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The "Green-Direct" Transformation at PT. Distributor Logistik Nusantara (DLN): Facing Inertia in the Era of Sustainability

Endah Ambarwati[1], Yunia Nandini Urifianto[2], Arif Sidharta[3], Nadya Indriana[4], Ahmad Zazuli[5]

STIMI Banjarmasin[1,2,3,4,5]

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ABSTRACT

The development of the consumer goods distribution industry in the last five years has been marked by the acceleration of digital transformation and increasing demands for environmental sustainability. This condition has encouraged legacy distribution companies to implement two change agendas simultaneously: supply chain digitalization and the implementation of green logistics (twin transformation). However, the implementation of these changes often triggers internal resistance. This study aims to analyze the psychological, structural, and organizational cultural factors that trigger resistance from area managers and senior operational employees to the Green-Direct project at PT. Distribusi Logistik Nusantara, particularly in the unfreezing phase of Lewin's Change Model, and to formulate change strategies in the movement and refreezing phases. This study uses a descriptive qualitative approach with a case study method. Data were collected through in-depth interviews, observations, and analysis of internal company documents, then analyzed using Lewin's Change Model framework. The results of the study indicate that resistance is multidimensional and develops systemically since the unfreezing phase, triggered by threats to professional identity, shifts in operational control structures, and the strength of the legacy organizational culture. This resistance is not static and can be reduced through a participatory approach in the movement phase, and begins to be internalized sustainably when digitalization and green logistics are institutionalized into SOPs, performance indicators, and reward systems in the refreezing phase. This study confirms the relevance of Lewin's Change Model in explaining the dynamics of twin transformation in legacy distribution companies and emphasizes the importance of managing resistance as a social and cultural process, not merely a technological issue.

1. Introduction

The consumer goods distribution industry has undergone significant changes over the past five years due to the acceleration of digital transformation and increasing global pressure for sustainable business practices. Supply chain digitization has become a strategic necessity to increase transparency, efficiency, and speed of decision-making, while the sustainability agenda encourages companies to reduce carbon emissions and the environmental impact of logistics activities. The combination of these two demands creates new complexities for distribution companies, particularly legacy companies that have long operated with conventional work patterns. Research (Warner & Wäger, 2021) and (Vial & Schiavone, 2024) show that companies with a long operational history tend to experience organizational inertia, a tendency to maintain old practices despite drastic changes in the external environment. This inertia is reinforced by hierarchical structures, stable work cultures, and reliance on manual controls that have become sources of managerial legitimacy. As a result, digital transformation often triggers internal crises in the form of organizational resistance, rather than directly resulting in performance improvements.

PT. Distribusi Logistik Nusantara (DLN), a legacy distribution company with over 40 years of experience, found itself in this situation. To respond to technological disruption and the demands of carbon emission regulations, the company launched the strategic Green-Direct project, designed to

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integrate supply chain digitalization with green logistics principles. Conceptually, this project aligned with industry best practices. However, in its implementation, Green-Direct actually generated significant resistance, particularly from area managers and senior operational employees who had long adapted to manual work systems.

Recent digital transformation literature emphasizes that resistance to change is no longer solely driven by limited technological literacy, but rather by psychological and structural organizational factors. (Oreg et al., 2023) explain that modern resistance is identity-based, that is, resistance that arises when change threatens an individual's professional identity, social status, and sources of authority within the organization. In the context of supply chain digitalization, data transparency and decision automation are often perceived as threats to the informal control of middle managers. These findings are reinforced by Huy & Zott (2022), who position middle managers as strategic gatekeepers in the change process. They have the capacity to accelerate or hinder transformation, depending on the extent to which they feel involved and benefited from the new system. Therefore, area manager resistance is a key factor in determining the success or failure of transformation projects in distribution companies with extensive networks like PT. DLN.

On the other hand, the sustainability agenda through the implementation of Green Supply Chain Management (GSCM) has also experienced significant developments in the past five years. Research (Dubey et al., 2020) and (Awan et al., 2022) emphasize that modern GSCM cannot be implemented in isolation but requires integrated digital technology support to measure carbon emissions, optimize distribution routes, and improve energy efficiency. Thus, environmental sustainability is not simply a compliance issue but rather a shift in operational paradigms that impacts all business processes.

However, most previous research still discusses digital transformation and green logistics separately. Digital transformation studies tend to focus on increasing efficiency and technological capabilities, while GSCM research emphasizes environmental compliance and green performance. This partial approach fails to fully explain the complexity of change in legacy distribution companies, which must simultaneously implement two major change agendas. This gap gave rise to the Twin Transformation concept, which emphasizes that digital transformation and decarbonization are two interdependent strategic agendas. (Linnenluecke et al., 2023) assert that digitalization without a sustainability orientation has the potential to increase the carbon footprint, while a sustainability agenda without digitalization will be hampered by limited data and operational controls. However, the literature on twin transformation remains relatively limited, particularly in the context of legacy distribution companies in developing countries like Indonesia.

From a change management perspective, the complexity of twin transformations can be analyzed through Lewin's Change Model, which views change as a social process consisting of unfreezing, movement, and refreezing phases. Research (Burnes, 2020) and (Cummings et al., 2022) show that transformation failure most often occurs in the unfreezing phase, when organizations fail to build a sense of urgency for change and manage fears of losing status, roles, and job security. This condition is highly relevant to the context of PT. DLN, where the organizational culture has been "frozen" for decades.

Based on this study, a clear research gap can be identified: the limited number of studies examining how legacy distribution companies manage resistance from area managers and senior employees in the context of twin transformation, particularly using Lewin's Model as the primary analytical framework. Furthermore, there are few studies empirically linking the success of the unfreezing phase to the simultaneous achievement of digital efficiency and carbon emission compliance. Research Novelty: The novelty of this research lies in :

1. Integrate digital transformation and decarbonization within a single change management framework (twin transformation), rather than as separate agendas.
2. Focus on the area manager's resistance as a key actor in change in legacy distribution companies, a topic rarely studied in depth.
3. Recontextualize Lewin's Change Model to address the challenges of dual transformation (digitalization and sustainability) in the Indonesian distribution industry.

Thus, this study not only provides a practical contribution to PT. DLN's internal crisis recovery, but also enriches the change management literature by offering an integrative perspective relevant to traditional distribution companies in facing the demands of the digital era and sustainability.

This research is directed to answer how psychological, structural, and organizational cultural factors trigger resistance from area managers and senior operational employees to the implementation of the Green-Direct project at PT. Distribusi Logistik Nusantara, specifically in the unfreezing phase of Lewin's Change Model, and how change strategies in the movement and refreezing phases can be implemented effectively to reduce resistance and internalize digital transformation and green logistics principles as a sustainable organizational culture. In line with these questions, the purpose of this research is to analyze the roots of change resistance and formulate a comprehensive recovery strategy through the application of Lewin's Change Model in the context of twin transformation, to support the improvement of operational efficiency and sustainable carbon emission compliance in legacy distribution companies.

2. Literature Review

6.1. Kurt Lewin's Change Management Model (1947)

The theoretical basis of this research is based primarily on the Change Management Model (Kurt Lewin, 1947), which conceptualizes that organizational change must go through three systematic phases: unfreezing (thawing of the status quo), movement (transition process), and refreezing (refreezing of new behavior). Lewin emphasized through Force Field Analysis that change will only be successful if the driving forces are able to exceed the restraining forces, which is the case of PT. DLN is represented by the resistance of area managers.

6.2. Digital Transformation in Legacy Companies

Digital transformation is understood as a comprehensive organizational change process, encompassing strategy, structure, processes, and work culture. (Warner et al., 2021) state that digital transformation in legacy companies is often hampered by path dependency, a reliance on old work practices that have proven successful in the past. This condition causes organizations to tend to maintain conventional work patterns even though the external environment has changed significantly.

Furthermore, Vial et al. (2024) emphasize that the failure of digital transformation in long-standing companies is generally not caused by technological limitations, but rather by the organization's social and cultural unpreparedness to embrace change. This view explains why digitalization often triggers internal resistance rather than improved performance.

6.3. Resistance to Change Based on Identity and Organizational Culture

Resistance to change in contemporary literature is understood as a psychological and cultural phenomenon, not simply a rejection of innovation. (Oreg et al., 2023) introduced the concept of identity-based resistance, which is resistance that arises when organizational change is perceived as threatening an individual's professional identity, social status, and work meaning. In organizations with a strong legacy culture, resistance is further strengthened by a sense of security in old work practices. Individuals tend to perceive change as a threat to their stability and position, resulting in defensive behaviors such as procrastination, pseudo-compliance, or implicit rejection of the new system.

6.4. The Role of Middle Managers as Gatekeepers of Change

Middle managers play a strategic role in determining the success of organizational change. (Huy et al., 2022) state that middle managers function as strategic gatekeepers who translate and mediate change strategies from top management to the operational level. As digital transformation increases transparency and automation, middle managers often feel a loss of control and informal authority. If not involved from the start, they can potentially become a major source of resistance. Conversely, active engagement can transform them into the most effective agents of change.

6.5. Contemporary Green Supply Chain Management (GSCM).

Green Supply Chain Management (GSCM) is a supply chain management approach that integrates environmental concerns into all logistics activities. (Dubey et al., 2020) emphasize that modern GSCM is no longer reactive to regulations but must become part of a company's business strategy. Furthermore, Awan et al. (2022) state that the success of green logistics depends heavily on the support of integrated digital systems. Without adequate information technology, accurate and sustainable measurement of carbon emissions and energy efficiency is difficult.

6.6. The Twin Transformation Concept (Digitalization and Sustainability)

The Twin Transformation concept emphasizes that digital transformation and environmental sustainability are two interdependent strategic agendas. (Manda, et.al., 2021) stated that digitalization without a sustainability orientation has the potential to increase environmental impacts, while sustainability without digitalization will be hampered by limited data and operational control. This view is reinforced by Linnenluecke et al. (2023), who emphasized that twin transformation increases the complexity of organizational change because it requires changes in the way of working as well as changes in the way of thinking, especially in companies with a strong legacy culture.

6.7. Lewin's Change Model in the Context of Modern Transformation

Lewin's Change Model views change as a social process consisting of three main phases: unfreezing, movement, and refreezing. (Burnes, 2020) emphasizes that the strength of this model lies in its ability to explain the dynamics of resistance and stabilization of change within organizations. Research (Cummings et al., 2022) shows that digital transformation failures most often occur in the unfreezing phase, when organizations fail to establish urgency for change and manage fears of losing role, status, and job security. This makes Lewin's Model relevant in the context of digital transformation and sustainability.

6.8. Theoretical Synthesis

Based on the experts' opinions, resistance to the Green-Direct project can be understood as the result of the interaction between organizational cultural inertia, threats to professional identity, the strategic role of area managers, and the complexity of twin transformations. Lewin's Change Model is used as an integrative framework to analyze the obstacles of the unfreezing phase, design movement strategies, and ensure the sustainability of change through the refreezing phase in a legacy distribution company.

3. Research Methods

This research uses a descriptive qualitative approach with a case study method (Prima Jaya, 2025). This design was chosen to explore in depth how legacy cultural barriers affect the effectiveness of the "Green-Direct" project. The researcher will dissect the transition process at PT. DLN uses Lewin's Model framework as the primary analytical instrument to understand the dynamics between the driving and inhibiting forces of change.

4. Research Methods

This method section is written in paragraphs (avoid using subheadings). It consists of a description concerning the research design (research site and participants or documents, data collection, data analysis, and measured variables), font 11.

5. Results And Discussion

6.1. Result

The research results show that resistance to the implementation of the Green-Direct project at PT. Distribusi Logistik Nusantara is a multidimensional phenomenon that has developed systematically since the unfreezing phase of Lewin's Model of Change. Resistance does not emerge as a single rejection of technology, but rather as an accumulation of psychological responses, structural tensions, and the

reinforcement of a mutually reinforcing legacy organizational culture. This condition has resulted in slow adoption of digital systems and the emergence of hybrid work practices between digital procedures and manual methods.

On the psychological level, the study found that area managers experienced uncertainty regarding the redefinition of their roles and professional legitimacy. Supply chain digitalization was perceived as shifting the meaning of area leadership from one based on field experience and direct control to one based on data and system compliance. This shift in meaning triggered a defensive response expressed through skepticism, delayed decisions, and selective use of digital systems.

Meanwhile, senior operational employees demonstrated resistance in the form of multiple anxieties. In addition to concerns about technological adaptability, there was uncertainty about the sustainability of work roles amidst the narrative of efficiency and automation. This anxiety was compounded by the lack of initial communication explaining the implications of the transformation for job security and individual career paths.

From a structural perspective, the research findings indicate that the implementation of Green-Direct shifted operational control mechanisms from a region-based structure to a more centralized and standardized one. This shift created latent tensions between central management and area managers, particularly regarding decision-making authority and operational flexibility. These tensions often manifested themselves in the form of passive resistance, such as partial compliance and minimal use of digital systems.

These psychological and structural factors are reinforced by a legacy organizational culture that has been ingrained for more than four decades. Manual work practices are not only maintained out of habit but also interpreted as symbols of reliability, experience, and professionalism. As a result, the process of dissolving old values and practices during the unfreezing phase is not fully realized.

In the movement phase, research shows a shift in resistance dynamics as the company begins to implement a more dialogic and participatory approach to change. The involvement of area managers in system evaluations and adjustments to operational procedures opens up space for meaningful negotiation between the demands of digital systems and the realities of field operations. Practice-based training contributes to reduced technology anxiety and increased acceptance of the new system, although adoption rates across work units still vary. In the refreezing phase, research results indicate that stabilization of change begins when digital transformation and green logistics principles are formally embedded in SOPs, performance indicators, and reward mechanisms. This integration strengthens the legitimacy of the new system and encourages consistent work behavior. However, the internalization of digitalization and sustainability values as part of the organizational culture is still in transition and relies heavily on policy consistency and managerial leadership.

6.2. Discussion

The results of this study align with contemporary digital transformation literature, which views change as a socio-technical process, not simply a technological implementation. The finding that resistance develops multidimensionally from the unfreezing phase reinforces the view that transformation failure in legacy companies is more often driven by cultural inertia and organizational social unpreparedness than technological limitations (Warner & Wäger, 2021; Vial & Schiavone, 2024).

Area managers' resistance, rooted in threats to professional identity and role legitimacy, is consistent with identity-based resistance theory (Oreg et al., 2023). Supply chain digitalization not only changes work tools but also redefines the meaning of leadership and sources of authority. These findings also reinforce the view that middle managers function as strategic gatekeepers for change (Huy & Zott, 2022), where their level of acceptance determines the success or failure of change implementation at the operational level.

From a structural perspective, the shift in control mechanisms from the area level to central management found in this study aligns with the literature on organizational change, which emphasizes the importance of managing power relations. Burnes (2020) asserts that changes in control structures without reducing restraining forces will increase resistance during the unfreezing phase. Within the

framework of Lewin's Change Model, this condition explains why the process of unfreezing old values and work practices at PT. DLN is not optimal.

The findings regarding the strength of legacy organizational culture align with Schein's (2010) theory of organizational culture, which states that entrenched assumptions and values create high inertia and are difficult to change without symbolic and structural intervention. Manual work practices, perceived as symbols of professionalism, explain why digital systems are perceived as a threat to the organization's collective identity.

Reducing resistance during the movement phase through a participatory approach supports the view of change as a process of sensemaking and social learning (Balogun & Johnson, 2004; Balogun et al., 2021). Involving area managers creates a space for negotiating meaning between the demands of the digital system and the realities on the ground, allowing resistance to be transformed into engagement, albeit gradually and unevenly.

Furthermore, findings from the refreezing phase indicate that sustainable change can only be achieved when digitalization and green logistics principles are institutionalized into the organization's formal systems. This aligns with Green Supply Chain Management literature, which emphasizes the importance of institutionalizing sustainability practices to prevent them from becoming symbolic (Dubey et al., 2020; Awan et al., 2022). These findings also support the twin transformation concept (Manda & Backhouse, 2021; Linnenluecke et al., 2023), which emphasizes that digitalization and sustainability must be implemented simultaneously and integrated.

Overall, this discussion confirms that Lewin's Change Model remains relevant in explaining the dynamics of twin transformations in legacy distribution companies. The unfreezing phase becomes the primary arena of conflict between old and new values, the movement phase serves as a space for social negotiation and organizational learning, and the refreezing phase becomes the process of institutionalizing digital transformation and green logistics into the organizational culture.

6. Conclusion And Suggestion

6.1. Conclusion

This study concludes that resistance to the implementation of the Green-Direct project in a legacy distribution company was primarily driven by psychological, structural, and organizational cultural factors, rather than technological limitations. Resistance developed during the unfreezing phase of Lewin's Change Model due to threats to area managers' professional identities, shifts in operational control structures, and the strong inertia of conventional work cultures.

The results indicate that resistance is dynamic and can be managed through a participatory change approach during the movement phase, particularly by involving area managers as change agents and providing practice-based training. Sustainability of the transformation during the refreezing phase begins to be achieved when supply chain digitalization and green logistics principles are consistently institutionalized within the organization's formal systems.

Theoretically, this study confirms the relevance of Lewin's Change Model in explaining the dynamics of twin transformation and strengthens the literature on digital transformation and Green Supply Chain Management by showing that the success of change in legacy companies is largely determined by the ability to manage resistance as an integrated social and cultural process.

6.2. Suggestion

Based on research findings, legacy distribution companies are advised to prioritize the unfreezing phase as the primary foundation for digital transformation and sustainability. Management needs to establish transparent, impact-oriented change communication, particularly for area managers and senior operational employees, to reduce identity-based resistance and anxiety about changing work structures.

Area managers need to be actively involved as change agents from the planning stage through system evaluation. This involvement is crucial for shifting the role of middle managers from sources of

resistance to strategic enablers of transformation, and for ensuring alignment between digital system design and operational realities on the ground.

Companies are also advised to strengthen the refreezing phase by institutionalizing digital transformation and green logistics principles into standard operating procedures (SOPs), performance indicators, and reward systems. Policy consistency and managerial leadership are key to ensuring that change is not merely symbolic but internalized as organizational culture.

For future research, it is recommended to examine the dynamics of twin transformations longitudinally or across sectors to broaden the generalizability of the findings and explore the role of leadership and organizational governance in managing resistance to change in legacy companies in developing countries.

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