JDBIM
(Journal of Digital Business and Innovation Management)

Volume 5, Issue 1, June 2026, 147-160
ISSN 2962-3898 (Online)
DOI: 10.26740/jdbim.v5i1.74084
https://ejournal.unesa.ac.id/index.php/jdbmi/index

Operational Business Planning Using Lean Canvas at PT ESPA: A Thematic Analysis of Qualitative Interview Analysis

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Abstract

PT ESPA experiences recurring operational issues due to the absence of a centralized system, leading to scattered documentation, uneven workflows, and delays in reporting. This study aims to develop an operational business plan that addresses these conditions by applying the Lean Canvas framework supported by qualitative findings. Using a qualitative case study approach, data were gathered through semi-structured interviews with key internal stakeholders across strategic, managerial, and operational levels. The interview data were analyzed using thematic analysis to identify core operational problems and system requirements. The analysis revealed essential themes such as documentation inefficiency, lack of workflow standardization, and the need for an integrated digital platform accessible through multiple devices. These themes were then translated into the nine Lean Canvas components to produce a structured operational model that reflects the company's real needs. The study concludes that integrating thematic analysis with Lean Canvas provides a practical basis for designing an operational system that improves workflow clarity, accelerates reporting, and strengthens managerial oversight.

To cite this document:

Nugraha, Dendra., Raissa, Shafarani Putri., Puspita, Meuthya Kayla., Gunawan, Najmi Khairunnisa., Rahman, Muhammad Wahyudi. (2026). Operational Business Planning Using Lean Canvas at PT ESPA: A Thematic Analysis of Quanlitative Interview. *JDBIM (Journal of Digital Business and Innovation Management*, *Vol 5 No.1*, 147-159. DOI: 10.26740/jdbim.v5i1.74084.

JDBIM (Journal of Digital Business and Innovation Management)
Volume 5 Issue 1, June 2026
E-ISSN 2692-3898
Page 147-160

Keywords: Lean canvas; operational management; thematic analysis; qualitative interview; business planning

Received: 29 April 2026; Accepted: 29 June 2026; Published: 30 June 2026

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Abstrak

PT ESPA menghadapi berbagai kendala operasional akibat belum adanya sistem terpusat, sehingga dokumentasi tersebar, alur kerja tidak seragam, dan laporan sering terlambat. Penelitian ini bertujuan menyusun rencana bisnis operasional menggunakan Lean Canvas berdasarkan temuan kualitatif dari pemangku kepentingan internal. Pendekatan studi kasus kualitatif digunakan, dan data dikumpulkan melalui wawancara semi-terstruktur dengan pihak manajemen dan staf operasional. Analisis tematik diterapkan untuk mengidentifikasi pola masalah dan kebutuhan sistem yang paling mendesak. Hasil analisis menghasilkan beberapa tema utama, seperti ketidakefisienan dokumentasi, kurangnya standarisasi alur kerja, serta kebutuhan terhadap sistem digital terintegrasi yang mudah diakses. Tema-tema tersebut kemudian diterjemahkan ke dalam sembilan elemen Lean Canvas untuk membentuk model operasional yang sesuai dengan kondisi perusahaan. Penelitian ini menyimpulkan bahwa pendekatan berbasis analisis tematik dan Lean Canvas mampu memberikan dasar yang jelas dan terarah dalam merancang sistem operasional yang lebih efisien dan mendukung pengawasan kerja.

***Kata kunci**:* Lean Canvas; manajemen operasional; analisis tematik; wawancara kualitatif; perencanaan bisnis

INTRODUCTION

In the contemporary business landscape, the ability of an organization to adapt and maintain business continuity during adverse events, defined as operational resilience, is paramount for survival (He et al., 2023). To achieve this resilience, digital transformation has emerged as a critical strategy, as it fundamentally alters organizational activities ranging from communication and distribution to the development of new business models (Appiah et al., 2025). The integration of digital technologies allows firms to optimize decision-making processes, enhance flexibility, and improve overall operational efficiency, thereby overcoming the limitations and risks associated with traditional, manual business practices (Appiah et al., 2025; He et al., 2023). Without the adoption of such digital infrastructures, companies often face significant challenges in maintaining competitive advantages and managing internal resources effectively.

To navigate the complexities of operational restructuring and digital transition, the Lean Business Model Canvas (LBMC) offers a robust planning framework. Unlike static traditional business plans, the LBMC is designed to facilitate sustainable growth by allowing organizations to rapidly validate business concepts and focus specifically on identifying problems, solutions, and key metrics (Moshood et al., 2022). This framework represents a significant rethinking of linear economic structures, providing a concise method for organizations to transition towards more efficient business models (Moshood et al., 2022). By utilizing the LBMC, established companies can identify operational bottlenecks and structure their value proposition to align with modern digital requirements.

PT ESPA (PT Environmental Safeguard Partners) is an environmental consulting service company specializing in environmental impact assessment and environmental permit documentation, including AMDAL, UKL–UPL, and environmental management advisory services. Despite the evident benefits of digital integration and strategic planning frameworks, PT ESPA currently faces operational hurdles due to a reliance on legacy systems. Based on preliminary data gathered through a semi-structured interview, the Director of PT ESPA highlighted the critical nature of these operational hurdles, stating, *"For now, our operational system is still very simple; we still do many processes manually, whether in recording activities, document management, or internal reporting"*. This reliance on manual processes has resulted in disorganized data storage and delayed reporting, underscoring the urgent need for a structured operational business plan to facilitate the company's transition toward digitalization and operational efficiency.

In the context of the Lean Canvas framework, the *"Existing Alternatives"* component is important because it encourages entrepreneurs to examine how customers currently address their pain points before a new innovation is introduced (Pascarella, 2025). Moshood et al. (2022) explain that without this structured identification, organizations often rely on inefficient legacy methods such as traditional extensive business plans, intuition, or disjointed spreadsheets, which do not provide the agility needed for rapid market validation. Understanding these existing alternatives, whether they involve manual processes with intermediaries or basic market interactions, is essential for identifying the inefficiencies and bottlenecks that the proposed business model aims to address (Atthaisong et al., 2022; Wediawati & Rahmayani, 2021).

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The proposed solution differs from existing alternatives by developing a Lean Canvas through thematic analysis, allowing entrepreneurs to derive structured insights from qualitative data and transform them into a clear business model (Moshood et al., 2022; Pascarella, 2025). This approach strengthens the *"Unique Value Proposition"* and the *"Unfair Advantage"* by grounding them in recurring themes, user perceptions, and real operational challenges identified during the analysis. Unlike traditional methods that may lack clear direction, thematic analysis provides a systematic way to uncover patterns that inform customer needs, value creation, and potential competitive strengths that cannot be easily imitated by others (Harianto, 2018; Moshood et al., 2022). By addressing the limitations of current market practices, such as reliance on intermediaries or slow manual tracking, the resulting Lean Canvas offers a structured and customer-centered model that supports improved operational efficiency and better strategic alignment (Atthaisong et al., 2022; Wediawati & Rahmayani, 2021).

This study employs a qualitative research design to develop an operational business plan for PT ESPA by using the Lean Canvas framework as the main strategic modeling tool. The research process begins with data collection through in-depth semi-structured interviews to capture the perspectives of key stakeholders regarding business operations. To interpret the qualitative data, the study applies a thematic analysis approach following the six-phase framework introduced by Braun and Clarke, which includes familiarization, coding, and theme generation to translate complex information into actionable business insights (Ahmed et al., 2025; Hole, 2024). This analytic process enables the systematic identification and interpretation of recurring patterns of meaning across the dataset, ensuring that the findings are grounded in the voices of participants.

The expected result of this research is to formulate a validated and flexible operational business plan that aligns with the market uncertainties encountered by the company. By synthesizing interview data through thematic analysis, the study aims to identify and define the nine key building blocks of the Lean Canvas, including the *“Problem,” “Solution,” and “Unique Value Proposition,”* ensuring that the resulting business model responds to confirmed customer pain points rather than assumptions. In addition, the research aims to deliver a roadmap for PT ESPA that strengthens operational resilience and value creation, providing a concise one-page blueprint that supports rapid iteration and clearer communication of business strategy to both internal and external stakeholders.

LITERATURE REVIEW

Operational Management and Digitalization

The integration of digital technologies fundamentally alters organizational activities, ranging from communication to the development of new business models, which optimizes decision-making processes and flexibility (Appiah et al., 2025). Specifically for small and medium-sized enterprises, the adoption of data-driven technologies enables the extraction of key insights from production data, leading to streamlined operations and enhanced supply chain competitiveness (Harno et al., 2024). Beyond efficiency, digital transformation acts as a critical strategy for improving operational resilience by coordinating human resources, information, and technology to maintain business continuity during supply chain disruptions (He et al., 2023). However, achieving operational success in complex markets also requires significant adaptation in logistics and distribution to overcome specific operational constraints and establish market inside (Mortazavi et al., 2025). Therefore, an accurate evaluation of operational management efficiency is crucial, as neglecting the influence of external environmental factors can result in a significant underestimation of a firm's actual performance capabilities (Xu et al., 2023).

Lean Canvas

The Lean Canvas is a management template originally adapted by Ash Maurya from the Business Model Canvas to assist entrepreneurs in rapidly validating business concepts under conditions of high uncertainty (Atthaisong et al., 2022; Harianto, 2018; Pascarella, 2025). Unlike traditional extensive business plans, this one-page framework prioritizes identifying critical customer problems and viable solutions to avoid wasting resources on products that fail to meet market needs (Moshood et al., 2022; Wediawati & Rahmayani, 2021). The model comprises nine distinct building blocks, which include problem, solution, unique value proposition, unfair advantage, and key metrics, and these components help business owners visualize and integrate their overall operational strategy concisely (Atthaisong et al., 2022; Pascarella, 2025). A central feature of this approach is its emphasis on "Key Metrics" to track progress and the "Unfair Advantage," which encourages startups to identify competitive strengths that cannot be easily replicated or purchased by others (Harianto, 2018; Moshood et al., 2022). In addition, the framework supports the "build-measure-learn" feedback loop, allowing organizations to continuously iterate their business models based on actionable data rather than static assumptions (Moshood et al., 2022).

Thematic Analysis

Thematic analysis is a widely adopted qualitative method that offers a flexible and structured approach for identifying, analyzing, and reporting

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patterns of meaning across a dataset (Ahmed et al., 2025; Hole, 2024). Central to this methodology is Braun and Clarke's six-phase framework, which guides researchers through familiarization, coding, theme generation, reviewing, defining, and reporting, ensuring a systematic engagement with the data (Ahmed et al., 2025; De Paoli, 2024). Despite this structure, the method demands significant researcher reflexivity, as it is not a mechanical *"recipe"* but an interpretive process that requires the explicit acknowledgment of one's epistemological and ontological positions to avoid analytical incoherence (Hole, 2024). Recent methodological innovations have extended thematic analysis to include the use of Large Language Models (LLMs) for inductive coding, highlighting the method's adaptability while raising questions about the role of human interpretation in automated processes (De Paoli, 2024). Thematic analysis techniques have been effectively applied in bibliometric studies to map the conceptual evolution and knowledge structure of emerging research fields, such as urban planning during health crises (Sharifi, 2022).

METHODS

Research Design

This study uses a qualitative design with a case study approach to gain an in-depth understanding of the operational conditions of PT ESPA. This approach is in line with the research objectives of exploring the meaning and experiences of informants through data collection in a natural environment and inductive analysis that produces themes and interpretations based on field findings (Creswell & Creswell, 2023) The research process was conducted in real situations with the researcher as the main instrument, emphasizing the deepening of meaning rather than generalization, so that this design provides a strong methodological basis for empirically identifying the company's operational needs (Sugiyono, 2023).

Population and Sample

In this research, the population refers to the internal personnel of PT ESPA involved in business operations, while the sample was selected using the Snowball Sampling technique. This non-probability method starts with a small number of subjects and gradually expands through chain referrals to individuals with relevant knowledge (Sugiyono, 2023). The sampling process began with the Director, followed by the Operational Manager, and finally the Operational Staff to obtain comprehensive and sufficient information regarding operational issues.

Data Collection

The data collection was conducted primarily using semi-structured interviews. This method was employed to gain deep insights into the underlying business challenges. The interview process involved three key informants, specifically the director, operational manager, and operational staff, to ensure a holistic perspective that captures the strategic, managerial, and day-to-day execution levels of the company's operations. The interview questions were structured based on the Lean Canvas framework. Each question item was specifically derived from the distinct building blocks of the lean canvas framework. The complete list of interview questions is presented in Table 1.

Table 1. List of Interview Question

No.	Discovery Question
1.	What are the most important operational issues facing the company?
2.	Who is the internal party that needs this system the most?
3.	What are the main benefits to expect from an ideal operational system?
4.	What operational solutions are most needed today?
5.	Through what media is the system most appropriately accessed?
6.	What impact is expected once the system is implemented?
7.	What costs are likely to arise?
8.	What indicators indicate that operations are going well?
9.	What makes this operational system different?

Data Analysis

In this study, thematic analysis was used to analyze the interview data. Thematic analysis is a method that can be used to analyze qualitative data, applying a structured yet flexible approach to identify, analyze, and report patterns or themes in a data set (Ahmed et al., 2025). This method was used because the data collected was the result of interviews that required identification, analysis, and interpretation of patterns within them, so as to produce meaningful interpretations that could meet the needs of the research. Thematic analysis is based on six phases, which are (1) familiarization with data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, dan (6) writing the report (Braun & Clarke, 2006).

Lean Canvas

The development of the operational model in this study was visualized using the Lean Canvas tool to map the key elements of operational planning based on the research findings. Lean Canvas was selected due to its simplicity in identifying and structuring essential operational elements in a concise format. Each Lean Canvas element was developed based on the results of thematic analysis derived from the interview data and validated through source triangulation. Accordingly, Lean

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Canvas serves as an integrative framework that synthesizes qualitative findings into a systematic operational planning model aligned with the objectives of this study.

RESULT AND DISCUSSION

Thematic Analysis

The interview transcripts were analyzed using the thematic analysis framework developed by (Braun & Clarke, 2006).

Table 2. Thematic Analysis

Thematic analysis steps	Practical applications
Phase 1: Familiarization with the data	Researchers read all transcripts from directors, operations managers, and operations staff. The process was repeated to understand problem patterns from the strategic, tactical, and operational levels. Initial notes included: manual operations, scattered documents, difficulty monitoring work progress, undocumented tasks, the need for a simple but integrated system, online based system access, inconsistent coordination, and the need for training
Phase 2: Generating initial codes	Researchers identified meaningful data segments and created initial codes. Examples of codes that emerged “manual operations”, “scattered documents”, “unclear workflows”, “no standard reporting”, “difficulty tracking progress”, “need for a centralized system”, “need for integrated document storage”, “online based system”, “faster reporting”, “need for training”, “simple daily reporting”, “professional corporate image”. The codes cover problems, needs, obstacles, and expectations for solutions
Phase 3: Searching for themes	The initial codes were grouped into main themes that represent patterns across informants. The themes that emerged were (1) Inefficiency in Documentation and Recording, (2) Unclear Workflow and Progress Monitoring, (3) Need for a Centralized and Integrated Operational System, (4) Need for Multi-device Accessibility (online based), (5) Expectations for Increased Professionalism and Work Neatness, (6) Need for System Training. The themes reflect a combination of perspectives from management to field staff
Phase 4: Reviewing themes	Themes were re-examined by comparing data from three sources. Overlapping themes were combined and clarified. For example “scattered documents”, “difficulty finding documents”, and “disintegrated storage” were grouped into a single theme which is Documentation Inefficiency. Other themes such as “unclear workflow” and “difficult to monitor progress” were grouped into Lack of Workflow and Progress Standardization. All themes were confirmed to be supported by statements from at least two sources (triangulation)

Phase 5: Defining and naming themes	The themes were given final names and clear definitions 1. Inefficient Documentation and Record Keeping: documents are difficult to find, reports are slow, and records are scattered 2. Lack of Standardization and Work Progress Monitoring: there is no consistent tracking of activities 3. Need for a Centralized Operational System: a simple, structured, and easily accessible digital system 4. Multi-device Accessibility: online based system as a primary requirement 5. Increased Neatness and Professionalism: management's expectation for a system that enhances the company's image 6. Need for User Training: staff need training to use the system correctly
Phase 6: Writing the report	The results of the analysis are compiled in the form of a thematic narrative that explains the patterns of problems and operational needs at PT ESPA. Each theme is accompanied by supporting context from directors, managers, and staff to ensure triangulation. This report serves as the basis for mapping the Lean Canvas: 1. problem themes: Problem block 2. system requirement themes: Solution 3. professionalism themes: Unique Value Proposition

Based on a thematic analysis conducted on three sources from the strategic, tactical, and operational levels, it was indicated that the absence of a centralized operational system resulted in inconsistent workflows, difficulty in locating documents, and frequent delays in reporting. In addition, there was a strong need for a simple, integrated digital system that could be accessed through various devices. The sources also expressed their hope that the implementation of such a system would improve workflow consistency, operational efficiency, and company professionalism. These themes reflect the comprehensive needs of the organization and form the basis for formulating solution elements in the next stage.

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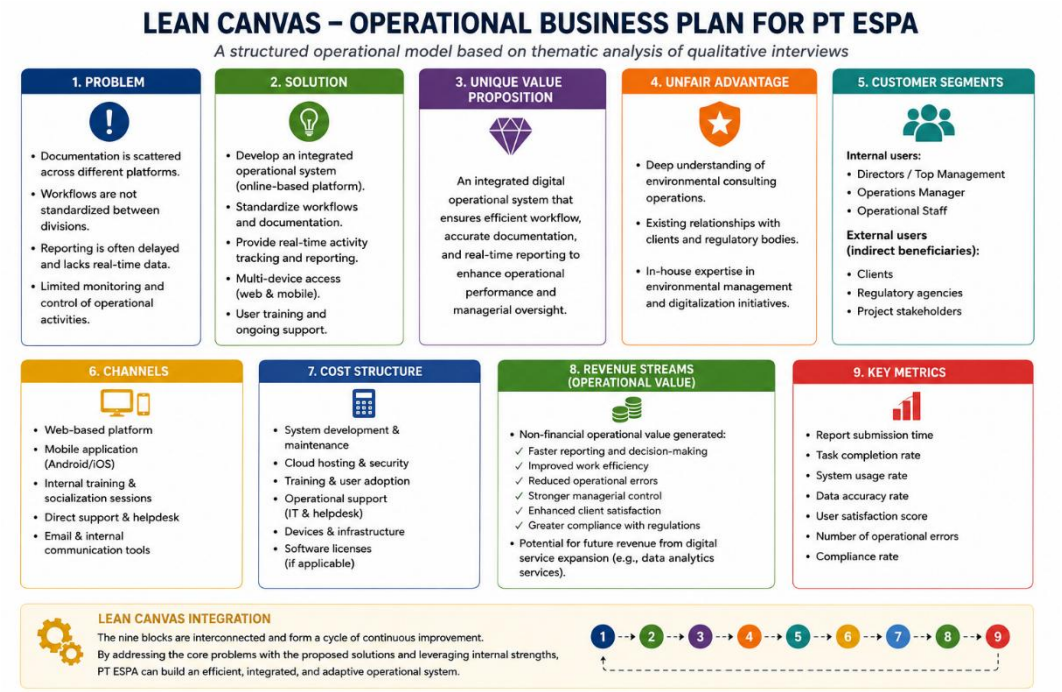
Lean Canvas

Figure 1. Lean Canvas of PT ESPA



Source: Visualized by authors (2026)

Lean Canvas was applied as an analytical and operational business planning framework to translate the qualitative findings into a structured operational model (Maurya, 2012). Unlike its conventional use for market or product validation, Lean Canvas in this study was specifically adapted to represent internal operational conditions and system requirements (Ben Rejeb & Bagheri, 2025). Each Lean Canvas block was formulated based on validated themes derived from the thematic analysis (Ben Rejeb & Bagheri, 2025).

The Problem block reflects operational inefficiencies, including ineffective documentation and the lack of workflow standardization. The Solution block emphasizes the need for a centralized and integrated digital operational system supported by an online-based platform, multi-device access, and user training. The Unique Value Proposition highlights neat documentation, standardized workflows, and real-time activity monitoring as the foundation for improved professionalism and operational reliability (Campbell, Gutierrez, & Lancelott, 2017).

The Customer Segments consist of internal users, namely the director, operations manager, and operational staff. The Channels are represented by an online-based operational platform and mobile access. The Cost Structure includes system development, user training, and system maintenance. The Revenue Streams are defined as non-financial operational value outputs, including faster reporting, improved work discipline, reduced operational errors, stronger managerial control, and an enhanced professional organizational image (Leppänen et al., 2025). The Key Metrics include reporting speed, documentation completeness, task punctuality, workflow consistency, and system adoption rate. Finally, the Unfair Advantage lies in the system's customization based on real, triangulated operational workflows and its function as long-term organizational knowledge storage.

The operational business model developed in this study demonstrates how qualitative insights generated through thematic analysis can be systematically translated into a Lean Canvas framework for operational planning. Unlike the conventional application of Lean Canvas, which primarily supports startup development and product validation, this study adapts the framework to redesign internal operational processes within an environmental consulting company. This finding confirms that Lean Canvas can function as a strategic planning tool for organizational transformation by identifying operational bottlenecks and aligning solutions with validated organizational needs rather than managerial assumptions (Moshood et al., 2022; Ben Rejeb & Bagheri, 2025).

The findings reveal that fragmented documentation, inconsistent workflow management, delayed reporting, and limited monitoring constitute the primary operational challenges experienced by PT ESPA. These issues are consistent with recent digital transformation literature, which emphasizes that organizations relying on manual processes experience lower operational efficiency, slower information exchange, and weaker organizational resilience (He et al., 2023; Appiah et al., 2025). The proposed centralized digital operational system therefore represents more than technological adoption; it constitutes an organizational capability that improves coordination, accelerates decision-making, and strengthens business continuity.

From the perspective of the **Resource-Based View (RBV)**, the proposed operational system creates strategic organizational resources by integrating knowledge, standardized procedures, and institutional experience into a single digital platform. Barney (1991) argues that

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competitive advantage emerges from valuable, rare, inimitable, and organizationally embedded resources. In this context, although digital platforms themselves are widely available, PT ESPA's customized workflows, accumulated environmental consulting knowledge, and organization-specific documentation procedures become unique capabilities that competitors cannot easily replicate. Consequently, the system contributes not only to operational efficiency but also to sustainable organizational competitiveness.

The **Technology–Organization–Environment (TOE) Framework** further explains why the proposed model is appropriate for PT ESPA. The technological dimension is reflected through cloud-based documentation, real-time reporting, and multi-device accessibility. The organizational dimension appears in standardized workflows, management commitment, and employee training, while the environmental dimension is represented by regulatory compliance and the company's responsibility to produce accurate environmental documentation. Previous studies indicate that successful digital transformation requires the simultaneous alignment of these three dimensions rather than technology implementation alone (Baker, 2012; Appiah et al., 2025).

The Lean Canvas components also demonstrate strong interrelationships. The identified operational problems directly inform the proposed digital solutions, while the Unique Value Proposition emphasizes standardized documentation, real-time monitoring, and improved managerial oversight. These findings support Lean principles, which advocate eliminating operational waste by simplifying workflows and continuously improving organizational processes through iterative learning (Moshood et al., 2022). Furthermore, the Key Metrics proposed in this study—including reporting speed, task completion rate, documentation completeness, and system adoption—provide measurable indicators for evaluating operational performance following implementation.

Another important contribution of this study lies in integrating **Braun and Clarke's thematic analysis** with Lean Canvas development. Previous studies generally construct Lean Canvas through managerial brainstorming or entrepreneurial assumptions. In contrast, this study derives each Lean Canvas component directly from validated interview themes involving directors, operational managers, and operational staff. This evidence-based approach increases the credibility of the operational model because every strategic element originates from empirical organizational data rather than

subjective managerial interpretation (Ahmed et al., 2025; Hole, 2024). The integration therefore strengthens both the methodological rigor and practical applicability of Lean Canvas for organizational planning.

From a managerial perspective, the proposed model provides PT ESPA with a practical roadmap for digital operational transformation. Implementing a centralized operational system is expected to improve documentation accuracy, accelerate reporting cycles, strengthen project monitoring, reduce operational errors, and enhance organizational professionalism. These anticipated outcomes correspond with recent findings that digital operational management contributes to organizational agility, operational resilience, and long-term value creation through improved knowledge management and process integration (Harno et al., 2024; Xu et al., 2023).

Overall, this research extends previous Lean Canvas studies by demonstrating that the framework is applicable not only for entrepreneurial business model development but also for operational redesign in established organizations. By combining thematic analysis with Lean Canvas, this study offers an evidence-based methodology that organizations may adopt when designing digital transformation initiatives grounded in actual operational challenges instead of theoretical assumptions.

CONCLUSION

This study formulates an operational business planning model for PT ESPA using the Lean Canvas framework based on thematic qualitative interview analysis. The findings reveal key operational issues, including inefficient documentation, lack of workflow standardization, weak progress monitoring, and fragmented coordination. These problems indicate the urgent need for a centralized and structured operational system.

Six dominant themes were identified and systematically mapped into the nine blocks of the Lean Canvas, resulting in an empirically grounded operational planning model. The proposed model emphasizes centralized digital operations, cloud-based document integration, multi-device accessibility, and user training, with professionalism and workflow reliability as the core value proposition.

From a managerial perspective, this model provides a practical reference for enhancing operational control, improving reporting efficiency, and strengthening organizational professionalism. However, this study is limited to a single case and focuses on planning formulation rather than system implementation. Future research should test the operational

effectiveness of the proposed model and apply it in broader organizational contexts.

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