



Work Environmental Factors and its Impact on Employee Productivity: The Mediating Role of Employee Commitment

Millicent Pimpong¹

¹ Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development, Kumasi, Ghana.

ABSTRACT

Employee efficiency is vital to an organization's success and sustainability. As such, the work environment can significantly influence employee productivity, either positively or negatively. Recognizing the importance of employees, top-performing organizations prioritize creating a supportive workplace, given that employees spend a substantial portion of their lives performing work-related tasks. Conversely, unsuitable, and unfavourable work environments can contribute to job-related stress. This study investigates the work environment factors that affect employee productivity and explores how these elements can boost employee performance. Data was collected through a survey of 300 randomly selected staff members from three tertiary institutions Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development (AAMUSTED), Kumasi Technical University (KsTU), and Kwame Nkrumah University of Science and Technology (KNUST) in the Ashanti Region of Ghana to test the conceptual framework. The findings revealed a positive relationship between the workplace environment and employee commitment, suggesting that employee commitment partially strengthens the impact of the workplace environment on employee performance. This study offers practical insights for academic institution management, emphasizing the need to enhance workplace environmental conditions to facilitate effective academic work within these institutions.

Correspondence
Millicent Pimpong
Email: mrs pimpong2@yahoo.com

Publication History
Received 26th April, 2023
Accepted 17th July, 2023
Published online 4th August, 2023

Keywords: *Work environment, employee productivity, employee commitment, employee efficiency*

INTRODUCTION

Organizations are quickly realizing that in order to thrive in a constantly changing market environment, they must develop distinctive dynamic features that ensure their competitive advantages. Accordingly, they are concentrating on exploiting their employees, particularly employee productivity, as a source

of strategic advantage.¹ Every company has two essential assets: capital and labour, both of which are crucial to the success of the company.²

Nguyen et al. emphasized that having a workforce with their expertise and skills does not ensure success.³ It all depends on how well they use their knowledge and abilities to carry out their job functions. Efficiency among employees will determine whether a company succeeds or fails. As inferred by Diamantidis and Chatzoglou and Pradhan and Jena, many factors, both inside and outside the company, have an impact on employee performance and productivity, including leadership, pay, opportunities for advancement, the relationship between the employee and the employer, the dedication of the leadership, employee involvement, the structure of the organization, and the work environment, which is the subject of this study.⁴ Ghana is a developing country encompassing various economic sectors, including state, private, foreign, etc. It is obvious that employees' productivity and performance, in both the public and private sectors, is the primary factor in a company's success.⁵ Organizational sustainability depends on understanding the key factors that affect employee productivity and choosing solutions for improvement. According to Savanevičienė et al., Wang et al. and Sundaray, low employee productivity is one of the major issues facing Ghanaian employers.⁶ They noted that even though Ghanaians are considered among the world's hard-working workforce they frequently produce less when compared to their counterparts in other nations. Thus, the key to effective management is to analyze the factors, in particular the work environmental factors that affect employee productivity and how these factors can inspire employee productivity. According to Taouab and Issor, assessing employee performance and thinking about ways to make it more efficient is the major difficulty for firms.⁷ Thus, organisations must be cognizant of their employees' capabilities as well as their work environment to manage their productivity and, in turn, align them with the organisation's overall business strategy.⁸

Pradhan and Jena, Ajala and Snow noted that several vital factors regarding workplace environment and the productivity of employees are still often overlooked.⁹ Nguyen et al. also noted

¹ Carlo Salvato and Roberto Vassolo, "The Sources of Dynamism in Dynamic Capabilities," *Strategic Management Journal* 39, no. 6 (2018): 1728–52; Sunil Ramlall, "A Review of Employee Motivation Theories and Their Implications for Employee Retention within Organizations," *Journal of American Academy of Business* 5, no. 1/2 (2004): 52–63; Robert M Grant, "The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation," *California Management Review* 33, no. 3 (1991): 114–35.

² Phong D Nguyen, Chuong X Dang, and Lam D Nguyen, "Would Better Earning, Work Environment, and Promotion Opportunities Increase Employee Performance? An Investigation in State and Other Sectors in Vietnam," *Public Organization Review* 15 (2015): 565–79.

³ Nguyen, Dang, and Nguyen, "Would Better Earning, Work Environment, and Promotion Opportunities Increase Employee Performance? An Investigation in State and Other Sectors in Vietnam."

⁴ Anastasios D Diamantidis and Prodromos Chatzoglou, "Factors Affecting Employee Performance: An Empirical Approach," *International Journal of Productivity and Performance Management* 68, no. 1 (2019): 171–93; Rabindra Pradhan and Lalatendu Jena, "Employee Performance at Workplace: Conceptual Model and Empirical Validation," *Business Perspectives and Research* 5, no. 1 (2017): 69–85.

⁵ Asta Savanevičienė et al., "Crucial Work Environment Factors for Different Generations' Employee: Organisation Fit," *Polish Journal of Management Studies* 19, no. 1 (2019): 364–75; Keh-Luh Wang, Chi Chiang, and Chiu-Mei Tung, "Integrating Human Resource Management and Knowledge Management: From the Viewpoint of Core Employees and Organizational Performance," *International Journal of Organizational Innovation (Online)* 5, no. 1 (2012): 109; Bijaya Kumar Sundaray, "Employee Engagement: A Driver of Organizational Effectiveness," *European Journal of Business and Management* 3, no. 8 (2011): 53–59.

⁶ Savanevičienė et al., "Crucial Work Environment Factors for Different Generations' Employee"; Wang, Chiang, and Tung, "Integrating Human Resource Management and Knowledge Management"; Sundaray, "Employee Engagement."

⁷ Omar Taouab and Zineb Issor, "Firm Performance: Definition and Measurement Models," *European Scientific Journal* 15, no. 1 (2019): 93–106.

⁸ Mohammad F Ahammad, Keith W Glaister, and Emanuel Gomes, "Strategic Agility and Human Resource Management," *Human Resource Management Review* 30, no. 1 (2020): 100700; Paul F Buller and Glenn M McEvoy, "Strategy, Human Resource Management and Performance: Sharpening Line of Sight," *Human Resource Management Review* 22, no. 1 (2012): 43–56; Peter Boxall and John Purcell, *Strategy and Human Resource Management* (Bloomsbury Publishing, 2022).

⁹ Pradhan and Jena, "Employee Performance at Workplace"; Emmanuel Majekodunmi Ajala, "The Influence of Workplace Environment on Workers' Welfare, Performance and Productivity," in *The African Symposium*, vol. 12, 2012,

that while many researchers have looked at the influences of several factors on employee performance and productivity, very few have evaluated more than three aspects at once.¹⁰ Thus, the current study will explore work environmental factors and their impact on employee productivity utilising employee commitment as a mediating role in the Ghanaian context. Therefore, the findings and implications of this study will be relevant to academics, the government, managers, and practitioners alike.

LITERATURE REVIEW

Numerous determinants affect employee productivity. These factors may be both internal and external to the business. Depending on specific circumstances and the type of organizations, each determinant may have a favourable or negative impact on employees' productivity.¹¹ In a typical work environment, significant factors include physical and behavioural elements associated with employees' abilities and thus affect their behaviour in terms of productivity. As a result, a good workplace plays a crucial role in influencing the level of employee engagement, productivity, and performance.¹²

The office environment is a key aspect in determining and facilitating employees' degree of productivity in today's globally competitive corporate climate.¹³ Work environmental factors can thus play a positive or negative role in employee efficiency. Employees are crucial to the success and sustainability of organisations. An excellent organisation takes care of its employees.¹⁴ This is often accomplished by focusing on their workplace environment because employees spend a considerable amount of their lives executing their work functions. Therefore, the work environment could affect their cognitive as well as their emotional conditions, concentration, behaviour, actions, and abilities. Turner specified that the work environment immensely contributes to maintaining a high level of employee productivity and, consequently, organisational productivity.¹⁵

Work Environment

The work environment represents everything around the employees and where they work, which impacts how they perform their work functions.¹⁶ It comprises both external and internal environments which can impact the working spirit and thus, mirror their productivity at work. There is a strong interplay between employees' productivity and the physical workplace environment.¹⁷ The physical workplace has a significant impact on employees' productivity, happiness, social interactions, and wellbeing.¹⁸ Thus, the workplace's environmental conditions are vital aspects that significantly affect the employees' productivity. The immediate surroundings in which employees carry out their daily

141–49; Janet L Snow, “Enhancing Work Climate to Improve Performance and Retain Valued Employees,” *JONA: The Journal of Nursing Administration* 32, no. 7/8 (2002): 393–97.

¹⁰ Nguyen, Dang, and Nguyen, “Would Better Earning, Work Environment, and Promotion Opportunities...”

¹¹ Abdulrahman Basahal et al., “Factors Influencing Employee Productivity—A Saudi Manager’s Perspective,” *International Journal of Business and Management* 17, no. 1 (2022): 39–51.

¹² Diamantidis and Chatzoglou, “Factors Affecting Employee Performance: An Empirical Approach”; Ajala, “The Influence of Workplace Environment on Workers’ Welfare, Performance and Productivity.”

¹³ Cross Ogohi Daniel, “Influence of Work Environment on Employees Performance in Nigeria,” *International Journal of Research in Management* 2, no. 9 (2019): 10–18; Adeoye K Funminiyi, “Impact of Workplace Environmental Factors on Employee Commitment: Evidence from North East Nigeria,” *International Journal of Scientific Research and Management* 6, no. 7 (2018): 575–85.

¹⁴ Howard Schultz, *Pour Your Heart into It: How Starbucks Built a Company One Cup at a Time* (Hachette UK, 2012).

¹⁵ Paul Turner, *Employee Engagement in Contemporary Organizations: Maintaining High Productivity and Sustained Competitiveness* (Springer, 2019).

¹⁶ Ajala, “The Influence of Workplace Environment on Workers’ Welfare, Performance and Productivity”; Karim Chandrasekar, “Workplace Environment and Its Impact on Organisational Performance in Public Sector Organisations,” *International Journal of Enterprise Computing and Business Systems* 1, no. 1 (2011): 1–19.

¹⁷ Amna Anjum et al., “An Empirical Study Analyzing Job Productivity in Toxic Workplace Environments,” *International Journal of Environmental Research and Public Health* 15, no. 5 (2018): 1035; R Gunaseelan and B A Ollukkaran, “A Study on the Impact of Work Environment on Employee Performance,” *Names International Journal of Management Research* 71 (2012): 1–16; Maynard Rivalar Bagtasos, “Quality of Work Life: A Review of Literature,” *DLSU Business & Economics Review* 20, no. 2 (2011): 1–8.

¹⁸ Michael Roskams and Barry Haynes, “Environmental Demands and Resources: A Framework for Understanding the Physical Environment for Work,” *Facilities* 39, no. 9/10 (2021): 652–66.

tasks are known as the "work environment," and as previously mentioned, it has a critical role in determining both the caliber and productivity of that job.¹⁹ Unsafe working conditions are created by unsuitable settings, which also reduce employee productivity.²⁰ Accordingly, the work requires an environment where employees can perform their work devoid of interference.

A productive workplace must have an environment where expected work outcomes can be realised contentedly. The physical environment impacts how employees relate, perform tasks, and are directed.²¹ The physical environment, a feature of the workplace, has an immediate effect on human intelligence and subtly modifies social interactions, which in turn affects productivity. The work environment is the most vital factor for the employees to perform. Chandrasekar infers that a suitable, accommodating, and conducive work environment improves the employees' physical and mental abilities in carrying out their regular work.²²

On the other hand, an inappropriate and unfavourable work environment could lead to work-related stress and result in the under-utilisation of employees' competencies.²³ Building design, age, workplace layout, cleanliness, ventilation, equipment design, space, temperature, vibration, lighting systems, noise, radiation, and air quality are just a few of the significant physical factors in the workplace.²⁴ A physically conducive work environment that is flexible, comfortable, and aesthetically pleasing encourages employee concentration, mobility, sensory, and physical connection to work roles and facilitates their engagement and enhances their physical and mental wellbeing as the work environment affects employees' cognitive, emotional and physical wellbeing.

Workplace ergonomics is the science of designing for the employee rather than physically forcing the individual's body to match the job.²⁵ It can also be viewed as physical and mental abilities; it limits employees as they interact with work methods, equipment, tasks, and the work environment. If ergonomics problems are not adequately addressed, employees may perform on a subconscious

¹⁹ Nur Shifaa Athirah Saidi et al., "The Relationship between Working Environment and Employee Performance," *Journal of Cognitive Sciences and Human Development* 5, no. 2 (2019): 14–22.

²⁰ Nur Najihah Erani Hamidi et al., "The Relationship between Physical Workplace Environment and Employees' Performance," *Journal of Contemporary Social Science Research* 4, no. 1 (2020): 56–67; Daniel, "Influence of Work Environment on Employees Performance in Nigeria."

²¹ Sanaz Samani, Siti Abdul Rasid, and Saudah Sofian, "Perceived Level of Personal Control over the Work Environment and Employee Satisfaction and Work Performance," *Performance Improvement* 54, no. 9 (2015): 28–35; Abdul Rahman Ahmad Badayai, "A Theoretical Framework and Analytical Discussion on Uncongenial Physical Workplace Environment and Job Performance among Workers in Industrial Sectors," *Procedia-Social and Behavioral Sciences* 42 (2012): 486–95; N Kamarulzaman et al., "An Overview of the Influence of Physical Office Environments towards Employee," *Procedia Engineering* 20 (2011): 262–68.

²² Chandrasekar, "Workplace Environment and Its Impact on Organisational Performance in Public Sector..."

²³ Anjum et al., "An Empirical Study Analyzing Job Productivity in Toxic Workplace Environments"; Akinyele Samuel Taiwo, "The Influence of Work Environment on Workers Productivity: A Case of Selected Oil and Gas Industry in Lagos, Nigeria," *African Journal of Business Management* 4, no. 3 (2010): 299.

²⁴ Mrudul Kodarlikar And Vaibhavi Umale, "A Healthy Workplace Environment: Impact on Employee and Organizational Performance," 2020; Christopher Mathews and I K Khann, "Impact of Work Environment on Performance of Employees in Manufacturing Sector in India: Literature Review," *International Journal of Science and Research (IJSR)* 5, no. 4 (2016): 852–55; Anil P Sarode and Manisha Shirsath, "The Factors Affecting Employee Work Environment & It's Relation with Employee Productivity," *International Journal of Science and Research* 3, no. 11 (2014): 2735–37; Ajala, "The Influence of Workplace Environment on Workers' Welfare..."

²⁵ Emil Sundstrup et al., "A Systematic Review of Workplace Interventions to Rehabilitate Musculoskeletal Disorders among Employees with Physical Demanding Work," *Journal of Occupational Rehabilitation* 30, no. 4 (2020): 588–612; Bankole K Fasanya and Musibau Shofoluwe, "Occupational Ergonomics: Emerging Approaches toward Improved Worker Productivity and Injury Reduction," in *Advances in Physical Ergonomics & Human Factors: Proceedings of the AHFE 2018 International Conference on Physical Ergonomics & Human Factors, July 21-25, 2018, Loews Sapphire Falls Resort at Universal Studios, Orlando, Florida, USA* 9 (Springer, 2019), 385–95; Segun Oluwaseun Olabode, Atinuke Regina Adesanya, and Akeem Abayomi Bakare, "Ergonomics Awareness and Employee Performance: An Exploratory Study," *Economic and Environmental Studies* 17, no. 44 (2017): 813–29; Adibah Hussin and Halil Paino, "The Importance of Work Environment Facilities," *International Journal of Learning and Development* 2, no. 1 (2012): 289–98; Michelle M Robertson et al., "Flexible Workspace Design and Ergonomics Training: Impacts on the Psychosocial Work Environment, Musculoskeletal Health, and Work Effectiveness among Knowledge Workers," *Applied Ergonomics* 39, no. 4 (2008): 482–94.

level, adjusting their behaviour to reduce their pain hence, affecting their productivity because their work stress increase.

According to Anjum et al., work stress is defined as the harmful physiological and psychological reactions that happen when a person's skills, resources, and requirements do not match the demands of their position.²⁶ Workplace culture and design are to blame for the rise in workplace stress. The issues related to ergonomics at the workplace include the human body's responses to physiological and physical stress.²⁷ Employees experience stress if they perceive their work environment depressingly. The stress decelerates their responses and thus, affects their work productivity.

Employee Productivity

Employee productivity is the heart and soul of any firm. Thus, a firm's success is very much dependent on how its employees perform at the workplace.²⁸ Employees who put in extra effort often make a vast difference in organisational productivity, hence performance. Increasing workers' productivity is one of the most critical aims of an organisation. The work environment affects employees' behaviour at work. In reality, employees' surroundings and the work environment influence most of their working efficiency. The majority of organizations constantly strive to improve their performance, competency, and production. According to Sukdeo et al, the 5S (*sort, set in order, shine, standardise, sustain*) methodology has been adopted by most organisations for work environment efficiency, comprising creating a culture of a tidy workplace.²⁹

The seven pillars of the 5S methodology include *sort* in which firms need to retain what is needed and eliminate unwanted materials from the workplace, then *set in order* which improves the flow of work and quickly identify tools and materials, *shine* connoting a tidy and clean workplace, then *standardise*, without standard operating procedures, the firm will not be able to detect when deviations or variations occur. This step requires the firm to generate standardised policies, processes, and procedures to enhance continuous improvement initiatives in the workplace. The next is *sustain*, which suggests that, for a firm to ensure an influential culture of a neat and tidy workplace, it should intermittently monitor performance to identify deviations.³⁰

While 5S is commonly utilised, some firms have modified the methodology to create 6S, including *safety*. As a result, safety is recognized as a tool for efficient safety management, which includes avoiding risks, tragic accidents, serious injuries, and even fatalities. The 7th term under the 7S methodology is a *spirit or team spirit*, which connotes the readiness of the workers to collaborate and work as part of a team. As managers become aware of how organizational culture affects employees and the critical role that respect plays, choosing to include 'spirit' as the seventh step of the

²⁶ Anjum et al., "An Empirical Study Analyzing Job Productivity in Toxic Workplace Environments."

²⁷ Ida Festervoll, "Office Seating and Movement," in *Hard Facts about Soft Machines* (CRC Press, 2020), 413–21; Felix Kin Peng Hui and Lu Aye, "Occupational Stress and Workplace Design," *Buildings* 8, no. 10 (2018): 133; Jacqueline C Vischer, "The Effects of the Physical Environment on Job Performance: Towards a Theoretical Model of Workspace Stress," *Stress and Health: Journal of the International Society for the Investigation of Stress* 23, no. 3 (2007): 175–84;

Thomas W Colligan and Eileen M Higgins, "Workplace Stress: Etiology and Consequences," *Journal of Workplace Behavioral Health* 21, no. 2 (2006): 89–97; Susan Klitzman and Jeanne M Stellman, "The Impact of the Physical Environment on the Psychological Well-Being of Office Workers," *Social Science & Medicine* 29, no. 6 (1989): 733–42.

²⁸ Bhagawan Chandra Sinha, "Employee Engagement: A Dilemma in Economic Slowdown," *Management* 4, no. 1 (2021): 57–64; Peter Warr and Karina Nielsen, "Wellbeing and Work Performance," *Handbook of Well-Being. Salt Lake City, UT: DEF Publishers*, 2018.

²⁹ K Mahlaha, N Sukdeo, and V Mofokeng, "A Lean 7S Methodology Framework to Improve Efficiency and Organizational Performance: A Review Study in an SME Organization," in *International Conference on Industrial Engineering and Operations Management*, 2020, 9–12.

³⁰ Mahlaha, Sukdeo, and Mofokeng, "A Lean 7S Methodology Framework to Improve Efficiency and Organizational Performance: A Review Study in an SME Organization"; Sharad P Bargat and Nitesh Mundhada, "The 5'S Methodology as Tool for Improving the Organization," *International Journal of Engineering and Innovative Technology* 2, no. 8 (2013): 148–53.

methodology highlights support for the people factor in the workplace.³¹ The 7S methodology, as indicated, is usually adopted by a firm to promote a culture of teamwork and improve employee productivity.

Employee Commitment

Employee dedication to enhancing the caliber of their work has recently received research attention. The quality of the workplace must have an effect on an employee's degree of commitment and, subsequently, on performance.³² Employee commitment is essential for an organization's performance since it affects key employee-related factors like absenteeism, low productivity, low morale, labour turnover, and other undesirable tendencies. Even though organizations have deliberately implemented fair remuneration rules and other fair practices to inspire their staff, they are unable to understand why some staff members are not dedicated to it.³³ If workers lack the dedication to their tasks and the energy to reach their full potential in the workplace, it can be expensive.

If workers are not enthusiastic about their work and their workplace, they may not be able to reach their full potential, which can be costly.³⁴ The likelihood that employees will remain committed to the firm depends largely on their level of productivity and the firm's commitment to supporting them. Thus, employees' productivity could be examined by assessing the level of their commitment to their work. The degree of desire workers feel for their activities at work is referred to as employee commitment to work. It is a person's sense of responsibility for the objectives, goals, and vision of an organization they are affiliated with.³⁵

According to Cherian and Jacob, an employee's behaviour and performance effectiveness are related to how committed they are to their work.³⁶ As indicated, employee commitment is a multi-dimensional concept, entailing workers' loyalty, willingness to exercise more effort on behalf of the firm, adherence to organisational values, and desire to remain in the firm. Employee commitment is one of the most important and divisive factors in human resource management, and it is primarily associated with work values, work motivation, and work involvement.³⁷

Motivation, which is correlated with the work environment and is essential in igniting great staff productivity, has a significant impact on employee commitment. Employee dissatisfaction with their work environment most often originates from various shifts in organisational policies.³⁸ These problems cause dissatisfaction and disappointment, which in turn have an impact on an employee's level of dedication and output. Therefore, a key factor in determining whether employees are likely to

³¹ Mahlah, Sukdeo, and Mofokeng, "A Lean 7S Methodology Framework to Improve Efficiency and Organizational Performance: A Review Study in an SME Organization"; Ajay Anantrao Joshi, "A Review on Seven S (7S) as a Tool of Workplace Organization," *International Journal of Innovations in Engineering and Technology (IJJET)* 6, no. 2 (2015): 19–25.

³² Stephen T T Teo, Tim Bentley, and Diep Nguyen, "Psychosocial Work Environment, Work Engagement, and Employee Commitment: A Moderated, Mediation Model," *International Journal of Hospitality Management* 88 (2020): 102415; Rizwan Qaiser Danish, Sidra Ramzan, and Farid Ahmad, "Effect of Perceived Organizational Support and Work Environment on Organizational Commitment; Mediating Role of Self-Monitoring," *Advances in Economics and Business* 1, no. 4 (2013): 312–17.

³³ E M Ushie, A M O Agba, and C Okorie, "Work Environment and Employees' Commitment in Agro-Based Industries in Cross River State, Nigeria," *Global Journal of Human-Social Science Research* 15, no. 6 (2015): 9–15; Elissa D Giffords, "An Examination of Organizational Commitment and Professional Commitment and the Relationship to Work Environment, Demographic and Organizational Factors," *Journal of Social Work* 9, no. 4 (2009): 386–404.

³⁴ Stefan Gaertner, "Structural Determinants of Job Satisfaction and Organizational Commitment in Turnover Models," *Human Resource Management Review* 9, no. 4 (1999): 479–93.

³⁵ Teo, Bentley, and Nguyen, "Psychosocial Work Environment, Work Engagement, and Employee Commitment: A Moderated, Mediation Model"; John P Meyer, Thomas E Becker, and Christian Vandenberghe, "Employee Commitment and Motivation: A Conceptual Analysis and Integrative Model," *Journal of Applied Psychology* 89, no. 6 (2004): 991.

³⁶ Jacob Cherian and Jolly Jacob, "Impact of Self Efficacy on Motivation and Performance of Employees," 2013.

³⁷ Meyer, Becker, and Vandenberghe, "Employee Commitment and Motivation: A Conceptual Analysis and Integrative Model."

³⁸ Surinder Kaur and R Jain, "Impact of Work Environment On Job," *International Journal of Scientific and Research Publications* 4, no. 1 (2014): 1–8.

enhance performance is employee commitment. Numerous studies have related to employee commitment. Mowday et al. highlighted concepts they denoted as attitudinal and behavioural commitment.³⁹ Meyer and Allen presented an alternative concept as the most acknowledged employee commitment theory.⁴⁰ According to them, employee commitment has three multi-dimensional aspects: affective commitment, continuance commitment, and normative commitment. Affective commitment relates to emotional attachment and is generally linked to a favourable working environment and dealings with other employees. Conversely, normative commitment is associated with responsibility since employees may believe they owe the company for giving them a job. Continuance commitment relates to terms of employment like job contracts, which may make leaving the firm very costly.

Freund and Carmeli offered a model for five systems of employee commitment comprising career, affirmative, work ethics, occupational, and organisational commitment.⁴¹ These five varieties are divided into two main groupings. The first cluster centres on the commitment that affects work attitudes without reference to the organisation, such as job-related issues, work ethics, and career. The second class is influenced by the firm in which the employee works, such as continuance and affective organisational commitment.⁴² Morrow proposed a model that takes into account the idea of many commitments and how they are connected. The model included the five commitment items that affect firm outcomes.⁴³ Morrow pointed out that different systems of commitments have reciprocal impacts, which occasion a circular structure based on the affirmative work ethic related to occupational commitment and continuance commitment. Accordingly, continuance commitment is linked to affective commitment, affecting productivity.⁴⁴

Theoretical Framework and Hypothesis Development

This study is grounded on ecological systems and social exchange theories.⁴⁵ The ecological systems theory, often known as the person-in-environment theory, explains how a person's social, physical, and natural wellness are positively correlated with the environment in which they live.⁴⁶ It suggests that life and work are closely related because each has an impact on the other in terms of time, procedures, context, and characteristics.

Emerson's Social Exchange Theory Support from managers fosters employee confidence, which increases motivation to work and fosters the development of a positive attitude toward work, which increases commitment and, subsequently, productivity. Increasing organizational performance is typically the ultimate goal of human resource management. Social exchange is a process that takes place between an organization and its employees in which the latter respect their contributions, gives them the support they need, and ensures that a certain degree of wellbeing is attained.⁴⁷ This study, therefore, envisages the relevance of the work environment in which work is carried out in organisations and its impact on employee productivity. However, the researcher has the ulterior belief that to a large extent, the impact of the work environment on productivity is influenced by the level of commitment of workers.

³⁹ Richard T Mowday, Richard M Steers, and Lyman W Porter, "The Measurement of Organizational Commitment," *Journal of Vocational Behavior* 14, no. 2 (1979): 224–47.

⁴⁰ John P Meyer and Natalie J Allen, "A Three-Component Conceptualization of Organizational Commitment," *Human Resource Management Review* 1, no. 1 (1991): 61–89.

⁴¹ Anat Freund and Abraham Carmeli, "An Empirical Assessment: Reconstructed Model for Five Universal Forms of Work Commitment," *Journal of Managerial Psychology* 18, no. 7 (2003): 708–25.

⁴² Adrian Furnham, *The Protestant Work Ethic: The Psychology of Work Related Beliefs and Behaviours* (Routledge, 2021).

⁴³ Paula Morrow, *The Theory and Measurement of Work Commitment*. (JAI Press, Greenwich, 1993).

⁴⁴ Morrow, *The Theory and Measurement of Work Commitment*.

⁴⁵ Brian Becker, "High Performance Work Systems and Firm Performance: A Synthesis of Research and Managerial Implications.," *Research in Personnel and Human Resources Management* 16 (1998): 53.

⁴⁶ Rosalind C Barnett and Karen C Gareis, "Role Theory Perspectives on Work and Family," *The Work and Family Handbook: Multi-Disciplinary Perspectives and Approaches*, 2006, 209–21.

⁴⁷ Robert Eisenberger, Peter Fasolo, and Valerie Davis-LaMastro, "Perceived Organizational Support and Employee Diligence, Commitment, and Innovation.," *Journal of Applied Psychology* 75, no. 1 (1990): 51.

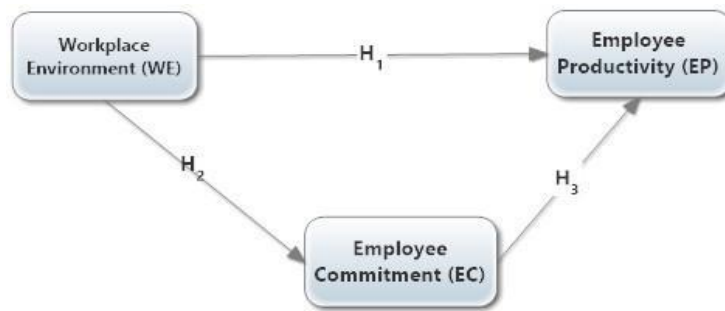


Figure 1. Conceptual Framework

As indicated, the work environment includes both physical and behavioural components, which can positively or negatively impact worker behaviour and productivity.⁴⁸ Webster et al. indicated that the work environment affects the behaviour and employees work outcomes.⁴⁹ Al-Anzi infers that how well employees are involved with the firm, particularly with their immediate work environment, affects to a large extent their error rate, level of innovation, collaboration with other staff, absenteeism and, eventually, how long they stay on the job.⁵⁰

However, work environment and productivity are frequently viewed as two opposites by management in some organisations.⁵¹ This is because the management of such firms considers the work environment an extra, resource-consuming, non-productive activity because of the lack of production stemming from it. Some researchers believe that productivity enhancement of employees can be realised by improving employees' skills and abilities. These managers are oblivious that mainstream productivity glitches are inherent in the work environment in which the employees work. Conversely, others contend that productivity and the need to increase productivity are the major sources of a malfunctioning working environment because it raises the standards of employees' expectations without necessarily giving them extra means or resources to handle the expectation.⁵²

The ultimate purpose of human resource management is often to increase organizational performance. An organization and its employees engage in a process known as social exchange whereby the latter value their contributions, provide them with the assistance they require and ensure that a particular level of wellbeing is attained.⁵³ Nevertheless, work environment and productivity are not essentially contradictory.⁵⁴ Whether or not they are in reality complements is an empirical issue. In this study the path from Workplace Environment to Employee Productivity is explained using the ecological systems theory. According to ecological systems theory, the environment in which a person lives has a positive relationship with their social, physical, and natural wellbeing. Nonetheless, it is

⁴⁸ Diamantidis and Chatzoglou, "Factors Affecting Employee Performance: An Empirical Approach"; Derek Clements-Croome, *Creating the Productive Workplace* (Taylor & Francis, 2006); Lars Foldspang et al., *Working Environment and Productivity: A Register-Based Analysis of Nordic Enterprises* (Nordic Council of Ministers, 2014).

⁴⁹ Jennica R Webster, Terry A Beehr, and Neil D Christiansen, "Toward a Better Understanding of the Effects of Hindrance and Challenge Stressors on Work Behavior," *Journal of Vocational Behavior* 76, no. 1 (2010): 68–77.

⁵⁰ N M Al-Anzi, "Workplace Environment and Its Impacts on Employee's Performance: A Study Submitted to Project Management Department in Saudi Aramco," *Open University of Malaysia*, 2009.

⁵¹ Vic Benuyenah, "Can the Concept of 'Lean Management' Be Applied to Academic Recruitment? – A Quasi-Theoretical Discourse," *Rajagiri Management Journal* 15, no. 2 (September 17, 2021): 105–12, <https://doi.org/10.1108/RAMJ-07-2020-0039>.

⁵² Clements-Croome, *Creating the Productive Workplace*; Foldspang et al., *Working Environment and Productivity: A Register-Based Analysis of Nordic Enterprises*.

⁵³ Jacqueline C Vischer, *Workspace Strategies: Environment as a Tool for Work* (Springer Science & Business Media, 2012); Clements-Croome, *Creating the Productive Workplace*.

⁵⁴ Foldspang et al., *Working Environment and Productivity: A Register-Based Analysis of Nordic Enterprises*; Chandrasekar, "Workplace Environment and Its Impact on Organisational Performance in Public Sector Organisations."

argued that the major reason the workplace environment has a positive impact on employee productivity is that employees are committed to their roles and responsibilities. Furthermore, by virtue of their commitment; employees now want to feel attached and wants to be associated with their respective organisation. Hence, have no reason to leave the institution but remain loyal to the ideals and aspirations of the institution.

According to Ali & Anwar, the workplace environment encouraged higher employee commitment, which boosted employee productivity.⁵⁵ Based on this reasoning, it is hypothesised that:
H1: Enabling the workplace environment leads to increased employee commitment.
H2: Employee commitment leads to increased employee productivity.
H3: Enabling the workplace environment leads to increased employee productivity.

METHODOLOGY

The research was a quantitative study. The survey questions utilized in this study were taken from past studies. Employee Commitment, Work Environment Factors (WEF), and Employee Performance were all taken from the studies of Hafee et al., Adu Gyamfi et al., and Ximenes et al.⁵⁶ The research items were positively framed using a five-point Likert scale. The selected research items were then critically reviewed by three experts in the subject area whose input helped refine the measures. In order to further improve the questionnaire items, a pilot test involving 30 employees of Ghana Technology University (GTU) was undertaken. Confirmatory factor analysis was conducted on the pilot data, which confirmed the good factor loadings of the research items. This supported the measurement items' reliability Appendix I contains a list of the measurement items utilized in this investigation.

To gather data to test the conceptual framework, a survey of 300 randomly chosen employees from three tertiary institutions—Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development (AAMUSTED), Kumasi Technical University (KsTU), and Kwame Nkrumah University of Science and Technology (KNUST)—in the Ashanti Region of Ghana was conducted. One hundred (100) participants were randomly selected from each institution. The university's administrative as well as academic staff were the focus of the data collection. A questionnaire and a cover letter outlining the study's objectives were provided to each respondent. The total number of responses successfully retrieved was 258; this corresponds to an 86% response rate, which is a respectable high number.

FINDINGS

Table 1 Demography of respondents

Category	Frequency (n)	Percent (%)
<i>Gender</i>		
Male	146	56.6
Female	112	43.4
<i>Age (years)</i>		
21 – 30	58	22.5
31 – 40	156	60.5
41 – 50	33	12.8
Above 50	11	4.3

⁵⁵ Bayad Jamal Ali and Govand Anwar, “An Empirical Study of Employees’ Motivation and Its Influence Job Satisfaction,” *International Journal of Engineering, Business and Management* 5, no. 2 (2021): 21–30, <https://doi.org/10.22161/ijebm.5.2.3>.

⁵⁶ Iqra Hafeez et al., “Impact of Workplace Environment on Employee Performance: Mediating Role of Employee Health,” *Business, Management and Economics Engineering* 17, no. 2 (2019): 173–93; Mavis Adu-Gyamfi, Akua Ahya Adu-Oppong, and Seth Boahen, “Job Satisfaction and Commitment among Non-Teaching Staff of Universities in Ghana,” *International Journal of Innovative Research and Development* 6, no. 5 (2017); Mateus Ximenes et al., “Entrepreneurial Leadership Moderating High Performance Work System and Employee Creativity on Employee Performance,” *Cogent Business & Management* 6, no. 1 (2019): 1697512.

Highest level of education		
Diploma (HND)	1	.4
Bachelors	18	7.0
Masters	159	61.6
PhD	80	31
Working Experience		
< 1 year	16	6.2
1 – 5	22	8.5
6 – 10	17	6.6
11 – 15	139	53.9
> 15	64	24.8
Position		
Senior Staff	16	6.2
Registrar	94	36.4
Junior Staff	77	29.8
Lecturer	69	26.7
Professor	2	.8
N=258		

The findings in Table 1 show the variations in the respondents' demographics depending on their gender, age, education, employment history, and position within their particular institution. It was evident from the findings that the sample showed a higher number of males (n=146, 56.6%) than females (n=112, 43.4%). Again, the majority of the respondents fell within the ages of 31 – 40 years (n=156, 60.5%) with the majority (n=159) representing 61.6% of the respondents with master's degrees as their highest level of educational qualification. Furthermore, the results indicated that the majority (n=139, 53.9%) had between 11 – 15 years of working experience, and thus about two-thirds (n=94, 36.4%) of the respondents were Registrars in the categories of Junior Assistant Registrars, Assistant Registrars, Senior Assistant Registrars and Deputy Registrars.

Results of the Measurement Model

The measurement model was analysed by assessing the model's convergent validity and discriminant validity. Convergent validity can be assessed by measuring the reliability of survey items, that is, assessing the Composite Reliability (CR), Average Variance Extracted (AVE), Cronbach's Alpha, and Factor Analysis.⁵⁷ The attributes of the constructs were tested by measuring their psychometric properties and comparing them against stipulated benchmarks.

Table 2 Psychometric Properties of Constructs

Constructs	Cronbach's alpha	rho_A	CR	AVE	WPE	COMM	PROD
WPE	0.915	0.918	0.955	0.841	0.917		
COMM	0.789	0.792	0.917	0.788	0.314***	0.888	
PROD	0.955	0.959	0.910	0.772	0.014	0.376***	0.878

WPE=Workplace Environment; COMM=Commitment; PROD=Employee Productivity

The AVEs of all the constructs were higher than 0.5 as necessary, as shown in Table 2.⁵⁸ Composite Reliabilities values were high (the least value was 0.910) and comfortably exceeded the suggested

⁵⁷ Joe F. Hair Jr et al., "Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research," *European Business Review* 26, no. 2 (2014): 106–21.

⁵⁸ Donald Barclay, Christopher Higgins, and Ronald Thompson, *The Partial Least Squares (PLS) Approach to Casual Modeling: Personal Computer Adoption Ans Use as an Illustration*, 1995.

threshold of 0.7 as stipulated by Chin.⁵⁹ Additionally, Cronbach Alpha (α) values also exceeded the 0.7 threshold as recommended by Hair et al.⁶⁰ The researcher also looked at item loadings to make sure that, as suggested by Hair et al., all items measuring the various constructs loaded highly (0.6 or above) on those constructs. The factor loadings of the remaining items, as given in Appendix II, were deemed appropriate after items with inadequate loadings were eliminated. More so, the items were tested for sufficient discriminant validity. Discriminant validity examines the extent to which a measure correlates with measures of constructs that are different from the construct they are intended to assess.⁶¹ The factor loadings and cross-loadings indicated good discriminant validity because the loading of each measurement item on its latent variable was larger than its loading on any other construct. Further, discriminant validity can be assessed by comparing the square root of the AVE for each factor against the correlation of constructs against each other, with the former required to be higher than the latter.⁶²

The square roots of the AVEs are also displayed in Table 2 together with the intercorrelations between constructs (bolded figures displaying diagonally). The off-diagonal figures represent the correlation coefficients among constructs. The bolded diagonal values are all greater than the off-diagonal ones, confirming that the assumption of discriminant validity has been met.

This is further confirmed by the HTMT Table 3:

Table 3 HTMT Analysis

Constructs	WPE	COMM	PROD
WPE			
COMM	0.319		
PROD	0.016	0.428	

WPE=Workplace Environment; COMM=Commitment; PROD=Employee Productivity

Finally, this study confirmed the HTMT test's discriminant validity. According to Henseler et al., HTMT is the average of the correlations of indicators across constructs measuring various phenomena in comparison to the average of the correlations of indicators within the same construct.⁶³ The HTMT test indicates that the HTMT values must be significantly less than 1, with a value of less than 0.85 ideal.⁶⁴ Table 3 shows that the highest HTMT value is 0.428, confirming the discriminant validity of the constructs.

⁵⁹ Wynne W Chin, "Commentary: Issues and Opinion on Structural Equation Modeling," *MIS Quarterly* (JSTOR, 1998).
⁶⁰ Hair Jr et al., "Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research."
⁶¹ Barclay, Higgins, and Thompson, *The Partial Least Squares (PLS) Approach to Casual Modeling: Personal Computer Adoption Ans Use as an Illustration*.
⁶² Claes Fornell and David F Larcker, "Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics" (Sage Publications Sage CA: Los Angeles, CA, 1981).
⁶³ Jörg Henseler, Christian M Ringle, and Marko Sarstedt, "A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling," *Journal of the Academy of Marketing Science* 43 (2015): 115–35.
⁶⁴ Henseler, Ringle, and Sarstedt, "A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling."

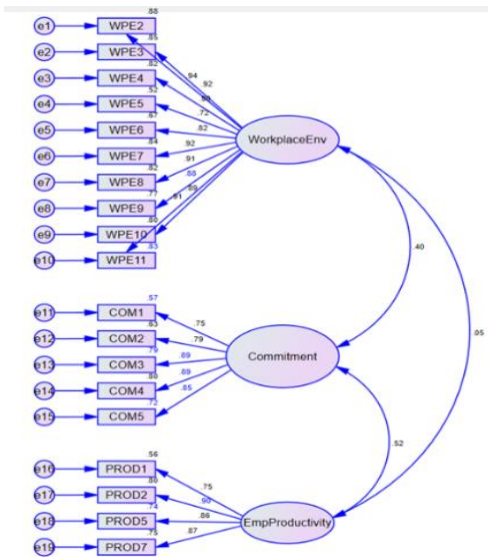


Figure 2 Measurement Model

For common method variance, the researcher used Harman’s single factor test approach for the initial assessment, and the test indicated no significant biases. The computed variance (14.82%) did not exceed the stipulated threshold of 50%; thus, there was no correlation needed theoretically.

Results of the Structural Model

The researcher then aimed to analyze the structural model and the hypothesized relationships after validating the constructs. Smart PLS provided the level and significance of the hypothesised causal relationships as standardised path coefficients. The results, as shown in Figure 2 and Table 4, demonstrate the validity of the study model that was evaluated and the links that were postulated. The hypothesised effects' parameter estimations were expected to be statistically significant in that effect's predicted direction. The path was also considered statistically significant because the p-value was less than 0.05, whilst R2 values represent the variation explained by the latent variables.

Table 4 Hypothesis Results

Hypothesis	Path co-efficient	T-Statistics	P values	Decision
Workplace Env —> Productivity	-.178	-2.288	.023	Partial Mediation
Workplace Env —> Commitment —> Productivity	.223	7.466	.001	
Total Effect	.045	5.178	.576	

The coefficient of determination (R^2) values of Employee Commitment and Employee Productivity were 0.385 and 0.471, respectively (Appendix II). This means that about 38.5% of the variation in employee Commitment and about 47.1% of the employee productivity changes were explained by Workplace Environment. Hair et al. claim that these have a modest level of explanatory power.⁶⁵ The structural model analysis's findings showed that all three of the hypothesized approaches were viable. The effect of Workplace Environment on Employee Productivity was negative but significant, failing to support hypothesis 1. The results imply that the current workplace environmental factors in the institutions surveyed negatively impact employee productivity. Additionally, this did not support the

⁶⁵ Joseph F Hair Jr et al., *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook* (Springer Nature, 2021).

conclusions of Becker, who believed that a positive association existed between a workplace's environment and productivity.⁶⁶

The study found a link between a favourable work environment and employee commitment. Thus, validating hypothesis 2.⁶⁷ The results further indicated that institutions with employees who are highly committed have higher performance outputs, also confirming hypothesis 3.⁶⁸ This indicates that an enabling environment enhances employee commitment, which becomes helpful building blocks for organisations to achieve greater productivity. Finally, the results of the study showed that the institution's productivity is closely correlated with the working environment. However, employee commitment (.233), which increases the total effect from -.178 to .045, enhances the correlation between workplace environment and productivity. Additionally, the results also imply that the workplace environment has a statistically significant negative impact on productivity without committed staff. This brings to the fore the human factor of organisational thinking. Without committed staff, every other effort has no effect. Thus, it can be said that the workplace environment indirectly or partially enhances productivity.

SUMMARY

The study used commitment as an overlay effect to examine how workplace environments at Ghana's tertiary institutions affect workers' productivity. The relationship between workplace environment, employee commitment and productivity has little been explored and as such, the findings of the study provide new insights into the outcomes of workplace environment in tertiary institutions in Ghana. The negative impact of workplace environment on productivity clearly shows that the current workplace environment, as currently existing in the academic institutions, does not positively impact employee productivity, albeit in teaching and learning and administrative activities. The added feature of staff commitment in academic institutions increases the effect of workplace conditions on employee productivity. This shows that staff have adjusted to the poor working conditions in the school and are working due to their commitment to remain with the institutions despite the challenges.

RECOMMENDATIONS/ IMPLICATIONS

The study discovered that the workplace environment contributes 38% and 47% to employee commitment and productivity, validating the negative effect on productivity. This implies that other factors explain the remaining 62% and 53% of the unaccounted variabilities. For those unaccounted reasons, staff continue to give their all in the academic institutions. The study provides an integrative look at the Workplace Environment and employee productivity and their outcomes from the ecological systems theory, enriching the workplace environment, commitment and employee productivity by providing new insights. The study also provides context-specific insights into the outcomes of the environment at the workplace. It also revealed that contextual and environmental factors are seen as having an impact on job results. By way of implications for practice, the study provides insights that the management of academic institutions needs to focus on improving the workplace environmental conditions to support effective academic work in the institutions.

CONCLUSION

The findings of the study suggest that employee commitment may somewhat mediate the impact of workplace culture on worker productivity. Consequently, it might be argued that employee dedication helps to some extent the impact of the workplace environment on employees' performance. Even though the work environment alone does not determine employee productivity, there is a need to improve upon them to enhance job satisfaction and boost staff commitment and productivity. The study

⁶⁶ Becker, "High Performance Work Systems and Firm Performance: A Synthesis of Research and Managerial Implications."

⁶⁷ Jamal Ali and Anwar, "An Empirical Study of Employees' Motivation and Its Influence Job Satisfaction."

⁶⁸ Adu-Gyamfi, Adu-Oppong, and Boahen, "Job Satisfaction and Commitment among Non-Teaching Staff of Universities in Ghana."

was restricted to universities in Ghana's Ashanti Region, therefore its conclusions might not hold true for institutions located in other parts of the nation. The researcher, therefore, calls for more empirical studies to subject it to other contexts.

BIBLIOGRAPHY

- Adu-Gyamfi, Mavis, Akua Ahya Adu-Oppong, and Seth Boahen. "Job Satisfaction and Commitment among Non-Teaching Staff of Universities in Ghana." *International Journal of Innovative Research and Development* 6, no. 5 (2017).
- Ahammad, Mohammad F, Keith W Glaister, and Emanuel Gomes. "Strategic Agility and Human Resource Management." *Human Resource Management Review* 30, no. 1 (2020): 100700.
- Ajala, Emmanuel Majekodunmi. "The Influence of Workplace Environment on Workers' Welfare, Performance and Productivity." In *The African Symposium*, 12:141–49, 2012.
- Al-Anzi, N M. "Workplace Environment and Its Impacts on Employee's Performance: A Study Submitted to Project Management Department in Saudi Aramco." *Open University of Malaysia*, 2009.
- Anjum, Amna, Xu Ming, Ahmed Faisal Siddiqi, and Samma Faiz Rasool. "An Empirical Study Analyzing Job Productivity in Toxic Workplace Environments." *International Journal of Environmental Research and Public Health* 15, no. 5 (2018): 1035.
- Badayai, Abdul Rahman Ahmad. "A Theoretical Framework and Analytical Discussion on Uncongenial Physical Workplace Environment and Job Performance among Workers in Industrial Sectors." *Procedia-Social and Behavioral Sciences* 42 (2012): 486–95.
- Bagtasos, Maynard Rivalal. "Quality of Work Life: A Review of Literature." *DLSU Business & Economics Review* 20, no. 2 (2011): 1–8.
- Barclay, Donald, Christopher Higgins, and Ronald Thompson. *The Partial Least Squares (PLS) Approach to Casual Modeling: Personal Computer Adoption Ans Use as an Illustration*, 1995.
- Bargat, Sharad P, and Nitesh Mundhada. "The 5'S Methodology as Tool for Improving the Organization." *International Journal of Engineering and Innovative Technology* 2, no. 8 (2013): 148–53.
- Barnett, Rosalind C, and Karen C Gareis. "Role Theory Perspectives on Work and Family." *The Work and Family Handbook: Multi-Disciplinary Perspectives and Approaches*, 2006, 209–21.
- Basahal, Abdulrahman, Abdullah Ahmed Jelli, Abdullah S Alsabban, Sarah Basahel, and Saleh Bajaba. "Factors Influencing Employee Productivity—A Saudi Manager's Perspective." *International Journal of Business and Management* 17, no. 1 (2022): 39–51.
- Becker, Brian. "High Performance Work Systems and Firm Performance: A Synthesis of Research and Managerial Implications." *Research in Personnel and Human Resources Management* 16 (1998): 53.
- Benuyenah, Vic. "Can the Concept of 'Lean Management' Be Applied to Academic Recruitment? – A Quasi-Theoretical Discourse." *Rajagiri Management Journal* 15, no. 2 (September 17, 2021): 105–12. <https://doi.org/10.1108/RAMJ-07-2020-0039>.
- Boxall, Peter, and John Purcell. *Strategy and Human Resource Management*. Bloomsbury Publishing, 2022.
- Buller, Paul F, and Glenn M McEvoy. "Strategy, Human Resource Management and Performance: Sharpening Line of Sight." *Human Resource Management Review* 22, no. 1 (2012): 43–56.
- Chandrasekar, Karim. "Workplace Environment and Its Impact on Organisational Performance in Public Sector Organisations." *International Journal of Enterprise Computing and Business Systems* 1, no. 1 (2011): 1–19.
- Cherian, Jacob, and Jolly Jacob. "Impact of Self Efficacy on Motivation and Performance of Employees," 2013.
- Chin, Wynne W. "Commentary: Issues and Opinion on Structural Equation Modeling." *MIS Quarterly*. JSTOR, 1998.
- Clements-Croome, Derek. *Creating the Productive Workplace*. Taylor & Francis, 2006.
- Colligan, Thomas W, and Eileen M Higgins. "Workplace Stress: Etiology and Consequences."

- Journal of Workplace Behavioral Health* 21, no. 2 (2006): 89–97.
- Daniel, Cross Ogohi. “Influence of Work Environment on Employees Performance in Nigeria.” *International Journal of Research in Management* 2, no. 9 (2019): 10–18.
- Danish, Rizwan Qaiser, Sidra Ramzan, and Farid Ahmad. “Effect of Perceived Organizational Support and Work Environment on Organizational Commitment; Mediating Role of Self-Monitoring.” *Advances in Economics and Business* 1, no. 4 (2013): 312–17.
- Diamantidis, Anastasios D, and Prodromos Chatzoglou. “Factors Affecting Employee Performance: An Empirical Approach.” *International Journal of Productivity and Performance Management* 68, no. 1 (2019): 171–93.
- Eisenberger, Robert, Peter Fasolo, and Valerie Davis-LaMastro. “Perceived Organizational Support and Employee Diligence, Commitment, and Innovation.” *Journal of Applied Psychology* 75, no. 1 (1990): 51.
- Fasanya, Bankole K, and Musibau Shofoluwe. “Occupational Ergonomics: Emerging Approaches toward Improved Worker Productivity and Injury Reduction.” In *Advances in Physical Ergonomics & Human Factors: Proceedings of the AHFE 2018 International Conference on Physical Ergonomics & Human Factors, July 21-25, 2018, Loews Sapphire Falls Resort at Universal Studios, Orlando, Florida, USA* 9, 385–95. Springer, 2019.
- Festervoll, Ida. “Office Seating and Movement.” In *Hard Facts about Soft Machines*, 413–21. CRC Press, 2020.
- Foldspang, Lars, Michael Mark, Laurits Rømer Hjorth, Christian Langholz-Carstensen, Otto Melchior Poulsen, Ulf Johansson, Guy Ahonen, Steinar Aasnæss, and Louise Lund Rants. *Working Environment and Productivity: A Register-Based Analysis of Nordic Enterprises*. Nordic Council of Ministers, 2014.
- Fornell, Claes, and David F Larcker. “Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics.” Sage Publications Sage CA: Los Angeles, CA, 1981.
- Freund, Anat, and Abraham Carmeli. “An Empirical Assessment: Reconstructed Model for Five Universal Forms of Work Commitment.” *Journal of Managerial Psychology* 18, no. 7 (2003): 708–25.
- Funminiyi, Adeoye K. “Impact of Workplace Environmental Factors on Employee Commitment: Evidence from North East Nigeria.” *International Journal of Scientific Research and Management* 6, no. 7 (2018): 575–85.
- Furnham, Adrian. *The Protestant Work Ethic: The Psychology of Work Related Beliefs and Behaviours*. Routledge, 2021.
- Gaertner, Stefan. “Structural Determinants of Job Satisfaction and Organizational Commitment in Turnover Models.” *Human Resource Management Review* 9, no. 4 (1999): 479–93.
- Giffords, Elissa D. “An Examination of Organizational Commitment and Professional Commitment and the Relationship to Work Environment, Demographic and Organizational Factors.” *Journal of Social Work* 9, no. 4 (2009): 386–404.
- Grant, Robert M. “The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation.” *California Management Review* 33, no. 3 (1991): 114–35.
- Gunaseelan, R, and B A Ollukkaran. “A Study on the Impact of Work Environment on Employee Performance.” *Namex International Journal of Management Research* 71 (2012): 1–16.
- Hafeez, Iqra, Zhu Yingjun, Saba Hafeez, Rafiq Mansoor, and Khaliq Ur Rehman. “Impact of Workplace Environment on Employee Performance: Mediating Role of Employee Health.” *Business, Management and Economics Engineering* 17, no. 2 (2019): 173–93.
- Hair Jr, Joe F, Marko Sarstedt, Lucas Hopkins, and Volker G Kuppelwieser. “Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research.” *European Business Review* 26, no. 2 (2014): 106–21.
- Hair Jr, Joseph F, G Tomas M Hult, Christian M Ringle, Marko Sarstedt, Nicholas P Danks, and Soumya Ray. *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. Springer Nature, 2021.

- Hamidi, Nur Najihah Erani, Farah Ahlami Mansor, Mimi Zazira Hashim, Norrini Muhammad, and Wan Nor Hazimah Wan Azib. "The Relationship between Physical Workplace Environment and Employees' Performance." *Journal of Contemporary Social Science Research* 4, no. 1 (2020): 56–67.
- Henseler, Jörg, Christian M Ringle, and Marko Sarstedt. "A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling." *Journal of the Academy of Marketing Science* 43 (2015): 115–35.
- Hui, Felix Kin Peng, and Lu Aye. "Occupational Stress and Workplace Design." *Buildings* 8, no. 10 (2018): 133.
- Hussin, Adibah, and Halil Paino. "The Importance of Work Environment Facilities." *International Journal of Learning and Development* 2, no. 1 (2012): 289–98.
- Jamal Ali, Bayad, and Govand Anwar. "An Empirical Study of Employees' Motivation and Its Influence Job Satisfaction." *International Journal of Engineering, Business and Management* 5, no. 2 (2021): 21–30. <https://doi.org/10.22161/ijebm.5.2.3>.
- Joshi, Ajay Anantrao. "A Review on Seven S (7S) as a Tool of Workplace Organization." *International Journal of Innovations in Engineering and Technology (IJJET)* 6, no. 2 (2015): 19–25.
- Kamarulzaman, N, A A Saleh, S Z Hashim, H Hashim, and A A Abdul-Ghani. "An Overview of the Influence of Physical Office Environments towards Employee." *Procedia Engineering* 20 (2011): 262–68.
- Kaur, Surinder, and R Jain. "Impact of Work Environment On Job." *International Journal of Scientific and Research Publications* 4, no. 1 (2014): 1–8.
- Klitzman, Susan, and Jeanne M Stelman. "The Impact of the Physical Environment on the Psychological Well-Being of Office Workers." *Social Science & Medicine* 29, no. 6 (1989): 733–42.
- KODARLIKAR, MRUDUL, and VAIBHAVI UMALE. "A Healthy Workplace Environment: Impact on Employee and Organizational Performance," 2020.
- Mahlaha, K, N Sukdeo, and V Mofokeng. "A Lean 7S Methodology Framework to Improve Efficiency and Organizational Performance: A Review Study in an SME Organization." In *International Conference on Industrial Engineering and Operations Management*, 9–12, 2020.
- Mathews, Christopher, and I K Khann. "Impact of Work Environment on Performance of Employees in Manufacturing Sector in India: Literature Review." *International Journal of Science and Research (IJSR)* 5, no. 4 (2016): 852–55.
- Meyer, John P, and Natalie J Allen. "A Three-Component Conceptualization of Organizational Commitment." *Human Resource Management Review* 1, no. 1 (1991): 61–89.
- Meyer, John P, Thomas E Becker, and Christian Vandenberghe. "Employee Commitment and Motivation: A Conceptual Analysis and Integrative Model." *Journal of Applied Psychology* 89, no. 6 (2004): 991.
- Morrow, Paula. *The Theory and Measurement of Work Commitment*. JAI Press, Greenwich, 1993.
- Mowday, Richard T, Richard M Steers, and Lyman W Porter. "The Measurement of Organizational Commitment." *Journal of Vocational Behavior* 14, no. 2 (1979): 224–47.
- Nguyen, Phong D, Chuong X Dang, and Lam D Nguyen. "Would Better Earning, Work Environment, and Promotion Opportunities Increase Employee Performance? An Investigation in State and Other Sectors in Vietnam." *Public Organization Review* 15 (2015): 565–79.
- Olabode, Segun Oluwaseun, Atinuke Regina Adesanya, and Akeem Abayomi Bakare. "Ergonomics Awareness and Employee Performance: An Exploratory Study." *Economic and Environmental Studies* 17, no. 44 (2017): 813–29.
- Pradhan, Rabindra Kumar, and Lalatendu Kesari Jena. "Employee Performance at Workplace: Conceptual Model and Empirical Validation." *Business Perspectives and Research* 5, no. 1 (2017): 69–85.
- Ramlall, Sunil. "A Review of Employee Motivation Theories and Their Implications for Employee Retention within Organizations." *Journal of American Academy of Business* 5, no. 1/2 (2004):

52–63.

- Robertson, Michelle M, Yueng-Hsiang Huang, Michael J O’Neill, and Lawrence M Schleifer. “Flexible Workspace Design and Ergonomics Training: Impacts on the Psychosocial Work Environment, Musculoskeletal Health, and Work Effectiveness among Knowledge Workers.” *Applied Ergonomics* 39, no. 4 (2008): 482–94.
- Roskams, Michael, and Barry Haynes. “Environmental Demands and Resources: A Framework for Understanding the Physical Environment for Work.” *Facilities* 39, no. 9/10 (2021): 652–66.
- Saidi, Nur Shifaa Athirah, Florianna Lendai Michael, Helmi Sumilan, Sheilla Lim Omar Lim, Victoria Jonathan, Hana Hamidi, and Abg Izhar Abg Ahmad. “The Relationship between Working Environment and Employee Performance.” *Journal of Cognitive Sciences and Human Development* 5, no. 2 (2019): 14–22.
- Salvato, Carlo, and Roberto Vassolo. “The Sources of Dynamism in Dynamic Capabilities.” *Strategic Management Journal* 39, no. 6 (2018): 1728–52.
- Samani, Sanaz Ahmadpoor, Siti Zaleha Abdul Rasid, and Saudah bt Sofian. “Perceived Level of Personal Control over the Work Environment and Employee Satisfaction and Work Performance.” *Performance Improvement* 54, no. 9 (2015): 28–35.
- Sarode, Anil P, and Manisha Shirsath. “The Factors Affecting Employee Work Environment & It’s Relation with Employee Productivity.” *International Journal of Science and Research* 3, no. 11 (2014): 2735–37.
- Savanevičienė, Asta, Živilė Stankevičiūtė, Valentinas Navickas, Monika Grėbliūnaitė, and Małgorzata Okręglicka. “Crucial Work Environment Factors for Different Generations’ Employee: Organisation Fit.” *Polish Journal of Management Studies* 19, no. 1 (2019): 364–75.
- Schultz, Howard. *Pour Your Heart into It: How Starbucks Built a Company One Cup at a Time*. Hachette UK, 2012.
- Sinha, Bhagawan Chandra. “Employee Engagement: A Dilemma in Economic Slowdown.” *Management* 4, no. 1 (2021): 57–64.
- Snow, Janet L. “Enhancing Work Climate to Improve Performance and Retain Valued Employees.” *JONA: The Journal of Nursing Administration* 32, no. 7/8 (2002): 393–97.
- Sundaray, Bijaya Kumar. “Employee Engagement: A Driver of Organizational Effectiveness.” *European Journal of Business and Management* 3, no. 8 (2011): 53–59.
- Sundstrup, Emil, Karina Glies Vincents Seeberg, Elizabeth Bengtsen, and Lars Louis Andersen. “A Systematic Review of Workplace Interventions to Rehabilitate Musculoskeletal Disorders among Employees with Physical Demanding Work.” *Journal of Occupational Rehabilitation* 30, no. 4 (2020): 588–612.
- Taiwo, Akinyele Samuel. “The Influence of Work Environment on Workers Productivity: A Case of Selected Oil and Gas Industry in Lagos, Nigeria.” *African Journal of Business Management* 4, no. 3 (2010): 299.
- Taouab, Omar, and Zineb Issor. “Firm Performance: Definition and Measurement Models.” *European Scientific Journal* 15, no. 1 (2019): 93–106.
- Teo, Stephen T T, Tim Bentley, and Diep Nguyen. “Psychosocial Work Environment, Work Engagement, and Employee Commitment: A Moderated, Mediation Model.” *International Journal of Hospitality Management* 88 (2020): 102415.
- Turner, Paul. *Employee Engagement in Contemporary Organizations: Maintaining High Productivity and Sustained Competitiveness*. Springer, 2019.
- Ushie, E M, A M O Agba, and C Okorie. “Work Environment and Employees’ Commitment in Agro-Based Industries in Cross River State, Nigeria.” *Global Journal of Human-Social Science Research* 15, no. 6 (2015): 9–15.
- Vischer, Jacqueline C. “The Effects of the Physical Environment on Job Performance: Towards a Theoretical Model of Workspace Stress.” *Stress and Health: Journal of the International Society for the Investigation of Stress* 23, no. 3 (2007): 175–84.
- . *Workspace Strategies: Environment as a Tool for Work*. Springer Science & Business Media, 2012.

- Wang, Keh-Luh, Chi Chiang, and Chiu-Mei Tung. "Integrating Human Resource Management and Knowledge Management: From the Viewpoint of Core Employees and Organizational Performance." *International Journal of Organizational Innovation (Online)* 5, no. 1 (2012): 109.
- Warr, Peter, and Karina Nielsen. "Wellbeing and Work Performance." *Handbook of Well-Being. Salt Lake City, UT: DEF Publishers, 2018.*
- Webster, Jennica R, Terry A Beehr, and Neil D Christiansen. "Toward a Better Understanding of the Effects of Hindrance and Challenge Stressors on Work Behavior." *Journal of Vocational Behavior* 76, no. 1 (2010): 68–77.
- Ximenes, Mateus, Wayan Gede Supartha, I Gusti Ayu Manuati Dewi, and Desak Ketut Sintaasih. "Entrepreneurial Leadership Moderating High Performance Work System and Employee Creativity on Employee Performance." *Cogent Business & Management* 6, no. 1 (2019): 1697512.

ABOUT AUTHOR

Millicent Pimpong (Mrs) is a Senior Assistant Registrar at the Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development (AAMUSTED) with about 30 years experience of University Administration. She has adequate knowledge in Office Administration, Human Resource Management, Secretarial Practice and Business Management. She was educated at Nifa Secondary School in the Eastern Region of Ghana. Mrs Millicent Pimpong obtained her Bachelor of Education degree in Secretarial/Management Education at Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development and went on to obtain a Master of Business Administration (MBA) degree at the Kwame Nkrumah University of Science and Technology (KNUST). She has worked continuously with assiduity and at present a member of the Chartered Institute of Human Resource Practitioners, Ghana. An advocate for good working environment, she has a passion for creating good working relationships with an enduring zeal for high productivity and staff cohesion which are pivots for the success of every business.

Appendix I: Construct Measures

Workplace Environment Factors (WPE)

My furniture is flexible to adjust, rearrange or reorganise my workspace.
My furniture is comfortable enough so that I can work without getting tired during long hours.
My work environment is quiet enough for me
My workspace has many noise distractions.
My institution has made provision for sanitation.
Do you control over the lighting on your desk (i.e. adjustable desk light on desk)?
My office space makes way for natural light
Number of windows in my work area complete my fresh air and light need.
My work area is sufficiently equipped for my typical needs (normal, storage, movements, etc.).
I am satisfied with the amount of space for storage and displaying important materials.
My workspace serves multi-purpose functions for informal and instant meetings.
I have felt nervous before attending meetings in the institution.
I often take my job home with me in the sense that I think it when doing other things.

Commitment (COMM)

I feel emotionally attached to my institution because of the workplace environment.
I speak highly of my institution to my friends as a great institution to study
I am proud to tell others that i am student of my institution because of what it stands for
I am proud to be associated with the institution because of the environment in the institution.
The work environment in my institution really inspires the very best in me in the way of academic performance
My institution has a great deal of personal meaning for me because of the environment and work atmosphere
My institution deserves my loyalty because of the enabling work environment present
I am personally ready to sacrifice for my institution

Employee Productivity (PROD)

I always finish work according to the target number of cooperatives
I always finish my work according to expected standards
I am always on time in starting work
I am aided by my workplace environment to finish my duties and roles on time
I am not restricted in my performance by my workplace environment
I am ready to put in extra efforts to get my schedules completed because of the enabling environment
My workplace environment motivates me to work better

Appendix II: Model Output

OUTCOME VARIABLE:

COMM

Model Summary						
R	R-sq	MSE	F	df1	df2	p
.385	.148	1.685	34.400	1.000	198.000	.000
Model						
	coeff	se	t	p	LLCI	ULCI
constant	.747	.400	1.867	.063	-.042	1.537
WPE	.551	.094	5.865	.000	.366	.736
Standardised coefficients						
coeff						
WPE	.385					

OUTCOME VARIABLE:						
PROD						
Model Summary						
R	R-sq	MSE	F	df1	df2	p
.471	.222	.984	28.069	2.000	197.000	.000
Model						
	coeff	se	t	p	LLCI	ULCI
constant	1.756	.309	5.692	.000	1.148	2.364
WPE	-.178	.078	-2.288	.023	-.331	-.025
COMM	.405	.054	7.466	.000	.298	.512
Standardized coefficients						
coeff						
WPE	-.156					
COMM	.508					
Test(s) of X by M interaction:						
F	df1	df2	p			
13.910	1.000	196.000	.000			
***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****						
Total effect of X on Y						
Effect	se	t	p	LLCI	ULCI	c_cs
.045	.081	.560	.576	-.115	.205	.040
Direct effect of X on Y						
Effect	se	t	p	LLCI	ULCI	c'_cs
-.178	.078	-2.288	.023	-.331	-.025	-.156
Indirect effect(s) of X on Y:						
Effect	BootSE	BootLLCI	BootULCI			
COMM	.223	.039	.151	.305		
Completely standardized indirect effect(s) of X on Y:						
Effect	BootSE	BootLLCI	BootULCI			
COMM	.196	.032	.135	.260		

Model: 4; Y: PROD; X: WPE; M: COMM

