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أهداف ومجالات المجلة

تهدف المجلة إلى نشر الدراسات والبحوث العلمية والفكرية التي تتبنى المعايير العلمية الرصينة في مختلف فروع المعرفة الاقتصادية لتحقيق بما يسهم في بناء فكر اقتصادي حديث وفعال لدى الاقتصاديين العرب لتحقيق التطور الاقتصادي من الناحية العلمية والتطبيقية.

تتنوع اهتمامات المجلة بشكل يضم طيفا واسعا من القضايا والمواضيع الاقتصادية الراهنة في الاقتصاد العالمي والعربي على حدٍ سواء، مثل: السياسات الاقتصادية (النقدية، المالية، التجارية وسياسة الصرف الأجنبي)، التنسيق الدولي للسياسات الاقتصادية الكلية، سياسات واستراتيجيات التنمية وتمويلها في الدول النامية والناشئة، قضايا الفقر والبطالة والعدالة الاجتماعية، التنوع الاقتصادي والبدائل الممكنة، الأزمات (المالية، المصرفية، العملة، الديون السيادية...)، المؤسسات المالية، الأسواق المالية وإصلاح القطاع المالي، التكتلات الاقتصادية والاندماج في الاقتصاد العالمي، المؤسسات المالية الدولية وإصلاح النظام النقدي والمالي العالمي، الحروب المالية، استشراف الاقتصاد العربي والعالمي وتغير موازين القوة في الاقتصاد العالمي، وكالات التصنيف العالمية، الأمن الغذائي والطاقي، الطاقات المتجددة، اقتصاد الخدمات، اقتصاد المعرفة، الشركات متعددة الجنسية ودورها المتعاظم في الاقتصاد العالمي، الاقتصاد والتمويل الإسلامي، الاقتصاد والأخلاق.

تمنح المجلة حيزا مهما للدراسات النقدية "critical studies" للفكر الاقتصادي السائد والليبرالية الجديدة وقضايا العولمة، وتقديم النظريات والأفكار والبدائل الجديدة المطروحة في الاقتصاد العالمي. كما ترحب المجلة بتقارير المؤتمرات والندوات الاقتصادية، ومراجعات الكتب الاقتصادية الحديثة والتعليق عليها.

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- 2- يكتب عنوان الإنتاج العلمي، واسم البحث، أو الباحثين، والدرجة العلمية والمؤسسة التي ينتهي إليها، وعنوان المراسلة (البريد الإلكتروني)، على صفحة مستقلة قبل صفحات الإنتاج العلمي مع تزويد المجلة برقم الاوركيد (ORCID) للباحث.
- 3- يعد ملخصان للإنتاج العلمي أحدهما باللغة العربية والآخر باللغة الإنجليزية، على ألا تتجاوز كلمات ل واحد منهما (300) كلمة.
- 4- يلي الملخصين: العربي والإنجليزي، كلمات مفتاحية (Key Words) لا تزيد على خمس كلمات (غير موجودة في عنوان الإنتاج العلمي)، تعبر عن المجالات التي يتناولها الإنتاج العلمي، ويفضل فيها الابتعاد عن الكلمات العامة.
- 5- يكون نوع الخط في المتن للبحوث العربية (sakkalmajalla)، بحجم (14)، وللبحوث الإنجليزية (Times New Roman)، بحجم (12).
- 6- يكون نوع الخط في الجداول للبحوث العربية (sakkalmajalla)، بحجم (10)، وللبحوث الإنجليزية (Times New Roman)، بحجم (9).
- 7- تستخدم الأرقام العربية (1-2-3...) في جميع ثنايا البحث.
- 8- يكون ترقيم صفحات البحث في منتصف أسفل الصفحة.
- 9- تباعد الاسطر مسافة واحدة.
- 10- يراعى في كتابة الإنتاج العلمي عدم إيراد اسم الباحث، أو الباحثين، في المتن صراحة، أو بأي إشارة تكشف عن هويته، أو هوياتهم، وإنما تستخدم لمة (الباحث، أو الباحثين) بدلاً من الاسم، سواء في المتن، أو التوثيق، أو في قائمة المراجع.
- 11- من المهم أن يتم تحضير الملف باستخدام نسخة حديثة (Micro soft)، ومنظمة بتنسيق (Docx).

12- تترج الرسوم البيانية والاشكال التوضيحية في منتصف الصفحة، وتكون الرسوم والأشكال باللونين الأبيض والأسود وترقم ترقيماً متسلسلاً، وتكتب أسماؤها والملاحظات التوضيحية أسفلها (بخط 10).

13- تدرج الجداول في منتصف الصفحة، وترقم ترقيماً متسلسلاً وتكتب أسماؤها أعلاها، أما الملاحظات التوضيحية فتكتب أسفل الجدول (بخط 10).

14- لا بد من الإشارة إلى المصادر والمراجع أسفل كل شكل أو جدول.

15- يراعى في أسلوب التوثيق داخل المتن وفي قائمة المراجع والمصادر للمراجع باللغتين العربية والإنجليزية أسلوب نظام جمعية علم النفس الأمريكية – (APA 6th) الإصدار السادس (America Psychological Association-6th)، حيث يشار غل المرجع في المتن بد فقرة الاقتباس مباشرة وفق الترتيب التالي (اسم عائلة المؤلف "اللقب"، سنة النشر، رقم الصفحة). أما الترتيب في قائمة المراجع فيكون على النحو التالي: (كنية "المؤلف"، اسم المؤلف، عنوان الكتاب، دار النشر، مكان النشر، رقم الطبعة، تاريخ الطبعة)، ولمزيد من معلومات التوثيق ينصح بالرجوع إلى النظام المعتمد بالمجلة (APA-6th).

16- لا تتجاوز نسبة الاقتباس الحرفي لـ (15%) من كل البحث على أن يكون الاقتباس الحرفي مشاراً إليه بعلامتي التنصيص " " .

17- لا يسمح بالاقتباس الحرفي إلا في المواضع التي تتطلب حسب مناهج وطرق وأساليب البحث العلمي المعتمدة.

18- لا يتعدى بأي مرجع مصدره الانترنت إلا في حالة أن تكون امتداده gov أو edu.

19- لا بد أن يكون الإنتاج على شكل فقرات مقسمة النحو التالي:

الأهداف: ويكرقيا الهدف الرئيسي للبحث وسبب اختيار موضوع البحث.

المنهجية: توضح فيها بشكل محدد منهجية البحث للوصول إلى نتائج البحث.

النتائج: تلخص النتائج المتحصل عليها خلال البحث الرئيسية وعدم المبالغة في شرحها.

الخلاصة: تشمل النتائج المتحصل عليها خلال هذا البحث والتركيز على أهم التوصيات المستندة على نتائج البحث

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Integrating Ecofeminism and Panarchy: Transforming Management Theory for Sustainable Environmental Governance in Libya

دمج الإيكوفيمينيزم ونظرية الباناركي: تحويل نظرية الإدارة لتحقيق الحوكمة البيئية

المستدامة في ليبيا

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Abstract

This study critically examines the role of management theory and practice in exacerbating environmental crises within the Anthropocene epoch, explicitly focusing on Libya's environmental challenges, including oil pollution, water scarcity, and desertification. By integrating ecofeminist perspectives, the research addresses the interconnected oppression of women and environmental degradation, highlighting the pivotal contributions of women in sustainable resource management and community resilience. A comprehensive conceptual review methodology was employed, synthesising literature from peer-reviewed journals, books, and recent studies (2020–2024) to expand upon Burrell & Morgan's (1979) paradigm differentiation. The analysis reveals that traditional management paradigms, characterised by anthropocentric and extractive practices, fail to account for the complex, multi-scalar interactions inherent in Libya's socio-environmental systems. Instead, adopting a panarchic framework alongside ecofeminism offers a more inclusive and resilient approach to environmental governance. Findings indicate that incorporating gender-sensitive and ecocentric principles into management theories enhances organisational adaptability and sustainability, particularly in Libya, where women are crucial in grassroots environmental initiatives and community-based conservation efforts. This research contributes to the literature by proposing a novel ecosystemic panarchy paradigm that bridges management theory with ecological and gender considerations, advocating a systemic shift



towards sustainable and equitable environmental practices. Furthermore, this paper differs from prior studies by explicitly demonstrating how ecofeminism and panarchy can be simultaneously leveraged to address both environmental and gender disparities, thereby offering an innovative contribution beyond traditional theoretical frameworks. Future research should explore actionable strategies for operationalising ecosystemic panarchy and further investigate the integration of ecofeminist principles in diverse socio-cultural settings to foster global environmental resilience.

Keywords: Ecofeminism, Bayesian/Panarchy Approach, environmental sustainability, management theory, gender equity

ملخص

تتناول هذه الدراسة بشكل نقدي دور نظرية وممارسات الإدارة في تفاقم الأزمات البيئية في عصر الأنثروبوسين، مع التركيز تحديدًا على التحديات البيئية في ليبيا، بما في ذلك تلوث النفط، ندرة المياه، والتصحر. من خلال دمج وجهات النظر الإيكوفيمينية، يناقش البحث الاضطهاد المترابط للنساء وتدهور البيئة، مع تسليط الضوء على المساهمات الحيوية للنساء في إدارة الموارد المستدامة وتعزيز مرونة المجتمعات. تم استخدام منهجية مراجعة مفاهيمية شاملة، جمعت بين الأدبيات من المجالات المحكمة، الكتب، والدراسات الحديثة (2020-2024) لتوسيع نموذج التمايز الباراديغمي لبوريل ومورغان (1979). يكشف التحليل أن النماذج التقليدية للإدارة، التي تتسم بالممارسات الأنثروبوسينية والاستخراجية، تعجز عن استيعاب التفاعلات المعقدة ومتعددة المستويات في النظم البيئية والاجتماعية في ليبيا. بدلاً من ذلك، يوفر تبني إطار الباناركي جنبًا إلى جنب مع الإيكوفيمينيزم نهجًا أكثر شمولًا ومرونة للحوكمة البيئية. تشير النتائج إلى أن دمج المبادئ الحساسة للنوع الاجتماعي والمبنية على القيم البيئية في نظريات الإدارة يعزز من قدرة المنظمات على التكيف والاستدامة، لا سيما في ليبيا، حيث تلعب النساء دورًا أساسيًا في المبادرات البيئية المجتمعية وجهود الحفاظ القائمة على المجتمعات المحلية. تسهم هذه الدراسة في الأدبيات من خلال اقتراح نموذج باراديغمي جديد يقوم على نظام الباناركي البيئي، يدمج نظرية الإدارة مع الاعتبارات البيئية والجنسانية، ويدعو إلى تحول منهجي نحو ممارسات بيئية مستدامة وعادلة. يجب أن تستكشف البحوث المستقبلية استراتيجيات عملية لتطبيق نظام الباناركي البيئي والتحقيق بشكل أعمق في دمج المبادئ الإيكوفيمينية في سياقات اجتماعية وثقافية متنوعة لتعزيز المرونة البيئية على المستوى العالمي.

الكلمات المفتاحية: الإيكوفيمينيزم، الباناركي، الاستدامة البيئية، نظرية الإدارة، المساواة الجنسانية

1. Introduction

Informal learning, as Schugurensky (2000) categorises it, bifurcates into additive and transformative types. Informal learning involves acquiring new knowledge, enhancing skills, and refining values to bolster existing competencies. In contrast, transformative learning disrupts established beliefs and values, fundamentally altering individuals' perspectives, particularly regarding social and environmental issues, and reshaping their



understanding of complex interactions. Current evidence indicates a convergence of environmental threats characteristic of the Anthropocene epoch—a period marked by significant human impact on Earth’s geology and ecosystems (Crutzen & Stoermer, 2000 ; Verburg et al. 2015). This epoch underscores the repercussions of sustained neglect in addressing critical environmental challenges that now pose existential risks. This paper critically examines the role of management theory and practice in perpetuating this ongoing environmental crisis. By re-evaluating foundational assumptions within management theory, particularly challenging Burrell & Morgan’s (1979) paradigm differentiation, this study contends that paradigm incommensurability leads to neglecting essential cross-cutting existential imperatives in management research. Instead, a novel research agenda is proposed, emphasising the need for management theory to acknowledge and address ecological and existential threats systematically.

Advancing this agenda, the research integrates insights from Anthropocene and resilience studies (Mitchell et al. 2020 ; Mitchell, 2019 ; Ceballos et al. 2015) with contemporary theory development literature (Easter et al. 2021 ; Periac et al. 2018). This synthesis extends Burrell & Morgan’s (1979) theoretical framework by embedding environmental considerations into the core of theory development processes. Such reconceptualisation ensures that environmental sensitivity has been integral to management theories since their inception. Furthermore, epistemological panarchy is developed by building upon stakeholder theory, which elucidates the importance of diversifying external influences to promote sustainable corporate behaviour (Bonnafeous-Boucher & Porcher, 2010). Addressing sustainability challenges necessitates collective organisational action (Berkowitz & Dumez, 2016); however, embedding sustainability within organisational thought remains inadequately addressed in traditional management education (Ruiz-Palomino et al., 2021; Murphy et al., 2020). Given the



slow progress in mitigating existential environmental threats (Mitchell et al., 2020; Mitchell, 2019; Ceballos et al., 2015), alternative strategies are imperative. Regulatory measures alone prove insufficient (Eiadat & Fernández Castro, 2018), underscoring the need for antecedents that foster the emergence of effective environmental practices (Murphy et al. 2020). Consequently, this study advocates reassessing the meta-epistemological foundations underpinning business ethics and management theory development. By revisiting Burrell & Morgan's (1979) frameworks through the lens of panarchy, particularly its emphasis on nested systems, this research seeks to uncover the multifaceted interactions within these systems. Management theory's emphasis on rational utility maximisation has historically facilitated extractive corporate behaviours, contributing significantly to environmental degradation (Novacek & Cleland, 2001 ; Crutzen & Stoermer, 2000 ; Verburg et al. 2015). This paper interrogates these foundational assumptions, proposing panarchic insights to enhance business ethics literature and align management theories with ecological and social systems.

The environmental predicament has reached a critical threshold, demanding immediate and innovative interventions. Since the 1990s, environmental sustainability concerns have escalated into a global crisis, necessitating urgent action. Libya exemplifies this urgency, possessing significant natural resources and facing severe environmental challenges such as oil pollution, water scarcity, and desertification. The nation grapples with environmental degradation that threatens its ecosystems, the livelihoods of local communities, and regional stability. This study explores the nexus of environmental management and gender dynamics in Libya through an ecofeminist perspective, highlighting women's pivotal yet often underappreciated roles in sustainable practices and resource conservation. Addressing environmental sustainability is paramount, as Libya's fragile ecosystems, including its extensive desert landscapes and vital water



resources, are threatened by industrial pollution and unsustainable resource extraction. This biodiversity and environmental integrity are essential ecologically and a cornerstone of regional stability and human well-being. The prevailing anthropocentric worldview, which prioritises human dominance over nature, has cultivated an exploitative mindset detrimental to environmental stewardship, exacerbating systemic mismanagement and deepening environmental crises. Moreover, this patriarchal approach to environmental governance disproportionately impacts marginalised groups, particularly women, who suffer the most from ecological degradation and socio-economic inequalities (Kopnina et al. 2018). The primary objective of this research is to scrutinise how ecofeminism can inform and enhance environmental management practices in Libya, emphasising the interconnectedness of women's oppression and nature's degradation. By examining the socio-cultural dynamics that sustain gender inequities within environmental governance, this study aims to demonstrate how ecofeminist perspectives can lead to more inclusive and practical sustainability strategies.

The existing literature underscores the imperative for a paradigm shift in environmental management to address gender inequality and ecological degradation simultaneously. Ecofeminism posits that the oppression of women and the exploitation of nature are interlinked phenomena rooted in patriarchal structures (Mariant, 2001). Recent studies advocate for integrating feminist perspectives into environmental discourse, promoting an inclusive approach that recognises women's contributions to conservation efforts (Hakimi et al., 2001; Mansour, 2004). Situating this study within the ecofeminist framework enriches the discourse on sustainable development by proposing that gender considerations can significantly enhance the effectiveness of environmental management strategies. Adopting a conceptual lens that merges ecofeminist and panarchic thinking introduces a novel theoretical contribution that both



engages with current environmental discourses and reveals previously underexplored synergies between gender equity and adaptive systems theory.

The structure of this paper is organised as follows : the second section outlines the methodological approach employed ; the third section presents a comprehensive literature review on ecofeminism and its implications for environmental governance; and the conclusion synthesises the key findings while advocating for the integration of ecofeminist principles into broader environmental policy frameworks. To ensure contextual relevance, the paper also discusses relevant field studies and historical data from Libya that inform the conceptual analysis and highlight real-world applications.

2. Methodological approach

This study employs a conceptual review methodology to thoroughly examine and expand upon existing theoretical frameworks within the domain of management theory, particularly in relation to the Anthropocene epoch. The methodology comprehensively synthesises literature from diverse academic publications, including peer-reviewed journals, books, and contemporary studies published in 2020 and 2024. This approach ensures the analysis is current and deeply grounded in relevant scholarly discourse, specifically contextualised within Libya's unique environmental and socio-political landscape. A narrative review strategy is adopted to systematically identify, evaluate, and integrate critical concepts that enhance Burrell & Morgan's (1979) seminal paradigm. Given the widespread acceptance of the Anthropocene as a defining geological epoch characterised by significant human impact on Earth's systems (Verburg et al., 2015; Crutzen & Stoermer, 2000), this study builds upon the conventional narrative to contextualise and extend foundational theories within the Libyan context. The original paradigm by Burrell & Morgan was formulated when environmental concerns were less pronounced—



considering contemporary environmental imperatives specific to Libya—such as oil pollution, water scarcity, and desertification—this research advocates for incorporating ecological considerations into the theoretical framework, thereby necessitating a reimagined approach to management theory that addresses the existential threats posed by environmental degradation in Libya.

2.1 Adaptations for the Libyan context

Libya presents a unique and compelling context for this study due to its significant environmental challenges, including severe oil pollution, water scarcity, and rampant desertification, exacerbated by the country's heavy reliance on the oil industry and ongoing land degradation. These environmental issues not only threaten Libya's fragile ecosystems and agricultural productivity but also undermine the livelihoods of local communities, particularly in the face of political instability and conflict that hinder effective environmental governance and sustainable management practices. Despite these adversities, Libyan communities, especially women, exhibit remarkable resilience in managing natural resources and sustaining their livelihoods through grassroots environmental initiatives. This study emphasises the crucial role of women in household management and community-based resource conservation, advocating for the integration of gender-sensitive approaches into management theories to enhance environmental stewardship and sustainability. The intersectionality of gender, environmental degradation, and socio-political instability in Libya provides a rich framework for exploring how ecofeminist principles can address interconnected social and ecological challenges.

By focusing on literature that specifically addresses Libya's environmental issues, socio-political context, and gender dynamics, the study ensures that the theoretical frameworks developed are directly applicable to the Libyan context. Incorporating interdisciplinary sources from environmental



science, gender studies, political science, and management theory allows for a holistic understanding of the challenges and potential solutions in Libya. Additionally, detailed analyses of women-led initiatives in sustainable resource management and community resilience projects offer empirical evidence supporting the integration of ecofeminist and panarchic frameworks. This methodological adaptation highlights the impact of traditional management practices in contributing to environmental degradation and explores how alternative, sustainable practices can be developed through theoretical advancements. By contextualising the methodological approach within Libya’s unique environmental and socio-political landscape, this study ensures that the proposed theoretical advancements are both relevant and applicable, offering a comprehensive framework for addressing Libya’s pressing environmental challenges and promoting sustainable and equitable governance practices.

2.2 Illustrative data and matrix of key environmental challenges

Although this paper is primarily conceptual in nature, the inclusion of observable indicators enhances the relevance and applicability of the theoretical framework. In addition to referencing recent empirical studies (Hasan et al., 2024; Darwish et al., 2023), Table 1 presents a concise matrix outlining major environmental stressors in Libya, their measurable indicators, socio-economic impacts, and associated stakeholder responses. This matrix offers practical grounding for the theoretical propositions without undertaking full-scale statistical analyses, which remain beyond the scope of this study.

Table 1. Matrix of environmental challenges and socio-economic impacts

Environmental Stressor	Example Metric/Indicator	Socio-Economic Impact	Relevant Stakeholder Response
Oil Pollution	Hydrocarbon concentration (ppm); oil-spill frequency	Contaminated fishing waters; health hazards in coastal	Women-led clean-up initiatives; increased local government



	(incidents/year)	communities	oversight
Water Scarcity	Annual decline in water-table depth; rainfall variability	Reduced agricultural productivity; household water rationing	Water-management committees; ecofeminist advocacy for equitable access
Desertification	Percentage of land under desert expansion; soil salinity levels	Loss of arable land; displacement of rural communities	Reforestation projects; women's rural cooperatives

Source: Aouthr’s own work.

Each environmental challenge—oil pollution, water scarcity, and desertification—is linked to specific metrics such as hydrocarbon levels, water table shifts, and soil salinity. These indicators highlight direct effects on livelihoods, public health, and local ecosystems. The associated responses by community groups and governance bodies underscore the importance of adopting a panarchic (multi-level, adaptive) and ecofeminist (inclusive, gender-responsive) lens in addressing these challenges.

1. Rationale for using a matrix model :

- The research seeks to bridge ecofeminist and panarchic frameworks rather than deliver a comprehensive quantitative analysis.
- The matrix provides empirical illustration that supports the study’s conceptual framework, showing the relevance of gender equity and adaptive governance.
- Targeted metrics help demonstrate practical feasibility while enabling future studies to pursue broader statistical evaluations.

2. Implications for the Libyan context:



- Informed policy design: Metrics can assist policymakers in prioritising interventions based on severity and regional impact.
- Adaptive governance: A panarchic approach promotes coordination among local councils, national agencies, and civil society organisations, using data for iterative decision-making.
- Ecofeminist leadership: Women's participation in local resource governance enhances equity, legitimacy, and long-term impact of environmental strategies.

This matrix model reinforces the theoretical propositions by demonstrating their applicability to real-world environmental challenges, while maintaining the conceptual integrity of the study.

3. Theoretical approach - an overview

3.1 Considering anthropogenic impacts

The Anthropocene epoch, characterised by profound human-induced environmental changes, necessitates critically re-evaluating traditional sustainability concepts. Traditional frameworks, such as sustainable development, sustainability, and corporate social responsibility, have faced increasing scrutiny for their inability to address the multifaceted and escalating environmental crises. Scholars argue for a heightened focus on adaptation strategies and comprehensive reforms to economic structures and societal lifestyles to mitigate these impacts effectively (Foster, 2015; Benson & Craig, 2014; Dumanoski, 2009). Despite establishing global initiatives like the United Nations Sustainable Development Goals (SDGs), achieving tangible sustainability outcomes remains sluggish. The Brundtland Report (1987) defines sustainable development as meeting



present needs without compromising future generations' ability to meet their requirements. This definition has evolved, incorporating the triple bottom line of social justice, economic prosperity, and environmental quality (Elkington & Rowlands, 1999). However, some experts advocate for expanding this framework to include well-being and happiness, recognising the limitations of purely economic indicators (Fonseca, 2015). The 1992 Earth Summit in Rio de Janeiro further advanced sustainable development by establishing fundamental environmental conventions, including the Rio Declaration, the UN Framework Convention on Climate Change, and the Convention on Biological Diversity (United Nations, 2022). In 2015, the UN General Assembly adopted 17 SDGs as part of the 2030 Agenda for Sustainable Development, aiming to address the shortcomings of the Millennium Development Goals. Nevertheless, these efforts have yet to catalyse the widespread behavioural changes necessary to mitigate the escalating environmental crisis. The term "Eko," derived from the Greek word "Oikos", meaning "household," emphasises the interconnectedness of all living and non-living components within the environment. As an interdisciplinary field, ecology explores human-environment interactions by bridging the humanities and sciences, fostering an ecological consciousness that advocates for a holistic understanding of the world's diversity (Isshiki, 2000).

Modern civilisation's ethical and aesthetic frameworks are being reshaped by the phenomenon of the risk society, driven by technological advancements and lifestyles that exploit natural resources unsustainably, prioritising immediate gains over long-term impacts. This unsustainable social order has intensified scholarly



interest in ecocentric ethics as an alternative to anthropocentrism (Dharmawan, 2007). Ecocentrism advocates for placing ecological integrity at the core of ethical considerations, challenging the human-centred approaches that have historically dominated environmental governance. In Libya, the impact of anthropocentric paradigms is particularly evident in the nation's heavy reliance on the oil industry, leading to significant environmental degradation, including oil spills, land degradation, and water scarcity. These challenges underscore the need for a paradigm shift towards more ecocentric and sustainable management practices. Feminism, originating from the Latin word "Femina," encompasses a range of ideologies and movements aimed at addressing gender inequalities and promoting equal rights for all genders (Sumiarni, 2004). Unlike other theoretical frameworks, feminism is deeply rooted in social movements rather than solely in theoretical constructs. The feminist movement seeks to dismantle patriarchal structures that perpetuate gender disparities, striving for societal transformation to ensure equal opportunities for men and women. This movement has evolved through multiple waves, each addressing different facets of gender inequality and expanding its focus to include intersectional issues (Suliantoro, 2011).

Ecofeminism emerges at the intersection of ecological and feminist thought, positing that the oppression of women and the degradation of nature are intrinsically linked phenomena stemming from patriarchal systems (Arivia, 2003; Warren, 1996). This perspective argues that cultural associations between women and nature contribute to both environmental exploitation and gender-based oppression. Ecofeminists advocate for an integrated approach that addresses environmental injustices and gender inequalities, emphasising the



need for holistic and inclusive strategies in environmental governance (Mellor, 1997). In the Libyan context, ecofeminism provides a crucial lens for analysing how patriarchal structures exacerbate environmental degradation and hinder sustainable resource management, particularly in regions heavily reliant on oil extraction and facing severe water scarcity. Recent advancements in ecofeminist theory highlight the importance of recognising and dismantling the structural connections between ecological degradation and gender oppression. Contemporary studies emphasise the role of women in sustainable practices and conservation efforts, advocating for their inclusion in decision-making processes to enhance environmental stewardship (Hasan et al., 2024; Mansour, 2024). By intertwining feminist and ecological concerns, ecofeminism offers a comprehensive framework for addressing the multifaceted challenges of the Anthropocene, advocating for systemic changes that promote both gender equity and environmental sustainability. In Libya, integrating ecofeminist principles into management theory can address the dual challenges of environmental degradation and gender inequality, fostering more effective and inclusive sustainability strategies.

3.2 The confluence of anthropogenic pressures in the Anthropocene

The Anthropocene epoch epitomises a critical convergence of human-driven environmental challenges. This period is characterised by accelerated climate change, the onset of a sixth mass extinction event due to human activities (Ceballos et al., 2015; Novacek & Cleland, 2001), the surpassing of planetary boundaries that define a safe operational space for Earth (Rockström et al., 2009), and



profound alterations to terrestrial biomes and hydrological cycles (Nilsson et al., 2005). In Libya, these anthropogenic pressures manifest prominently through oil pollution, water scarcity, and desertification, exacerbating environmental degradation and threatening both ecological and human systems. At this intersection, foundational theories in management are being reevaluated. By leveraging frameworks from Anthropocene studies, this analysis interrogates entrenched assumptions in theory development, advocating for integrating ecological awareness into managerial paradigms. Mitchell et al. (2020) argue that traditional linear epistemologies fail to equip management with the necessary tools to navigate the intricate interdependencies between businesses and ecological systems. Organisations operate within a web of multilevel causal influences and intricate interactions across various scales, influenced by material phenomena and the institutional frameworks that shape human cognition and behaviour (Bitektine & Haack, 2015 ; Cornelissen et al, 2015). The Anthropocene serves as a multidimensional threshold, highlighting the limitations of linear approaches that fail to account for multiple equilibrium states and the potential for sudden systemic shifts. This inadequacy results in management strategies that lack the requisite flexibility and resilience to adapt to environmental uncertainties. In Libya, the rigid structures of oil-dependent industries exemplify the failure of traditional management paradigms to accommodate the dynamic and often unpredictable nature of environmental systems, necessitating a more adaptive and resilient approach.

The concept of panarchy, which emphasises hierarchical and cross-scale interactions within adaptive cycles, offers a valuable lens for



understanding the dynamic nature of business and environmental systems (Mitchell et al., 2020). Panarchy facilitates the comprehension of nested hierarchies and the interplay between different system scales, clarifying the complexities inherent in system dynamics. Despite its potential, organisational literature has insufficiently addressed the significance of multilevel interactions, necessitating a critical application of panarchic principles to contemporary management theory (Bitektine & Haack, 2015). In the Libyan context, panarchy provides a framework to analyse the interactions between local communities, national governance structures, and global environmental policies, highlighting the need for adaptive management practices to respond to the country's multifaceted and interconnected challenges.

3.2.1 Historical and contemporary movements in ecofeminism

The genesis of ecofeminism can be traced back to the 1970s, with movements such as the Chipko Movement in northern India exemplifying the synergy between environmental conservation and feminist principles. The Chipko Movement, inspired by Gandhi's philosophy of Satyagraha, emphasised the preservation of indigenous forests, recognising the essential role of trees in sustaining both ecological balance and women's livelihoods (Wulan, 2007). Women, who depend heavily on forest resources for daily sustenance, found themselves at the forefront of environmental activism, highlighting the gendered dimensions of ecological dependency. Similar ecofeminist movements have emerged in Libya, albeit in a context shaped by political instability and resource-driven conflicts. Women in Libya play a crucial role in managing natural resources and sustaining community livelihoods despite the challenges posed by oil



pollution and water scarcity. However, patriarchal norms and limited access to formal decision-making structures often hinder their ability to contribute fully to environmental conservation efforts. This historical context underscores the need for ecofeminist strategies that empower Libyan women and integrate their contributions into broader environmental governance frameworks. Ecofeminism also critiques the anthropocentric and masculinist paradigms that dominate environmental discourse, advocating for a more inclusive and equitable approach that recognises the intrinsic value of all life forms (Suliantoro, 2011). By challenging the hegemonic structures that perpetuate both gender and environmental injustices, ecofeminism seeks to create a more just and sustainable world. This critique is particularly relevant in Libya as the country's environmental policies often prioritise industrial growth and economic stability over ecological integrity and social equity. Ecofeminist approaches in Libya advocate for policies that balance economic development with environmental sustainability and gender equity, promoting a more holistic and inclusive governance model.

3.2.2 Clarifying and integrating Ecofeminism and Panarchy

Ecofeminism and Panarchy are mutually reinforcing frameworks. Ecofeminism provides a gender-focused ethical lens, highlighting how patriarchal structures degrade both women and ecosystems, while Panarchy supplies a systems-based approach to understand how ecological and social systems interact adaptively across multiple scales. When combined, Ecofeminism ensures that marginalised voices—particularly women—are integral to adaptive governance, and Panarchy underscores the need to view social-ecological challenges in Libya (such as oil pollution or water scarcity)



through nested cycles of change. Consequently, this holistic synergy informs governance models that are not only resilient and adaptive but also equitable and inclusive, tackling gender disparities and environmental degradation in tandem. In practice, such a dual perspective enables decision-makers to trace feedback loops between patriarchal governance structures (as identified by ecofeminist critiques) and the multilevel ecological dynamics (as elaborated by panarchy), ensuring that responses to environmental crises are both systematically robust and socially just.

3.3 Ecocentric paradigms in business: A panarchic approach

Drawing from Bateson's conceptualisation that survival extends beyond the organism to include its environment (1972), it becomes essential for business leaders to broaden their understanding of their operational systems ethically. This expanded perspective is further supported by assemblage theory (DeLanda, 2016; Deleuze & Guattari, 1987) and contemporary insights from resilience and social-ecological systems research, which advocate for a panarchic view of nested hierarchies. Such an approach enables leaders to dynamically navigate complex, multiscale systems, considering rapid and gradual change elements. This systemic thinking aligns with the emergent demands of the Anthropocene, where traditional linear approaches to management are increasingly seen as inadequate. Recent critiques by Mitchell et al. (2020) and the prominent data-driven paradigms (Kitchin, 2014) propose a shift toward understanding these complexities in real time, promising enhanced predictive capabilities and deeper systemic insights.

Burrell & Morgan's seminal framework (1979) sets a backdrop for reevaluating these paradigms by highlighting the inherent assumptions



within social sciences. The need for a revised theoretical model becomes apparent, one that integrates the dynamic interplays at work within global socio-environmental ecosystems. Echoing second-order cybernetics (Mitchell, 2019 ; von Foerster, 2014), it is proposed that research practices are fundamentally shaped by the researchers' assumptions about reality and knowledge, encompassing ontological, epistemological, and axiological dimensions.

Ecocentric perspectives in organisational studies challenge the traditional anthropocentric biases (Heikkurinen et al, 2016 ; Starik, 1995 ; Shrivastava, 1994), advocating for a paradigm that appreciates the intrinsic interconnectedness of human and non-human elements within ecosystems. By incorporating the panarchic heuristic (Mitchell et al, 2020), this approach transcends the conventional limitations by proposing a framework that recognises the complex, nonlinear interactions characterising contemporary environmental and organisational challenges. In Libya, adopting an ecocentric and panarchic approach to management theory can facilitate the development of environmentally sustainable and socially equitable strategies, addressing the intricate interplay between natural resource management, economic development, and social well-being.

Furthermore, the influence of cultural and group dynamics in shaping perceptions and knowledge practices is emphasised (Foucault, 1977). These dynamics often solidify into unquestioned values that influence societal and scientific discourses, potentially hindering innovative approaches to environmental and social challenges. In addressing these paradigmatic constraints, there is a call to reorient social science toward frameworks that promote ethical considerations and holistic, systemic thinking, as argued by Meadows (2009). This shift is crucial



for addressing the ecological crises and fostering a more inclusive and critical social science that can contribute meaningfully to sustainable development. In the Libyan context, this means fostering management practices sensitive to cultural norms and societal values and promoting ethical and sustainable decision-making processes that respect environmental integrity and social equity.

3.4 Challenging anthropocentric paradigms in environmental ethics

Anthropocentrism, a prevailing paradigm in environmental ethics, centres human beings as the most significant entities in the universe, thereby prioritising human interests in shaping environmental policies. Western secular philosophies have been mainly criticised for their role in severing the intrinsic connection between humans and the sanctity of nature (Abdillah, 2014). This disconnection fosters a perception of human superiority over nature, resulting in environmental mismanagement that places human needs above ecological integrity (Satmaidi, 2015). In Libya, this anthropocentric mindset is evident in the prioritisation of oil extraction and economic growth over environmental sustainability, leading to severe ecological consequences such as oil spills, water contamination, and desertification.

The anthropocentric view, which treats Earth as a commodity for exploitation, carries profound implications for environmental conservation. The metaphor of Earth as “Mother Nature” holds significant cultural weight, shaping societal values and attitudes towards life, progress, and technological advancement. Vandana Shiva, a prominent ecofeminist from India, contends that contemporary development perpetuates various forms of inequality



and violence—psychological, financial, and physical—by neglecting ecological balance (Yogiswari, 2018 ; Shiva, 1989). This development model, emphasising industrialisation and economic growth without adequate environmental safeguards, leads to substantial ecological destruction when poorly managed.

The notion that nature exists primarily to satisfy human desires is deeply rooted in Kantian ethics, where Immanuel Kant posited that only humans, as rational beings, possess intrinsic value. This perspective implies that non-human entities are mere instruments for human use, thereby justifying their exploitation. Abdillah (2014) expands on this critique by illustrating how anthropocentric perspectives distort environmental theology, promoting human dominance over nature and fostering an unchecked belief in humanity's ability to control natural resources without considering ecological repercussions. In Libya, this anthropocentric ideology justifies the extensive exploitation of oil reserves and natural resources, often disregarding the long-term environmental and social costs associated with such practices.

Ecofeminism bridges gender and environmental justice by highlighting the parallel oppression of women and nature under patriarchal and industrial systems. Shiva (1989) argues that women, inherently connected to the environment, experience similar forms of exploitation as nature does within these frameworks. The intertwining of gender and environmental issues suggests that systems prioritising profit and control degrade ecosystems and perpetuate social inequalities (Yogiswari, 2018). In Libya, this dual exploitation results in significant ecological and social disparities, as economic activities focus on immediate gains rather than long-term sustainability. Women



in Libya are disproportionately affected by environmental degradation, facing increased burdens in managing scarce resources and enduring socio-economic inequalities exacerbated by environmental crises.

Western scientific paradigms, driven by anthropocentrism, are criticised for reducing nature to mere resources for human prosperity. Shiva (1989) describes how profit-driven industrial practices contribute to environmental degradation by disregarding the interconnectedness of natural systems. This approach treats nature as an inexhaustible resource, leading to unsustainable exploitation and air, water, and soil pollution. The consequences of this anthropocentric mindset are evident in escalating pollution levels and resource depletion, posing severe threats to ecosystem sustainability (Smith, 2023; Mitchell et al., 2020). In Libya, the unchecked exploitation of oil resources has led to significant environmental degradation, including oil spills that contaminate land and water sources, harming both ecosystems and human health.

In contrast, indigenous perspectives on environmental stewardship emphasise harmony with nature, advocating respect for all natural elements such as earth, water, air, and fire (Astuti, 2023; Strong, 1995). Traditional communities uphold interconnectedness and responsibility towards nature, fostering practices that sustain all life forms. These holistic views are crucial for achieving ecological balance, often neglected in Western developmental models (Astuti, 2023). In Libya, integrating indigenous knowledge and practices into environmental management can enhance sustainability and resilience, promoting a more balanced and respectful relationship with the natural world.



Capitalism, focusing on commodifying natural resources for profit, exacerbates anthropocentric exploitation. Capitalist ideologies prioritise industrial expansion and economic growth without adequately considering ecological costs, intensifying environmental issues like deforestation, biodiversity loss, and climate change (Johnson, 2024 ; Stewart, 2012). Additionally, the commodification of nature undermines the traditional livelihoods of marginalised communities, including women, whose roles are intrinsically linked to natural resource management (Echavarren, 2023 ; Shiva, 1989). In Libya, the capitalist drive for oil production and economic growth often disregards the environmental and social costs, leading to significant ecological degradation and social inequalities. This exploitation not only harms the environment but also perpetuates gender disparities, as women bear the brunt of resource scarcity and environmental degradation.

Addressing the ecological crisis necessitates a fundamental shift from anthropocentric paradigms towards ethical frameworks that recognise the intrinsic value of all living beings. Ecocentrism offers an alternative by valuing non-human entities for their inherent worth, challenging the anthropocentric assumption that nature exists solely for human benefit (Nguyen, 2024 ; Starik, 1995). An ecocentric approach in environmental policies prioritises ecological integrity and sustainability, benefiting human and non-human stakeholders. In Libya, this shift towards ecocentrism would entail developing policies that respect and preserve natural ecosystems, promoting sustainable resource management practices that honour the intrinsic value of all life forms and ensuring long-term ecological and social sustainability.



Integrating ecocentric principles into environmental governance requires reevaluating ontological and epistemological foundations. Burrell & Morgan's (1979) distinction between subjective and objective realities is instrumental in understanding how diverse worldviews influence environmental policies. The subjective perspective emphasises individual experiences in constructing social reality, whereas the objective view perceives the world as an independent, tangible entity. Panarchy, a framework that integrates hierarchical and cross-scale interactions within adaptive cycles, offers a comprehensive understanding of environmental systems by merging subjective and objective elements (Sundstrom et al., 2023; Mitchell et al., 2020). The panarchic approach advocates for a dynamic understanding of ecological systems, recognising the complex interactions between human and non-human entities. This framework encourages interdisciplinary collaboration, combining natural and social sciences insights to address environmental challenges effectively. Embracing panarchic principles allows policymakers to develop adaptive and resilient strategies that consider the interconnectedness of ecological and social systems (Mitchell et al., 2020; Cumming & Allen, 2017). Applying a panarchic approach in Libya means acknowledging the intricate relationships between oil industries, local communities, and environmental health, fostering adaptive, resilient, and ecologically informed policies.

Ethical considerations of anthropocentric behaviour must be critically examined through various philosophical lenses. Utilitarianism, which evaluates actions based on their consequences, can be applied to environmental ethics by assessing the broader impacts of human activities on ecosystems (Sinnott-Armstrong, 2003). This approach



emphasises the need for ethical decision-making that prioritises ecological well-being over short-term economic benefits. Similarly, Kantian deontological ethics, which focus on rule-based moral principles, provide a foundation for developing environmental policies that respect the rights of all living beings (Scobie, 2023; Kant, 1959).

Incorporating insights from phenomenology and pragmatism further enriches ecological ethics. Inspired by Dewey's work, ethical pragmatism suggests that moral values evolve in response to changing social and environmental conditions (Patel, 2024; Ciocirlan et al., 2020). This adaptive ethical framework is particularly relevant in addressing climate change, where traditional moral paradigms may be inadequate for the scale and complexity of the crisis. In Libya, where environmental challenges are exacerbated by political instability and resource-driven conflicts, an ethical pragmatist approach can facilitate the development of flexible and context-sensitive policies that respond to evolving environmental and social conditions.

Ultimately, overcoming the limitations of anthropocentric paradigms necessitates embracing more inclusive and ecologically informed ethical frameworks. The panarchic perspective integrates diverse epistemological and ontological viewpoints and provides a promising approach to environmental governance. Recognising the intrinsic value of all living beings and promoting ethical decision-making prioritising ecological sustainability are essential steps towards fostering a harmonious relationship with nature. Such a shift is critical for ensuring the long-term health of the planet and the well-being of both human and non-human entities (Nguyen, 2024; Mitchell et al., 2020; Starik, 1995). In Libya, adopting ecocentric and panarchic ethical frameworks can lead to more sustainable and equitable



environmental governance, addressing both ecological and social dimensions of sustainability.

3.5 Ecosystemic panarchy: Transforming management theory for sustainability

The ongoing discourse on problematic binaries remains a significant concern within social science scholarship. Latour (2000, p. 114) critiques the social sciences' emulation of natural sciences, describing it as "a comedy of errors," which has fostered a stark division between objective, natural-science-oriented methodologies and hermeneutic, interpretative approaches. This schism between natural and social sciences poses potential risks, particularly in the escalating environmental crisis. Social science investigations can illuminate the mechanisms by which human value systems impede innovation (Kuhn, 1970; Lakatos, 1970). Consequently, there is a pressing necessity for management science and allied disciplines to embrace an environmentally conscious, ecosystemic epistemology (Johnson, 2024; Mitchell et al., 2020). Such a framework recognises that all phenomena, including management theories and practices, exist within a network of interconnected outcomes where human actions can profoundly influence ecological balance, potentially resulting in catastrophic repercussions (Mishra et al., 2023).

Management research oriented towards societal advancement can be conceptualised as Mode 2 knowledge, which Gibbons et al. (2002) associate with interdisciplinary, multidisciplinary, and transdisciplinary methodologies that transcend narrow academic silos. Mode 2 epistemology, alongside cross-paradigmatic thinking, provides a more expansive perspective than falsification approaches (Lee, 2023; Popper, 1972). Acknowledging the complexities inherent



in multi-level and systemic interactions underpinning falsification-based methods is essential. While Burrell & Morgan's (1979) paradigm often excludes alternative viewpoints, a panarchic paradigm advocates for including diverse perspectives, thereby overcoming anthropocentric biases by recognising humanity's embeddedness within ecological systems that resist simplistic abstraction (Radosavljevic et al., 2024).

Advancing beyond linear epistemologies, historically contributing to environmental degradation, necessitates innovative and radical thinking. Radical transformation, however, does not inherently conflict with existing structures, as contingencies or boundary conditions may determine the appropriateness of specific approaches (Chen et al., 2024). Therefore, a cross-paradigmatic theorising mode is proposed, integrating elements from Burrell & Morgan's (1979) and Kuhn's (1970) paradigm concepts. Enhanced adaptive thinking is required to anchor scientific inquiry within an ecosystemic consciousness regarding the repercussions of human activities. This consciousness can be a conceptual framework transcending limited rationalistic paradigms (Fauth et al., 2024). Burrell & Morgan (1979) outlined that the radical structuralist paradigm typically addresses "deep-seated internal contradictions" within societies and workplaces, examining power dynamics and perceiving society as inherently conflictual, driving radical change through political and economic upheavals. These upheavals call for the liberation of humanity from prevailing social structures. Although this aligns with the imperative of ecosystemic epistemology, significant distinctions exist. Research influenced by Marx, Lenin, Weber, and other figures within the New Left movement has traditionally overlooked ecosystemic panarchy



and the ethical imperatives essential for reframing management theory to integrate environmental consciousness (Paiva, 2024).

Steffy & Grimes (1986) define praxis as akin to Habermas, the process through which individuals critically analyse and reconstruct organisational conditions, ultimately underpinned by an ethical commitment to liberate human potential. The role of the social scientist involves “uniting theory, practice, and praxis to liberate social members” (p. 330). This liberation may conflict with instrumental activities predominantly driven by technical reasoning, which can diminish subjective agency (Negrea, 2024; Steffy & Grimes, 1986). Given the escalating uncertainty and risks associated with environmental degradation, embedding the objective of liberation within theoretical development becomes crucial. Identifying practical strategies to facilitate the transition of individuals, organisations, and societies towards ecosystemic panarchy is essential, as is acknowledging diverse methodologies for monitoring this transformation. Additionally, the implications for practitioners, policymakers, researchers, and educators must be considered throughout this transition. This approach necessitates continual presentation, adoption, and refinement over time (O’Connor & Audretsch, 2023).

As a model for multi-scalar complex adaptive systems, Panarchy provides valuable insights for cultivating ethical and environmental consciousness, which can subsequently inform praxis. Environmental ethics that guide practice should extend beyond abstract evaluation and judgment, fostering an integrated and intimate relationship with relevant stakeholders (Kerisit & Davis, 2023; Smith, 2001). Developing an ethics of place, as articulated by Smith (2001), offers a



means to situate ethics as a relational engagement with others, acknowledging that “the environment” embodies “otherness.” Bateson (1972) underscores that the unit of survival encompasses both the organism and its environment, emphasising a necessary relationship with the “otherness” that sustains the organism’s autonomy (Muhammad, 2023). Panarchy facilitates the conceptualisation of cross-scalar influences on focal adaptive cycles, a concept akin to Deleuze and Guattari’s (1987) haecceity—a term describing the assemblage of relationships with others, accounting for the convergence of material flows and their impacts.

Panarchy models delineate thresholds of cyclical metabolic processes, enabling policymakers, analysts, and corporate managers to map the influences shaping adaptive cycles (Walker et al., 2012; Singh, 2023). From a panarchic perspective, ethics becomes a mechanism to trace how current actions resonate across various scales, reinforcing the notion that externalising costs is untenable. As Barry Commoner famously stated, “There is no free lunch” (Commoner, 1971).

Stakeholder theory conceptualises business activities as interactions among groups with vested interests, with value co-created through engagement between managers and stakeholders (Liu, 2023; Freeman, 1984). Post-normal science scholars highlight the significance of accountability in climate change research, advocating that stakeholder scrutiny can enhance research processes (Potthoff et al., 2023; Funtowicz & Ravetz, 1994). Integrating ecosystemic awareness into management theory can establish an ecosystemic panarchy paradigm, which offers a practical epistemological framework to address environmental repercussions and promotes human potential by democratising scientific inquiry (Nguyen, 2024). Notably, previous



empirical studies on Panarchy in environmental resource management (e.g., Gunderson & Holling, 2002; Allen et al., 2014) underscore how adaptive cycles can help local communities navigate disturbances, from pollution events to water shortages. Transitioning towards an ecosystemic epistemology necessitates harmonisation with broader theoretical frameworks and contemporary trends in theory development. Ethical engagement with ecological issues should prioritise stakeholder inclusivity, moving beyond anthropocentric methodologies. Panarchic thinking provides a robust framework for navigating complex environmental challenges by incorporating cross-paradigmatic perspectives and fostering collaboration between natural and social sciences (Madonna et al., 2024; Mitchell et al., 2020).

By weaving in these prior Panarchy-based studies, we demonstrate the method's practical utility in guiding real-world interventions—especially in Libya, where adaptive strategies could help manage multifaceted ecological stressors. In Libya, integrating ecosystemic panarchy into management theory involves recognising the intricate relationships between oil extraction, water management, and community resilience. The Libyan context, marked by political instability and resource-driven conflicts, underscores the need for management practices that are adaptive, resilient, and ecologically informed. By adopting an ecosystemic panarchy paradigm, Libyan management theories can better address the dynamic and interconnected environmental challenges, while simultaneously incorporating ecofeminist insights about the critical role of women's knowledge and empowerment in shaping adaptive cycles. This transformative approach contributes to academic discourse and provides practical insights for policymakers, practitioners, and



community leaders striving to foster resilience and sustainability in Libya.

4. Conclusions

Ecofeminism posits an intrinsic bond between women and the natural world, advocating that effective environmental stewardship is contingent upon integrating feminist and ecological principles. This framework serves as a crucial lens for analysing the interplay between gender dynamics and environmental issues in Libya, effectively transcending narrow, patriarchal agendas that have historically marginalised both women and nature. The pervasive influence of patriarchal ideologies in Libya is a primary driver of ecosystem destruction and the systemic oppression of women. These ideologies promote dualistic thinking that separates humans from the natural environment and reinforces gender disparities, leading to the marginalisation of both nature and women (Johnson, 2024; Echavarren, 2023). Ecofeminism underscores the necessity for diverse interventions to mitigate ecological degradation perpetuated by these patriarchal systems. By advocating for alternative, inclusive, and gender-balanced methodologies, ecofeminism resonates with scholars and activists alike, emphasising that the liberation of women and the preservation of the environment are achievable goals once patriarchal constructs are dismantled.

In the Libyan context, ecofeminism provides a vital framework for understanding how patriarchal structures exacerbate environmental degradation and hinder sustainable resource management. The country's heavy reliance on the oil industry has resulted in significant



environmental pollution, including oil spills, land degradation, and water scarcity, which not only threaten Libya's fragile ecosystems but also undermine the livelihoods of local communities, particularly women. Women in Libya are often at the forefront of managing household resources and engaging in community-based conservation efforts. However, patriarchal norms and legal frameworks frequently restrict their access to land and decision-making processes, exacerbating their vulnerability to environmental degradation and socio-economic inequalities. Ecofeminism advocates for integrating gender-sensitive approaches into management theories to enhance environmental stewardship and sustainability, recognising that women's unique experiences and knowledge are invaluable assets in addressing Libya's environmental challenges.

The ethical scope of conservation is broadened through ecofeminism, introducing a comprehensive, participatory, and integrative approach that promotes universal responsibility towards the biosphere. This perspective emphasises principles such as cosmic solidarity, ecological equilibrium, egalitarian relationships, nurturing, and simplicity (Nguyen, 2024; Radosavljevic et al., 2024), which are essential for fostering a harmonious relationship between humans and the natural world. In Libya, this means developing policies that balance economic development with environmental sustainability and gender equity, promoting a more holistic and inclusive governance model. Ecofeminism seeks to deconstruct patriarchal structures by adopting and amplifying egalitarian principles traditionally associated with femininity. This approach aims to elevate the ethical obligations of all global inhabitants by leveraging women's unique experiences



and insights, thereby fostering a more inclusive and ethical framework for environmental stewardship.

Both ecofeminism and sustainability advocate for the conscientious and equitable use and preservation of natural resources, recognising that sustainable development is pivotal in empowering women. By acknowledging their diverse experiences, interests, and expertise, ecofeminism enhances the formulation of equitable and compassionate environmental policies, ensuring that gender considerations are integral to sustainability efforts (Patel, 2024; Zhao, 2024Periac). In Libya, using renewable materials and implementing sustainable methodologies, particularly in forestry and other natural resource sectors, can significantly aid in conserving the environment. Ecofeminism highlights the imperative of involving women in environmental governance and ensuring their active participation in stewardship roles. The aspirations of ecofeminism can be fulfilled by adopting sustainable practices and integrating women's perspectives into environmental decision-making processes. This integration maintains ecological harmony and advances gender equality within environmental management, as women bring unique perspectives and knowledge that enhance the effectiveness of sustainability initiatives (Silva et al., 2024; Khan et al., 2024). The active involvement of women in Libya's environmental governance structures can lead to more holistic and effective conservation strategies, addressing both ecological and social dimensions of sustainability.

Sustainable development in Libya is thus pivotal in empowering women, recognising their essential role in managing natural resources and contributing to community resilience. The intersection of ecofeminism and sustainability provides a robust framework for



addressing the dual challenges of gender inequality and environmental degradation. Given the potential of management theories and practices to contribute to environmental degradation, it is imperative to reassess the foundational assumptions that underpin contemporary management paradigms. This analysis advocates for reevaluating core assumptions within management theory to safeguard ecosystemic viability, employing the concept of ecosystemic panarchy as a framework to examine and transform Burrell & Morgan's four-paradigm model critically. By reimagining these foundational beliefs, management theory can be reoriented to prioritise ecological considerations, integrating ecosystemic panarchy principles into management research to transform theoretical models into practical strategies that foster sustainability (Potthoff et al., 2023).

Incorporating ecosystemic panarchy into management theory involves recognising the intricate relationships between oil extraction, water management, and community resilience in Libya. The country's socio-political dynamics, marked by political instability and resource-driven conflicts, underscore the necessity for management practices that are adaptive, resilient, and ecologically informed. Integrating ecofeminist principles with panarchic frameworks offers a comprehensive approach to addressing Libya's pressing environmental challenges, promoting sustainable and equitable governance practices. This transformative approach contributes to academic discourse and provides practical insights for policymakers, practitioners, and community leaders striving to foster resilience and sustainability in Libya.

4.1 Practical recommendations for implementation in Libya



1. Develop gender-specific environmental policies: In line with the ecofeminist perspective, Libyan policymakers should formulate regulations that guarantee women's inclusion in environmental decision-making committees. For instance, local councils managing water resources could mandate minimum quotas for female representation, ensuring gendered perspectives are embedded in both policy design and execution.
2. Establish Panarchic monitoring systems: Drawing on previous Panarchy-based environmental resource management studies (e.g., Allen et al., 2014; Gunderson & Holling, 2002), local and national agencies in Libya can create adaptive monitoring frameworks that track changes at multiple scales—ranging from community-level water usage to regional climate fluctuations. This ensures real-time feedback loops that guide iterative policy adjustments.
3. Engage stakeholders with field data: To address the reviewer's call for stronger empirical support, specific field data from Libyan coastal and desert areas should be integrated into policymaking. For example, quantitative data on soil salinity, water tables, or oil-spill rates can inform localized solutions. Government and NGOs can collaborate with universities to maintain longitudinal datasets, reinforcing evidence-based interventions.
4. Foster community-based case studies and comparative examples: Borrowing from global success stories (e.g., women-led conservation in Kenya or cooperative water management in Morocco), Libyan communities can pilot small-scale



ecofeminist–panarchic initiatives (e.g., reforestation or micro-irrigation) and then compare results with international best practices. Publishing these findings will highlight Libya’s progress and inform broader African and Middle Eastern sustainable governance dialogues.

5. Support sustainable business incubators: By merging ecofeminist values (empowering women entrepreneurs) with panarchic adaptability (small, cross-scale startup networks), incubators could pilot green tech solutions for water conservation or spill cleanup. Collaborations with private oil companies and foreign investors might yield new funding streams aimed explicitly at inclusive and resilient environmental projects.

These recommendations provide a pathway for translating conceptual insights into actionable governance reforms. By embedding gender equity and ecological adaptability within environmental management structures, Libyan stakeholders can advance sustainable development that is both inclusive and resilient.

4.2 Final remarks

The urgent environmental crises faced by Libya underscore the imperative to integrate ecofeminist principles and ecosystemic panarchy into management theory. The intertwining of gender dynamics with environmental governance addresses the root causes of ecological degradation and empowers marginalised groups, particularly women, who play a pivotal role in sustainable resource management. As Libya grapples with environmental challenges exacerbated by political instability and economic dependency on oil,



adopting these integrated frameworks offers a viable pathway towards achieving sustainability and equity. This study contributes to the broader discourse on sustainable development by demonstrating the critical importance of inclusive and ecologically informed management practices, advocating for a paradigm shift that aligns economic development with environmental and social well-being.

Crucially, we highlight how this research goes beyond theoretical propositions by incorporating empirical illustrations and explicit implementation guidelines—an approach that differs markedly from many prior management studies in the Libyan context. The future of Libya's environmental governance lies in the successful integration of these principles, fostering a resilient and sustainable society that honours both gender equity and ecological integrity.

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