017). It implies that higher job demands may lead to increased tendencies for employees to engage in cyberloafing activities during work hours.

#### **5.2.5. Effect of Job Resources on Cyberloafing**

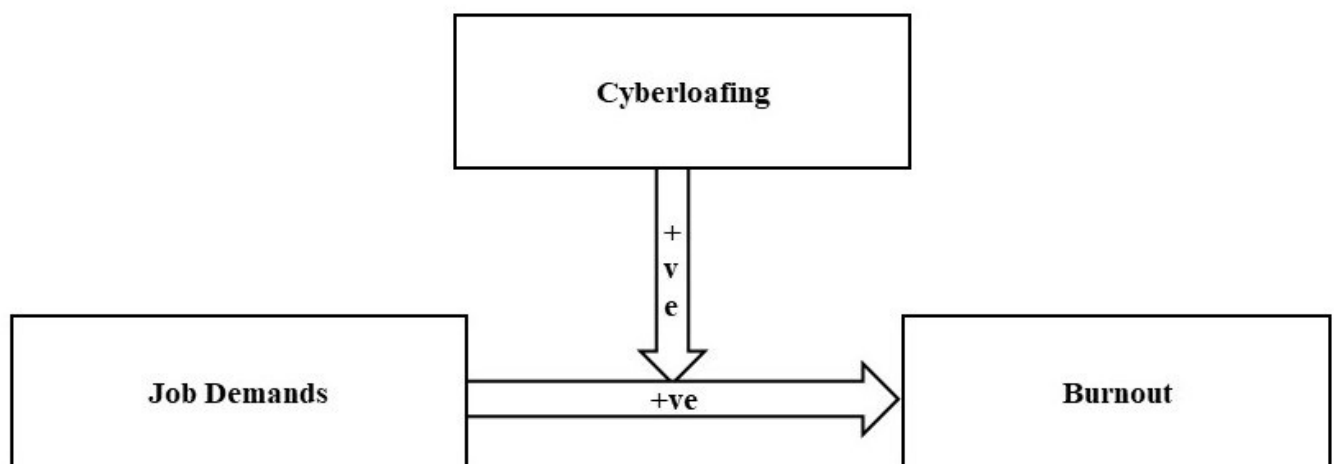
The findings suggest a relationship between job demands and cyberloafing behaviour among employees. It indicates that as the demands of a job increase, including factors like workload, time pressure, and task complexity, employees are more likely to engage in cyberloafing activities during work hours. The relationship between job resources and cyberloafing is complex, and it is not easy to establish a relationship between these variables because they depend on factors like feedback, autonomy, activities, and behaviour. However, our research has established a significant relationship between these two variables. The findings support the hypotheses that job demands are positively associated with cyberloafing behavior among employees.

### 5.2.6. Moderation Analysis

In empirical management research, there is a common emphasis on examining how the interaction between two variables could be influenced by a third variable, known as a moderating variable (Busenbark et al., 2022). In contrast to previous research, which primarily explores the effects of cyberloafing on other variables, we measure the moderation effect between Job Demands and Burnout, Job Demands and Work Engagement, Job Resources and Burnout, and Job Resources and Work Engagement. First, we examine the moderation effect of cyberloafing on the relationship between job demands and burnout. The findings suggest that the combined impact of cyberloafing behaviour and job demands influences the level of burnout experienced by employees. However, the interaction between cyberloafing and job demands does not significantly influence employee burnout.

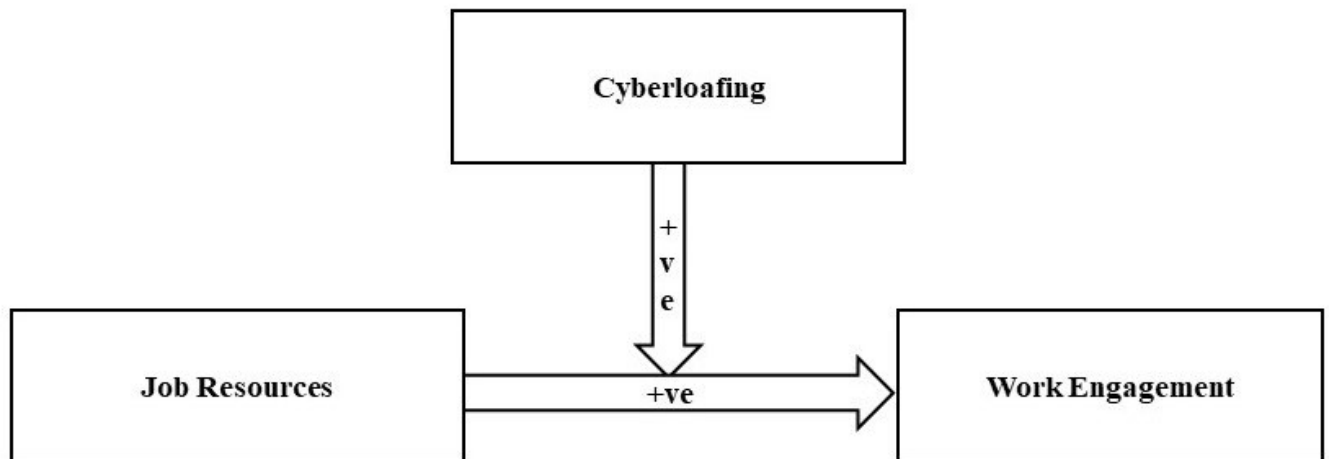
**Figure 5.1**

*Moderation model showing the effect of cyberloafing on the relationship between job demands and burnout.*



**Figure 5.2**

*Moderation model showing the effect of cyberloafing on the relationship between job resources and work engagement.*



However, further investigation and contextual interpretation may be necessary to understand the nuanced relationship between these variables. Second, the moderation effect of cyberloafing between Job demands and Burnout suggests that the combined impact of cyberloafing and job demands influences the likelihood of experiencing burnout. The findings support that the interaction between cyberloafing behaviour and job demands significantly influences employee burnout. This interaction plays a crucial role in understanding the dynamics of burnout and has practical implications for managing employee well-being in the workplace. Cyberloafing moderates the relationship between job demand and work engagement. When job demands are high, employees engage in cyberloafing, negatively affecting low work engagement levels and organizational outcomes. Third, the moderation effect of cyberloafing between Job resources and Burnout. The findings indicate that the combined impact of cyberloafing and job resources does not significantly affect burnout.

Finally, the moderation effect of cyberloafing between Job resources and work engagement suggests that the combined impact of cyberloafing and job resources influences the degree of work engagement, which refers to employees' positive and enthusiastic involvement in their work tasks. The findings support the hypotheses that the interaction between cyberloafing behaviour and job resources significantly influences employee work engagement. This interaction

plays a significant role in shaping employees' level of work engagement, highlighting the importance of managing cyberloafing and providing adequate job resources to foster positive work outcomes. Furthermore, the empirically validated relationships within the proposed model are consistent with the theoretical framework (Bakker & Demerouti, 2007). Another specific objective was to analyse the moderating effect of cyberloafing on burnout and work engagement. Cyberloafing was hypothesized to have a moderating impact on some paths. It is found that cyberloafing substantially and positively affects the relationship between job demands and work engagement, as well as between job resources and burnout.

## Chapter 6

### Conclusion

#### 6.1 Conclusion

The study concludes that the burnout and work engagement model for Indian higher educational institutions follows the most used model in the world, the job demands-resources model by Bakker and Demerouti (2007). Job demands and work engagements are the most critical factors affecting teacher's burnout and work engagement. The present research provides new insights into the job demand-resource model for university faculty and unveils innovative ideas to upsurge teachers' work engagement. The cyberloafing approach was incorporated into the predominated job demand resource model, and its effect was gauged for the university faculty context. The study underpins the inculcation of the cyberloafing approach in the HEIs milieu. It is indispensable to engage teachers permanently at work. These insights should be put into practice by implementing and testing the modified job demand-resource model aimed at fulfilling teachers' basic psychological needs to get them permanently engaged in their work. For the time being, we can Conclude that our results are essential for current debates on teachers' burnout and work engagement.

1. Job demands are positively related to burnout and negatively associated with organizational outcomes. This means that when job demands are high, employees experience burnout due to their inability to cope with these demands. Additionally, job resources are positively related to work engagement. When employees are given adequate job resources that align with their job demands, they become more engaged in their work and achieve favourable organizational outcomes. These findings are consistent with previous research (Hakanen et al., 2006; Bakker & Demerouti, 2007).
2. It is found that cyberloafing significantly and positively moderates the relationship between job demands and burnout. The cyberloafing approach helps decrease burnout when job demands are high.
3. Cyberloafing significantly and positively moderates the relationship between job resources and work engagement. It was observed that cyberloafing significantly enhances work engagement and organizational outcomes.
4. Educational institutions need to address rising job demands by providing adequate job resources.
5. The study's findings enhance the robustness of the JD-R model for university faculty by incorporating cyberloafing.



## 6.2 Implications

### 6.2.1 Theoretical Implications

The proposed "Job Demand Resource (JD-R) model" is a highly influential research framework that emphasizes the relationships between workplace burnout, workplace ostracism, personality traits, cyberloafing, organizational climate, coping mechanisms, and work performance. The primary managerial implication arises from the established evidence that cyberloafing behaviour neither serves as an effective coping mechanism nor contributes to improved work performance. Although implementing a sanction policy for cyberloafing behaviour appears necessary, it is believed that organizations may increasingly regulate internet usage as a disciplinary measure to enhance organizational performance. Additionally, the clarity with which this study distinguishes the antecedents and consequences of employee cyberloafing behaviour provides substantial managerial benefits in planning and strategizing organizational policies.

- 1. Advancement of Theory:** The study contributes to the advancement of organizational theory by shedding light on the relationships between workplace factors (cyberloafing, job demands, job resources) and employee outcomes (burnout, work engagement). It adds to existing literature by providing empirical evidence to support or refine existing theoretical frameworks.
- 2. Integration of Concepts:** By examining multiple variables simultaneously, the study enhances our understanding of the complex interactions among distinct aspects of the work environment and their impact on employee well-being and engagement. This integrative approach contributes to the development of more comprehensive theoretical models.
- 3. Identification of Mediating Mechanisms:** The findings uncover potential mediating mechanisms or pathways through which workplace factors influence employee outcomes. For example, the study reveals that burnout mediates the relationship between job demands and work engagement, providing insights into the underlying processes driving these relationships.

### 6.2.2 Practical Implications

The study presents numerous research implications and offers a broad scope for future research. It is limited to faculty working in universities and is conducted within the geographical area of Punjab. The study suggests that expanding the geographical coverage to reach employees in various locations is essential, as cyberloafing activities are prevalent among employees in diverse companies and large organizations. Additionally, the study proposes that focus groups should

include employees from other sectors, not limited to university faculty. Previous research has demonstrated that cyberloafing and its effects are experienced across various industries, including banking. Therefore, the study encourages further exploration of cyberloafing and its impact on employees in different sectors and locations. When this research was initiated, there was limited cyberloafing research on various platforms in India.

Over the past two years, cyberloafing among IT employees has been the subject of projects. The scope of our research can be expanded to different states, territories, and organizations or their respective verticals. Additionally, the research scope can be broadened by conducting extensive research that considers individual parameters for comparison, such as socio-demographics, salary levels, job roles, and the type of work employees perform in organizations. This expansion aims to encompass cyberloafing activities enjoyed by employees in diverse companies and large organizations, extending beyond the banking industry.

Furthermore, the study suggests that focus groups should include employees from various sectors, not just bank employees. Previous research demonstrates that cyberloafing and its effects are prevalent across multiple industries, including banking. Therefore, the study encourages further exploration of cyberloafing and its impact on employees in different educational institutions.

1. **Workplace Interventions:** The findings can inform the development of targeted interventions to mitigate adverse outcomes associated with cyberloafing, high job demands, and low job resources. For instance, organizations may implement strategies to reduce cyberloafing behaviours or provide additional resources to support employees facing high job demands.
2. **Employee Well-being Programs:** Organizations use the findings to design employee well-being programs focused on preventing burnout and promoting work engagement. These programs may include stress management techniques, workload adjustments, or initiatives to enhance job resources such as training and development opportunities.
3. **Organizational Policies and Practices:** The study's insights can guide the formulation of policies and practices that promote a healthy work environment and support employee engagement. For example, organizations may establish guidelines on acceptable internet usage during work hours or implement flexible work arrangements to accommodate employees' needs.
4. **Training and Development:** Training programs can be tailored to enhance employees' skills in managing job demands and coping with stressors in the workplace. Organizations can

foster a more resilient workforce capable of thriving in challenging work environments by equipping employees with effective coping strategies and resilience-building techniques.

Overall, the theoretical and practical implications of the study provide valuable insights for researchers and practitioners seeking to understand and improve employee well-being and organizational effectiveness in today's dynamic work environments.

### **6.3 Limitations and Future scope for research work**

#### **6.3.1 Limitations**

This research is not without any research limitations. Several limitations warrant attention based on the findings and summary provided. Firstly, the study appears to have utilized a cross-sectional design, which hinders the ability to establish causal relationships between variables. Adopting longitudinal or experimental designs could offer more substantial evidence of causality. Secondly, the reliance on self-report measures for assessing variables such as cyberloafing, burnout, job demands, and work engagement may introduce common method bias and social desirability bias, potentially impacting the accuracy of the findings.

Moreover, the study may be subject to sampling bias due to the use of convenience sampling methods, which limit the generalizability of the findings to broader populations or different organizational contexts. Thirdly, if data were collected solely from assistant professors, associate professors, and professors. In that case, essential perspectives or variables might have been overlooked, underscoring the need to include multiple data sources for a more comprehensive analysis. The study focused on specific workplace factors such as cyberloafing, job demands, and job resources, potentially omitting other variables (e.g., organizational culture, leadership style) that could impact employee outcomes. Therefore, future research should explore these omitted variables to provide a more nuanced understanding of workplace dynamics.

Lastly, while the findings provide valuable insights into the relationships between workplace factors and employee outcomes, caution is warranted when generalizing the results to different organizational contexts or populations. Cultural, industry-specific, or organizational differences may influence the observed associations. Addressing these limitations in future research would enhance the validity and reliability of the findings and contribute to a more comprehensive understanding of the interplay between workplace factors and employee outcomes. Additionally, different forms of ostracism behaviours may yield more impactful results. These listed study limitations must be considered before conducting future research.

### 6.3.2 Scope for Future research

The conceptual framework has demonstrated a good fit in articulating cyberloafing behaviour. However, there remains potential for further refinement of the research framework. Several other constructs remain unexplored, including emotional intelligence, organizational culture, evaluation, job rotation, punishment, leadership, control theory, locus of control, organizational citizenship behaviour, role and self-efficacy, behavioural influences, and organizational justice. Expanding the scope of these attributes will enhance the overall understanding of cyberloafing behaviour. This expansion aims to encompass cyberloafing activities enjoyed by employees in diverse companies and large organizations.

Furthermore, the study suggests that focus groups should include university faculty from across the country, encompassing both government and private universities. Previous research demonstrates that cyberloafing and its effects are experienced across various industries. Therefore, the study encourages further exploration of cyberloafing and its impact on student-teacher interaction.

Future research can address the identified limitations through various strategies:

1. **Longitudinal Studies:** Conducting longitudinal studies allows researchers to track variable changes over time and establish causal relationships between workplace factors and employee outcomes. By collecting data at multiple time points, researchers can better understand the temporal sequence of events and identify potential causal mechanisms.
2. **Mixed-Methods Approach:** Combining quantitative surveys with qualitative interviews or observations can provide a more comprehensive understanding of the phenomena under investigation. Qualitative methods can help uncover nuanced aspects of workplace dynamics and supplement quantitative findings, mitigating the limitations of relying solely on self-report measures.
3. **Randomized Controlled Trials (RCTs):** Implementing experimental designs, such as RCTs, can enable researchers to manipulate variables of interest (e.g., interventions to reduce cyberloafing or improve job resources) and assess their impact on employee outcomes. RCTs offer high internal validity and help establish causal relationships between interventions and outcomes.
4. **Diverse Sampling Strategies:** Future studies can employ more diverse and representative sampling strategies to enhance the generalizability of findings. It may involve sampling from multiple organizations, industries, and geographic regions to capture broader perspectives and contexts.

5. Use of Objective Measures: Incorporating objective measures of workplace factors and employee outcomes (e.g., performance metrics and physiological stress indicators) complements self-report data and reduces biases associated with subjective assessments. Objective measures provide more accurate and reliable data, thereby enhancing the validity of study findings.

6. Incorporating Multi-Source Data: Future research can benefit from collecting data from multiple sources, including employees, supervisors, and organizational records. This approach allows for data triangulation and provides a more holistic understanding of the relationships between variables.

7. Replication and Extension: Replicating studies using different samples and methodologies helps validate initial findings and identify potential boundary conditions. Additionally, researchers can extend existing studies by examining additional variables or exploring moderators and mediators of the relationships under investigation. By adopting these approaches, future research can overcome the limitations and advance our understanding of the complex interplay between workplace factors and employee outcomes. In turn, it informs evidence-based interventions and organizational practices to promote employee well-being, productivity, and organizational success.

## BIBLIOGRAPHY

- Adams, J. S. (1965). Inequity In Social Exchange. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 2, pp. 267–299). Academic Press. [https://doi.org/10.1016/S0065-2601\(08\)60108-2](https://doi.org/10.1016/S0065-2601(08)60108-2)
- Aghaz, A., & Sheikh, A. (2016). Cyberloafing and job burnout: An investigation in the knowledge-intensive sector. *Computers in Human Behavior*, 62, 51–60. <https://doi.org/10.1016/j.chb.2016.03.069>
- Alarcon, G. M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior*, 79(2), 549–562. <https://doi.org/10.1016/j.jvb.2011.03.007>
- Alshuaibi, A. S., Mohd Shamsudin, F., & Subramaniam, C. (2014, November 13). *Exploring the theoretical link between characteristics in a job and cyberloafing using job demands-resources theory* [Conference]. <https://repo.uum.edu.my/id/eprint/16823/>
- Ambrose, M. L., & Kulik, C. T. (1999). Old friends, new faces: Motivation research in the 1990s. *Journal of Management*, 25(3), 231–292. [https://doi.org/10.1016/S0149-2063\(99\)00003-3](https://doi.org/10.1016/S0149-2063(99)00003-3)
- Anandarajan, M., & Simmers, C. A. (2005). Developing Human Capital through Personal Web Use in the Workplace: Mapping Employee Perceptions. *Communications of the Association for Information Systems*, 15. <https://doi.org/10.17705/1CAIS.01541>
- Anandarajan, M., Simmers, C. A., & D'Ovidio, R. (2011). Exploring the Underlying Structure of Personal Web Usage in the Workplace. *Cyberpsychology, Behavior, and Social Networking*, 14(10), 577–583. <https://doi.org/10.1089/cyber.2010.0136>
- Andel, S. A., Kessler, S. R., Pindek, S., Kleinman, G., & Spector, P. E. (2019). Is cyberloafing more complex than we originally thought? Cyberloafing as a coping response to workplace aggression exposure. *Computers in Human Behavior*, 101, 124–130. <https://doi.org/10.1016/j.chb.2019.07.013>
- Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a Day's Work: Boundaries and Micro Role Transitions. *The Academy of Management Review*, 25(3), 472–491. <https://doi.org/10.2307/259305>
- Askew, & Buckner. (2017). The role of the work station: Visibility of one's computer screen to coworkers influences cyberloafing through self-efficacy to hide cyberloafing. *The Psychologist-Manager Journal*, 20(4), 267–287. <https://doi.org/10.1037/mgr0000061>
- Askew, K., Buckner, J. E., Taing, M. U., Ilie, A., Bauer, J. A., & Covert, M. D. (2014). Explaining cyberloafing: The role of the theory of planned behavior. *Computers in Human Behavior*, 36, 510–519. <https://doi.org/10.1016/j.chb.2014.04.006>
- Askew, K. L., Ilie, A., Bauer, J. A., Simonet, D. V., Buckner, J. E., & Robertson, T. A. (2019). Disentangling How Coworkers and Supervisors Influence Employee Cyberloafing: What Normative Information Are Employees Attending To? *Journal of Leadership & Organizational Studies*, 26(4), 526–544. <https://doi.org/10.1177/1548051818813091>

- Bakker, A. B. (2011). An Evidence-Based Model of Work Engagement. *Current Directions in Psychological Science*, 20(4), 265–269. <https://doi.org/10.1177/0963721411414534>
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job Resources Buffer the Impact of Job Demands on Burnout. *Journal of Occupational Health Psychology*, 10, 170–180. <https://doi.org/10.1037/1076-8998.10.2.170>
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and Work Engagement: The JD–R Approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 389–411. <https://doi.org/10.1146/annurev-orgpsych-031413-091235>
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management*, 43(1), 83–104. <https://doi.org/10.1002/hrm.20004>
- Baskaran, S., Nedunselian, N., Mahadi, N., & Mahmood, Z. (2020). An epidemic phenomenon of workplace cyberloafing: Investigations and implications. *International Journal of Work Organisation and Emotion*. <https://www.inderscienceonline.com/doi/10.1504/IJWOE.2019.106894>
- Batabyal, S. K., & Bhal, K. T. (2020). Traditional cyberloafing, mobile cyberloafing and personal mobile-internet loafing in business organizations: Exploring cognitive ethical logics. *Journal of Information, Communication and Ethics in Society*, 18(4), 631–647. <https://doi.org/10.1108/JICES-07-2019-0081>
- Ben-Peretz, M. (2011). Teacher knowledge: What is it? How do we uncover it? What are its implications for schooling? *Teaching and Teacher Education*, 27(1), 3–9. <https://doi.org/10.1016/j.tate.2010.07.015>
- Blanchard, A. L., & Henle, C. A. (2008). Correlates of different forms of cyberloafing: The role of norms and external locus of control. *Computers in Human Behavior*, 24(3), 1067–1084. <https://doi.org/10.1016/j.chb.2007.03.008>
- Blau, P. (2017). *Exchange and Power in Social Life* (2nd ed.). Routledge. <https://doi.org/10.4324/9780203792643>
- Brauchli, R., Schaufeli, W. B., Jenny, G. J., Füllemann, D., & Bauer, G. F. (2013). Disentangling stability and change in job resources, job demands, and employee well-being—A three-wave study on the Job-Demands Resources model. *Journal of Vocational Behavior*, 83(2), 117–129. <https://doi.org/10.1016/j.jvb.2013.03.003>
- Brough, P., Timms, C., Siu, O. L., Kalliath, T., O’Driscoll, M. P., Sit, C., Lo, D., & Lu, C.-Q. (2013). Validation of the job demands-resources model in cross-national samples: Cross-sectional and longitudinal predictions of psychological strain and work engagement. 66(10), 1311–1335. <https://doi.org/10.1177/0018726712472915>

- Browning, G., Halcli, A., & Webster, F. (2000). *Understanding Contemporary Society: Theories of the Present*. <https://doi.org/10.4135/9781446218310>
- Bunjak, A., Černe, M., Nagy, N., & Bruch, H. (2021). Job demands and burnout: The multilevel boundary conditions of collective trust and competitive pressure. *Human Relations*. <https://doi.org/10.1177/00187267211059826>
- Burnett, S. (2019). Employee Engagement and Burnout: A Quantitative Study of their Correlations with Job/Organizational Satisfaction. *Dissertations*. <https://doi.org/10.22371/05.2019.006>
- Busenbark, J. R., Graffin, S. D., Campbell, R. J., & Lee, E. Y. (2022). A Marginal Effects Approach to Interpreting Main Effects and Moderation. *Organizational Research Methods*, 25(1), 147–169. <https://doi.org/10.1177/1094428120976838>
- Canova, L., & Nicolini, M. (2019). Online price search across desktop and mobile devices: Evidence on cyberslacking and weather effects. *Journal of Retailing and Consumer Services*, 47, 32–39. <https://doi.org/10.1016/j.jretconser.2018.10.010>
- Chandak, S. (2022). Cyberloafing: Effects on Employee Job Performance and Behavior. *International Journal of Nano and Biomaterials*, 8, 1509–1515. <https://doi.org/10.35940/ijrte.E4832.018520>
- Chavan, M., Galperin, B. L., Ostle, A., & Behl, A. (2022). Millennial's perception on cyberloafing: Workplace deviance or cultural norm? *Behaviour & Information Technology*, 41(13), 2860–2877. <https://doi.org/10.1080/0144929X.2021.1956588>
- Chavarria, D. E. (2016). *Analyzing the Relationship Between Job Demands, Job Resources, and Personal Resources on Employee Engagement and Exhaustion of Juvenile Probation/Parole Officers* [[object Object]]. <https://doi.org/10.34917/9112046>
- Clark, S. C. (2002). Communicating across the work/home border. *Community, Work & Family*, 5(1), 23–48. <https://doi.org/10.1080/13668800020006802>
- Consiglio, C., Borgogni, L., Alessandri, G., & Schaufeli, W. B. (2013). Does self-efficacy matter for burnout and sickness absenteeism? The mediating role of demands and resources at the individual and team levels. *Work & Stress*, 27(1), 22–42. <https://doi.org/10.1080/02678373.2013.769325>
- Cordes, C. L., & Dougherty, T. W. (1993). A Review and an Integration of Research on Job Burnout. *Academy of Management Review*, 18(4), 621–656. <https://doi.org/10.5465/amr.1993.9402210153>
- Covington, M. V., & Mueller, K. J. (2001). Intrinsic Versus Extrinsic Motivation: An Approach/Avoidance Reformulation. *Educational Psychology Review*, 13(2), 157–176. <https://doi.org/10.1023/A:1009009219144>
- Crawford, W. T., & Detar, W. J. (2023). The Relationship between Job Demands, Job Resources, Employee Burnout, and Employee Engagement in Municipal Government Workers. *Journal of Service Science and Management*, 16(4), Article 4. <https://doi.org/10.4236/jssm.2023.164024>



- Demerouti, E., & Bakker, A. B. (2011). The Job Demands-Resources model: Challenges for future research. *SA Journal of Industrial Psychology*, 37(2), 01–09.
- Demerouti, E., Bakker, A. B., de Jonge, J., Janssen, P. P., & Schaufeli, W. B. (2001). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work, Environment & Health*, 27(4), 279–286.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86, 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- Dursun, O. O., Donmez, O., & Akbulut, Y. (2018). Predictors of Cyberloafing among Preservice Information Technology Teachers. *Contemporary Educational Technology*, 9(1), Article 1.
- Elciyar, K., & Şimşek, A. (2021). An Investigation of Cyberloafing in a Large-Scale Technology Organization From the Perspective of the Theory of Interpersonal Behavior. *ONLINE JOURNAL OF COMMUNICATION AND MEDIA TECHNOLOGIES*, 11(2). <https://doi.org/10.30935/ojcm/10823>
- Elkheloufi, A., & Yean, T. (2022). The Relationship between Job Demands and Positive Emotions on Work Engagement among Academic Staff in Algeria: A Conceptual Paper. *South Asian Journal of Social Science and Humanities*, 3, 1–14. <https://doi.org/10.48165/sajssh.2022.3301>
- Elrehail, H., Rehman, S. U., Chaudhry, N. I., & Alzghoul, A. (2021). Nexus among cyberloafing behavior, job demands and job resources: A mediated-moderated model. *Education and Information Technologies*, 26(4), 4731–4749. <https://doi.org/10.1007/s10639-021-10496-1>
- Emmerik, Ij. H., & Riet, P. (2008). How job demands, resources, and burnout predict objective performance: A constructive replication. *Anxiety, Stress, and Coping*, 21, 309–324. <https://doi.org/10.1080/10615800801958637>
- Fakoor Saghih, A. M., & Nosrati, S. (2020). The antecedents of job embeddedness and their effects on cyberloafing among employees of public universities in eastern Iran. *International Journal of Islamic and Middle Eastern Finance and Management*, 14(1), 77–93. <https://doi.org/10.1108/IMEFM-11-2019-0489>
- Fathonah, N., & Hartijasti, Y. (2014). The Influence of Perceived Organizational Injustice towards Workplace Personal Web Usage and Work Productivity in Indonesia. *The South East Asian Journal of Management*, 8(2). <https://doi.org/10.21002/seam.v8i2.3931>
- Filzmoser, P. (2005). Identification of Multivariate Outliers: A Performance Study. *Austrian Journal of Statistics*, 34(2), 127–138. <https://doi.org/10.17713/ajs.v34i2.406>
- Freudenberger, H. J. (1974). Staff Burn-Out. *Journal of Social Issues*, 30(1), 159–165. <https://doi.org/10.1111/j.1540-4560.1974.tb00706.x>
- Frimpong, B., & Mohammed, F. (2022). *Unraveling Cyberloafing Paradox: Towards A Targeted Approach for Managing Cyberloafing*.

- Furneaux, B. (2012). Task-Technology Fit Theory: A Survey and Synopsis of the Literature. In Y. K. Dwivedi, M. R. Wade, & S. L. Schneberger (Eds.), *Information Systems Theory: Explaining and Predicting Our Digital Society, Vol. 1* (pp. 87–106). Springer. [https://doi.org/10.1007/978-1-4419-6108-2\\_5](https://doi.org/10.1007/978-1-4419-6108-2_5)
- Galanakis, M. D., & Tsitouri, E. (2022). Positive psychology in the working environment. Job demands-resources theory, work engagement and burnout: A systematic literature review. *Frontiers in Psychology, 13*. <https://www.frontiersin.org/articles/10.3389/fpsyg.2022.1022102>
- Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. *Journal of Applied Psychology, 55*, 259–286. <https://doi.org/10.1037/h0031152>
- Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology, 60*(2), 159–170. <https://doi.org/10.1037/h0076546>
- Hakanen, J. J., Bakker, A. B., & Demerouti, E. (2005). How dentists cope with their job demands and stay engaged: The moderating role of job resources. *European Journal of Oral Sciences, 113*(6), 479–487. <https://doi.org/10.1111/j.1600-0722.2005.00250.x>
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*(6), 495–513. <https://doi.org/10.1016/j.jsp.2005.11.001>
- Hakanen, J. J., Bakker, A. B., & Turunen, J. (2021). The relative importance of various job resources for work engagement: A concurrent and follow-up dominance analysis. *BRQ Business Research Quarterly, 23*409444211012419. <https://doi.org/10.1177/23409444211012419>
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The Job Demands-Resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress, 22*(3), 224–241. <https://doi.org/10.1080/02678370802379432>
- Häusser, J. A., Mojzisch, A., Niesel, M., & Schulz-Hardt, S. (2010). Ten years on: A review of recent research on the Job Demand–Control (-Support) model and psychological well-being. *Work & Stress, 24*(1), 1–35. <https://doi.org/10.1080/02678371003683747>
- Henle, C. A., Kohut, G., & Booth, R. (2009). Designing electronic use policies to enhance employee perceptions of fairness and to reduce cyberloafing: An empirical test of justice theory. *Computers in Human Behavior, 25*(4), 902–910. <https://doi.org/10.1016/j.chb.2009.03.005>
- Hensel, P. G., & Kacprzak, A. (2020). Job Overload, Organizational Commitment, and Motivation as Antecedents of Cyberloafing: Evidence from Employee Monitoring Software. *European Management Review, 17*(4), 931–942. <https://doi.org/10.1111/emre.12407>
- Ho, J., Gan, P., & Ramayah, T. (2017). A Review of the Theories in Cyberloafing Studies. *Advanced Science Letters, 23*, 9174–9176. <https://doi.org/10.1166/asl.2017.10049>
- Hussain\*, S., & Parida, T. (2017). Exploring cyberloafing behavior in South-central Ethiopia: A close look at Madda Walabu University. *Journal of Media and Communication Studies, 9*(2), 10–16. <https://doi.org/10.5897/JMCS2016.0499>

- Iliffe, S., & Manthorpe, J. (2019). Job dissatisfaction, 'burnout' and alienation of labour: Undercurrents in England's NHS. *Journal of the Royal Society of Medicine*, 112(9), 370–377. <https://doi.org/10.1177/0141076819855956>
- Jandaghi, G., Alvani, S. M., Zarei Matin, H., & Fakheri Kozekanan, S. (2015). Cyberloafing Management in Organizations. *Iranian Journal of Management Studies*, 8(3). <https://doi.org/10.22059/ijms.2015.52634>
- Johnson, J. V., & Hall, E. M. (1988). Job strain, work place social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health*, 78(10), 1336–1342. <https://doi.org/10.2105/AJPH.78.10.1336>
- Kanning, U. P., & Hill, A. (2013). *Validation of the Organizational Commitment Questionnaire (OCQ) in six Languages*. 4(2), 11–20.
- Kaptangil, K., Asan, K., & Kinay, A. G. (2021). The effect of the cyberloafing behaviors of tourism business employees on business motivations and organizational identification. *Tourism & Management Studies*, 17(1), 31–43.
- Karger, H. J. (1981). Burnout as Alienation. *Social Service Review*, 55(2), 270–283. <https://doi.org/10.1086/643917>
- Koay, K. Y., Soh, P. C.-H., & Chew, K. W. (2017). Do employees' private demands lead to cyberloafing? The mediating role of job stress. *Management Research Review*, 40(9), 1025–1038.
- Kock, N. (2016). Hypotheses Testing with Confidence Intervals and P Values in PLS-SEM. *International Journal of E-Collaboration*, 12(3), 1–6. <https://doi.org/10.4018/IJeC.2016070101>
- Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81, 123–133. <https://doi.org/10.1037/0021-9010.81.2.123>
- Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*, 9(4), 297–308. <https://doi.org/10.1002/job.4030090402>
- Leiter, M. P., & Schaufeli, W. B. (1996). Consistency of the burnout construct across occupations. *Anxiety, Stress, & Coping*, 9(3), 229–243. <https://doi.org/10.1080/10615809608249404>
- Lesener, T., Gusy, B., & Wolter, C. (2019). The job demands-resources model: A meta-analytic review of longitudinal studies. *Work & Stress*, 33(1), 76–103. <https://doi.org/10.1080/02678373.2018.1529065>
- Lewig, K. A., Xanthopoulou, D., Bakker, A. B., Dollard, M. F., & Metzger, J. C. (2007). Burnout and connectedness among Australian volunteers: A test of the Job Demands–Resources model. *Journal of Vocational Behavior*, 71(3), 429–445. <https://doi.org/10.1016/j.jvb.2007.07.003>
- Li, S.-M., & Chung, T.-M. (2006). Internet function and Internet addictive behavior. *Computers in Human Behavior*, 22(6), 1067–1071. <https://doi.org/10.1016/j.chb.2004.03.030>

- Li, X., & Liu, D. (2022). The Influence of Technostress on Cyberslacking of College Students in Technology-Enhanced Learning: Mediating Effects of Deficient Self-Control and Burnout. *International Journal of Environmental Research and Public Health*, 19(18), 11800. <https://doi.org/10.3390/ijerph191811800>
- Lieberman, B., Seidman, G., McKenna, K. Y. A., & Buffardi, L. E. (2011). Employee job attitudes and organizational characteristics as predictors of cyberloafing. *Computers in Human Behavior*, 27(6), 2192–2199. <https://doi.org/10.1016/j.chb.2011.06.015>
- Lim, P. K., Koay, K. Y., & Chong, W. Y. (2020a). The effects of abusive supervision, emotional exhaustion and organizational commitment on cyberloafing: A moderated-mediation examination. *Internet Research*, 31(2), 497–518. <https://doi.org/10.1108/INTR-03-2020-0165>
- Lim, P. K., Koay, K. Y., & Chong, W. Y. (2020b). The effects of abusive supervision, emotional exhaustion and organizational commitment on cyberloafing: A moderated-mediation examination. *Internet Research*, 31(2), 497–518. <https://doi.org/10.1108/INTR-03-2020-0165>
- Lim, P. P., Kian Yeik, K., & Chong, W. Y. (2021). The effects of abusive supervision, emotional exhaustion and organizational commitment on cyberloafing: A moderated- mediation examination. *Internet Research*, 31, 497–518. <https://doi.org/10.1108/INTR-03-2020-0165>
- Lim, & Teo, T. S. H. (2005). Prevalence, perceived seriousness, justification and regulation of cyberloafing in Singapore: An exploratory study. *Information & Management*, 42(8), 1081–1093. <https://doi.org/10.1016/j.im.2004.12.002>
- Lim, & Teo, T. S. H. (2022). Cyberloafing: A review and research agenda. *Applied Psychology*, n/a(n/a). <https://doi.org/10.1111/apps.12452>
- Lim, V. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior*, 23(5), 675–694. <https://doi.org/10.1002/job.161>
- Major, D. A., & Morganson, V. J. (2011). Coping with work-family conflict: A leader-member exchange perspective. *Journal of Occupational Health Psychology*, 16, 126–138. <https://doi.org/10.1037/a0021727>
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job Burnout. *Annual Review of Psychology*, 52(1), 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- Mastrangelo, P. M., Everton, W., & Jolton, J. A. (2006). Personal Use of Work Computers: Distraction versus Destruction. *CyberPsychology & Behavior*, 9(6), 730–741. <https://doi.org/10.1089/cpb.2006.9.730>
- Mazzetti, G., Robledo, E., Vignoli, M., Topa, G., Guglielmi, D., & Schaufeli, W. B. (2021). Work Engagement: A meta-Analysis Using the Job Demands-Resources Model. *Psychological Reports*, 00332941211051988. <https://doi.org/10.1177/00332941211051988>
- Metin-Orta, I., & Demirtepe-Saygılı, D. (2021). Cyberloafing behaviors among university students: Their relationships with positive and negative affect. *Current Psychology*. <https://doi.org/10.1007/s12144-021-02374-3>

- Metin-Orta, I., & Demirtepe-Saygılı, D. (2023a). Cyberloafing behaviors among university students: Their relationships with positive and negative affect. *Current Psychology*, 42(13), 11101–11114. <https://doi.org/10.1007/s12144-021-02374-3>
- Metin-Orta, I., & Demirtepe-Saygılı, D. (2023b). Cyberloafing behaviors among university students: Their relationships with positive and negative affect. *Current Psychology (New Brunswick, N.j.)*, 42(13), 11101–11114. <https://doi.org/10.1007/s12144-021-02374-3>
- Mishra, D., & Tageja, N. (2022). Cyberslacking for Coping Stress? Exploring the Role of Mindfulness as Personal Resource. *International Journal of Global Business and Competitiveness*, 17(1), 56–67. <https://doi.org/10.1007/s42943-022-00064-w>
- Mockało, Z., & Widerszal-Bazyl, M. (2021). Role of job and personal resources in the appraisal of job demands as challenges and hindrances. *PLOS ONE*, 16(3), e0248148. <https://doi.org/10.1371/journal.pone.0248148>
- Oldham, G. R., & Fried, Y. (2016). Job design research and theory: Past, present and future. *Organizational Behavior and Human Decision Processes*, 136, 20–35. <https://doi.org/10.1016/j.obhdp.2016.05.002>
- Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: The future of job design research. *Journal of Organizational Behavior*, 31(2–3), 463–479. <https://doi.org/10.1002/job.678>
- O'Neill, T. A., Hambley, L. A., & Chatellier, G. S. (2014). Cyberslacking, engagement, and personality in distributed work environments. *Computers in Human Behavior*, 40, 152–160. <https://doi.org/10.1016/j.chb.2014.08.005>
- Pindek, S., Krajcevska, A., & Spector, P. E. (2018). Cyberloafing as a coping mechanism: Dealing with workplace boredom. *Computers in Human Behavior*, 86, 147–152. <https://doi.org/10.1016/j.chb.2018.04.040>
- Rafferty, A. E., & Griffin, M. A. (2006). Perceptions of organizational change: A stress and coping perspective. *Journal of Applied Psychology*, 91, 1154–1162. <https://doi.org/10.1037/0021-9010.91.5.1154>
- Rajak, R., & Chandra, B. (2017). A Qualitative Analysis on Integrated Approach Towards Teachers' Burnout and Work Engagement in Indian HEIs. *Prabandhan: Indian Journal of Management*, 10(7), Article 7. <https://doi.org/10.17010/pijom/2017/v10i7/116492>
- Reiss, S. (2012). Intrinsic and Extrinsic Motivation. *Teaching of Psychology*, 39(2), 152–156. <https://doi.org/10.1177/0098628312437704>
- Rosen, L. D., Mark Carrier, L., & Cheever, N. A. (2013). Facebook and texting made me do it: Media-induced task-switching while studying. *Computers in Human Behavior*, 29(3), 948–958. <https://doi.org/10.1016/j.chb.2012.12.001>
- Rushing, W. A. (1965). Organizational Stress: Studies in Role Conflict and Ambiguity. By Robert L. Kahn, Donald M. Wolfe, Robert P. Quinn, and J. Diedrick Snoek. New York: John Wiley & Sons, 1964. 470 pp. \$7.95. *Social Forces*, 43(4), 591–592. <https://doi.org/10.2307/2574480>

- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25(1), 54–67. <https://doi.org/10.1006/ceps.1999.1020>
- Sansone, C., & Harackiewicz, J. M. (2000). *Intrinsic and Extrinsic Motivation: The Search for Optimal Motivation and Performance*. Elsevier.
- Scanlan, J. N., & Still, M. (2019). Relationships between burnout, turnover intention, job satisfaction, job demands and job resources for mental health personnel in an Australian mental health service. *BMC Health Services Research*, 19(1), 62. <https://doi.org/10.1186/s12913-018-3841-z>
- Schaufeli. (1996). Maslach Burnout Inventory-General Survey (MBI-GS). *Maslach Burnout Inventory Manual*. <https://cir.nii.ac.jp/crid/1570009749925339392>
- Schaufeli, Salanova, M., González-romá, V., & Bakker, A. B. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies*, 3(1), 71–92. <https://doi.org/10.1023/A:1015630930326>
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315. <https://doi.org/10.1002/job.248>
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2011). *Utrecht Work Engagement Scale-9* [dataset]. <https://doi.org/10.1037/t05561-000>
- Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior*, 30(7), 893–917. <https://doi.org/10.1002/job.595>
- Schaufeli, W. B., & Taris, T. W. (2014). A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health. In G. F. Bauer & O. Hämmig (Eds.), *Bridging Occupational, Organizational and Public Health: A Transdisciplinary Approach* (pp. 43–68). Springer Netherlands. [https://doi.org/10.1007/978-94-007-5640-3\\_4](https://doi.org/10.1007/978-94-007-5640-3_4)
- Schaufeli, W., & Enzmann, D. (1998). *The Burnout Companion To Study And Practice: A Critical Analysis*. CRC Press.
- Schuessler, J. H. (2009). *General Deterrence Theory: Assessing Information Systems Security Effectiveness in Large versus Small Businesses*.
- Schutte, N., Toppinen, S., Kalimo, R., & Schaufeli, W. (2000). The factorial validity of the Maslach Burnout Inventory-General Survey (MBI-GS) across occupational groups and nations. *Journal of Occupational and Organizational Psychology*, 73(1), 53–66. <https://doi.org/10.1348/096317900166877>
- Seçkin, Z., Özdemir, Ş., & Tuncer, M. (2021). *Analyzing the Cyberloafing of The University Employees With High Burnout Level*.

- Siegrist, J. (2016). Chapter 9—Effort-Reward Imbalance Model. In G. Fink (Ed.), *Stress: Concepts, Cognition, Emotion, and Behavior* (pp. 81–86). Academic Press. <https://doi.org/10.1016/B978-0-12-800951-2.00009-1>
- Taris, T. W. (2006). Is there a relationship between burnout and objective performance? A critical review of 16 studies. *Work & Stress*, 20(4), 316–334. <https://doi.org/10.1080/02678370601065893>
- Tett, R. P., & Burnett, D. D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology*, 88(3), 500–517. <https://doi.org/10.1037/0021-9010.88.3.500>
- Theorell, T., Karasek, R. A., & Eneroth, P. (1990). Job strain variations in relation to plasma testosterone fluctuations in working men—A longitudinal study. *Journal of Internal Medicine*, 227(1), 31–36. <https://doi.org/10.1111/j.1365-2796.1990.tb00115.x>
- Thomas, L. T., & Ganster, D. C. (1995). Impact of family-supportive work variables on work-family conflict and strain: A control perspective. *Journal of Applied Psychology*, 80, 6–15. <https://doi.org/10.1037/0021-9010.80.1.6>
- Tsutsumi, A., & Kawakami, N. (2004). A review of empirical studies on the model of effort–reward imbalance at work: Reducing occupational stress by implementing a new theory. *Social Science & Medicine*, 59(11), 2335–2359. <https://doi.org/10.1016/j.socscimed.2004.03.030>
- Van den Broeck, A., Elst, T. V., Baillien, E., Sercu, M., Schouteden, M., De Witte, H., & Godderis, L. (2017). Job Demands, Job Resources, Burnout, Work Engagement, and Their Relationships: An Analysis Across Sectors. *Journal of Occupational and Environmental Medicine*, 59(4), 369–376.
- Van der Doef, M., & Maes, S. (1999). The Job Demand-Control (-Support) Model and psychological well-being: A review of 20 years of empirical research. *Work & Stress*, 13(2), 87–114. <https://doi.org/10.1080/026783799296084>
- van Doorn, O. N. (2011). *Cyberloafing: A multi-dimensional construct placed in a theoretical framework*. 119.
- Van Heerden, J. (2015). *The impact of job demands and job resources on work engagement and turnover intentions within the information technology division of a South African bank* [Thesis, University of the Western Cape]. <https://etd.uwc.ac.za:443/xmlui/handle/11394/4911>
- Van Heerden, J., Du Plessis, M., & Becker, J. R. (2022). Walking the Tightrope of Job Demands and Resources: Leveraging Work Engagement to Counter Turnover Intentions of Information Technology Professionals. *Frontiers in Psychology*, 13. <https://www.frontiersin.org/articles/10.3389/fpsyg.2022.660308>
- Weigl, M., Müller, A., Hornung, S., Leidenberger, M., & Heiden, B. (2014). Job resources and work engagement: The contributing role of selection, optimization, and compensation strategies at work. *Journal for Labour Market Research*, 47(4), Article 4. <https://doi.org/10.1007/s12651-014-0163-4>

- Williams, M. D., Rana, N. P., & Dwivedi, Y. K. (2015). The unified theory of acceptance and use of technology (UTAUT): A literature review. *Journal of Enterprise Information Management*, 28(3), 443–488. <https://doi.org/10.1108/JEIM-09-2014-0088>
- Wu, J., Mei, W., Liu, L., & Ugrin, J. C. (2020). The bright and dark sides of social cyberloafing: Effects on employee mental health in China. *Journal of Business Research*, 112, 56–64. <https://doi.org/10.1016/j.jbusres.2020.02.043>
- Wu, J.-N., Song, M., Ugrin, J. C., Liu, L., & Zhu, T. (2021). Cyberloafing Research 1997-2019: A Citation-based Literature Review. *Organizacija*, 54(2), 98–111. <https://doi.org/10.2478/orga-2021-0007>
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 121–141. <https://doi.org/10.1037/1072-5245.14.2.121>
- Yener, M., & Coşkun, Ö. (2013). Using Job Resources and Job Demands in Predicting Burnout. *Procedia - Social and Behavioral Sciences*, 99, 869–876. <https://doi.org/10.1016/j.sbspro.2013.10.559>
- Yildiz Durak, H., & Saritepeci, M. (2019). Occupational burnout and cyberloafing among teachers: Analysis of personality traits, individual and occupational status variables as predictors. *The Social Science Journal*, 56(1), 69–87. <https://doi.org/10.1016/j.soscij.2018.10.011>
- Yuwanto, L. (2018). Academic Flow and Cyberloafing. *Psychology Research*, 8(4), Article 4.
- Zhang, X., Guo, H., Ma, L., & Zhang, G. (2024). Minor and serious cyberloafing in the workplace: Antecedents and effects on job satisfaction. *Behaviour & Information Technology*, 0(0), 1–20. <https://doi.org/10.1080/0144929X.2024.2319099>
- Zhong, J., Chen, Y., Yan, J., & Luo, J. (2022). The mixed blessing of cyberloafing on innovation performance during the COVID-19 pandemic. *Computers in Human Behavior*, 126, 106982. <https://doi.org/10.1016/j.chb.2021.106982>



## ANNEXURE- I

### QUESTIONNAIRE

Hello everyone! I hope you are well. Please complete this survey for my Ph.D. Thesis. Please open the link and answer a few simple questions about cyberloafing (use of mobile phones during working hours) and its impact on college faculty. I am seeking responses from university faculty working in private and public educational institutions across Punjab. It will hardly take 5 minutes. I would be grateful if you could do this for me. Kindly fill out the form and forward it to as many people as you can. It would be helpful. The information given will be confidential, and no unsolicited emails will be received by the person who fills the form. It's purely for academic purposes.

Name:

Email:

Age:

Gender: Male ☐ Female ☐ Transgender ☐

Designation: Professor ☐ Associate Professor ☐ Assistant Professor ☐

Name of the Institution: Chandigarh University, Chandigarh ☐

Thapar Institute of Engineering and Technology, Patiala ☐

Guru Nanak Dev University, Amritsar ☐

Central University of Punjab, Bathinda ☐

	Question	1	2	3	4	5
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I engage in Cyberloafing to maintain social network					
2	I engage in Cyberloafing to find news					
3	I engage in Cyberloafing to listen to music and sometimes save it					
4	I engage in Cyberloafing to shop online					
5	I engage in Cyberloafing to search for social support.					
6	I engage in Cyberloafing to express an opinion					
7	I engage in Cyberloafing to save a game					

8	I engage in Cyberloafing to extend social network					
9	I engage in Cyberloafing to search information					
10	I engage in Cyberloafing to play an online game					
11	I engage in Cyberloafing to date online					
12	I engage in Cyberloafing to recover from work					
13	I engage in Cyberloafing to avoid work tasks					
14	I engage in Cyberloafing to learn new skills					
15	I engage in Cyberloafing to follow developments on sites					
16	I engage in Cyberloafing to take rest					
17	I engage in Cyberloafing to avoid thinking of work tasks					
18	I engage in Cyberloafing to develop myself					
19	I engage in Cyberloafing to visit one or multiples sites daily					
20	I engage in Cyberloafing to relax					
21	I engage in Cyberloafing to postpone work tasks					
22	I engage in Cyberloafing to acquire abilities					
23	I'm expected to work fast due to work overload.					
24	I have too much work to do.					
25	Sometimes I had to work harder to reach a deadline					
26	I had to work under pressure to reach deadline.					
27	My work requires a lot of concentration.					

28	My job demands caution or precision.					
29	My work is mentally straining.					
30	My work requires constant attention.					
31	My work is emotionally demanding.					
32	At work I face comforting situations that personally touch me.					
33	I face emotionally charged situations at work.					
34	I am unable to fulfil the conflicting expectations of my coworkers					
35	The expectations of my colleagues are in conflict.					
36	At my work, different groups of people expect opposite results from me.					
37	I feel emotionally drained out at work.					
38	I doubt the significance of my work.					
39	Working all day is really straining for me.					
40	I feel burned out from my work.					
41	I have become less enthusiastic about my job.					
42	At my work, I feel bursting with energy					
43	I am enthusiastic about my job					
44	My job inspires me					
45	I feel strong and vigorous at work					
46	When I get up in the morning, I feel like going at work					
47	I feel happy when I am working intensely					
48	I have flexibility in the execution of my job					
49	I have control over how my work is carried out.					
50	I can participate in the decision-making process at work.					
51	I can ask my colleagues for help.					

52	I can count on my colleagues to support me.					
53	I feel valued by my colleagues.					
54	I receive sufficient information about my work objectives.					
55	I receive sufficient information about the results of my work.					
56	I have the opportunity to develop my strong points.					
57	In my work, I can develop myself sufficiently.					
58	My work offers me the possibility to learn new things.					
59	My supervisor informs me whether he/she is satisfied with my work.					
60	My supervisor shows consideration for my problems and desires regarding my work.					
61	I feel valued by my supervisor.					
62	My supervisor uses his/her influence to help me solve problems at work.					
63	My supervisor is friendly and open to me.					
64	I help coworkers to be more productive.					
65	I help coworkers who have heavy workload.					
66	I help coworkers by sharing their work who have been absent					
67	I achieve the objectives of my job					
68	I fulfill all the requirements of my job					
69	I am competent in all areas of my job and handle tasks with proficiency					
70	I perform well in my overall job by carrying out tasks as expected					

**Thank you**

## ANNEXURE- II

### Data Screening results

#### Normality

**Table 6.1**

*Descriptive Statistics showing Mean, Skewness, and Kurtosis of all the Variables.*

	N	Min	Max	Mean	Standard error	Standard Deviation	Excess Kurtosis	Standard Error	Skewness	Standard Error
	Statistics									
S1	340	1	5	3.211	0.0170	1.406	-1.18	0.3482	-0.26	0.1741
S2	340	1	5	3.03	0.0160	1.435	-1.359	0.3482	-0.125	0.1741
S3	340	1	5	2.945	0.0156	1.393	-1.293	0.3482	-0.08	0.1741
INF1	340	1	5	3.236	0.0171	1.371	-1.176	0.3482	-0.304	0.1741
INF2	340	1	5	3.07	0.0162	1.461	-1.342	0.3482	-0.152	0.1741
INF3	340	1	5	3.357	0.0178	1.41	-1.177	0.3482	-0.393	0.1741
L1	340	1	5	3.106	0.0164	1.343	-1.142	0.3482	-0.119	0.1741
L2	340	1	5	2.92	0.0154	1.376	-1.276	0.3482	-0.053	0.1741
L3	340	1	5	2.995	0.0158	1.402	-1.34	0.3482	-0.123	0.1741
VE1	340	1	5	3.005	0.0159	1.437	-1.359	0.3482	-0.111	0.1741
VE2	340	1	5	2.94	0.0156	1.486	-1.436	0.3482	-0.081	0.1741
VE3	340	1	5	2.859	0.0151	1.404	-1.414	0.3482	-0.066	0.1741
DEVT1	340	1	5	3.111	0.0165	1.5	-1.404	0.3482	-0.226	0.1741
DEVT2	340	1	5	3.111	0.0165	1.462	-1.337	0.3482	-0.232	0.1741
DEVT3	340	1	5	3.05	0.0161	1.406	-1.289	0.3482	-0.188	0.1741
R1	340	1	5	3.171	0.0168	1.371	-1.183	0.3482	-0.218	0.1741
R2	340	1	5	3.191	0.0169	1.361	-1.136	0.3482	-0.266	0.1741
R3	340	1	5	3.191	0.0169	1.281	-0.969	0.3482	-0.29	0.1741
A1	340	1	5	3.131	0.0166	1.368	-1.151	0.3482	-0.238	0.1741
A2	340	1	5	3.231	0.0171	1.37	-1.149	0.3482	-0.306	0.1741
A3	340	1	5	3.246	0.0172	1.394	-1.177	0.3482	-0.291	0.1741
DVP1	340	1	5	3.392	0.0179	1.427	-1.167	0.3482	-0.444	0.1741
DVP2	340	1	5	3.171	0.0168	1.443	-1.308	0.3482	-0.232	0.1741
DVP3	340	1	5	3.221	0.0170	1.425	-1.225	0.3482	-0.354	0.1741
WP1	340	1	5	3.131	0.0166	1.354	-1.178	0.3482	-0.227	0.1741
WP2	340	1	5	3.332	0.0176	1.375	-1.011	0.3482	-0.463	0.1741
WP3	340	1	5	3.231	0.0171	1.362	-1.116	0.3482	-0.306	0.1741
WP4	340	1	5	3.241	0.0171	1.361	-1.1	0.3482	-0.324	0.1741
COGN1	340	1	5	3.101	0.0164	1.356	-1.125	0.3482	-0.196	0.1741
COGN2	340	1	5	3.322	0.0176	1.355	-0.999	0.3482	-0.503	0.1741
COGN3	340	1	5	3.166	0.0168	1.363	-1.123	0.3482	-0.328	0.1741
COGN4	340	1	5	3.101	0.0164	1.356	-1.125	0.3482	-0.318	0.1741
EMO1	340	1	5	3.035	0.0161	1.419	-1.329	0.3482	-0.211	0.1741
EMO2	340	1	5	3.121	0.0165	1.423	-1.275	0.3482	-0.246	0.1741
EMO3	340	1	5	3.136	0.0166	1.441	-1.301	0.3482	-0.179	0.1741
ROLCON1	340	1	5	3.015	0.0160	1.351	-1.194	0.3482	-0.163	0.1741
ROLCON2	340	1	5	2.97	0.0157	1.446	-1.36	0.3482	-0.078	0.1741
ROLCON3	340	1	5	3.101	0.0164	1.36	-1.172	0.3482	-0.22	0.1741
ROLCON4	340	1	5	3.196	0.0169	1.351	-1.157	0.3482	-0.312	0.1741

BOI1	340	1	5	3.191	0.0169	1.401	-1.257	0.3482	-0.245	0.1741
BOI2	340	1	5	3.085	0.0163	1.374	-1.197	0.3482	-0.237	0.1741
BOI3	340	1	5	3.221	0.0170	1.28	-0.938	0.3482	-0.349	0.1741
BOI4	340	1	5	3.131	0.0166	1.397	-1.236	0.3482	-0.224	0.1741
BOI5	340	1	5	3.101	0.0164	1.33	-1.16	0.3482	-0.237	0.1741
BOI6	340	1	5	3.302	0.0175	1.374	-1.031	0.3482	-0.44	0.1741
WE1	340	1	5	3.307	0.0175	1.368	-1.136	0.3482	-0.39	0.1741
WE2	340	1	5	3.141	0.0166	1.334	-1.142	0.3482	-0.235	0.1741
WE3	340	1	5	3.427	0.0181	1.273	-0.833	0.3482	-0.52	0.1741
WE4	340	1	5	3.271	0.0173	1.37	-1.094	0.3482	-0.406	0.1741
WE5	340	1	5	3.291	0.0174	1.321	-1.061	0.3482	-0.366	0.1741
WE6	340	1	5	3.256	0.0172	1.315	-1.063	0.3482	-0.349	0.1741
AUTO1	340	1	5	3.126	0.0165	1.389	-1.23	0.3482	-0.272	0.1741
AUTO2	340	1	5	3.151	0.0167	1.318	-1.074	0.3482	-0.347	0.1741
AUTO3	340	1	5	3.307	0.0175	1.292	-0.942	0.3482	-0.376	0.1741
SOC1	340	1	5	3.241	0.0171	1.335	-1.091	0.3482	-0.322	0.1741
SOC2	340	1	5	3.206	0.0170	1.304	-1.104	0.3482	-0.306	0.1741
SOC3	340	1	5	3.211	0.0170	1.347	-1.103	0.3482	-0.316	0.1741
FEED1	340	1	5	3.226	0.0171	1.335	-1.061	0.3482	-0.332	0.1741
FEED2	340	1	5	3.226	0.0171	1.335	-1.061	0.3482	-0.332	0.1741
FEED3	340	1	5	3.161	0.0167	1.343	-1.107	0.3482	-0.284	0.1741
OPP1	340	1	5	3.226	0.0171	1.43	-1.258	0.3482	-0.311	0.1741
OPP2	340	1	5	3.322	0.0176	1.263	-0.859	0.3482	-0.384	0.1741
OPP3	340	1	5	3.291	0.0174	1.27	-0.975	0.3482	-0.325	0.1741
COACH1	340	1	5	3.291	0.0174	1.246	-0.721	0.3482	-0.505	0.1741
COACH2	340	1	5	3.141	0.0166	1.382	-1.202	0.3482	-0.186	0.1741
COACH3	340	1	5	3.206	0.0170	1.346	-1.053	0.3482	-0.294	0.1741
COACH4	340	1	5	3.382	0.0179	1.405	-1.174	0.3482	-0.386	0.1741
COACH5	340	1	5	3.131	0.0166	1.405	-1.259	0.3482	-0.245	0.1741

## ANEXURE III

### Correlation Matrix

**Table 6.1**

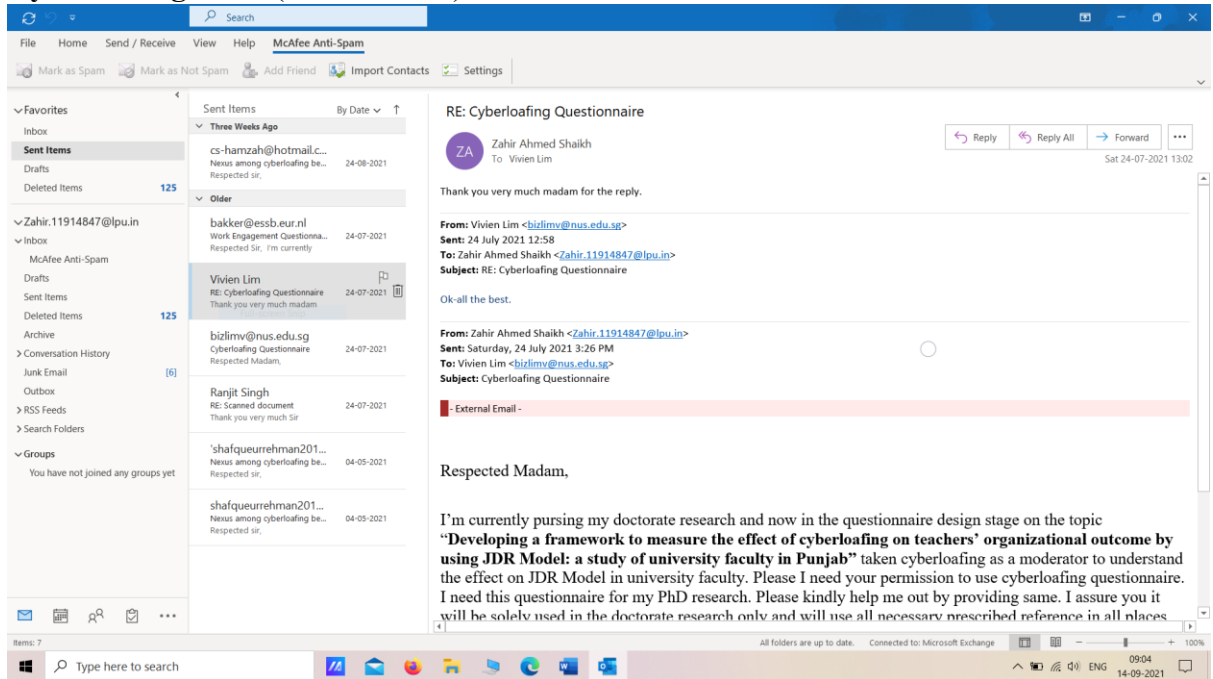
*Correlation Matrix*

	SO CI	INF	LEI	VE	RE C	DE V	DEVE LP	ADDI CT	WP	COG N	EM O	ROLC ON	AUT O	SO C	FEE D	OPP OR	COA CH	WP	BO	WE	O O
SOCI	1																				
INF	0.38 5	1																			
LEI	0.26 5	0.3 8	1																		
VE	0.73 5	0.4 99	0.2 66	1																	
REC	0.17 1	0.4 33	0.6 12	0.2 39	1																
DEVIAN T	0.21 8	0.3 04	0.6 77	0.2 41	0.5 77	1															
DEVELE P	0.74	0.4 72	0.3 37	0.8 06	0.2 63	0.3 61	1														
ADDICT	0.22 1	0.3 86	0.6 87	0.2 29	0.6 1	0.5 46	0.295	1													
WP	0.21 4	0.2 37	0.1 92	0.2 67	0.1 24	0.2 22	0.28	0.19	1												
COGN	0.79 9	0.4 9	0.3 09	0.8 06	0.2 77	0.3 02	0.823	0.308	0.2 84	1											
EMO	0.21 1	0.3 66	0.6 43	0.2 97	0.7 2	0.6 04	0.306	0.603	0.1 59	0.33 3	1										
ROLCO N	0.10 7	0.1 96	0.1 94	0.2 11	0.1 73	0.2 89	0.242	0.177	0.7	0.18	0.2 36	1									
AUTO	0.23 3	0.2 31	0.2 51	0.2 89	0.2 38	0.2 98	0.29	0.232	0.6 34	0.26 7	0.2 45	0.705	1								
SOC	0.21 6	0.2 89	0.2 88	0.2 39	0.2 35	0.3 15	0.225	0.285	0.3 11	0.21 5	0.2 73	0.282	0.36 1	1							
FEEDBA CK	0.23 3	0.2 08	0.3 28	0.3	0.2 84	0.4 13	0.345	0.375	0.2 63	0.31	0.3 71	0.312	0.37 2	0.4 04	1						
OPPOR	0.21 4	0.1 83	0.2 25	0.2 19	0.1 39	0.3 12	0.293	0.241	0.6 93	0.23 4	0.2 05	0.682	0.68	0.2 95	0.30 9	1					
COACH	0.24 6	0.3 03	0.2 78	0.2 69	0.2 75	0.3 42	0.267	0.282	0.3 22	0.28	0.3 01	0.341	0.35 4	0.7 62	0.33 9	0.335	1				
WP	0.22	0.1 74	0.2 39	0.2 54	0.2 27	0.3 06	0.293	0.31	0.2 4	0.24 8	0.2 69	0.275	0.36	0.4 4	0.81 2	0.278	0.333	1			
BO	0.18 6	0.2 53	0.2 8	0.2 64	0.2 63	0.3 51	0.311	0.258	0.6 77	0.28	0.3 01	0.752	0.67 6	0.3 2	0.36 6	0.682	0.398	0.3 1	1		
WE	0.26 4	0.3 01	0.3 32	0.2 4	0.2 76	0.3 47	0.246	0.294	0.2 66	0.24 5	0.2 91	0.252	0.32 1	0.7 42	0.38 2	0.281	0.737	0.4 27	0.3 48	1	
OO	0.14 7	0.1 6	0.2 71	0.2 33	0.2 62	0.3 77	0.247	0.339	0.2 22	0.23 9	0.3 15	0.305	0.39 3	0.4 38	0.80 5	0.298	0.348	0.7 85	0.3 76	0.4 29	1

## ANNEXURE- IV

### Permission to use the structured questionnaire.

#### 1. Cyberloafing Scale (V. Lim, 2002)



#### 2. Utrecht Work Engagement Scale (W. B. Schaufeli et al., 2011)

