

Empowering the EPD Project Team through Organizational Learning: Application of the SECI Model

Yutong Wang

Technische Universität Dresden Helmholtzstrasse, 10 01069 Dresden, Germany

Abstract

Under the context of globalization, the concept of sustainable development drives enterprises to face both transformation pressures and opportunities. Environmental Product Declaration (EPD) reports have become vital tools for enhancing corporate competitiveness and addressing trade barriers. However, the application of organizational learning theory in the management of EPD project teams requires further in-depth exploration. This study examines the EPD project team of EX Corporation as a case, integrating organizational learning theory and employing methods such as case analysis, interviews, and literature review to identify issues related to knowledge sharing, collaboration mechanisms, and the cultivation of learning culture within the team. A framework for organizational learning mechanisms based on the SECI model is proposed. The findings indicate that layered training programs, cross-departmental collaboration mechanisms, and the adoption of digital tools can significantly improve team expertise and collaborative efficiency. These measures not only enhance individual capabilities but also promote overall team synergy, providing a solid foundation for the efficient implementation of projects. The results offer practical insights for enterprise team management and serve as a reference for future projects and industry practices.

Keywords

Organizational Learning; SECI Model; EPD; Corporate Sustainability; Project Management.

1. Introduction

In the context of globalization, the interconnectedness of economic, cultural, and technological exchanges among nations has intensified, leading to the proliferation of transnational corporations and increasingly sophisticated international division of labor. The global marketplace is gradually coalescing into an integrated system. However, accelerated industrialization has exacerbated issues such as resource depletion, environmental pollution, and ecological degradation, posing significant threats to human survival and development. The 2023 Global Sustainable Development Report indicates that approximately 60% of ecosystem services are in decline, with environmental pollution and ecological destruction causing economic losses amounting to trillions of dollars annually. In response to these challenges, the concept of sustainable development has emerged, emphasizing the harmonious integration of economic growth, social progress, and environmental protection. Its primary objective is to meet the needs of the present without compromising the ability of future generations to satisfy their own needs.

Within this framework, enterprises, as the primary agents of economic activity, face unprecedented pressures and opportunities for transformation. The urgency of addressing global climate change has led numerous countries and regions to implement policies related to carbon emissions, such as the European Union's Carbon Border Adjustment Mechanism (CBAM) and China's national carbon market initiatives. These policies serve as guiding frameworks for

corporate product development and market strategies, incentivizing reductions in carbon footprints throughout the product life-cycle and integrating environmental considerations into production and management processes. Consequently, how enterprises leverage internal organizational learning and adaptation to enhance environmental management capabilities and market competitiveness has become critical in responding to evolving global environmental policies.

In today's highly competitive market environment, an increasing number of companies are incorporating Environmental Product Declarations (EPD) into their strategic planning to adapt to shifting market demands and bolster sustainable development capabilities. EPD quantify the environmental impacts associated with a product's entire life-cycle, providing a vital tool for enhancing market competitiveness and fulfilling sustainability objectives. For instance, in the steel industry, companies such as China Baowu Steel and Ansteel Group actively develop EPD projects, publishing reports that detail their products' advantages in energy conservation, emission reduction, and resource utilization—thereby strengthening brand image and meeting downstream customer demands for green steel products. Similarly, in the aerospace sector, industry giants like Boeing and Airbus are exploring EPD applications by optimizing aircraft design, adopting innovative materials, and implementing energy-saving technologies to reduce environmental impacts across the aircraft life-cycle. These companies also utilize EPD reports to publicly demonstrate their environmental achievements.

Furthermore, EPD play a crucial role in enabling enterprises to navigate trade barriers. As global attention to environmental protection intensifies, many nations and regions have enacted stringent environmental regulations and standards, such as the European Union's REACH regulation and California's green building standards, which impose higher requirements on the environmental performance of imported products. Securing EPD certification has become a strategic necessity for market entry, as products with verified EPD are more likely to gain international acceptance and competitive advantage. Conversely, neglecting EPD reporting may result in product rejection and loss of market share to competitors. Therefore, the development and implementation of EPD projects have become essential strategic tools for enterprises seeking sustainable growth, enhanced market positioning, and effective responses to trade barriers.

Organizational learning theory holds a significant position within the field of management, providing theoretical guidance for enterprises to enhance their competitive advantage and adapt to environmental changes[1]. However, current research on its application in project management, particularly in projects with specific industry backgrounds and complex requirements such as EPD reporting, remains to be further developed. This study integrates organizational learning theory with the practical context of the EPD project team at EX Corporation. Through in-depth analysis and practical exploration, it aims to supplement and expand the application of organizational learning theory in specific project management scenarios. In the EPD project, the SECI model proposed by Nonaka and Takeuchi is employed to establish a knowledge transformation mechanism, facilitating knowledge sharing and innovation among team members through socialization, externalization, combination, and internalization processes[2]. This research combines organizational learning theory with the actual circumstances of EX Corporation's EPD project team, providing new empirical evidence and practical cases for knowledge creation and transformation within organizational learning frameworks. The application of dynamic capabilities and learning organization theories within the EPD project team offers insights into how continuous learning and capacity enhancement enable teams to maintain a competitive edge in complex and dynamic project environments. The findings of this study aim to offer new perspectives and methodologies for scholars exploring the integration of organizational learning theory and project management, thereby promoting ongoing development and refinement within this research domain. The research

outcomes possess substantial practical value for enterprise team management, with profound implications for human resource management. By devising targeted training programs, organizations can optimize human resource allocation and enhance employees' professional skills and overall competencies. For instance, analyzing skill requirements across different roles within the EPD project team at EX Corporation enables the provision of personalized career development pathways, thereby increasing job satisfaction and loyalty. Regarding the optimization of collaboration mechanisms, the proposed cross-departmental cooperation strategies help to break down organizational silos and improve team efficiency—an advancement not only in project management but also in innovative human resource practices. Furthermore, the introduction of digital tools to establish knowledge-sharing platforms facilitates knowledge exchange and learning among employees, further improving resource utilization and supporting sustainable organizational development.

2. Research Design

2.1. Research Methodology

To thoroughly analyze the current state of organizational learning within EX Corporation's Internet EPD project team and its impact on team capabilities and project collaboration efficiency, this study employs a case study approach as the primary research method, complemented by interviews and literature review to ensure comprehensive and reliable findings. The case study method allows for in-depth examination of practical instances within specific contexts, facilitating the extraction of generalizable theories and patterns, particularly suitable in fields where theoretical frameworks are still evolving or require further validation. Through interviews, firsthand data were collected from key members of the project team, including project managers, EPD experts, report writers, and coordinators; their experiences and insights provide detailed understanding of the team's organizational learning mechanisms. Additionally, the literature review encompasses a broad collection of academic publications, industry reports, and case studies related to organizational learning, project management, and EPD projects from both domestic and international sources. These materials establish a solid theoretical foundation and aid in identifying application patterns and potential issues of organizational learning in similar projects.

2.2. Sample Selection

The sample for this study focuses on the EPD project team of EX Corporation, selected due to its representativeness within the industry and the complexity of its project implementation process. As a leading certification body, EX Corporation possesses extensive experience across sectors such as environmental, food, and pharmaceutical industries, with the EPD project exemplifying the company's latest practices in sustainable development and digital transformation. By conducting an in-depth analysis of this team, the study aims to elucidate the mechanisms through which organizational learning enhances team capabilities and project collaboration efficiency, while also exploring the unique challenges and opportunities presented by a green development environment.

2.3. Data Acquisition

Data collection primarily employed two methodologies: interviews and literature review. The interview component involved multiple in-depth exchanges between the researcher and key members of the project team. These interviews not only captured the team members' perceptions and attitudes toward organizational learning but also documented specific challenges encountered during project implementation and their corresponding solutions. The interview data were meticulously recorded and organized, providing a rich repository of material for subsequent analysis. Regarding literature review, the researcher gathered relevant

materials from various sources, including academic journals, industry reports, and case studies. These documents offered theoretical support and contextual background, facilitating a comprehensive understanding of the current state and trends of organizational learning application in similar projects.

2.4. Data Analysis

For data analysis, this study adopted a qualitative approach, systematically synthesizing and critically examining interview transcripts and literature sources. This process enabled the identification of distinct manifestations of organizational learning within the EPD project team at EX Corporation, as well as existing issues and potential avenues for improvement. The researcher initially coded and categorized the interview data to extract key themes and concepts. These findings, combined with insights from the literature review, facilitated the development of a framework based on the SECI model to elucidate the organizational learning mechanism. Further, the analysis explored the impact of this mechanism on team capabilities and project collaboration efficiency. Through this integrated analytical approach, the study not only revealed the unique role of organizational learning in the EPD project but also provided valuable references for other enterprises seeking to implement similar learning initiatives in comparable projects.

3. Case Description

3.1. Company Overview of EX Corporation

Since its inception, EX Corporation has rapidly emerged as a leading certification body, leveraging its exceptional technical expertise. The company's proficiency across multiple sectors-including environmental, food, and pharmaceutical industries-has earned it numerous internationally recognized accreditations, such as CNAS, UKAS, and ANAB, thereby establishing its industry-leading position. EX Corporation not only commands a significant market share domestically but also continues to expand its influence through ongoing technological innovation and the delivery of high-quality services, garnering widespread market recognition. The seminal SECI spiral was first articulated by Nonaka & Takeuchi (1996) to depict how tacit and explicit knowledge convert mutually through socialization, externalization, combination and internalization.

3.2. Introduction to the EPD Program

The Environmental Product Declaration (EPD) program is a strategic initiative introduced by EX Corporation in response to market demand for eco-friendly products. An EPD is a Type III environmental declaration based on ISO 14025 standards, which quantifies the environmental impacts of a product throughout its entire life-cycle via Life Cycle Assessment (LCA). This program assists enterprises in meeting market access requirements, enhancing competitive bidding advantages, and overcoming international trade barriers. The core of the EPD initiative lies in providing a scientifically rigorous, comparable environmental impact report that encompasses all stages from raw material extraction to product disposal.

3.3. Problem Description

Initially, the team exhibits significant deficiencies in knowledge and skills pertinent to the EPD project. Although some members possess fundamental delivery capabilities, their practical experience is severely lacking, compounded by insufficient project engagement opportunities. This results in diminished adaptability during operational execution and hampers efficient resolution of complex issues, thereby directly impacting the stability and quality of project delivery. Furthermore, the team demonstrates inadequate depth and breadth of industry-specific technical knowledge; certain members lack comprehensive understanding of key

aspects such as production processes, procedural details, and life-cycle management within specific sectors. This shortfall impairs the ability to meet clients' high expectations for precise technical support and constrains the team's capacity to expand within targeted industries.

In addition, market development and sales functions face structural challenges, notably an imbalance in sales personnel deployment. The limited number of dedicated sales staff must often juggle multiple projects, resulting in insufficient dedicated effort toward the EPD initiative. Consequently, market penetration progresses slowly, leading to missed potential business opportunities. The absence of targeted incentive mechanisms further diminishes motivation among dedicated sales personnel, adversely affecting their performance and project advancement efficiency.

Pre-sales technical support capabilities are similarly inadequate. The EPD project demands familiarity not only with EPD accounting principles but also an in-depth understanding of industry-specific characteristics and trends. Currently, the team's proficiency in these areas is insufficient, impairing their ability to deliver accurate and comprehensive technical support and solutions during the pre-sales phase. This deficiency undermines client trust and hampers project progression. Moreover, personnel identified internally as possessing industry-specific technical expertise face challenges such as fairness concerns, scheduling conflicts, and income policy restrictions when participating in pre-sales support activities, thereby limiting their effective contribution.

Finally, the team's capacity for delivering integrated solutions remains notably deficient. Presently, there is a lack of ability to provide comprehensive, one-stop solutions, particularly when addressing clients from a macro perspective—such as upstream and downstream supply chain or industrial ecosystem considerations. This gap hampers the ability to meet complex and diverse client requirements. Additionally, issues such as poor interdepartmental collaboration, delayed information exchange, and ineffective communication frequently occur, severely impacting project efficiency and client satisfaction.

The existence of these issues not only constrains the successful implementation of the EPD project but also impedes overall team development and the company's sustainable growth. Therefore, targeted and effective measures are required to address these challenges, with the aim of enhancing team expertise, market competitiveness, and project execution efficiency.

4. Case Analysis and Discussion

4.1. Insufficient Technical Competence and Practical Experience

The EPD project team at EX Corporation demonstrates a foundational level of technical capability; however, a deficiency in practical experience emerges as a critical constraint to project advancement. Although some team members have obtained relevant certifications, indicating basic delivery competence, the lack of sufficient hands-on practice hampers their ability to manage complex projects effectively. This experiential gap risks causing delays in project delivery and compromising quality, thereby adversely affecting client satisfaction. Furthermore, the team exhibits notable deficiencies in both the depth and breadth of industry-specific technical knowledge. Certain members possess limited understanding of key aspects such as production processes, procedural details, and life-cycle management within specific sectors, which impairs their capacity to meet clients' demands for precise technical support. As industry standards increasingly demand specialized technical expertise, internal capabilities are progressively revealing limitations that not only hinder project execution but also restrict the team's potential for expansion within relevant fields.

4.2. Market Penetration and Sales Competency Deficits

In terms of market development and sales proficiency, the EPD project faces multiple challenges. Currently, the allocation of sales personnel is suboptimal; the number of dedicated sales staff is limited, and many are required to juggle multiple projects. This situation severely restricts their engagement with EPD initiatives, resulting in sluggish market penetration and missed commercial opportunities. Additionally, the absence of targeted incentive mechanisms diminishes the motivation of dedicated sales personnel, thereby impacting their performance and the overall efficiency of project promotion. Compared to conventional sales roles, EPD sales personnel often have more complex compensation structures, necessitating carefully designed incentive schemes to enhance their motivation and accelerate project progress.

4.3. Insufficient Pre-Sales Technical Support and Industry-Specific Technical Expertise

The team also encounters significant obstacles in pre-sales technical support and industry-specific technical proficiency. Successful execution of EPD projects requires team members to be well-versed in EPD accounting principles and to possess an in-depth understanding of the characteristics and trends within their clients' industries. Currently, the team's capabilities in pre-sales technical support are inadequate, impairing their ability to deliver precise technical guidance and solutions during client interactions, which in turn undermines client trust and hampers project advancement. Although internal auditors have identified personnel with relevant industry technical expertise, these individuals face challenges related to impartiality, scheduling conflicts, and compensation policies when participating in pre-sales activities. These issues diminish their motivation and limit their contribution to pre-sales support. For industries with high technical requirements, the internal capacity constraints hinder the team's ability to provide accurate technical solutions to specific clients, thereby affecting project progression and constraining the team's expansion within these sectors.

4.4. Insufficient Integrated Solution Capabilities

The deficiencies within the team's integrated solution capabilities are notably evident. Currently, the team lacks the capacity to deliver comprehensive, one-stop solutions, particularly when providing services from a macro perspective encompassing upstream and downstream supply chains or industry ecosystems. This deficiency hampers the team's ability to offer holistic and precise solutions in response to complex client requirements, thereby adversely affecting client satisfaction and project success rates. Furthermore, ineffective cross-departmental collaboration constrains the full realization of the team's integrated capabilities. In key client development, a synergistic presentation of sales, technical expertise, and product solution capabilities is essential; however, the team faces significant barriers in interdepartmental cooperation, including delayed information exchange and communication inefficiencies. These issues not only impede project progression but also, to some extent, diminish client satisfaction.

In summary, the EPD project team at EX Corporation exhibits deficiencies across technical skills, market and sales competencies, pre-sales technical support, and integrated solution capabilities. These issues adversely impact project execution efficiency and quality, while also limiting overall team development. Therefore, the company must implement targeted measures—such as enhanced training, personnel optimization, and improved cross-departmental collaboration mechanisms—to elevate the team's comprehensive capabilities and facilitate the successful deployment of the EPD project.

5. Research Conclusions and Insights

5.1. Research Conclusions

This study focused on enhancing the organizational learning capacity of the EPD project team at EX Corporation. A comprehensive learning framework was designed and implemented, incorporating layered learning modules, role reversals and simulated project exercises, alongside the application of digital tools. These interventions significantly improved the team's technical expertise and collaborative efficiency. The measures not only strengthened individual competencies but also promoted overall team synergy, laying a solid foundation for the efficient execution of projects.

5.1.1. Professional Knowledge Training: Integration of SECI Model-Based Training Programs with Human Resource Management

This study, based on the SECI model proposed by Nonaka and Takeuchi (1996), developed a training program for the EPD project team at EX Corporation encompassing four stages: Socialization, Externalization, Combination, and Internalization. This model provides a foundational theoretical framework for organizational knowledge creation and transformation. During the socialization phase, regular technical exchange meetings and experience-sharing sessions facilitate direct interaction among team members, promoting the tacit knowledge transfer essential for mutual understanding of individual expertise and practical insights. For instance, organizing cross-departmental technical workshops enables members from diverse backgrounds to share their specialized perspectives and hands-on experiences, thereby broadening the team's collective knowledge base. This process not only enhances individual professional competencies but also introduces innovative approaches to human resource management by fostering internal knowledge sharing activities that optimize the organization's knowledge architecture.

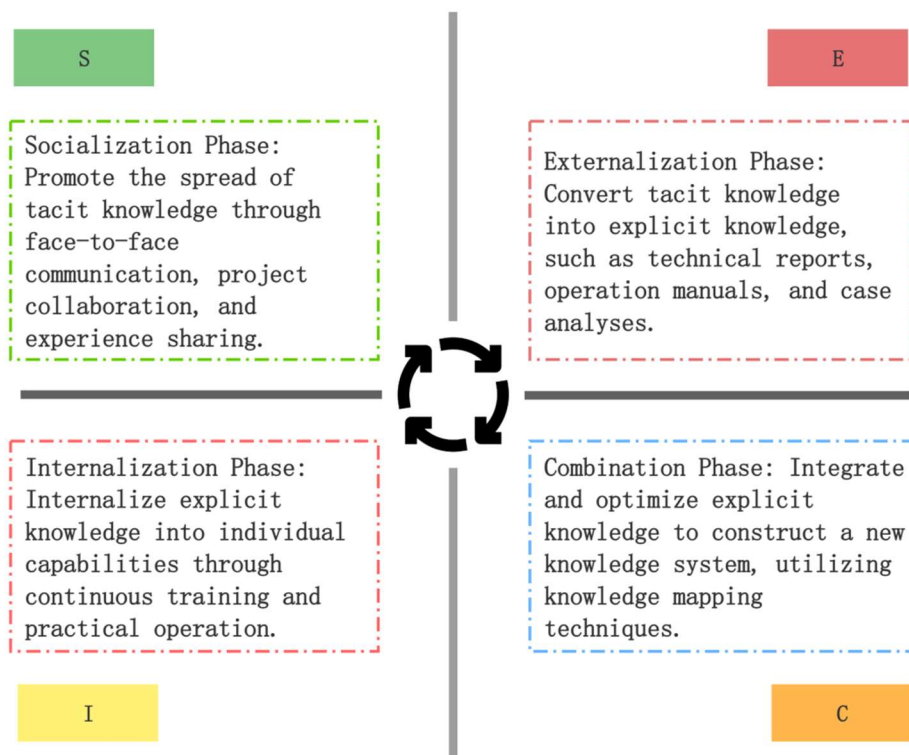


Figure 1. Application of the SECI model in the EPD project team

In the socialization stage, frequent face-to-face communication, close project collaboration, and rich experience exchanges enable widespread dissemination and deep sharing of tacit knowledge. New team members, through collaboration with seasoned experts, acquire valuable experiential insights and unique skills accumulated over extensive practice. This interaction strengthens trust and cohesion among members and lays a solid foundation for subsequent knowledge conversion.

During the externalization phase, tacit knowledge is articulated into explicit formats through technical reports and operational manuals, facilitating dissemination and practical application. For example, team members are tasked with preparing project summary reports that detail technical challenges, solutions, and lessons learned during implementation. These documents serve as valuable organizational knowledge assets and provide learning resources for new members. This approach allows the organization to convert individual experiential knowledge into collective intellectual capital, thereby enhancing overall human resource value.

In the combination stage, explicit knowledge is integrated and systematized via knowledge management systems and online learning platforms, forming a cohesive knowledge framework that improves sharing efficiency and accessibility. For instance, an internal knowledge repository categorizes and stores technical reports, industry standards, and training materials, enabling members to retrieve and learn at any time. Additionally, periodic training courses delivered through online platforms-incorporating video tutorials and assessments-further reinforce knowledge dissemination and application. The establishment of such knowledge management systems not only optimizes internal resource utilization but also provides effective tools for continuous employee development and capacity building.

Finally, in the internalization phase, explicit knowledge is transformed into tacit expertise through practical project involvement and targeted training programs. Team members participate in real-world tasks, applying theoretical knowledge to solve actual problems, thereby consolidating and deepening their understanding. Regular skills workshops and on-site guidance from industry experts facilitate the integration of theory and practice, enhancing professional competencies. This process embodies the “learning by doing” principle in human resource management, fostering the development of highly skilled personnel and cultivating a competitive workforce.

5.1.2. Cross-Departmental Collaboration Mechanism: Enhancing Dynamic Integration and Collaborative Innovation through Interdepartmental Coordination Teams

To effectively enhance the cross-departmental collaboration capabilities of the EPD project team at EX Corporation, this study meticulously designed and implemented innovative mechanisms such as cross-departmental working groups. Cross-departmental collaboration represents a critical organizational learning practice, facilitating the flow and sharing of knowledge across different units and providing members with opportunities to acquire insights and experiences from diverse perspectives[3]. Through such collaboration, team members gain a deeper understanding of other departments’ workflows, technologies, and requirements, thereby breaking down organizational silos and improving overall team efficiency and innovation capacity. The dynamic capabilities framework further underscores the necessity for organizations to possess the agility to integrate internal and external resources swiftly in rapidly changing environments, enabling adaptation and sustained competitive advantage. The cultivation and enhancement of this capability are largely dependent on effective cross-departmental mechanisms. By optimizing these mechanisms, organizations can better promote knowledge sharing and innovation, ultimately elevating team performance and fostering a competitive edge in the marketplace.

In the initial project phase, the team faced numerous challenges, notably significant obstacles in cross-departmental collaboration. Poor communication, delayed information transfer,

redundant work, and resource wastage markedly slowed project progress. To address these issues, the project manager led the formation of a cross-departmental coordination team, conducting regular meetings and unified scheduling to establish an efficient information bridge. During the pilot phase, some members experienced difficulties adapting to the new mechanisms, and meeting efficiency was suboptimal. The management team subsequently optimized the agenda, shortened meeting durations, and enhanced daily communication efficiency. After continuous improvements, cross-departmental collaboration became markedly smoother, with accelerated information flow, increased trust and rapport among team members, and collaboration transforming from a barrier into a core driver of project advancement.

5.1.3. Knowledge Sharing Platform: Introduction and Application of Digital Tools

To promote knowledge sharing and communication within EX Corporation's EPD project team, this study introduced a series of advanced digital tools to develop a comprehensive knowledge sharing platform. Such platforms play a crucial role in organizational learning, serving not only as repositories and dissemination channels for knowledge but also as key mechanisms for fostering team learning and innovation. According to knowledge management theory, knowledge sharing platforms significantly enhance the efficiency of knowledge acquisition and facilitate the innovation and application of knowledge. In the digital era, these platforms leverage cutting-edge technologies to enable rapid dissemination and sharing of knowledge, thereby substantially improving team learning efficiency and innovative capacity.

The organizational learning process was embedded within a three-stage model: "Short Course Trigger-Discussion Area Negotiation-Knowledge Consolidation." The OTC platform centers on modules such as 5–10 minute short courses, contextual case libraries, and thematic discussion zones. Domain experts introduce "practical dilemmas" through short courses, prompting learners to engage in post-course discussions, express opinions, question, and supplement in designated discussion areas. Course assistants periodically organize and distill discussion content, archiving highly endorsed viewpoints under the "Emerging Knowledge" label to gradually make tacit knowledge explicit. Learners can also tag high-quality responses with "Practical Validation," which, after secondary review by experts, are integrated into the knowledge management system, transforming fragmented dialogues into systematic records. The study further introduced a dual-track incentive system linking "Learning Points-Knowledge Contributions": points can be exchanged for rewards or promotions, while contribution levels serve as criteria for recognition, thereby coupling individual motivation with collective knowledge value enhancement. Following the platform's deployment, the rate of knowledge node growth accelerated significantly, project completion cycles for cross-departmental tasks shortened markedly, and the team's dynamic capabilities and continuous innovation performance were substantially strengthened.

5.2. Practical Implications

Through the practical experience of the EPD project team at EX Corporation, it is profoundly recognized that enhancing team professional competence and collaborative efficiency hinges on strengthening practical experience accumulation, refining pre-sales technical support, and establishing a culture of continuous learning. Firstly, organizations should provide team members with abundant opportunities to engage in real-world projects, enabling rapid experience accumulation and problem-solving skill enhancement. Concurrently, optimizing cross-departmental collaboration mechanisms by breaking down departmental barriers through regular interdepartmental communication meetings and joint training sessions can foster mutual understanding and trust among team members, thereby improving collaborative efficiency. Secondly, pre-sales technical support constitutes a critical component of project success; organizations need to bolster training in pre-sales technical competencies, ensuring

team members are not only familiar with EPD knowledge but also possess an in-depth understanding of industry characteristics and trends. Additionally, designing targeted incentive mechanisms, such as performance bonuses or project commissions, can effectively motivate sales personnel and improve work performance, securing the competitiveness of EPD projects in market development. Lastly, continuous learning is vital for team growth; organizations should cultivate a culture of ongoing education by regularly organizing internal training sessions and knowledge-sharing events, encouraging participation in external training courses to enhance professional capabilities. Furthermore, the integration of advanced knowledge management systems and online collaboration platforms can facilitate centralized knowledge storage, rapid retrieval, and real-time sharing, thereby breaking down knowledge silos and promoting widespread dissemination and application of knowledge. These measures collectively enable organizations to effectively elevate team expertise and collaborative efficiency, driving efficient project implementation and sustainable enterprise development.

6. Future Outlook

This study, through an in-depth analysis of the EPD project team at EX Corporation, proposes a series of strategies for the design and implementation of organizational learning mechanisms. These strategies have not only yielded significant results within the current project but also offer valuable reference and guidance for future projects and industry practices.

6.1. Expansion to New Projects

As organizational operations continue to expand and market demands become increasingly diverse, there will be a growing need for efficient knowledge management and team collaboration in new projects. The organizational learning mechanisms based on the SECI model proposed herein demonstrate strong universality and scalability, providing theoretical and practical guidance for other new initiatives. For instance, in fields such as green building, new energy vehicles, and intelligent manufacturing, the experiences gained from EPD projects can serve as valuable references for similar project teams, assisting them in establishing effective learning and collaboration mechanisms from the outset, thereby rapidly enhancing team capabilities and ensuring smooth project progression.

6.2. Advancing Industry Best Practices

In the context of sustainable development, Environmental Product Declaration (EPD) initiatives serve as a vital environmental management tool, garnering increasing attention and adoption across various sectors. The findings of this study not only hold relevance for EX Corporation internally but also offer a pioneering model for industry-wide implementation. By disseminating EX's successful strategies in organizational learning, cross-departmental collaboration, and knowledge management, other enterprises can better address the challenges inherent in EPD projects, thereby enhancing their environmental management capabilities and market competitiveness. Furthermore, these insights can inform the formulation and refinement of industry standards, fostering progress within the sector toward sustainable development goals.

6.3. Continuous Optimization and Innovation

Organizational learning is an inherently dynamic process that necessitates ongoing refinement and innovation aligned with project progression and team feedback. Moving forward, EX Corporation should maintain a focus on team performance in new initiatives, regularly evaluating the effectiveness of learning mechanisms and making adjustments based on practical insights. As technological advancements accelerate and market demands evolve, the company can incorporate more sophisticated digital tools to further enhance knowledge

sharing and collaborative efficiency. Additionally, exploring partnerships with other corporations and research institutions for cross-sectoral learning and joint research endeavors can expand the boundaries of knowledge, providing sustained momentum for long-term growth.

7. Summary

In summary, this research not only offers effective solutions for EX's EPD project team but also provides valuable guidance for future projects and industry practices. Through ongoing optimization and innovation, organizations can continuously advance along the path of sustainable development, making significant contributions to society and the environment.

References

- [1] Bontis, N., Crossan, M. M., & Hulland, J. (2002). Managing an organizational learning system by aligning stocks and flows. *Journal of Management Studies*, 39(4), 437-469.
- [2] Nonaka, I., & Takeuchi, H. (1996). The knowledge-creating company: How Japanese companies create the dynamics of innovation. *Long Range Planning*, 29(4), 592.
- [3] Nugroho, M. A. (2018). The effects of collaborative cultures and knowledge sharing on organizational learning. *Journal of Organizational Change Management*, 31(5), 1138-1152.