AN EVALUATION ANALYSIS OF THE GREEN OFFICE MANAGEMENT SYSTEM WITH LOW CARBON EMISSIONS AT THE COLLEGE OF MANAGEMENT, UNIVERSITY OF PHAYAO*

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Abstract

This research article aims to 1. To analyze the low-carbon, eco-friendly Green Office management processes of the College of Management, the University of Phayao, during the period 2019–2024. 2. To analyze and synthesize lessons learned and a body of knowledge regarding the low-carbon, eco-friendly Green Office management of the Management College, Phayao University. 3. To propose guidelines for applying these lessons and newly acquired knowledge to enhance the development of low-carbon, eco-friendly Green Office management for partner organizations and other institutions. This study conducted qualitative interviews with nine university key stakeholders (n=9) using purposive sampling. The semi-structured interview questions were used, and content analysis was employed to develop the framework.

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The research results found that the green office management system model comprises three key factors: (1) human resources, (2) operational and working processes, and (3) operational system and working systems. To follow this framework, the outcome of low carbon emissions could be achieved. The recommendation for further study is to conduct a questionnaire survey and expand it to other universities using this green office management system.

Keywords: green office, management system, low carbon emissions, process, human resource management (HRM), corporate social responsibility (CSR)

Introduction

The atmosphere's water-holding capacity increases by 7% for every degree Celsius increase in temperature. Collective precipitation exceeds local absorption and infrastructural capacities due to this physical phenomenon (Policy Statement of the Council of Ministers, 2024; Thepsud & Chairattanawan, 2024). Keeping the workplace green is one method to honor employees who help solve environmental issues, especially carbon emissions. The innovative finding of this study is that green HRM, CSR, and operational adjustments can create a sustainable workforce and meet transportation sector environmental goals. Policymakers, managers, and academics interested in ecological sustainability through strategic human resource management and CSR can learn from this research (Faeni et al., 2025). Thus, the significance of low carbon emissions is crucial for sustainable organizations, as they can use a green office management system.

The escalating climate change crisis is a consequence of global economic activities (Burch, 2009). In 2024, Thailand had severe droughts and devastating flooding. Thailand is a party to the UNFCCC and the Paris Agreement. The NDC Action strategy on Mitigation (2021–2030) to 40% reduction in greenhouse gas (GHG) emissions by 2030. The five strategies are energy, transportation, IPPU,

waste management, and agriculture. This framework promotes Carbon Neutrality by 2050 and Net Zero Emissions by 2065 (Department of Climate Change and Environment, 2024). Thai universities have deliberately integrated the “Green Campus” concept into academic goals for the UI Green Metric index, which assesses using indicators including infrastructure, energy and climate change, waste and water management, transportation, and education and research (Universitas Indonesia, 2025). The Green Office initiative has been part of the College of Management, University of Phayao, Thailand, sustainable development management system since 2019. Environmental standards at the College of Management have increased from “Very Good” (Silver Medal) to “Excellent” (Gold Medal). The Ministry of Natural Resources and Environment awarded it the National G-Green Award 2023 on August 29, 2024. The College of Management prioritizes human capital over structural performance for organizational longevity. Up to eight Green Office Auditors operate at Phayao University. Professionals help Phayao University meet international “Green University” standards by improving internal governance. The College of Management, University of Phayao, Thailand, is a Green Office Model and a strategic hub for global firm consultancy and knowledge transfer, as outlined in the Model Organization and Green Office Knowledge Dissemination. This model research synthesizes important learning to create a Green Office management body of knowledge for a low-carbon society.

Objectives

1. To evaluate the low-carbon, eco-friendly Green Office Management processes of the College of Management, University of Phayao, Thailand, during the period 2019–2024.

2. To analyze and synthesize lessons learned and a body of knowledge regarding the low-carbon, eco-friendly Green Office management of the College of Management, University of Phayao, Thailand.

3. To propose guidelines for applying these lessons and newly acquired knowledge to enhance the development of low-carbon, eco-friendly Green Office management for partner organizations and other institutions.

Conceptual Framework

The analytical framework of this study is derived from (1) Green Office Management and Organizational Administration Principles, (2) Modern Green Office Evaluation Criteria and UI Green Metric Conceptual Frameworks, (3) Concepts of Lessons Learned Extraction and Knowledge Creation, and (4) Strategic Management and Corporate Communication Theories. Then this study proposes a conceptual synthesis (Figure 1); the details are as follows: 1. Management and Organization of Green Offices Guidelines: Integrating environmental management systems with organizational administration ideas. 2. The comprehensive assessment framework, including 7 categories, 24 main issues, and 65 indicators, and the UI Green Metric World University Ranking parameters are used to evaluate Green Office. 3. Synthesize institutional lessons and knowledge about low-carbon, eco-friendly Green Office management at the College of Management, University of Phayao, during the studied period. 4. Strategic Knowledge Transfer and External Development: The College of Management, University of Phayao, creates strategic guidelines to help partner organizations and other external agencies receive these lessons and new knowledge.

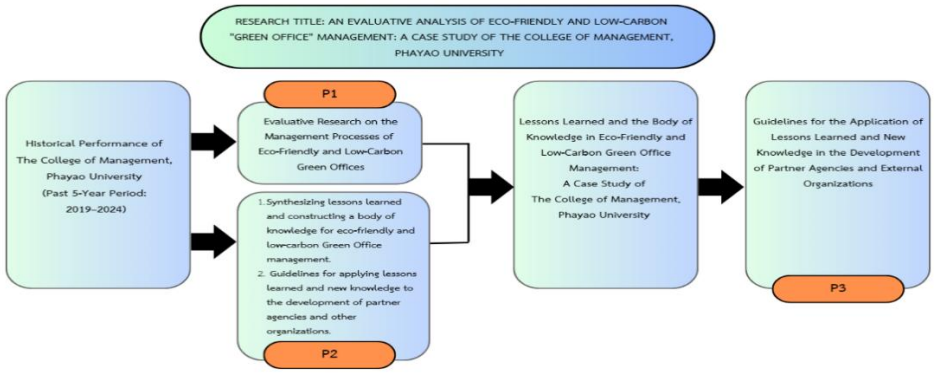

Figure 1 shows the research conceptual framework.

The College of Management, University of Phayao, contributes to the research on 1. Access to low-carbon, eco-friendly Green Office management from 2019 to 2024 to inform organizational development. These findings provide essential empirical data and strategic recommendations for future management cycles to improve organizational development. 2. Establish institutional lessons and synthesize knowledge from low-carbon, eco-friendly Green Office management methods. Continuous development and workplace sustainability depend on this data. 3. The Information Transfer and External Development Framework helps apply synthesized lessons and new information. Partners and other institutions can construct and optimize low-carbon, eco-friendly Green Office management using this approach.

Literature Review

Concepts of Green Office Management and Evaluation Criteria

To achieve green office management, a “Green Office” uses resources and energy efficiently to reduce environmental impact. Effective waste management, eco-friendly office supplies, and low greenhouse gas emissions are supported by staff engagement and behavioral change. The Thai Green Office project promotes sustainable environmental practices in line with the Sustainable Development

Goals. Key principles include: 1) Intelligent resource and energy consumption. 2) Effective waste management. 3) Selection of eco-friendly materials and office equipment. 4) Low greenhouse gas emissions. Environmentally friendly offices include document processing, conference rooms, classrooms, computer labs, and common spaces like dining rooms, kitchenettes, parking lots, restrooms, and waste treatment systems. The 2025 Green Office Evaluation has 7 categories, 24 issues, and 65 indicators (100 points).

Table 1 Ranking Categories and Weighting Criteria for the Year 2025

Green Office Assessment For newly certified organizations, 6 Categories, 22 Issues, and 63 Indicators	**Green Office Assessment: For renewal or upgrade of certification, 7 Categories, 24 Issues, and 65 Indicators**	**Scoring Criteria**
Category 1: Policy Formulation and Green Office Planning	Category 1: Policy Formulation and Green Office Planning	25%
Category 2: Communication and Awareness	Category 2: Communication and Awareness	15%
Category 3: Resource and Energy Consumption	Category 3: Resource and Energy Consumption	15%
Category 4: Waste Management	Category 4: Waste Management	15%
Category 5: Office Environment and Safety	Category 5: Office Environment and Safety	15%
Category 6: Green Procurement and Contracting	Category 6: Green Procurement and Contracting	15%
(No Category 7)	Category 7: Continuous Green Office Operations (To be implemented in 2025)	Pass/Fail

Source: Department of Climate Change and Environment (2025).

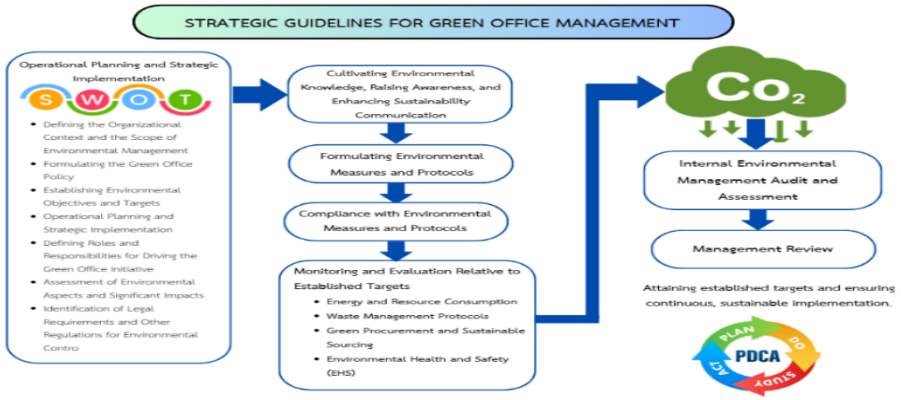

Figure 2 Revised Guidelines for "Green Office" Management, 2025

Source: Faculty of Environment and Resource Studies, Mahidol University, and Department of Climate Change and Environment (2025).

The evaluation outcomes are categorized into three achievement levels based on the following percentage score thresholds, as in Table 2:

Table 2 Achievement Level, Award Status, and Percentage Score.

Achievement Level	Award Status	Percentage Score
Excellent	Gold	90% and above
Very Good	Silver	80% – 89%
Good	Bronze	60% – 79%
Non-certified	Fail	Below 60%

Green office certification renewal/upgrade criteria require the organization to produce a three-year report on energy consumption analysis as follows: 1) Data from past years must be supplied annually. 2) Monthly data summarization and analysis are required for this year.

The UI Green Metric Concept and Framework

UI Green Metric World University Ranking encourages environmental sustainability in higher education worldwide. In 2010, Universitas Indonesia (UI)

launched a ranking system to assess and compare universities' sustainability initiatives worldwide (Tiyarattanachai & Hollmann, 2016). The primary objectives are: 1) To provide an annual global ranking of universities based on their sustainability performance; 2) To encourage sustainable practices in higher education institutions globally; 3) To provide sustainability-related services to the global academic community; and 4) To facilitate international cooperation in sustainability. Other systems, like the US College Sustainability Report Card, provide integrated sustainability ratings for 300 universities, but their results are often presented as letter grades (A–F) and involve a small number of institutions (Atici et al., 2021; UI Green Metric, 2023). Engagement is increased through the UI Green Metric, which enables universities to benchmark their sustainability performance by integrating environmental, social, and economic sustainability into the curriculum and the green campus infrastructure. The framework has six categories and 39 indicators: 1) Setting and Infrastructure (SI), 2) Energy and Climate Change (EC), 3) Waste Management (WS), 4) Water (WR), 5) Transportation (TR), 6) Education and Research (ED)

Thailand joined the UI Green Metric World University Rankings in 2014 with 15 pioneering universities. As of 2022, 47 Thai universities were among 1,050 participating institutions globally. Thai participation reached 55 out of 1,050 worldwide institutions from 85 countries in 2023. On December 5, 2023, Kasetsart University placed first in Thailand with a score of 8,775, split between SI (1,275), EC (1,675), WS (1,575), WR (900), TR (1,750), and ED (1,600). Mahidol University ranked 2nd in Thailand (49th globally) and King Mongkut's University of Technology Thonburi 3rd (50th globally) with 8,625 points.

Institutional Impact: The Case of the University of Phayao

By 2025, global participation in the UI Green Metric World University Rankings expanded significantly to 1,745 universities, with 61 institutions from Thailand represented in the assessment. In this recent evaluation, the University of Phayao achieved a distinguished milestone, advancing to 8th rank nationally

and 108th rank globally, with a total score of 8,575 (UI Green Metric World Ranking, 2025).

Table 3 UI Green Metric Ranking Categories and Weighting Criteria (2025)

Number	Categories used for ranking and weighting.	Weighting (%)
1	Setting and Infrastructure (SI)	15
2	Energy & Climate Change (EC)	21
3	Waste Management (WS)	18
4	Water Management (W)	10
5	Transportation (TR)	18
6	Education & Research (ED)	18
	Total	100

Source: UI Green Metric Guideline (2025)

Recommended Indicators and Categories for UI Green Metric World University Rankings 2025

Assessment Framework: 6 Categories and 58 Indicators

Category 1: Setting and Infrastructure (SI); Sustainable development principles must guide the university's Master Plan. Quality and long-term ecological stability are prioritized. Maintaining 30% green space, land-use efficiency, construction density, and infrastructure maintenance are essential. This category has 11 indicators. **Category 2: Energy and Climate Change (EC)*;*** The institution runs energy-saving and awareness campaigns for faculty, staff, and students. Retrofitting appliances, lighting, and air conditioning with energy-efficient ones, integrating solar energy, and implementing strict energy-saving measures are key projects. This category has 10 indications. **Category 3: Waste Management (WS)*;*** Public relations programs of the university promote waste source segmentation by kind based on institutional waste. This includes strategically situating waste containers in workstations, establishing waste

collection points, and installing strong waste-disposal monitoring and auditing systems. This category has 6 indications. **Category 4: Water Management (WR)*;*** The institution conserves water and recycles treated wastewater for landscape irrigation. Reforestation and planting increase green canopies and improve the campus ecosystem. This category has 5 indications. **Category 5: Transportation (TR)*;*** Eco-friendly transportation and pedestrian-friendly campus design are university priorities. To reduce global warming and carbon emissions, covered pathways and bicycle promotions promote walking. This category has 8 indications. **Category 6: Education and Research (ED);** Green Office and 5S projects raise environmental awareness at the university. This holistic approach incorporates environmental issues into education, research, and services. Publishing academic and research articles, presenting at national and international levels, and transferring operational information into professional development are its priorities. These activities demonstrate a dedication to studying and advancing knowledge and ideas for society and the community. This category has 11 indicators.

Conceptual Framework: Lessons Learned and the Construction of New Knowledge

The Brundtland Report defines sustainable development as " development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Annette & Lucy, 2023). PM 2.5 and pandemic crises have caused a global economic crisis reminiscent of the Great Depression in recent years. Thailand has significant social capital for economic, social, and educational development. Schools must teach skills, knowledge, critical thinking, and ethics. They must acquire intellectual, social, and emotional capital (Schultz, 1961). Institutions must develop policies and strategies that support society after students graduate. Thus, managing education to meet global dynamics in the Digital Disruption era is crucial.

Lifelong learning serves as a vital solution for human capital development as humanity faces complex, rapidly changing crises with no alternative but fundamental self-transformation. Specifically, learning processes influence perception, attitudes, and understanding, leading to behavioral changes, a unique human capacity that distinguishes mankind from other beings. This enables humans to adapt and continuously create social and cultural value. Thus, learning is the "key" for individuals to initiate self-change and maintain lifelong survival. Currently, the transition toward a green society is generating new occupations that require green skills, while the digital transformation demands a larger workforce proficient in digital skills. The shift toward more environmentally friendly and digital societies has highlighted significant skill shortages. In response, the European Commission is collaborating with stakeholders to bridge this skills gap. Ursula von der Leyen, President of the European Commission, declared in her 2022 State of the Union address that 2023 would be the European Year of Skills. This initiative emphasizes addressing labor shortages, the lack of basic digital literacy, and the need to invest in "reskilling and upskilling" to maintain competitiveness. The ultimate goal of the European Year of Skills is to revitalize lifelong learning and the continuous construction of new knowledge (Annette & Lucy, 2023).

Concepts of Strategic Management and Organizational Communication

In the 21st century, globalization has driven rapid technological change, increased competitiveness, shifted labor markets, led to volatile economies, and caused resource shortages. These variables have greatly complicated modern management. Strategic planning gave a competitive edge in prior decades, but this century requires holistic thinking. Organizations must prepare strategically to overcome new business obstacles in the global business environment. Thus, holistic thinking and practice must pervade all organizational activities. Successful

companies view the global market as their main competitor. Strategic management routinely outperforms non-strategic management, according to research. Thus, strategic management is essential to most firms. As noted by Peter (1993), "almost every organization of significant size engages in some form of strategic planning." This perspective aligns with the work of James Brian Quinn (1985), who stressed that rapid technology change requires organizational innovation design and management. Strategic planning, new structures, and motivation help innovative organizations succeed. Therefore, creating and adapting breakthrough technology to organizational demands is vital. While certain parts are identical, each firm's capabilities, personalities, goals, and competitive landscape may require distinct solutions. Experience suggests that shared frameworks boost success rates. Strategy links an organization's main objectives, policies, and actions. Effective strategies help organizations allocate resources and invest in their strengths and shortcomings. Strategic positioning requires anticipating new projects and competitors. Business Policy, Strategic Planning, and Strategic Management are used by most companies. Managers try to align operations with organizational goals. Although connected, each phrase has its own meaning.

Additionally, Alkhafaji & Nelson (2013) suggested that organizations perform Environmental Analysis, Strategy Formulation, Strategy Implementation, and Evaluation and Control. These stages constitute a continuous process, enabling ongoing assessment and adjustment of operational plans within each phase to ensure alignment with the evolving internal and external environments. This process is illustrated in the following Figure 3.

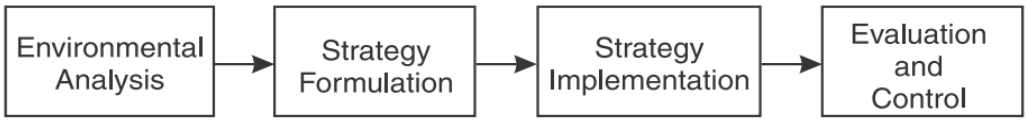

Figure 3: Strategic Management Framework Source (Alkhafaji & Nelson, 2013)

Organizational improvement and operational excellence require strategic management. Good strategic management requires knowledge, conceptual understanding, innovation, and foresight. Realistic situational projections are needed to meet company goals and sustain institutional growth. Strategic management demands long-term commitment to boost organizational success.

Organizational Communication

Due to significant growth in technological and digital literacy, modern organizational management struggles to integrate Generation Z and Millennials, who have diverse personal and professional values. These workers desire visionary leadership, mission clarity, and active decision-making. Mid-career and senior staff desire stability, decisive leadership, and open communication (Zaumane, 2018). Thus, communication is a symbol-mediated social interaction that exchanges information through mutually understood symbols, signs, or behaviors (Worren, 2014). This aligns with Warren Weaver's perspective, which defines communication broadly as the processes by which one mind can affect another. Organizational communication is highly diverse and multifaceted, as evidenced by the Harvard Business Review (1993) anthology, The Articulate Executive. It covers micro, meso, and macro communication through formal and informal channels, as well as internal processes such as meetings, newsletters, presentations, strategic communication, direction-setting, and performance reviews. External communication to the public, media, and other organizations is included. Innovation, organizational learning, knowledge management, conflict resolution, diversity, and communication technologies are also included. Thus, organizational communication is essential for coordination across different domains (Baker, 2003). Communication within an organization is complex, diversified, and crucial to its success. One type of formal communication is downward (management to subordinates). Communication from subordinates to management is horizontal, same-level. Different hierarchies and departments

communicate diagonally. External communication with corporate stakeholders, partners, etc. In conclusion, leaders must acknowledge that different organizational types and structures have distinct communication needs. Most importantly, they must comprehend how new technologies and communication skills can improve organizational operations (Tucker et al., 1996; DeSanctis & Fulk, 1999).

Methodology

Population and Sample

Group 1: Executives and policy-makers responsible for the Green Office initiative; the Group 1 population was 15 persons, and the sample was 3 respondents.

Group 2: Personnel serving as heads of various Green Office categories; the Group 2 population was 7, and the sample was 3 respondents.

Group 3: Graduate students impacted by the policy with at least two years of participation in the university's green initiatives; the Group 3 population was 50, and the sample was 3 respondents.

Research Instrument

Evaluative Analysis of Eco-Friendly and Low-Carbon Green Office Management at the College of Management, University of Phayao in 2019–2024.

1. Qualitative interviews; the office's GHG reduction commitment was discussed in in-depth interviews. A total of 9 key informants were purposively selected and categorized into three groups as mentioned in the population and sample.

2. The questionnaire employed practical key success factors and examined the obstacles and results of the low-carbon Green Office initiative. Hammond's Evaluation Model featured Instructional (Management), Institutional

(Personnel), and Behavioral (Outcome) elements. Quantitative study was based on qualitative findings.

Data Collection

1. The questionnaire survey was employed to collect the quantitative data.
2. The interview form was employed to collect the qualitative data.

Data Analysis

The study employed Content Analysis, transcribing audio recordings and synthesizing key points from in-depth interviews. The analysis followed the framework of Miles & Huberman (1994: 134-135), consisting of three primary stages: **Step 1:** Data Organization and Transcription, which involved transcribing interview recordings into text and conducting repeated readings to become familiar with the data. **Step 2:** Coding and Categorizing: Analyzing the data to identify core themes and establish codes based on Robert L. Hammond's evaluation dimensions (Management, Personnel, and Outcomes). **Step 3:** Interpretation and Conclusion: Synthesizing the essential findings of each theme, with an emphasis on identifying causal factors and success mechanisms of the Green Office project. The core themes were further categorized following the qualitative data organization techniques proposed by Podhisita (2016: 356) as follows:

Figure 4 Treatment-Development Design

Table 4: Demographic information on the respondents and interview dates and times

No	Gender	Age	Role	Date and time of interview
P1	Female	62	Executives and Policy-makers	August 15, 2025, 09:30 AM
P2	Female	53	Executives and Policy-makers	August 15, 2025, 10:30 AM
P3	Male	74	Executives and Policy-makers	August 23, 2025, 11:30 AM
P4	Female	42	Category Leads	August 8, 2025, 09:30 AM
P5	Male	35	Category Leads	August 16, 2025, 09:30 AM
P6	Female	43	Category Leads	August 8, 2025, 10:30 AM
P7	Female	60	Graduate Students	August 10, 2025, 10:00 AM
P8	Male	52	Graduate Students	August 10, 2025, 11:00 AM
P9	Female	55	Graduate Students	August 16, 2025, 11:30 AM

Results

Thematic analysis to follow the Research Objective 1:

To analyze the low-carbon, eco-friendly Green Office management processes of the Management College, Phayao University, during the period 2019–2024. The analysis is shown in Table 5.

Table 5: Analyzing results based on Focus group discussions (N=9)

Themes	Findings	Key Insights
1. Human Resources	Most respondents agreed that personnel are aware and have received continuous training.	Management support is a key factor in encouraging employees to change their behavior.
2. Operational process or working process	The working process is being digitized (paperless) to reduce resource consumption.	Workflow redundancy is reduced when technology is used to help manage it.

3. Operational system or working system	The software or database systems used for monitoring still need stability improvements.	Maintaining data recording continuity is a major challenge that needs to be addressed.

Thematic analysis to follow the Research Objective 2:

To analyze and synthesize lessons learned and a body of knowledge regarding the low-carbon, eco-friendly Green Office management of the College of Management, University of Phayao. The analysis and synthesize as follows;

Extracting lessons is essential to creating new institutional knowledge. The insights can be strategically used: 1) Process optimization: Improving workflow efficiency. 2) Human Resource Development: Improving staff abilities. 3) Innovation Generation: Using insights to create stakeholder-focused solutions. 4) Knowledge Distribution: Sharing lessons across the company to ensure learning and use. Lessons Learned and Knowledge Creation drive organizational change. It lets institutions learn from experience and improve operations. It improves organizational efficiency by eliminating errors and enhancing time management. This gives the company a competitive edge through superior knowledge and skills and fosters a Learning Culture where every employee is enabled to self-develop and learn.

Thematic analysis to follow the Research Objective 3:

To propose guidelines for applying these lessons and newly acquired knowledge to enhance the development of low-carbon, eco-friendly Green Office management for partner organizations and other institutions.

Globalization has accelerated technological change, raised competition, altered labor markets, induced economic volatility, and caused resource shortages. Modern management is complicated by these elements, hindering the development of low-carbon, eco-friendly Green Office management for partner organizations and other institutions. Strategic planning gave a competitive edge

in previous decades, but this century requires holistic thinking. To handle global commercial challenges, organizations must plan strategically. Thus, all organizational operations must incorporate holistic thinking and practice. Successful organizations consider the global market as their major rival. Research shows that strategic management outperforms non-strategic. Strategic management is vital to most businesses. According to Peter (1993), "almost every organization of significant size engages in some form of strategic planning."

Discussions

The results of research objective 1 found that personnel are aware and have received continuous training. The working process is being digitized (paperless) to reduce resource consumption. The software or database systems used for monitoring still need stability improvements. This is because management support is a key factor in encouraging employees to change their behavior. Workflow redundancy is reduced when technology is used to help manage it. Maintaining data recording continuity is a major challenge that needs to be addressed. The results align with Green Metric Ranking Categories and Weighting Criteria (2025), about green office management being implemented in a tangible way, with the following key points for polies in: (1) Human Resources: It is the issue that the respondents considered most important, stating that success factors stemmed from clear awareness and support from management. (2) Operational process and working process: Digitalization reduces environmental impact, despite the initial challenges in behavioral change. (3) Operational system and working system: Despite having a standardized support system, some informants reflected that the data storage tools should be improved to be more stable and user-friendly in order to ensure sustainability.

The results of research objective 2 found that extracting lessons is essential to creating new institutional knowledge. The insights can be strategically

used to optimize processes by improving workflow efficiency. Human Resource Development should be improving staff abilities. Innovation Generation could be improved by using insights to create stakeholder-focused solutions. This is because knowledge distribution increases the sharing of lessons across the university, ensuring learning and use. It aligns with Weber et al. (2001) and Chaves & Veronese (2014), the success or failure depends on lessons learned. Such information or insight comes from positive and negative experiences. Knowledge gathered during a project's life cycle shows how events were managed or should be managed to improve performance. Continuous organizational development requires learning and knowledge creation. Prioritizing these activities helps companies learn from experience, optimize operations, and gain a durable competitive advantage.

The results of research objective 3 found that these lessons learned about green office management could be improved. This is because 1) Reuse: Reusing effective learning methods. 2) Mitigating documented impediments as they arise. 3) Balancing operational excellence and new challenges. 4) Continuous Improvement: Facilitating corporate commitment and refinement. It aligns with Abu-Bakar et al. (2025) in that recycling diverts material from landfill, but our results show that downstream concentration yields lower value retention and slower decarbonization than upstream actions (e.g., design-for-reuse or remanufacturing).

New Insight: The Success Model

The success of the Green Office at the School of Management is not solely attributed to “systems” or “processes.” Instead, it stems from the creation of Human Resources in “ Collective Leadership” and a profound “ Sense of Ownership.” By leveraging the expertise of its in-house auditors as primary drivers, the School has developed a replicable model for other organizations seeking

sustainable transformation. The presentation outlines new knowledge to develop environmentally friendly, low-carbon green office management practices for partner organizations or other entities. Human capital elements impact mere compliance officers into “drivers of change.” The broader goal of a low-carbon society is crucial for green office management.

Recommendations

The University Master Plan must adhere to sustainable development principles. Quality and ecological sustainability are prioritized. Green space, land-use efficiency, construction density, and infrastructure upkeep are crucial for energy and climate change. The university promotes energy conservation to students, staff, and professors. Integration of solar energy, retrofitting appliances, lights, and air conditioning with energy-efficient ones, and rigorous energy-saving measures are major factors. For waste management projects, the university encourages institutional separation of trash by type. It includes strategically placing waste containers in workstations, creating waste collection points, and installing robust waste-disposal monitoring and auditing systems. Water conservation and wastewater recycling for landscape irrigation are done. Reforestation and planting improve the university's ecosystems. The university provides transportation options, including eco-friendly options and pedestrian-friendly campus architecture, such as covered walkways and bicycle advertising, that encourage walking to reduce carbon emissions and global warming.

However, this study employs a small sample size (n=9), and it is a case study. The recommendation for further studies is to expand the sample size and include several universities, and to use a questionnaire survey or a mixed-methods study.

References

Abu-Bakar, H., & Charnley, F. (2025). Evaluating National Circular Economy Practices in the UK: Setting a Strategic Agenda for a Nation-Wide Roadmap. Circular Economy and Sustainability, 1-35. https://doi.org/10.1007/s43615-025-00669-2

Alkhafaji, A., & Nelson, R. A. (2013). Strategic management: formulation, implementation, and control in a dynamic environment. Routledge.

Annette, L. (2023). Revitalising lifelong learning. Impact, 2023(1), 4–5.

Aroonsrimorakot, S. (2018). Green Office Management Standard in Mahidol University, Thailand. Pertanika Journal of Social Sciences & Humanities, 26(4).

Aroonsrimorakot, S., & Boonruang, T. (2023). Increasing efficiency in the application of Green Office standards to reduce the amount of greenhouse gases in government offices, state enterprises, and educational institutions in Thailand. Lecture notes, Faculty of Environment and Resource Studies, Mahidol University, 11.

Atici, K. B., Yasayacak, G., Yildiz, Y., & Ulucan, A. (2021). Green University and academic performance: An empirical study on UI GreenMetric and World University Rankings. Journal of Cleaner Production, 291, 125289.

Baker, K. A. (2003). Organizational communication. Management Benchmark Study.

Burch, S. (2010). In pursuit of resilient, low-carbon communities: An examination of barriers to action in three Canadian cities. Energy policy, 38(12), 7575-7585.

Chaves, M., & Veronese, G. (2014). A Proposal to Manage Lessons Learned in Projects: Web 2.0 Technologies to Promote Innovation. International Journal of Innovation, 2, 1-17. https://ssrn.com/abstract=2677471

Department of Climate Change and Environment. (2024). Paomai NDC khwam mungman khong Thai kaoyang su Net Zero lae lok yangyuen [NDC targets: Thailand's commitment toward Net Zero and a sustainable world] [Status update]. Facebook. https://www.facebook.com/dcceth

Faeni, D. P., Oktaviani, R. F., Riyadh, H. A., Faeni, R. P., & Beshr, B. A. H. (2025). Green human resource management (GHRM) and corporate social responsibility (CSR) in reducing carbon emissions for sustainable practices. Environmental Quality Management, 34(3), e70048. https://doi .org/10.1002/tqem.70048

Hammond, R. L. (1967). Evaluation at the Local Level.

Ko-thanaseth, T. (2020). Mindset of innovator vs crisis. Leochia.Leadership Perspective. IJRDO-Journal of Business Management, 4(2), 92-101.

Makmee, P. (2016). Research design for mixed methods research. Journal of the Association of Researchers, 21(2), 19–31.

Office of the Prime Minister. (2024, September 12). Policy statement of the Council of Ministers delivered by Prime Minister Paetongtarn Shinawatra to the National Assembly. Royal Thai Government Gazette, 141 (Special Issue 251), 1–64.

Panyawuthitham, T. (2024). Cultural policies of the government of Ms. Paetongtarn Shinawatra. Journal of Social Development Multidisciplinary, 2(6), 1–18.

Peter, J. (1993). Business policy in action. Management Decision Journal, 31(6), 3. Quinn, J. B. (1985). Innovation and corporate strategy: Managed chaos. Technology in society, 7(2-3), 263-279.

Pollution Control Department. (2023). New PM2.5 standards come into effect today (June 1, 2023). https://www.pcd.go.th/pcd_news/29901

Royal Thai Government Gazette. (2023, August 17). Announcement on renaming The Department of Environmental Quality Promotion to the Department of Climate Change and Environment. Vol. 140, Part 48 a, 55–57.

Schultz, T. W. (1961). Investment in Human Capital. The American Economic Review, 51 (1), 1 -17.

Thepda, M., & Chairattanawan, K. (2024). Global warming: A severe threat driven in the industrial era. Journal of the Association of Researchers, 29(2), 96–113.

Tucker, M. L., Meyer, G. D., & Westerman, J. W. (1996). Organizational communication: Development of internal strategic competitive advantage. The Journal of Business Communication (1973), 33(1), 51-69.

University of Phayao. (2023). University of Phayao excellence development plan for fiscal years 2024-2043 (20-year period). https://plan.up.ac.th/about-us/data-center/1/show

World University Rankings (2024). Guideline UI GreenMetric World University Rankings (2024). https://greenmetric.ui.ac.id/rankings/overall-rankings-2024

Weber, R., Aha, D. W., & Becerra-Fernández, I. (2001). Intelligent lessons learned systems. Expert systems with applications, 20(1), 17-34.

Worthen, B. R., & Sunders, J. R. (1973). Educational Evaluation: Theory and Practice (Belmont: Wadsworth Publishing Company.

Worren, N. (2014). Exploring the potential of the axiomatic approach for organization design. In Organization Design and Engineering: Coexistence, Cooperation or Integration (pp. 126–149). London: Palgrave Macmillan UK.

Zaumane, I. (2018). Internal Communication Challenges in 21st Century Organization.