

Business Development Strategy for Mechanical Electrical Plumbing Contractor at PT Vastorindo Djaya Semesta

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Keywords

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ABSTRACT

The mechanical, electrical, and plumbing (MEP) construction industry faces external pressures in the form of tightening infrastructure budgets, price-based tender competition, and the accelerated adoption of digitalisation such as Building Information Modelling (BIM), which demands an increase in contractors' internal capabilities. This study aims to formulate a business transformation strategy for PT Vastorindo Djaya Semesta (PT VDS) as a MEP contractor through a comprehensive analysis of the external-internal environment and an industry foresight approach. The research uses primary data (observations, in-depth interviews, and internal-external expert questionnaires) and secondary data (literature studies). The analysis was conducted through industry foresight, PESTEL and Porter's Five Forces for the external environment, value chain analysis and VRIO for the internal environment, followed by the preparation of IFE-EFE, IE Matrix, and SWOT/TOWS matrices to produce alternative strategies, and priority determination using AWOT (a combination of SWOT and AHP). The analysis results placed PT VDS in Cell V of the IE Matrix (hold and maintain), indicating the need to maintain core performance while selectively strengthening internal capabilities. This study provides priority strategy guidelines that PT VDS can use to strengthen its competitiveness and business sustainability through capability transformation and refinement of its service value proposition in the MEP construction market.

INTRODUCTION

The construction services industry plays a very important role in a country's economic development. Its contribution impacts the growth of other economic sectors (Cucos & Turcan, 2025; Koc et al., 2024; Luo et al., 2022; Mishra et al., 2024; Ogunmakinde et al., 2022). This sector includes new construction, repairs and expansions, renovations, the construction of pre-production buildings and structures at project sites, and temporary construction services (Adeleye et al., 2024; Best & Meikle, 2022; FORMULI, 2022). Based on Presidential Regulation No. 12 of 2025 concerning the 2025–2029 RPJMN, it is stated that there are a total of 77 National Strategic Projects (PSN) that must be completed (Andana & Kartono, 2025; Nugraheni, 2024). The government has opened opportunities for cooperation with the private sector in developing these projects. However, data from the Central Statistics Agency (BPS 2023; BPS 2024) explain that the number of construction companies in Indonesia decreased during the 2021–2024 period, along with fluctuations in the growth of construction value completed in Indonesia in 2023 and 2024. These conditions have created challenges within the construction industry. According to (Santoso, 2021), the first challenge faced by the construction services industry is intense competition, and the second is economic fluctuation. The construction industry is heavily influenced by global and regional economic conditions; when the economy slows, demand for construction projects tends to decline. Under these

conditions, PT VDS, as an MEP (Mechanical, Electrical, and Plumbing) contractor, needs to transform its business strategy by strengthening capabilities, restructuring its business model, and formulating adaptive strategies through internal and external analyses and industry foresight approaches so that the company can maintain sustainability and increase competitiveness amid industry changes.

The novelty of this research is fourfold. First, the research introduces industry foresight as an explicit analytical dimension in MEP contractor strategy formulation, moving beyond static environmental analysis to anticipate future industry trajectories, including BIM adoption acceleration, prefabrication diffusion, and tightening TKDN (Domestic Component Level) regulations. This forward-looking approach addresses the limitations of traditional strategic management studies that analyze current conditions without adequately anticipating technological and regulatory changes. Second, the research provides comprehensive external–internal integration by combining PESTEL (macro-environment) and Porter’s Five Forces (industry competition) for external analysis with VRIO (resource capabilities) and value chain analysis (activity-based advantage) for internal analysis—an integration rarely applied comprehensively to MEP contractors. Third, the research applies the A’WOT methodology (Kurttila et al., 2000) to quantify strategy priorities, combining the qualitative richness of SWOT with the analytical rigor of AHP, producing weighted priorities (0.383 for ST strategy, 0.288 for SO1, 0.164 for SO2, etc.) rather than merely listing alternative strategies. Fourth, the research focuses specifically on an MEP contractor in Indonesia’s contracting market—a segment facing unique pressures, including: (a) price-based competition in tenders, where MEP packages are often awarded based on the lowest-price technically acceptable criteria; (b) BIM coordination requirements with other disciplines; (c) prefabrication adoption that alters traditional field installation work; and (d) tightening building certification standards that demand higher MEP system quality. The combination of these four novelty aspects produces strategy priorities specifically calibrated for MEP contractors in Cell V of the IE Matrix (hold and maintain), providing actionable guidance for similar companies (Chabok & Tešić, 2024; Ribhan & Wirjodirdjo, 2024; Yan et al., 2024).

Based on this background, a comprehensive strategic study is needed to analyze the external and internal conditions of PT VDS, identify future industry opportunities and threats, and formulate alternative business strategies and priorities that can enhance the company’s competitiveness. A strategic management approach based on industry foresight, external and internal environmental analysis, and structured strategy formulation is expected to serve as a foundation for PT VDS in addressing industry pressures and leveraging growth opportunities more effectively. Therefore, this research focuses on designing PT VDS’s business strategy to support transformation and achieve competitive advantage amid the increasingly complex dynamics of the MEP construction services industry. Accordingly, the research problems can be formulated as follows: (1) How does construction industry foresight support PT VDS’s business transformation efforts? (2) What is the current condition of PT VDS based on external and internal factors within the construction business industry in supporting its business transformation? (3) What are the alternative business transformation strategies for PT VDS? (4) What are the strategic priorities in supporting PT VDS’s business transformation?

Based on these research questions, the objectives of this study are as follows: to analyze construction industry foresight in supporting PT VDS’s business transformation efforts; to

analyze the current condition of PT VDS based on external and internal factors within the construction business industry; to formulate alternative business transformation strategies for PT VDS; and to design strategic priorities that support PT VDS's business transformation. Research benefits: for researchers, this study serves as learning material related to business strategies of similar companies; for construction companies, it can be used to develop effective business strategies; and for academics, it contributes additional scholarly references related to the application of management strategies and competitiveness—particularly within the context of the construction industry.

METHOD

This study used a descriptive design with a case study approach to formulate a strategy to increase the competitiveness of PT VDS as an MEP (Mechanical, Electrical, and Plumbing) contractor. The qualitative approach was conducted through in-depth interviews and document analysis, while the quantitative approach involved SWOT weighting, the preparation of IFE and EFE matrices, the IE Matrix, and the AHP method integrated into A'WOT (Saaty, 1980; David, 2017).

This research was carried out at PT Vastorindo Djaya Semesta (PT VDS), located in Jakarta, with the scope of data collection covering the company's headquarters and relevant external parties, namely vendors and clients who had worked with PT VDS. The research was planned to last from June to December 2025. Primary data were the main information obtained directly from sources through in-depth interviews and questionnaires. Respondents, as primary data sources, were selected using purposive sampling (deliberate selection) by considering their characteristics to ensure the information obtained aligned with the research needs. The respondents in this analysis included the Head of the Foreign Procurement Sub-Division of the Ministry of Defense, as a client of PT VDS on the Proton Beam project at the Army Central Hospital; the Senior Manager of the MEP planning consultant; the Sales Manager of a PT VDS vendor; the President Director of PT VDS; and four PT VDS managers. Meanwhile, secondary data were sources of information used to complement the primary data. These data were derived from literature reviews, related research, scientific journals, and prior studies relevant to the research problem.

This study used a strategy formulation approach developed by David et al. (2017), which consisted of three main stages: the input stage, the matching stage, and the decision-making stage. At the input stage, an industry foresight analysis of the MEP construction sector was conducted, along with an assessment of the company's external and internal environments. External analysis included macro-environmental review through the PESTEL (Political, Economic, Social, Technological, Environmental, and Legal) framework, as well as micro-analysis using Porter's Five Forces model. Meanwhile, internal analysis was conducted using the VRIO (Valuable, Rare, Inimitable, Organized) framework to evaluate the company's resource capabilities, along with value chain analysis to assess the activities and business processes undertaken. The matching stage was used to formulate various alternative business strategies through SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. Furthermore, the decision-making stage focused on addressing the research objectives using the A'WOT method, which is a combination of AHP and SWOT.

RESULT AND DISCUSSION

Industry Foresight

MEP's construction industry foresight will lead to the acceleration of digitalization and cross-disciplinary work integration through BIM, accompanied by increased execution efficiency such as prefabrication and automation to reduce rework and improve accuracy, quality, and productivity. Regulations to strengthen TKDN, changes in import policies, certification obligations, and tightening of building technical standards will further determine the feasibility of vendors and the competitiveness of contractors during tenders. From a socio-economic perspective, a slowdown in the construction sector, material cost inflation, and tightening financing will drive price competition and cash flow risks. Meanwhile, urbanization, the construction of public facilities, as well as the trend of green building and smart building systems will maintain demand, but demand higher technical capabilities and differentiation of services based on energy efficiency and system reliability.

PESTEL Analysis

The PESTEL analysis was used in this study to identify external environmental factors that have the potential to affect the company's performance and strategy. These factors include political, economic, social, technological, environmental, and legal aspects which are further classified as opportunities and threats. Based on the results of the identification, 5 opportunity factors and 9 threat factors relevant to the company's external conditions were obtained, which were then assessed to determine the level of influence and became the basis for strategy formulation at the next stage of analysis.

Table 1. PESTEL analysis results

Aspects	Factors	Variable	Opportunity (P)/ Threat (A)
Politics	Cooperation	Government cooperation	P
	Budget	Infrastructure budget policy	A
	Policy	Implementation of TKDN	A
		Implementation of new regulations	A
Economy	Economic growth	Number of national construction projects	A
	Inflation and interest rates	Production costs	A
Social	Demographic changes	Housing demand	P
	Community welfare	Building social infrastructure	P
Technology	Design innovation	BIM Adoption	P
	Material innovation	Prefabrication and automation	A
Environment	Health	Nearly zero emission buildings	A
		Green buildings	A
Law	Application of the Law	Construction services	P
		Building	A

Porter's Five Forces Review

Porter's Five Forces analysis is used in this study to examine the level of competitiveness and industrial competition structure faced by companies. This analysis includes five main forces, namely the threat of new entrants, buyer bargaining power, supplier bargaining power, the threat of substitution products, and competition between similar competitors. These five factors were analyzed to understand the intensity of competition and the competitive position

of companies in the mechanical, electrical, and plumbing (MEP) contracting industry. Based on the results of the identification of external industry factors, 11 opportunity factors and 14 threat factors that affect the company's competitive dynamics and competitive position were obtained, which were then assessed to be the basis for the formulation of competitive strategies.

Table 2. Porter's Five Forces analysis results

Factors	Variable	Chances (P)/ Threat (A)
The Threat of Newcomers	Initial capital	P
	Business licensing and certification	P
	Getting projects from large clients	P
	Track record for new projects	P
	Budget efficiency for new projects	P
Buyer bargaining power	Projects from a few large clients	A
	Tender price quote	A
	Replacement of new contractors	P
	Clients control costs and specifications	A
	Projects reduce margins	A
Supplier Bargaining Power	Number of suppliers in the market	P
	Depends on the specific brand	A
	Supplier confidence level	A
	Replacement of the corresponding supplier	P
	Fluctuating material prices and unstable supply	A
Threat of Product Substitution	Prefabrication on the project	A
	New trends are changing services	A
	Design automation	A
	Specialist contractor M/E/P	A
	New contracts reduce conventional work	P

Table 3. Porter's Five Forces analysis results (continued)

Factors	Variable	Opportunity (P)/ Threat (A)
Competition Between Competitors of the Same Kind	Competitors on similar projects	A
	Unique advantages	P
	Tenders reduce margins	A
	Market competence	P
	Utility pressure	A

Value Chain Analysis

Value chain analysis introduced by Porter in 1985 is a complement to the theory of the five forces of competition. If Porter's Five Forces focuses on external factors that affect the level of industry competition, then value chain analysis focuses on the internal aspects of the company, specifically how internal activities contribute to creating added value for customers. In the context of PT VDS as an MEP contractor, value chain analysis is used to identify unique resources and capabilities that are the basis for the formation of the company's competitive advantage. The results of the value chain analysis are presented in Figure 1.

Supporting Activities	Business Infrastructure	• Kantor pusat dan kantor proyek yang strategis	• Menyiapkan <i>software</i> pendukung desain seperti AutoCAD dan BIM	• <i>Drafter</i> dan <i>engineer</i> yang menguasai BIM dan AutoCAD		
	Procurement	• Memiliki vendor yang cepat merespon terhadap penawaran harga	• Menjaga hubungan baik dengan vendor			
	Human Resources Management	• Loyalitas karyawan yang tinggi • Tingkat <i>turn over</i> yang rendah	• Jenjang karir yang baik	• Apresiasi yang tinggi kepada karyawan yang loyal		
	Technological Development	• Komputer dan <i>workstation</i> yang mendukung <i>software</i> BIM dan CAD	• Semua alat pengelasan menggunakan digital sehingga hasil pengelasan lebih akurat			
		• Tempat penyimpanan material yang strategis • Pengadaan material sesuai kebutuhan proyek • Pengadaan material sesuai <i>schedule</i>	• Memberikan saran desain agar efisien • Menyiapkan gambar kerja yang terkoordinasi dengan disiplin ilmu lain • Pegawai lapangan terhadap instalasi dan pengelasan sesuai standar	• Memberikan <i>as built drawing</i> kepada <i>client</i> • Menyiapkan <i>Operation and Maintenance Manual</i> untuk <i>client</i> • Melakukan <i>testing and commissioning</i> serta menyertakan sertifikat hasil pengelasan	• Aktif menyebarkan <i>company profil</i> kepada <i>main contractor</i> • Mengelola media sosial sebagai iklan • Memberikan harga yang kompetitif pada proses tender	• Menyiapkan <i>staff</i> yang siap 24 jam selama 7 hari di proyek dalam merespon apabila diperlukan <i>maintenance</i> dan <i>troubleshooting</i> • Responsif dalam perbaikan pekerjaan
Primary Activities	Inbound Operations	Operations	Outbond Logistics	Marketing and Sales	Service	

Figure 1. Value chain analysis of PT VDS

VRIO Analysis

The following is the result of research and the results of in-depth interviews with company owners, it was identified that the company's internal factors consist of 9 strengths and 17 weaknesses.

Table 4. VRIO analysis results

VCA	Code	Variabel	VRIO Analysis	Strength/Disadvantages
Main Activities				
Deep Logistics	IF-A4	Ability to Control <i>Stock</i> so as not to be Over or Under Supply	<i>Competitive Disadvantage</i>	Disadvantages
Operational	IF-B2	Value Engineering (VE) for Design and Cost Efficiency	<i>Temporary Competitive</i>	Strength
	IF-B3	Coordinated <i>Shop Drawing</i>	<i>Unused Competitive</i>	Strength
Outbond Logistic	IF-C2	Penyediaan Alat <i>Testing</i> and <i>Commissioning</i>	<i>Competitive Parity</i>	Disadvantages
Marketing and Sales	IF-D2	Promotional Materials	<i>Competitive Parity</i>	Disadvantages
	IF-D3	Ability to accurately estimate project costs	<i>Competitive Disadvantage</i>	Disadvantages
Service	IF-E1	Providing Emergency Response Teams for Urgent Repairs	<i>Temporary Competitive</i>	Strength
	IF-E2	MEP System <i>Maintenance</i> and <i>Troubleshooting</i> Expertise	<i>Competitive Disadvantage</i>	Disadvantages

Table 5. VRIO analysis results (continued)

VCA	Code	Variabel	VRIO Analysis	Strength/Disadvantages
Supporting Activities				
Business Infrastructure	IF-F3	Proficiency in BIM and CAD	<i>Temporary Competitive</i>	Strength
Human Resources Management	IF-H2	Employee Loyalty with Low Employee Turnover Rate	<i>Unused Competitive</i>	Strength

EFE Matrix Analysis

Table 6. EFE Matrix analysis results

External Key Factors	Weight	Rating	Weight Score
Opportunities			
1. Cooperation between Government and Private Enterprises (O1)	0,097	2	0,194
2. Demographics and Urbanization (O2)	0,100	2	0,201
3. BIM Adoption (O3)	0,100	3	0,301
4. Construction Services Business Licenses, Work Competency Certificates, Technical Certifications Become Significant Obstacles in Entering the Construction Industry (O4)	0,100	3	0,301
5. Experience/ <i>Track Record</i> Important to Win New Tender (O5)	0,100	3	0,301
Total Odds			1,302
Threats			
1. Number of National Construction Projects (T1)	0,097	2	0,195
2. Inflation and Interest Rates Affect Production Costs (Q2)	0,097	2	0,195
3. Prefabrication and Automation of Materials can Reduce the Need for Traditional Field Installations (T3)	0,100	2	0,201
4. MEP Contractor Tender Price Quotation Is Very Important in the Tender Process (T4)	0,104	3	0,312
5. Many New MEP Contractors Grab Similar Construction Projects (T5)	0,101	3	0,302
Total Threat			1,205
Total			2,507

The results of the identification and evaluation of external environmental factors show that PT VDS faces relatively balanced opportunities and threats in the MEP construction industry. Based on the EFE matrix, the total opportunity score obtained was 1.302, while the total threat score was 1.205, resulting in a total EFE score of 2.507. This value is slightly above the average score of 2.50 as stated by David (2017), which indicates that PT VDS's ability to respond to external environmental dynamics is quite adequate, although it has not shown a very strong external position.

IFE Matrix Analysis

Table 7. IFE Matrix analysis results

Internal Key Factors	Weight	Rating	Weight Score
Strength			
1. Doing <i>Value Engineering</i> for Design and Cost Efficiency (S1)	0,100	3	0,300
2. Ability to Prepare Work Drawings (<i>Shop Drawing</i>) Coordinated with Other Disciplines (S2)	0,100	2	0,200
3. Ability to Provide Emergency Response Teams for Urgent Repairs (S3)	0,100	2	0,200
4. Have a Mastery of BIM in Design (S4)	0,100	3	0,300
5. Employee Loyalty with <i>Low</i> Employee Turnover Rate (S5)	0,100	3	0,300
Total Strength			1,300

Table 8. IFE Matrix analysis results (advanced)

Internal Key Factors	Weight	Rating	Weight Score
Disadvantages			
1. Ability to Control <i>Stock</i> to Avoid <i>Over/Under Supply</i> (W1)	0,100	2	0,200
2. Have <i>Digital Testing</i> and <i>Commissioning</i> Equipment (W2)	0,100	2	0,200
3. Have Promotional Materials (W3)	0,100	1	0,100
4. Ability to Accurately Estimate MEP Project Costs (W4)	0,100	2	0,300

Internal Key Factors	Weight	Rating	Weight Score
5. Have MEP System <i>Maintenance</i> and <i>Troubleshooting</i> Expertise (W5)	0,100	1	0,100
Total Weaknesses			0,900
Total			2,200

The results of the preparation of the Internal Factor Evaluation Matrix (IFE) provide an overview of the conditions of strengths and weaknesses that PT VDS has as a contractor (MEP). Based on the results of the IFE matrix calculation, the total weighted score of PT VDS is 2,200. Referring to David (2017), the value is below the average score of 2.50, which shows that the company's internal condition tends to be weak to moderate, so internal strengthening efforts are needed so that the company is able to increase its competitiveness sustainably.

IE Matrix Analysis

Based on the results of the calculation of the IFE Matrix and the EFE Matrix, PT VDS obtained a total IFE score of 2,200 and a total EFE score of 2,507. Referring to the External Internal Matrix (IE), the combination of values places PT VDS in Cell V, which is the hold and maintain category. This position is a meeting between the company's internal conditions that are still at a weak to moderate level and the relatively stable external environment with opportunities that can still be utilized. This shows that PT VDS has quite good external opportunities, but the company's internal capabilities are not fully optimal to support the implementation of an aggressive growth strategy widely.



Figure 2 IE matrix analysis

Formulation of Alternative Strategy of PT VDS

According to David et al. (2017), the position of Cell V reflects a strategic condition where the company needs to prioritize efforts to maintain the performance that has been achieved while making selective improvements to existing internal weaknesses. In this position, the company is required to improve operational efficiency and strengthen core capabilities, without risking too large a market expansion. The strategies that are generally recommended in the hold and maintain category are market penetration and product development, which focus on optimizing existing markets and services.

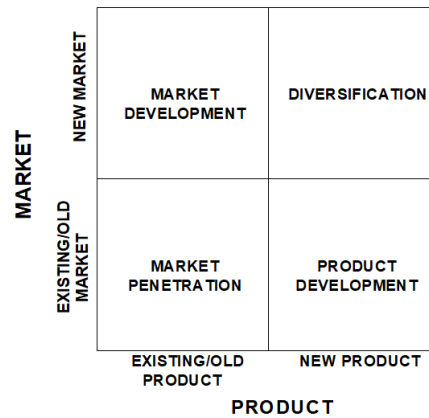


Figure 3. Ansoff Matrix's Recommended Growth Strategy

SWOT Analysis

Success in the strategic planning process is basically greatly influenced by the level of accuracy in conducting a comprehensive situational assessment. One of the simplest and most effective methods of conducting such situational assessments is SWOT analysis. Although the results of this analysis tend to be subjective and qualitative, when applied carefully and systematically, SWOT analysis can provide a solid foundation for the successful formulation of a company's strategy (Kurttila et al. 2000). Then, the formulation of alternative strategies for PT VDS using the TOWS Matrix. This matrix describes four main types of strategies that result from the logical combination of internal factors (strengths and weaknesses) and external factors (opportunities and threats).

1. Strategi SO (Strength–Opportunity)
 - a. [Market Penetration] (SO1) Optimize BIM mastery coordinated with other disciplines to win new project tenders. (S2S4O1O5)
 - b. [Market Penetration] (SO2) Optimizing design and value engineering capabilities to become an MEP design and build contractor. (S1S2S4O5)
2. Strategi WO (Weakness–Opportunity)
 - a. [Product Development] (WO) Establish a special division of maintenance and troubleshooting of MEP systems that are certified for building maintenance. (W5O4O5)
3. Strategi ST (Strength–Threat)
 - b. [Market Penetration] (ST) Optimizing value engineering capabilities to produce more cost-effective design solutions at the tender time, to face competition between MEP contractors at very low prices. (S1T4T5)
4. WT (Weakness–Threat) Strategy
 - c. [Product Development] (WT) Developing prefabricated materials to reduce the estimated price during tenders to be more efficient. (W4T3T4T5)

Strategic Planning of PT VDS

The determination of strategy priorities was analyzed using AHP to get the influence of each SWOT factor in the study, namely strength factors, weakness factors, opportunity factors, and threat factors to the formulation of business development strategies for mechanical, electrical, and plumbing contractors of PT VDS.

The priority selection of the business development strategy of MEP PT VDS contractors in the future has been carried out using AHP analysis. Based on the results of the formulation of alternative strategies at the matching stage, there are five strategies that need to be chosen in order to find out each of the alternative priorities of the strategy to be chosen. Alternative strategies in this study are placed at level 4 in the hierarchical structure. The results of the priority level analysis on alternative elements in the opinion of experts can be seen in Table 6.

Table 9. Results of the analysis of the priority level of alternative elements

Code	Alternative	Weight	Priorities
SO1	Optimize BIM mastery coordinated with other disciplines to win new project tenders	0,288	2
SO2	Optimizing design and value engineering capabilities to become an MEP design and build contractor	0,164	3
WO	Establish a special division of maintenance and troubleshooting of MEP systems certified for building maintenance	0,063	5
ST	Optimizing value engineering capabilities to produce more cost-effective design solutions at the tender time, to face competition between MEP contractors at very low prices	0,383	1
WT	Developing prefabricated materials to reduce the estimated price during tenders to be more efficient	0,102	4

Managerial Implications

Managerial implications are compiled using the POAC framework by distinguishing between short-term and long-term to show the stages of strategy implementation realistically and sustainably. This division aims to enable PT VDS to gradually strengthen its internal capabilities in accordance with the company's position in Cell V of the IE Matrix, before leading to the development of a more aggressive strategy. The managerial implications in the POAC framework can be seen in Table 7 below.

Table 10. Managerial implications in the POAC framework

POAC Functions	Short Term (1–2 Years)	Long-term (3–5 years)
Planning	Developing a roadmap to strengthen value engineering and BIM as the main strategy for winning tenders and planning the development of MEP design and build and maintenance services in stages.	Setting the direction of developing integrated MEP engineering and service capabilities as the company's sustainable competitive advantage.
Organizing	Strengthening the role of the engineering and cost estimation team and forming a special work team for BIM and value engineering development.	Establish a more permanent organizational structure for the design and build function as well as the MEP maintenance and troubleshooting division
Actuating	Carry out BIM and value engineering training, implement new design and estimation standards, and conduct pilot projects using prefabrication.	Fully implement the design and build work model and expand MEP maintenance services as a sustainable business line.
Controlling	Establish basic performance indicators such as tender success rate, project cost efficiency, and design quality.	Develop an integrated performance control system based on KPIs and continuous evaluation of profitability and client satisfaction.

CONCLUSION

This study concluded that MEP construction industry foresight indicated PT VDS's business transformation should prioritize strengthening technical capabilities and operational efficiency, as the industry is increasingly driven by BIM adoption, prefabrication methods, and stricter regulatory and certification requirements affecting tender competitiveness. The company's external condition (EFE score of 2.507) reflected a relatively stable environment with opportunities arising from track record requirements, BIM implementation, and certification barriers for new entrants, while its internal condition (IFE score of 2.200) revealed a weak-to-moderate position, with strengths in value engineering, BIM capability, and employee loyalty, but notable weaknesses in stock control, digital testing equipment, promotional materials, estimation accuracy, and maintenance services. The IE Matrix positioned PT VDS in Cell V (hold and maintain), indicating the need for selective internal strengthening prior to expansion. Five strategic alternatives were identified, with A'WOT prioritization ranking value engineering optimization for cost-effective tenders (ST) as the top strategy (0.383), followed by BIM coordination optimization (SO1), becoming an MEP design-build contractor (SO2), developing prefabrication for estimation efficiency (WT), and establishing a certified maintenance division (WO), aligning with a market penetration focus. Future research is suggested to expand the analysis using longitudinal data or comparative multi-company studies, particularly to evaluate the long-term impact of BIM integration and prefabrication adoption on competitiveness across the broader MEP contracting industry.

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