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[Green Ergonomics in Banks: How It Influences Employee Attitude and Behavior Intention: A Theory of Planned Behavior Approach]

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ABSTRACT

This research explores the impact of green ergonomics on the attitudes and behavioral intentions of employees in the banking industry, drawing on the Theory of Planned Behavior as a conceptual framework. Based on a qualitative methodology involving semi-structured interviews, data were gathered from employees at different levels of organization within nine banks. The study examines the impact of workplace variables like ergonomic equipment, office layout, lighting, air circulation, and nature on employee well-being, stress, motivation, and loyalty. The evidence suggests that workers in ergonomically conducive settings have more favorable attitudes, lower stress levels, higher comfort levels, and higher intentions to stay loyal and productive. Green ergonomic elements were shown to improve both physical and psychological dimensions of the workspace and, in turn, organizational performance. This research adds to the expanding literature on workplace design and identifies the strategic benefit of incorporating principles of ergonomics in human-focused banking spaces.

Keywords: Green ergonomics, employee attitude, behavioral intention, workplace environment, Theory of Planned Behavior, banking sector, mental well-being, office design, productivity, qualitative research.

Introduction

In the banking industry, where long office hours are common, the workplace design is an important element of their health, productivity, and job satisfaction. Traditional office environments tend to make workers unwell, impacting their health, such as musculoskeletal problems, eye strain, and mental fatigue (UI Haque, 2023). These issues can be addressed, as well as promote environmental stewardship by Green Ergonomics, an emerging convention that merges environmentally friendly practices with ergonomic elements (Hasanain, 2024). This convention focuses on how to create work environments that increase an employee's quality of work/life and lowers their environmental footprint by utilizing green materials of construction, energy efficient lighting, proper air quality, and minimizing waste(Schaller et al., 2024).

Thatcher (2023) illustrates some of the ways that ergonomists can help develop better systems. It provides a summary of a large number of subjects, which are addressed under three headings; first finding work in green industries and industries trying to become more sustainable; secondly energy efficient system and products; and lastly better understanding of human behaviour by decision-making can help influence behaviour. Urban environmental initiatives and "green structures" aim to better manage resources including materials, water and power and reduce wastage, degradation and harm to the environment (Findlay, 2010). The science of ergonomics wants to establish pro-nature perspective towards work design and ergonomics (Thatcher & Milner, 2012). The term "green ergonomics" will be considered as ergonomics solutions that pay significant attention to looking after the earth (Niu, 2010). The field of green ergonomics has grown to include designing green jobs, low energy systems, products and taking innovations int account in behavioural intervention due to these reciprocal relationships(Sarbat & Ozmehmet Tasan, 2020). The phrase "green ergonomics" refers to

a much narrower subset of interventions in the wider field of human factors. Defining this is "ergonomics that promotes a realization of the human - nature relationship in achieving the goals of ergonomics" (Fischer et al., 2021).

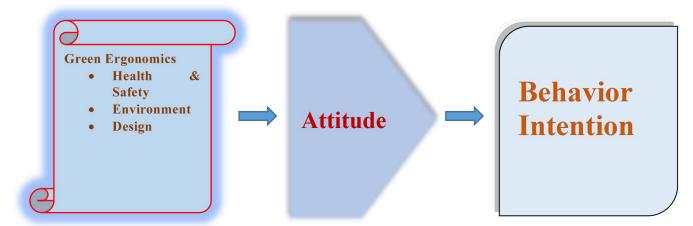
In 1980, the Theory of Planned Behavior (TPB) replaced the Theory of Reasoned Action (TRA) as the official term. The core concept of the model is behavioral intention and was derived from attitudes regarding how we expect a behavior will affect the outcome (Ajzen, 2005).). Any behavior that we are able to control can be analyzed into such notion. The TPB distinguishes in behavioural, normative and control beliefs, and argues that behavioral performance is a combination of ability and desire (intention) (behavior control) (Ajzen, 2015). The TPB contains six constructions that together show an individual's level of actual control (Tornikoski & Maalaoui, 2019).

In promoting and facilitating the application and adoption of Green Ergonomics practices, experience and behavioral intentions of employees are critical components. The Theory of Planned Behavior (TPB) provides a predictive framework and a systematic orientation for understanding employees' views and behaviors toward Green Ergonomics practices (Sok et al., 2021). According to the TPB, three factors influence an individual's intention to engage in a specific behavior - attitude, perceived norms, and perceived control towards behavior. The attitude can be defined as an individual employee's attitude toward Green Ergonomics, and whether, in their opinion, Green Ergonomics enhances their level of well-being and productivity (Tornikoski & Maalaoui, 2019). The perceived norms describes the social pressures from organizational policies, managerial support, and peers that can encourage or constrain or reinforce employees adopting green ergonomic practices. The perceived control for behavior is employees' belief in being able to adhere and continue to practice the behaviors, which is largely dependent upon personal/environmental factors including access to available resources, training, and support from the organization (Yuen et al., 2020).

The present research focuses on the impact of Green Ergonomics on banking employees using the framework of the Theory of Planned Behavior. By exploring the variables of office design, green policies, and ergonomic interventions, it aims to examine their role in shaping employee attitudes, job satisfaction, and productivity (UI Haque, 2023). Understanding dynamics will provide valuable contributions to banks who are considering implementing effective Green Ergonomics initiatives, which will enhance staff well-being as well as organizational goals and sustainability initiatives (Ye et al., 2023).

Studies such as those of (Citraresmi et al.) show that employee engagement and psychological ownership rise significantly when both discretionary workplace ergonomics improvements are seen as valuable and compliant with organization standards. Create a circular amplification option for employees concerning intention behavior based on green infrastructure and green HRM policy. Moreover, there is empirical data, including from the architecture and financial sectors in (Kumar & Thangavelu, 2024) that indicates the level of ergonomic redesigns such as adaptable chairs, ambient light, stress reduction green zones decreased turnover intention and service quality improved.

Theoretical Framework



Method: Study Design

This qualitative study is based on semi-structured interviews, allowing the researcher to explore the impact of Green Ergonomics on employee attitudes and behavioral intentions in the banking sector (Belina, 2023). The researcher conducts interviews at multiple banks, engaging with a diverse range of employees, particularly middle and higher-level staff such as managers and branch officers, who play a key role in decision-making and policy implementation. Semi-structured interviews offer flexibility, ensuring that while key themes related to Green Ergonomics are addressed, participants can freely express their views, leading to valuable new insights. By incorporating perspectives from employees across different banks, the study captures variations in workplace environments and organizational policies, contributing to a comprehensive understanding of how ergonomic interventions influence employee well-being, productivity, and engagement.

The data collection procedure for this qualitative study is shown in the table 1, which also includes information on the number of interviewees from different banks, their places of employment, and organizational levels. Nine different banks were involved in the study, and interviews were done at various levels of the hierarchy to guarantee a range of viewpoints on green ergonomics and how it affects employee attitudes and behavioral intents. One of the participants from the top management level was represented by the United Bank Limited (UBL) branch in Swabi. Two were from top management, and one was from middle management, as per statistics represented by Bank of Khyber (BOK). A mix of middle- and upper-level personnel represented Bank Islami, Bank Khushali, NRSP (National Rural Support Program) Bank, and Al Faysal Bank. There was one representative from senior management of HBL (Habib Bank Limited).

With three middle management and six high management participants, this allocation ensures an even representation of managerial perspectives. To ensure a comprehensive understanding of how Green Ergonomics is perceived and implemented across the banking sector, the research collects information from various institutions and hierarchical levels, such as variations in working environments, decision-making processes, and employee experiences.

Table 1; List Of Banks, Participants And Job Position

Bank	Region	No of participants	Level
Ubl		01	Upper
ВОК		02	Upper
ВОК		01	middle
Bank Islami		01	Upper
Bank Khushali	Swabi	01	Middle
NRSP		01	Upper
NRSP		01	Middle
Al Faysal		01	Upper
HBL		01	Upper

Result

To carry out the analysis, QSR International NVivo 12 was used. The three questions served as the three major themes for the interviewees' answers. A code was allocated to each piece of associated information that shared a similar "meaning," "feeling," or "concept."

Table 2:	List Of	Nodes And	Child Nodes	From Nvivo 12
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Main Category	Sub	Category 1	Sub category 2 (References)	
(References)	(References)			
	1.1.	Safety and Health	Furniture (7) Mental Health (3) Health Insurance (6)	
Green ergonomics	1.2.	Green Design	Office Design (6) Lights and Surrounding (4) Chair & Tables (13)	
Ü	1.3.	Environmental	Ventilation (6) Lights (2) Greenery (6) Flowers & money Plants (9) Colors & Furniture (6)	
Attitude	2.1.	Work Stress	Personality Change (1) Happy Mood (1) Feel Good (5) Commitment (2)	
	2.2.	Work efficiency	Productivity (4) Motivated (2) Efficiency (6) Comfortability (7)	
Behavior intention	3.1.	Work Load	Work Reliability (3) Work Environment (6)	

Peace of Mind (2)
3.2. Work Intentions Loyalty (9)
Comfort (2)
Better services (3)

The table 2 here shows a thematic structure derived by qualitative analysis conducted with QSR NVivo 12, founded on data acquired from semi-structured interviews from bank staff members.

The structure of coding falls into three significant areas that coincide with the Theory of Planned Behavior:

- Green Ergonomics (Workplace routines and physical condition),
- Attitude (Employee feelings and perceptions), and
- Behavioral Intention (Future employee behavior).

Each category has subcategories and sub-themes with reference numbers, which give the frequency count of how often each theme has been referred to during interviews.

Green Ergonomics

This theme points to the way physical and environmental conditions in the workplace affect employees. It has three sub-themes:

Safety and Health

Furniture (7): The simplest ergonomic component; workers commonly associated it with comfort and body position. Mental Health (3): Quiet, clean, and attractive settings promote psychological health. Health Insurance (6): Perceived as organizational concern, leading to feelings of security and decreased stress.

Green Design

Office Design (6) and Chair & Tables (13) were the most mentioned, indicating they played an important part in the performance of work on a daily basis. Lights and Surroundings (4): Fatigue is caused by insufficient lighting; concentration and comfort are enhanced by good lighting.

Environmental Aspects

Ventilation (6) and Greenery (6): Natural elements and fresh air enhanced physical comfort and mood. Flowers & Money Plants (9) and Colors & Furniture (6) created a pleasingly attractive atmosphere, which staff felt relaxing and inspiring.

P1: The design of furniture, ambience and health concerns contribute majorly towards the importance of green ergonomics.

Attitude

This theme examines employees' emotional and psychological reactions to the workplace.

Work Stress

Themes such as Feel Good (5) and Commitment (2) indicate that an ergonomic workplace reduces stress and creates a sense of belonging. Even Happy Mood (1) and Personality Change (1), although less common, indicate long-term psychological impacts.

Work Efficiency

Comfortability (7) and Efficiency (6) were high, indicating that comfortable and well-equipped settings enhance task performance. Motivated (2) and Productivity (4)

substantiate that physical comfort results in increased motivation and quantifiable output.

P2: This corresponds to the Attitude element of the Theory of Planned Behavior, suggesting that improved ergonomic conditions regarding comfortability, efficiency and a light hearted environment results in improved employee attitudes.

Behavioral Intention

This dimension captures how the environment affects employee intentions, such as remaining with the organization or enhancing performance.

Work Load

Work Environment (6) and Work Reliability (3) indicate that employees are more stable and reliable when their environment enhances their tasks.

Work Intentions

Loyalty (9) had the highest frequency in this category, indicating that effective ergonomic design enhances long-term organizational commitment. Peace of Mind (2), Comfort (2), and Better Services (3) indicate enhanced mental state and delivery of services.

P3: This category helps underpin the Intention component of the Theory of Planned Behavior, implying that ergonomics has an effect on the employees' work environment and loyalty.

Conceptual Frame Work



Discussion

This research emphasizes the considerable impact of green ergonomics on employee attitudes and behavioral intentions in the banking industry. Data obtained through semi-structured interviews, thematic analysis of which showed that banks' investments in ergonomic amenities like supportive seating, effective lighting, ventilation, plants, and creative office space have a positive response from employees both psychologically and behaviorally. Workers often linked ergonomic enhancements to less work stress, improved moods, heightened motivation, and feelings of comfort and security in the workplace. Such emotional reactions were seen to lead directly to their increased work efficiency and productivity.

Also, having green aspects such as vegetation and natural light not only enhanced the beauty of the workplace but also provided a soothing environment, helping in peace of mind and mental concentration. The results firmly affirm the Theory of Planned Behavior: as employees have positive attitudes toward their surroundings and see an encouraging organizational arrangement, they are most likely to display positive behavioral intentions—like loyalty, concerted effort, and commitment towards providing quality service.

In addition, factors such as health insurance and mental health consideration revealed that workers feel appreciated when their well-being is taken care of. This feeling of care and support from the company creates a psychological attachment, which greatly supports long-term retention and job satisfaction. In general, the study reaffirms that green ergonomic design not only contributes to physical health but also has a strategic function in influencing employees' psychological attitudes and performance-related behaviors.

Limitation

Although this study sheds some light on the contribution of green ergonomics to influencing employee attitudes and behavioral intentions within the banking industry, there are a number of caveats that need to be noted. To start, the research employed qualitative data collected during semi-structured interviews and these might constrain the generalizability of the results because of the subjective nature of the given responses and the comparatively small sample. The information was gathered from a limited group of banks in a specific geographic area and may not accurately reflect the variety of practices or employee experience in other areas or industries. Furthermore, managerial and mid-level personnel were the main emphasis; frontline workers, whose ergonomic conditions may be different, were not the primary focus. Time and access limitations also limited greater participation. Finally, although NVivo assisted in coding and categorizing themes, there is still potential for interpretation bias in qualitative analysis. These constraints indicate that further research involving a larger and more diverse sample size, potentially with mixed methods, would serve to confirm and build on the existing findings.

Conclusion

This research analyzed how green ergonomics within banking settings determines the attitudes and behavioral intentions of employees based on the Theory of Planned Behavior framework. The result is that environmental aspects like optimal furniture, interior office design, natural light exposure, ventilation, and office landscaping all play very important roles toward ensuring employee comfort, less workplace stress, and enhanced mental wellbeing. These favorable environmental conditions influence employee attitudes, resulting in higher motivation, job satisfaction, and organizational commitment. In addition, employees who worked in ergonomically supportive environments reported stronger behavioral intentions, such as higher loyalty and willingness to deliver better services. The research proves that incorporating green ergonomic practices is not only a physical workplace improvement issue but also a strategic way to improve employee performance and retention. In summary, employee-oriented and ergonomically healthy workplaces are more likely to be rewarded with a

dedicated, productive, and involved workforce by banks.

Implications for Future Research

This research provides several directions for future research in the area of green ergonomics and workplace behavior, especially in the banking industry. Firstly, future research may use a quantitative or mixed-methods design to confirm the themes that emerged in this qualitative study and determine the strength of the correlations between green ergonomic practices and employee outcomes through statistical analysis. Increasing the size of the sample across regions and involving a greater variety of roles among employees notably frontline staff would serve to make the findings more generally applicable.

In addition, longitudinal research may be done to monitor long-term impacts of ergonomic interventions on employee attitudes, health, productivity, and turnover. Researchers may also investigate how certain green ergonomic elements (e.g., natural lighting vs. workspace layout) make independent contributions to behavioral outcomes. Lastly, comparative studies between various industries (e.g., education, healthcare, IT) may shed more light on how organizational context affects the impact of green ergonomics.

These next-generation research opportunities will strengthen the empirical basis of integrating ergonomics into human resource and facilities planning strategies with the goal to improve both staff health and corporate performance.

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