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Driving Customer Orientation in the Precast Construction Industry: An AHP-Based Model of Internal Marketing Factors and Strategic Initiatives

Impulsando la orientación al cliente en la industria de la construcción prefabricada: un modelo basado en AHP de factores de marketing interno e iniciativas estratégicas

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ABSTRACT

While internal marketing has been studied extensively in customer-facing roles and service industries, there is limited evidence on its effective application in technical, non-customer-facing contexts such as construction, creating a critical gap in the literature. Addressing this, the study identifies the most influential internal factors, key actors, and strategic initiatives that drive customer-oriented behaviour in the precast concrete sector. Using the Analytic Hierarchy Process (AHP) with SuperDecisions software (version 3.2), data were collected from 14 industry experts to assess and prioritise these variables. Findings show that the organisational environment is the most dominant factor shaping internal customer orientation. The results highlight the need for firms to move beyond symbolic initiatives toward measurable, executive-supported strategies, providing a foundation for future cross-industry and cross-cultural comparisons.

Keywords: Customer orientation; Internal marketing; Precast construction industry; AHP (Analytic Hierarchy Process); Strategic initiatives.

Jel Code: M31, M12

RESUMEN

Aunque el marketing interno ha sido ampliamente estudiado en funciones de atención al cliente y en industrias de servicios, existe evidencia limitada sobre su aplicación efectiva en contextos técnicos y no orientados directamente al cliente, como el de la construcción, lo que genera una brecha crítica en la literatura. Para abordar esta cuestión, el estudio identifica los factores internos más influyentes, los actores clave y las iniciativas estratégicas que impulsan el comportamiento orientado al cliente en el sector del concreto prefabricado. Mediante el Proceso de Jerarquía Analítica (AHP) con el software SuperDecisions (v3.2), se recopilaron datos de 14 expertos de la industria para evaluar y priorizar dichos elementos. Los resultados muestran que el entorno organizacional es el factor más determinante en la configuración de la orientación interna al cliente. Este estudio contribuye al amplio abordaje de la investigación sobre marketing interno en una industria y en roles poco explorados, ofreciendo un modelo estructurado y multiactor para incorporar la orientación al cliente. Los resultados resaltan la necesidad de que las empresas trasciendan las iniciativas simbólicas hacia estrategias medibles con apoyo ejecutivo, lo cual proporciona una base para futuras comparaciones interindustriales e interculturales.

Palabras clave: Orientación al cliente; Marketing interno; Industria de la construcción prefabricada; AHP (Analytic Hierarchy Process); Iniciativas estratégicas.

Código JEL: M31, M12.

INTRODUCTION

The Indonesian construction sector is experiencing rapid growth and transformation, driven by the government's massive infrastructure agenda and rising demand for more efficient and cost-effective construction methods (Granviewresearch, 2024). In this context, the precast concrete industry has emerged as a pivotal player, offering accelerated construction timelines, standardised quality, and scalable solutions (Mark et al., 2021). However, despite its operational advancements, the industry continues to face challenges and stagnant domestic consumption, driven by infrastructure projects and efficiency demands (Granviewresearch, 2024). This situation is related to customer satisfaction (often leads to customer loyalty), service responsiveness, and relationship quality, particularly in business-to-business (B2B) environments where project complexity is high, and coordination is essential (Afif et al., 2021; Lertputtarak & Treepob, 2023). These conditions increasingly require companies to go beyond technical excellence and develop organisational cultures centred on customer needs and value co-creation (Yashchenko et al., 2024).

To remain competitive, precast firms must go beyond technical excellence and develop organisational cultures centred on customer needs and value co-creation (Yashchenko et al., 2024). Customer orientation, defined as an organisational commitment to understanding and fulfilling customer needs, has been consistently linked to business performance, client retention, and long-term competitiveness (Gonu et al., 2023).

A well-established body of literature shows that when employees internalise customer-centric values, they are more likely to engage in behaviours that promote loyalty and trust, even in indirect or non-customer-facing roles (Al Samman & Mohammed, 2020; Ebunoluwa et al., 2025). Thus, Al Samman & Mohammed (2020) have proposed that internal marketing treats employees as internal customers, and that aligning internal capabilities with external promises is a crucial enabler of customer orientation. Internal marketing is believed to promote employee motivation, role clarity, and a sense of strategic purpose.

However, much of this literature is rooted in service or retail industries, where customer interactions are frequent and immediate (Gonu et al., 2023; Jawabreh et al., 2022; Zhao, 2022). In contrast, industrial settings such as the precast sector are highly technical, project-based, and hierarchical (Mark et al., 2021). Employees are often several steps removed from direct customer contact, raising unresolved questions about how customer-oriented thinking can be instilled across the organisation (Grassi et al., 2022; Zhao, 2022). Furthermore, unlike standardised service environments, precast companies operate in long-term project-based relationships with institutional clients, requiring a different operationalisation of customer orientation (Lertputtarak & Treepob, 2023; Mark et al., 2021). The current literature lacks

empirical insights into how internal marketing strategies can be tailored to meet these unique challenges.

This disciplinary bias creates a clear gap, as the current literature provides limited empirical insights into how internal marketing strategies can be adapted for industrial, project-driven contexts such as the Indonesian precast industry. As Indonesian precast companies navigate rising client expectations and global competition, the urgency to identify effective internal strategies is increasing (Hidayawanti & Latief, 2023). While managers acknowledge the importance of fostering customer orientation, they often lack evidence-based guidance on where to focus their internal efforts. Not all internal marketing activities yield equal impact, and resources are usually limited (Al Samman & Mohammed, 2020). Therefore, there is a practical need for a clear, structured understanding of which strategies are most effective in encouraging customer-centric behaviour, particularly among non-frontline employees in technical settings. Without such clarity, internal marketing risks becoming a scattered or symbolic effort, disconnected from strategic business outcomes (Yashchenko et al., 2024).

This study addresses this gap by investigating and prioritising the internal marketing strategies most relevant for enhancing customer orientation within the Indonesian precast concrete industry. The exploration expert views and contextual dynamics within precast operations; the research contributes both theoretically and practically. It advances current understanding by extending internal marketing and customer orientation frameworks into a new industrial setting and offers a structured perspective on which internal strategies should be emphasised.

The findings are intended to support decision-makers in building organisations that are more aligned, responsive, and customer-focused in a sector where such capabilities are increasingly critical. In line with these aims, the study pursues two main objectives: first, to identify and prioritise internal marketing strategies that effectively foster customer orientation in precast companies; and second, to provide practical guidance for managers in aligning internal initiatives with strategic business outcomes. Guided by these objectives, the research centres on the following central question: Which internal marketing strategies are most effective at fostering customer orientation within the Indonesian precast concrete industry, particularly in project-based and non-frontline contexts?

LITERATURE REVIEW

Customer Orientation

Customer orientation is widely recognised as a key determinant of organisational competitiveness, as it emphasises the extent to which firms and their employees commit to

understanding and meeting customer needs (Gonu et al., 2023; Zhao, 2022). While early studies tended to conceptualise customer orientation as primarily a behavioural attribute of frontline employees, such as salespersons and service staff (Zhao, 2022), more recent work suggests that it is also shaped by organisational systems and cultural factors (Xu et al., 2023). For instance, Gonu et al. (2023) highlight that employees' personal characteristics—such as personality traits and prior experience—interact with organisational support to enhance customer-focused behaviour. This suggests a dual lens: customer orientation is not merely an individual disposition but also a collective capability embedded in organisational routines.

However, the literature remains fragmented regarding the outcomes of customer orientation. Some studies emphasise its effects on employee-related outcomes, such as job satisfaction and commitment (Gonu et al., 2023), while others highlight its direct impact on customer satisfaction, loyalty, and perceived service quality (Xu et al., 2023). These differences indicate the need for an integrated perspective that links employee-level orientation with organisational performance in competitive industries.

Despite its prominence in service sectors, customer orientation has been rarely examined in the construction and precast concrete industries, where the ability to anticipate and respond to client requirements is increasingly critical (Han et al., 2022). In this context, the application of lean tools offers an underexplored but promising mechanism for strengthening customer orientation. Bongomin (2024) argues that lean practices help precast firms eliminate non-value-added activities, thereby aligning operational processes more directly with customer value. Similarly, Dara et al. (2025) highlight that Just-in-Time (JIT), Continuous Improvement (CI), and Total Quality Management (TQM) collectively enhance efficiency and responsiveness by synchronising production with market demand, institutionalising continuous learning, and embedding quality standards across the organisation (Dara et al., 2024).

Compared with other approaches, JIT emphasises minimising waste and inventory while ensuring on-time delivery, directly reinforcing the timeliness aspect of customer orientation (Bongomin, 2024; Dara et al., 2024, 2025). CI (kaizen) stresses incremental, employee-driven improvements, reflecting the cultural dimension of customer responsiveness (Dara et al., 2024). TQM, in turn, integrates a firm-wide commitment to quality and customer satisfaction, making it the lean tool most explicitly connected to customer orientation (Dara et al., 2025). While these tools are well-documented individually, their conceptual integration with customer orientation remains underdeveloped, particularly in industrial contexts such as precast manufacturing. Addressing this gap is crucial for advancing both the theoretical understanding of customer orientation and its practical relevance in industries undergoing global competitive pressure.

Internal Marketing

Internal marketing is increasingly recognised as a strategic orientation that aligns employees with organisational objectives by treating them as internal customers whose satisfaction and motivation underpin competitiveness. In the European construction-related SME context, Salguero et al. (2025) argue that internal practices, such as occupational health and workforce well-being, strengthen resilience and long-term sustainability, extending internal marketing beyond immediate service outcomes. In contrast, Luu et al. (2022) demonstrate that training, communication, and managerial commitment significantly enhance employee satisfaction and customer-oriented behaviours in the service sector in Vietnam. While this confirms the service–profit logic, its application to construction projects, which are characterised by temporary teams and subcontracting, remains uncertain. Compared with these service-based findings, Indonesian evidence by Widyanty et al. (2020) shows that construction productivity is more directly tied to a safety culture, positioning safety as the central internal value proposition. These cross-country insights suggest that internal marketing is consistently grounded in communication and managerial support. Still, its focal emphasis—well-being, satisfaction, or safety—varies across industry and national contexts.

The outcomes of internal marketing also diverge across construction environments. In service settings such as Vietnam, the focus is on individual job satisfaction, but in Indonesian construction, collective compliance with safety systems is identified as the foundation for competitive advantage (Nguyen & Nguyen, 2024; Widyanty et al., 2020).

Similarly, in the Dominican Republic, Reyes et al. (2022) highlight the slow adoption of digital tools in the construction sector, attributing it to capability gaps, while overlooking the behavioural alignment that internal marketing could provide. Without internal communication, incentives, and managerial commitment to support digital adoption, technical capabilities alone are unlikely to deliver impact. In comparison, Salguero et al. (2025) extend the scope of internal marketing by linking internal practices to organisational resilience in construction-related SMEs; however, they fall short of articulating the specific behavioural mechanisms involved. Collectively, the evidence suggests that although internal marketing has been associated with employee satisfaction, safety culture, digitalisation, and resilience, its application in the construction sector remains fragmented and underdeveloped, lacking a coherent and integrated framework.

Lean management practices provide a relevant perspective for embedding internal marketing more effectively into construction contexts. As previously encountered, Just-in-Time (JIT) requires disciplined communication and reliable coordination to minimise waste and synchronise on-site production flows, particularly critical in precast concrete operations (Dara et al., 2024).

Similarly, continuous Improvement (CI/Kaizen) depends on empowering workers and enabling cross-team collaboration to identify inefficiencies and enhance site productivity (Bongomin, 2024; Dara et al., 2024). Total Quality Management (TQM) necessitates organisation-wide engagement to uphold quality and safety standards, which are vital in large construction projects (Dara et al., 2024, 2025). Each of these lean practices assumes employee buy-in and commitment, which can be cultivated through internal marketing instruments such as training, internal communication, and recognition (Widyanty et al., 2020).

Evidence from Indonesia underscores the centrality of safety, while findings from the Dominican Republic highlight digital readiness; both cases demonstrate that without internal marketing as a behavioural foundation, lean practices risk being implemented only superficially. Internal marketing, therefore, functions as the cultural and motivational infrastructure that enables JIT, CI, and TQM to deliver value in construction industries across diverse national contexts (Nguyen & Nguyen, 2024; Reyes et al., 2022; Widyanty et al., 2020).

Specific Case of Customer-Oriented in the Precast Industry

Customer orientation in the precast concrete industry reflects a multi-level interaction between individual characteristics and organisational support. On the personal level, traits such as empathy, adaptability, and prior work experience shape employees' responses to customer needs (Ebunoluwa et al., 2025; Gonu et al., 2023; Xu et al., 2023; Zhao, 2022). Yet cross-country evidence shows that systemic practices must reinforce these traits. In Vietnam, managerial commitment, training, and internal communication significantly enhance satisfaction and customer-oriented behaviours, but such effects may be less durable in project-based industries with high turnover (Nguyen & Nguyen, 2024). In European SMEs, Salguero-Caparrós et al. (2025) underscore that internal practices linked to occupational health and wellbeing strengthen resilience, suggesting that customer orientation in precast must also account for workforce stability and safety as part of its internal value proposition. Collectively, these findings indicate that while individual dispositions matter, they require robust organisational frameworks to be translated into consistent customer-focused behaviours in the precast concrete industry.

Organisational mechanisms are therefore essential in embedding customer orientation into precast operations. Internal marketing practices—such as treating employees as internal customers through recognition, role clarity, and training—directly enhance motivation and service delivery (Ahmad et al., 2023; Kaewnaknaew et al., 2022; Qiu et al., 2022). Evidence from Indonesia illustrates how, when institutionalised through communication and leadership support, safety culture becomes a key internal product that underpins productivity in construction (Widyanty et al., 2020). In the Dominican Republic, Reyes et al. (2022) show

that digital capability gaps limit efficiency in construction firms. Yet, the absence of internal alignment and behavioural buy-in hinders the adoption of tools that could improve customer responsiveness. Lean practices further reinforce this connection: Just-in-Time (JIT) ensures production aligns with client demand, Continuous Improvement (CI) empowers employees to identify inefficiencies, and Total Quality Management (TQM) embeds organisation-wide responsibility for quality (Bongomin, 2024; Dara et al., 2024, 2025). Each of these relies on employee engagement fostered through internal marketing, illustrating the interdependence of lean systems and workforce alignment in delivering customer value.

Beyond internal systems, customer orientation in precast also depends on social relationships, external awareness, and technological infrastructure. Positive supervisor–employee dynamics and peer collaboration enhance trust and knowledge sharing, while organisational citizenship behaviours (initiative and advocacy) extend service beyond formal roles (Qaisar & Muhamad, 2021; Qiu et al., 2022). Evidence from European SMEs underscores the role of resilience-building through wellbeing initiatives (Salguero-Caparrós et al., 2025) while Indonesian construction demonstrates that safety-focused HRM is critical for sustained competitiveness (Widyanty et al., 2020).

Dominican evidence highlights the importance of aligning digital transformation with employee attitudes to avoid resistance (Reyes et al., 2022), and Vietnamese findings emphasise the value of communication and managerial support in sustaining customer-oriented behaviour (Nguyen & Nguyen, 2024). Collectively, these cases reveal that customer orientation in precast requires a dual focus: internal alignment through internal marketing and lean tools, and external responsiveness through market insight and technological integration. Nonetheless, the industry continues to face challenges, including conceptual ambiguity, cultural rigidity, and fragmented implementation, which must be managed strategically to institutionalise sustainable customer orientation.

Table 1
Key Factors of Customer-Oriented Employees

Dimensions	Key Factors	Citations	Sources
1. **Personal Characteristics**	- Personality traits (e.g., empathy, agreeableness, conscientiousness) - Work experience	3	(Dara et al., 2025; Gonu et al., 2023; Nguyen & Nguyen, 2024; Xu et al., 2023; Zhao, 2022)
2. **Organizational Environment**	- Customer-centric culture - Supportive leadership - Internal communication systems	4	(Asante et al., 2025; Qaisar & Muhamad, 2021; Qiu et al., 2022; Widyanty et al., 2020; Zhao, 2022)
3. **Employee Support System**	- Training and development - Rewards and motivation - Role clarity	5	(Nguyen & Nguyen, 2024; Qaisar & Muhamad, 2021; Qiu et al., 2022; Rafiq & & Ahmed, 2000)
4. **Customer & Market Understanding**	- Awareness of customer needs - Market and trend monitoring - Competitor analysis	3	(Asante et al., 2025; Han et al., 2022; Zhao, 2022)
5. **Employee Behavior & Relationships**	- Organizational Citizenship Behavior (OCB) - Supervisor-employee relationship - Peer support	3	(Qaisar & Muhamad, 2021; Qiu et al., 2022)

Source: Own elaboration.

According to Table 1, developing customer-oriented employees in the precast concrete industry requires a strategic focus on five interconnected factors: personal characteristics, organisational environment, employee support system, customer and market understanding, and employee behaviour and relationships. First, individual characteristics, such as empathy, personality traits, and prior experience, directly influence how frontline employees perceive and respond to customer needs (Gonu et al., 2023; Salguero et al., 2025; Xu et al., 2023; Zhao, 2022). These individual traits must be supported by a strong organisational environment that promotes a customer-centric culture through empowering leadership and effective communication channels (Han et al., 2022; Nguyen & Nguyen, 2024; Zhao, 2022). Thus, when employees operate in an environment that reinforces customer value, they are more likely to consistently exhibit customer-focused behaviours.

Equally important is implementing internal marketing, which treats employees as internal customers by offering development opportunities, clear roles, and recognition systems. This approach fosters employee engagement and motivation, aligning internal efforts with customer satisfaction goals (Dara et al., 2024, 2025; Qiu et al., 2022). Additionally, employees must possess a deep understanding of customers and markets, allowing them to respond quickly to external changes, adapt service delivery, and contribute to value-driven innovations (Han et al., 2022; Zhao, 2022). Lastly, fostering proactive employee behaviours and strong interpersonal relationships, such as collaboration and voluntary service, helps sustain a culture of service excellence and strengthens the organisation's commitment to customer satisfaction (Nguyen & Nguyen, 2024; Qaisar & Muhamad, 2021; Qiu et al., 2022). Simultaneously, these five factors provide a strategic foundation for enhancing customer orientation in the precast industry.

To operationalise the key factors that influence the development of customer-oriented employees in the precast concrete industry, several targeted strategies can be adopted. First, implementing competency-based recruitment strategies that focus on personal characteristics such as empathy, conscientiousness, and relevant experience helps ensure that new hires possess the foundational traits needed for customer-oriented behaviour (Asante et al., 2025; Dara et al., 2024; Gonu et al., 2023; Xu et al., 2023).

This can be further supported by regular training and internal communication, which nurture a customer-focused organisational environment and reinforce cultural values that prioritise service excellence (Han et al., 2022; Zhao, 2022). In addition, adopting performance-based reward systems tied to customer service metrics—such as satisfaction scores or positive feedback—serves as an internal marketing mechanism that motivates and aligns employee behaviour with organisational service goals (Contreras & Gonzalez, 2021; Qiu et al., 2022).

Furthermore, fostering customer and market understanding through training using real case studies and market scenarios can empower employees to respond to changing customer demands with greater agility (Asante et al., 2025; Han et al., 2022; Zhao, 2022). Coupling this with mentorship programs between experienced and junior staff not only strengthens employee relationships but also encourages organisational citizenship behaviour by promoting collaboration and knowledge sharing (Qiu et al., 2022).

The integration of digital tools, such as CRM systems, ensures that frontline employees have access to real-time customer data, enhancing responsiveness and workflow efficiency (Han et al., 2022). Lastly, cross-departmental service forums create a platform for diverse teams to exchange insights and co-develop innovations in customer service delivery, helping bridge silos and promote a unified customer experience (Qaisar & Muhamad, 2021; Qiu et al., 2022). Collectively, these strategies offer a comprehensive roadmap to institutionalise customer orientation within the unique operational and cultural contexts of the precast concrete industry.

RESEARCH METHODOLOGY

Study Approach and Respondents

This study adopts a semi-qualitative approach to explore strategic initiatives that can deepen customer-oriented behaviours among employees within the precast concrete industry in Indonesia. A Semi-quantitative method integrates qualitative expert judgments and quantitative analysis to assess complex systems (Amirshenava & Osanloo, 2019). This allows for a meaningful quantification of impacts while still incorporating expert knowledge, leading to a more robust and adaptable assessment of customer-orientation behaviour within the precast concrete industry (Amirshenava & Osanloo, 2019; Saaty, 2008).

Data collection was conducted through in-depth interviews guided by a structured AHP (Analytical Hierarchy Process) questionnaire (Saaty, 2008). The AHP instrument was used to prioritise and assess strategic options based on expert judgment. The interviews were designed to elicit expert evaluations of internal and external factors influencing the development of customer-oriented employees in the precast sector.

A total of 14 respondents participated in the study, comprising both internal industry professionals and external stakeholders in the Indonesian precast concrete industry (Table 2). In this study, although the number of respondents was limited (only 14), the primary focus was on the participants' expertise and informed judgment rather than on the sample size itself. This approach aligns with the methodology employed by Kim et al. (2016), who emphasised that the AHP values expert knowledge more than the number of respondents when

prioritising factors in complex decision-making contexts (including the precast construction industry).

The 14 respondents are the internal experts from large precast manufacturers who manage substantial financial responsibilities, with directors and general managers overseeing company assets ranging from USD 150 million to USD 500 million (IDR 2.48 – IDR 8.25 trillion). These firms operate at a national scale, supplying precast products for infrastructure projects, state-owned enterprises, and large private developers. Senior experts from mid-sized precast companies handle assets valued at USD 50–100 million (IDR 825 billion – IDR 1.65 trillion), reflecting their role in supporting specific project segments. External stakeholders, such as precast customers, typically own firms with valuations of USD 10–50 million (IDR 165–825 billion), while vendors and suppliers operate at more minor scales with assets of less than USD 20 million (IDR < 330 billion). Simultaneously, this distribution highlights the multi-layered economic responsibilities across the precast industry's value chain, ensuring representation from both high-level strategic decision-makers and operationally critical actors (See Table 2).

Table 2

Respondents of the Study

No.	Category	Role/Position	Notes	Number of Respondents
1	Internal Experts (Company)	General Manager – Corporate Strategy	Handles assets approx. USD 500 million (IDR 8.25 trillion) in a tier-1 precast producer with nationwide operations.	1
2		Director – Business Development	Oversees market expansion in a firm valued at USD 200 million (IDR 3.3 trillion), serving SOEs and private developers.	1
3		Director – Operations	Responsible for operational assets worth USD 300 million (IDR 4.95 trillion) across multiple plants	1
4		Director – Human Capital and IT	Manages HR & IT systems in a company with workforce >1,000 and technology investments tied to assets of USD 150 million (IDR 2.48 trillion).	1
5		Director – Finance and Risk Management	Handles financial and project risk in a firm with annual turnover and assets > USD 250 million (IDR 4.13 trillion).	1
6		Senior Experts from Precast Companies	Work in medium-to-large firms with company valuations between USD 50–100 million (IDR 825 billion – IDR 1.65 trillion).	2
7	External Stakeholders	Company Owners (Precast Customers)	Own medium-sized construction firms valued at USD 10–50 million (IDR 165 billion – IDR 825 billion), using precast products.	4
8		Vendor and Supplier Representatives (Supporting Precast Industry)	Represent suppliers with smaller asset bases, typically < USD 20 million (IDR < 330 billion), supporting raw material and logistics supply.	3
Total Respondents				14

Source: Own elaboration.

The diversity of respondents ensures a comprehensive perspective from various strategic, operational, and customer-facing angles. This triangulation strengthens the study's relevance and robustness in identifying actionable strategies to develop customer-oriented employees

in the Indonesian precast concrete industry context. Therefore, this study was conducted in accordance with ethical research principles. Participation was voluntary, and informed consent was obtained from all respondents. Confidentiality of the participants' responses was strictly maintained, and no personally identifiable information was disclosed.

Analytical Hierarchical Process (AHP) Methods

The Analytic Hierarchy Process (AHP) is a multi-criteria decision-making (MCDM) method developed by Thomas L. Saaty to help prioritise and select alternatives when multiple factors are involved (Saaty, 1977, 2008). AHP decomposes a complex decision problem into a hierarchical structure consisting of the goal, criteria, sub-criteria, and alternatives.

This study employed the AHP method because it integrates expert judgment in evaluating strategic priorities and enables a structured comparison of qualitative and quantitative factors. AHP is particularly suitable for this study because the goal is to identify the most strategic initiatives to deepen customer-oriented behaviour among employees in the precast industry (Indonesian market), based on expert knowledge and experience in the precast concrete industry.

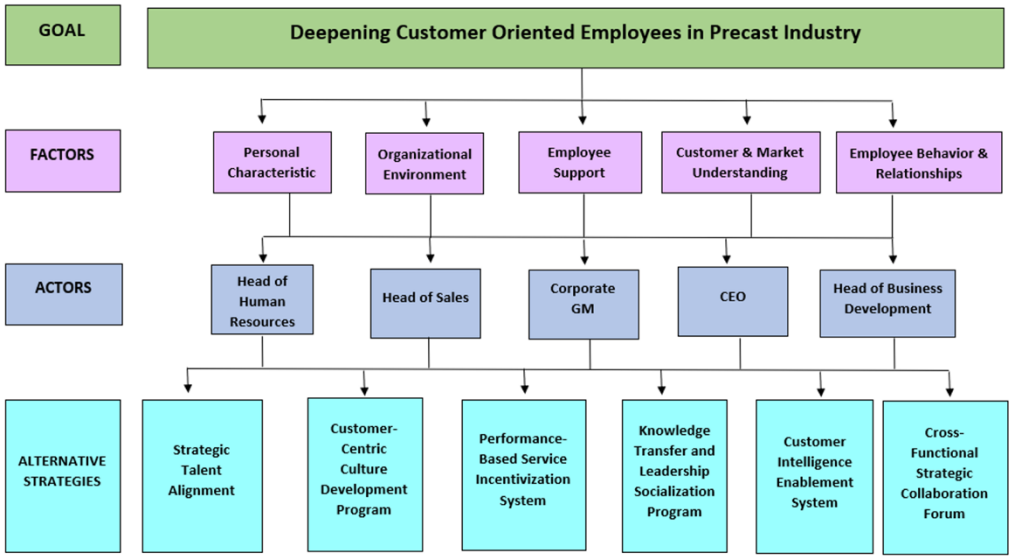
According to Saaty (2008) and Pandey et al. (2024), the AHP process consists of several steps. First, the decision problem is structured hierarchically—from the primary goal, down to criteria and alternatives (Figure 1). Next, experts are asked to perform pairwise comparisons between elements at each level of the hierarchy using a Saaty 1–9 scale (See Table 3), where 1 indicates equal importance, and 9 indicates extreme importance of one element over another.

The scale also includes reciprocal values (e.g., 1/3, 1/5) when the second element is more critical. At this point, SuperDecisions Software is the tool to support the analysis by facilitating data input, computation, and analysis. SuperDecisions Ver 3.2 was employed for its ability to process complex hierarchical models, efficiently perform pairwise comparisons, and generate outputs such as priority weights, consistency ratios, and sensitivity analyses. The software also enabled the integration of multiple respondents' judgments using the geometric mean, ensuring reliable aggregation of expert insights across roles within and around the precast concrete industry.

The geometric mean calculation aggregated multiple expert responses from pairwise-comparison questionnaires to derive a single representative judgment value for each comparison. Since experts individually rated the relative importance of criteria and alternatives using Saaty's scale, the GM was calculated by multiplying all experts' responses for a given comparison, then taking the nth root (where n is the number of experts).

This method effectively balances variations among expert opinions while preserving the multiplicative relationships inherent in ratio scales, such as those used in AHP. The resulting geometric mean values were then used to populate the pairwise comparison matrices, ensuring consistency and reliability in the aggregated input data for the subsequent AHP analysis (Pandey et al., 2024)

Figure 1
Hierarchical Structure of the Study



Source: Own elaboration.

Saaty (2008) continues that after forming the aggregated matrices, the next step is to compute the priority vector, which represents the relative weights of each criterion or alternative. A Consistency Ratio (CR) is then calculated to ensure the logical consistency of the judgments; a CR of less than 0.1 is considered acceptable. In this study, the pairwise comparisons were conducted among strategic dimensions and corresponding initiatives to identify the most influential strategies (Chiarini, 2019; Saaty, 1977, 2008).

Finally, a sensitivity analysis was conducted to assess the robustness of the results by examining how changes in weightings might affect the priority ranking (Chiarini, 2019). This provides confidence in the stability of the chosen strategies, which is particularly important for aligning cross-functional decisions across HR, operations, business development, and supply chain in the precast industry (Pandey et al., 2024).

Table 3
Indicators used

Numerical Value	Verbal Judgment	Explanation
1	Equal Importance	Two elements contribute equally to the objective.
2	Weak or Slight	Slight preference of one element over another.
3	Moderate Importance	One element is moderately more important than the other.
4	Moderate Plus	Moderate to strong importance.
5	Strong Importance	One element is strongly more important than the other.
6	Strong Plus	Strong to very strong importance.
7	Very Strong Importance	One element is very strongly more important; demonstrated dominance in practice.
8	Very Strong Plus	Very strong to extreme importance.
9	Extreme Importance	The highest level of dominance of one element over another.
1/2, 1/3, ..., 1/9	Reciprocal Values	Used when the second element is more important than the first.

Source: Own elaboration.

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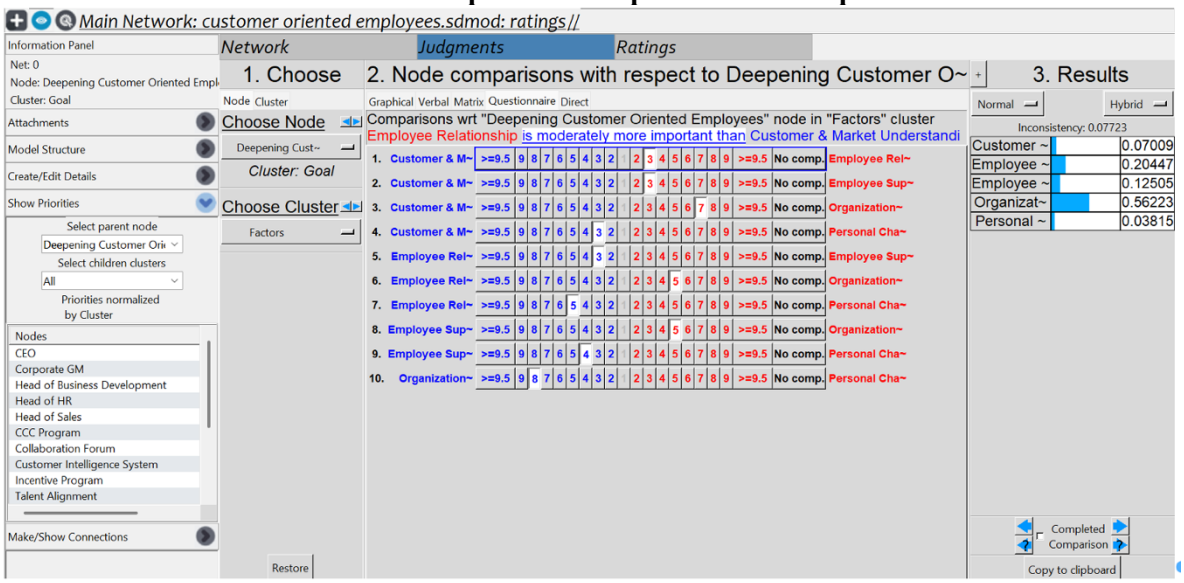
RESULTS AND DISCUSSIONS

This subsection presents the results of the Analytic Hierarchy Process (AHP), which starts with pairwise comparisons and the consistency ratio (CR). According to Pandey et al. (2024) and Saaty (1977), the pairwise comparison and the consistency ratio (CR) correspond to the third and fourth stages of the AHP analysis (Saaty, 2008). The authors distributed questionnaires and conducted in-depth interviews with 14 respondents (as shown in Table 2) to answer 160 questions: Goal has 10 questions, dimensions to actors have 15 questions per actor, and 15 questions reflect each actor's questions about alternative strategies. To synthesise the responses, the study employed the Geometric Mean method to aggregate the data, which was then processed using the SuperDecisions software (Nimawat & Gidwani,

2021). An example of the visualisation of how the software can calculate pairwise comparisons is shown in Figure 2.

Figure 2
Visualization of Pairwise Comparison Computation with Superdecisions ver. 3.2



Source: Own elaboration.

The objective of the analysis is to identify the most influential factors and actors in supporting the goal of "Deepening Customer-Oriented Employees." The overall consistency of the judgment input is confirmed with a Goal Inconsistency Ratio (CR) of 0.07723, indicating a reliable level of coherence across comparisons (Pandey et al., 2024; Saaty, 2008). Among the five main factors evaluated, Organisational Environment holds the highest priority with a normalised weight of 0.562, followed by Employee Behaviour and Relationships (0.204), Employee Support System (0.125), Customer & Market Understanding (0.070), and Personal Characteristics (0.038). All factors have CR values below the acceptable threshold of 0.1, validating the consistency of the judgments (Saaty, 2008).

This supports the previous study, which found that an organisational environment that enhances leadership and internal marketing can encourage a shared commitment to customer-centric values, enabling the organisation to adapt effectively to market demands and sustain competitive advantage by embedding customer orientation into everyday practices (Asante et al., 2025).

Thus, Table 4 presents a detailed summary of pairwise computation. In the consistency assessment, the calculated Consistency Ratios (CR) for all comparison matrices fall within the acceptable threshold of 0.10 (Pandey et al., 2024; Saaty, 2008). At the first level, the CR for the goal-to-factors matrix is 0.07723, indicating acceptable consistency. At the second level, the CR values for factor-to-actor matrices range from 0.0394 to 0.0681, while actor-

to-alternative matrices range from 0.0508 to 0.08361. These values confirm that the judgments used in the pairwise comparisons are reliable, and the decision structure can be trusted to reflect consistent preferences across all hierarchical levels (Saaty, 1977, 2008).

Table 4
Outer model analysis

Goal	Goal's CR	Factors	Weights	Factor's CR	Actors	Actor's CR
Deepening Customer Oriented Employees	0.07723	1. Personal Characteristics	0.03815	0.04985	Head of Business Development	0.08361
		2. Organizational Environment	0.562235	0.0394	Head of HR	0.0791
		3. Employee Support System	0.125053	0.05761	Head of Sales	0.0508
		4. Customer & Market Understanding	0.07009	0.0681	CEO	0.05688
		5. Employee Behavior & Relationships	0.204472	0.06692	Corporate GM	0.07272

Source: Own elaboration.

Furthermore, the fifth step in AHP analysis is to determine the top-priority factors (See Figure 3). The primary goal of the model is to deepen customer-oriented employees, which refers to the strategic objective of instilling a customer-first mindset across the workforce (Qaisar & Muhamad, 2021; Qiu et al., 2022). This objective reflects a growing recognition that sustainable competitive advantage is achieved not only through products or technology, but also through human capital aligned with customer values and expectations.

A customer-oriented employee proactively understands customer needs, delivers value, builds customer loyalty, and adapts to changing preferences (Zegullaj et al., 2023; Zhao, 2022). In the model, this goal is treated as the outcome, with a limiting value of 0.000000, indicating that it is not a causal element, but rather the endpoint influenced by multiple interdependent variables. In the construction sector, this orientation is particularly crucial as project success often depends on long-term client relationships, trust, and the ability to adapt services to highly specific and evolving project requirements (Ahmad et al., 2023).

Thus, the AHP model identifies five key factors contributing to this goal: Personal Characteristics, Organisational Environment, Employee Support System, Customer & Market Understanding, and Employee Behaviour & Relationships. Among these, Organisational Environment holds the highest impact, with a limiting value of 0.56 (56%). This suggests that culture, internal systems, and institutional norms are the most critical enablers of customer-oriented behaviour. A supportive environment fosters psychological safety, encourages initiative, and aligns organisational values with customer satisfaction (Olaleye et al., 2024).

Without such a foundation, even skilled employees may struggle to translate their potential into customer-focused action (Qaisar & Muhamad, 2021). Therefore, this result supports the previous study in the construction industry, which found that the organisational environment

fosters customer-centric behaviour among employees by emphasising the importance of responding to evolving customer preferences and expectations.

Firms in the construction industry, or specifically in the precast concrete industry, adopt market-oriented strategies that systematically collect and analyse customer information, encouraging employees to "think like a customer" and develop solutions that directly address client needs. This customer focus drives employees to acquire the relevant skills and knowledge to improve product quality, delivery, and cost-effectiveness, aligning their actions with customer-loyalty goals (Dara et al., 2025; Fang & Chen, 2016).

Employee behaviour and relationships emerge as another significant factor, comprising elements such as Employee Relationship and behaviour (0.20 – 20%). These indicate the importance of interpersonal dynamics and the strategic placement of human resources (Rafiq & Ahmed, 2000; Xu et al., 2023).

Employees in the concrete precast industry who are well-positioned in roles that match their capabilities and who enjoy strong peer relationships tend to be more engaged, cooperative, and motivated to serve customers effectively (Dara et al., 2024). This aligns with the concept that relational capital within the organisation can significantly influence customer outcomes (especially customer loyalty and word-of-mouth intention) (Agrawal et al., 2013; Ali & Alfayez, 2024; Zegullaj et al., 2023).

In construction (especially the precast industry), Employees' relationships and behaviours significantly shape a customer-oriented culture by fostering effective communication, teamwork, involvement, and empowerment within the organisation (Alazzaz & Whyte, 2015; Kaewnaknaew et al., 2022).

Thus, employee support (0.12 – 12%) is also essential in creating customer-centric employees. Both monetary and non-monetary support can help employees serve customers very well (Einwiller et al., 2021). Conversely, personal characteristics (0.03) and customer and market understanding (0.07) have the lowest limiting values among the factors, indicating they are relatively less influential in creating a customer-oriented culture among employees.

While intrinsic motivation, personality traits, and market knowledge are essential, their effects are significantly amplified or diminished by the broader organisational context (in this case, the precast concrete industry). In this sector, product specifications, project timelines, and compliance with technical standards tend to dominate customer requirements, making individual empathy or deep market knowledge less relevant to performance outcomes. For instance, an employee with high empathy may still fail to satisfy customers in a rigid, technically driven, or fragmented environment (Rasool et al., 2021). Thus, while

hiring the right individuals remains essential, the greater emphasis should remain on shaping an organisational ecosystem that empowers employees to deliver within the technical and service constraints of the precast industry (Chen et al., 2020).

Figure 3

AHP's Top Priority Results

Main Network: customer oriented employees.sdmo...

Here are the priorities.

Icon	Name	Normalized by Cluster	Limiting
No Icon	CEO	0.31949	0.106495
No Icon	Corporate GM	0.22595	0.075318
No Icon	Head of Business Development	0.05452	0.018174
No Icon	Head of HR	0.28414	0.094714
No Icon	Head of Sales	0.11590	0.038632
No Icon	CCC Program	0.15992	0.053305
No Icon	Collaboration Forum	0.09536	0.031787
No Icon	Customer Intelligence System	0.08234	0.027446
No Icon	Incentive Program	0.12159	0.040530
No Icon	Talent Alignment	0.27206	0.090686
No Icon	Transfer Knowledge Program	0.26874	0.089579
No Icon	Customer & Market Understanding	0.07009	0.023363
No Icon	Employee Relationship	0.20447	0.068157
No Icon	Employee Support	0.12505	0.041684
No Icon	Organizational Environment	0.56224	0.187412
No Icon	Personal Characteristics	0.03815	0.012717
No Icon	Deepening Customer Oriented Employees	0.00000	0.000000

Source: Own elaboration.

Regarding key actors supporting the dominant factor (organisational environment), the analysis reveals that senior leadership, along with the human capital division, plays a leading role. The CEO (0.319 – 31.9%), Head of HR (0.284 – 28.4%), and Corporate GM (0.225 – 25.5%) are identified as the most influential stakeholders in the system (Henderikx & Stoffers, 2022). Their vision, commitment, and policy decisions establish the tone for the entire organisation, as the impact of top leadership on internal communication and employee outcomes is shaped by mindset and behaviour. It reveals that the CEO and senior executives are instrumental in directing organisational messages that emphasise the importance of customer focus (Lee & Kim, 2022). Their influence shapes how employees think and act

toward customers, fostering a culture in which customer orientation becomes a shared organisational value.

The CEO's leadership behaviours, particularly those that demonstrate support and empowerment, help create a psychologically safe work environment where employees feel comfortable sharing ideas and concerns without fear of negative consequences. This culture of trust and psychological safety reduces group conflicts and enhances employee engagement (Joo et al., 2023).

Employees who are engaged with the organisation, particularly in the precast industry, can contribute significantly to effective internal marketing, thereby fostering a stronger customer-centric focus (Yashchenko et al., 2024). Thus, the Head of Sales and Head of Business Development also play supporting roles, particularly in translating strategic goals into departmental practices. This reinforces the idea that leadership alignment is essential for effective cultural transformation, especially when the objective involves behavioural and attitudinal change among employees in the precast concrete industry.

Furthermore, their roles can be divided into three layers: top management, middle management, and lower management. In the Indonesian precast industry, the development of customer-oriented employees involves three key layers of management: the CEO as top management, the Corporate GM as middle-up management, and the Head of Human Capital as middle-low management (Martela, 2023).

Each layer plays a distinct yet interconnected role in ensuring the successful implementation of a customer-centric culture. The CEO or president director in the precast industry, positioned as the top-priority actor, is responsible for initiating and directing the cultural transformation toward customer orientation. This requires strong leadership to embed the correct values, set strategic direction, and ensure alignment across the organisation (Joo et al., 2023).

This finding is consistent with previous research showing that CEOs with adequate education and relevant experience can make effective strategic decisions, and it also demonstrates that in Vietnam, the CEO's role is critical in managing resources and making decisions that drive company growth and competitiveness (Nguyen & Nguyen, 2024).

In several countries, the findings support previous studies stating that CEOs play an instrumental role in driving digital innovation in construction by fostering digital leadership, adopting advanced technologies, and shifting toward data-driven business models that enhance efficiency and create new value streams. They lead infrastructural upgrades and champion cultural change, enabling their firms to navigate the challenges of Construction 4.0 and seize emerging opportunities for competitive advantage (Gledson et al., 2024).

The Corporate GM supports this direction by serving as a key figure in maintaining and monitoring the progress of strategic initiatives, ensuring cross-functional alignment and operational consistency (Alazzaz & Whyte, 2015). Meanwhile, the Head of Human Capital is responsible for the day-to-day technical implementation of critical strategies, including Strategic Talent Alignment, Knowledge Transfer, and Leadership Socialisation Programs. These strategies are essential in embedding customer-oriented behaviour into the workforce. Ultimately, fostering customer-oriented employees cannot be achieved by operational-level managers alone—it requires top-down commitment, continuous oversight, and hands-on execution from all three management layers (Fang & Chen, 2016; Joo et al., 2023).

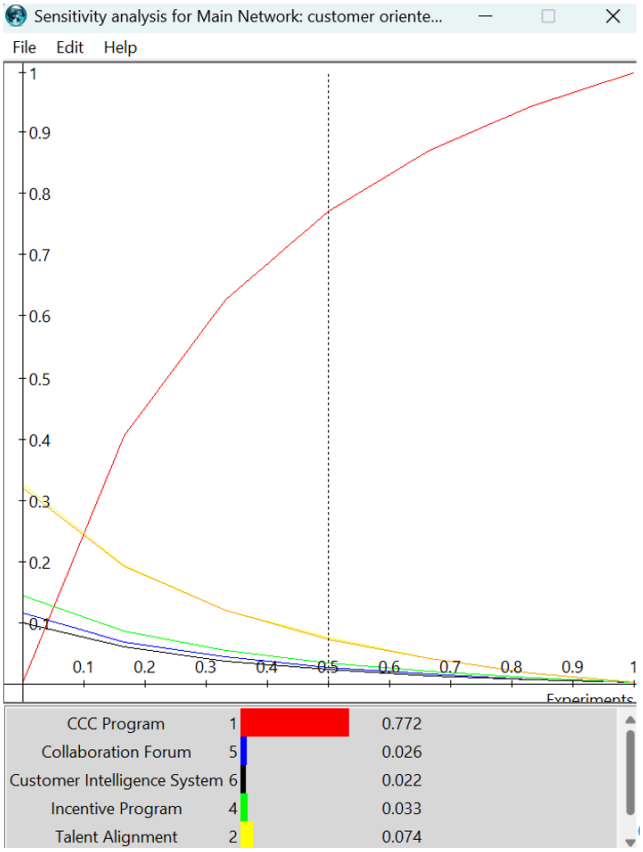
Finally, sensitivity analysis in AHP helps identify which variables have the most significant influence on a model's outcomes when small changes are made (Nimawat & Gidwani, 2021). In this context, although the AHP results (in top priority) showed that Talent Alignment had a substantial direct impact on customer orientation, the sensitivity analysis reveals that the CCC Program (Customer Centric Culture Development Program) is the most sensitive factor, with a value of 0.772 (see Figure 4). This means that even small changes in the CCC Program can significantly affect customer-oriented employees more than changes in other variables. Sensitivity analysis is particularly useful for identifying the most efficient intervention points and guiding decision-makers to allocate resources where they will have the greatest impact (Nimawat & Gidwani, 2021; Saaty, 2008).

Examples of small changes in the CCC Program that can generate significant impact include adding just two minutes to daily briefings to share positive customer service stories, placing visual reminders such as “What does the customer need today?” in precast companies' workspaces, and offering weekly recognition to employees who demonstrate strong customer-centric behaviour. Other changes could include appointing a “Customer Hero” each month and sharing their stories internally, or conducting short 10-minute training sessions on customer empathy every week. While these actions may seem minor, they can effectively strengthen a customer-oriented culture over time, especially since the CCC Program has been proven to be the most sensitive factor in this model. Furthermore, with the strong support of the CEO (President Director) in the precast industry, along with consistent monitoring by the Corporate GM, this initiative can be fully aligned and operationalised under the leadership of the Head of Human Capital (HC) to ensure sustainable cultural transformation throughout the organisation (Lee & Kim, 2022; Sypniewska et al., 2023).

This study contributes to theory by extending the application of internal marketing beyond customer-facing and service-oriented industries into a highly technical context, namely the precast construction sector. Unlike previous studies that primarily examined internal marketing in retail, hospitality, or education, this research addresses the gap by highlighting

how employee adoption of customer orientation within technical and non-customer-facing roles can influence organisational competitiveness. The findings suggest that internal marketing should not be viewed solely as a service-industry concept but rather as a broader organisational capability that drives global competitiveness.

Figure 4
Sensitivy Analysis



Source: Own elaboration.

The study's findings on the effect of accessibility of financial facilities on the financial performance of MSMEs in Bali revealed a path coefficient of 0.208 and a significance value of 0.038. Thus, it can be concluded that the accessibility of financial facilities positively impacts the financial performance of MSMEs in Bali, with an influence size of 0.047. The outcomes indicate that H1 is accepted.

The path coefficient is 0.022, and the significance value is 0.848, indicating that financial facilities influence the financial performance of MSMEs in Bali. The results show that the significance value is more than 0.05, so H2 is rejected. Finally, with a path coefficient of 0.254 and a significance value of 0.048, the results show that the quality of financial facilities positively affects the financial performance of MSMEs in Bali, with an effect size of 0.065. These results indicate that H3 is accepted.

With the moderation of CPA culture, the path coefficient of 0.261 and the significance value of 0.011 were observed in the interaction between the accessibility of financial facilities and the financial performance of MSMEs. The results showed that the significance value was less than 0.05, indicating that the hypothesis was supported: CPA culture strengthens the relationship between the accessibility of financial facilities and the financial performance of MSMEs in Bali. Therefore, the direct influence coefficient of 0.038 is less than 0.05, and the moderating influence coefficient of 0.011 is also less than 0.05, indicating that the moderating effect of CPA culture is quasi-moderation.

A study examining the impact of financial facilities on the financial performance of MSMEs, moderated by CPA culture, revealed a path coefficient of 0.384 and a significant value of 0.046. The results suggest that although the direct influence may not be evident, CPA culture can attenuate the impact of financing facilities on MSMEs' financial performance. This analysis reveals that the essence of CPA culture is characterised by moderation.

Finally, with CPA culture moderated, the path coefficient is 0.319, and the significance is 0.010. The result confirms that the hypothesis is supported: CPA culture strengthens the relationship between financial service quality and the financial performance of MSMEs in Bali, with a significant value of 0.048, which is below 0.05. Therefore, the test result shows that the nature of CPA moderation is quasi-moderation, as both the direct effect coefficient (0.048) and the moderation effect coefficient (0.010) are less than 0.05.

CONCLUSION

The study advances the customer-orientation literature by demonstrating, with AHP, a sector-specific prioritisation of factors–actors–strategies in the Indonesian precast industry. The key innovative insight is the systemic primacy of the organisational environment over individual traits: customer orientation is shaped less by who employees are and more by how work is organised, led, and reinforced in project-based, technically stringent settings (Kaewnaknaew et al., 2022).

Also propose a governance architecture—the CEO–Head of Human Capital (HC) dyad with Corporate GM oversight—as the proximal mechanism that translates internal marketing into customer-centric behaviours. This reframes internal marketing in industrial B2B contexts from a set of frontline practices to a culture-and-structure intervention that aligns talent, routines, and leadership socialisation. This study thereby addresses a critical gap in the internal marketing literature, which has predominantly concentrated on service industries and frontline employees, while offering limited attention to industrial, project-based, and non-customer-facing contexts.

In practice, the most prioritised strategies—Strategic Talent Alignment and Knowledge Transfer & Leadership Socialisation—are operationalised through the Customer-Centric Culture (CCC) Program, led by the Head of HC (CEO sponsor; Corporate GM monitoring). Applicable actions include: embedding customer-centric competencies in selection rubrics and onboarding; leader-led monthly "customer impact" sessions; cross-site communities of practice for precast detailing, scheduling, and quality; client-pulse checks (three questions, weekly) tied to rapid countermeasures; change-order Service Level Agreement (SLA) and pre-pour design/constructability huddles; visual boards that link on-time delivery, RFI cycle time, and defect rate to client outcomes; and lean NVA workshops mapped to client touchpoints to remove delays and rework. These routines convert abstract orientation into repeatable behaviours that improve responsiveness, technical accuracy, and service reliability (Dara et al., 2024, 2025).

Importantly, this study concludes that small behavioural shifts can yield outsized effects in precast operations. Examples include a 24-hour response standard for client queries, a two-minute "customer consequence" note in daily toolbox talks, a pre-pour checklist co-signed with the client, and a weekly joint schedule alignment to surface constraints early. Such micro-practices, owned by the Head of HC and reinforced by line leaders, institutionalise customer focus and sustain performance gains. These insights contribute theoretically by positioning internal marketing as a system-level capability that integrates leadership, culture, and human capital structures—an angle underexplored in prior studies that emphasised either job satisfaction or procedural improvements. Collectively, these insights articulate both a theoretical contribution—a system-level account of internal marketing in industrial, project-driven contexts—and a managerial playbook that makes customer orientation implementable on the shop floor and at the leadership table (Ahmad et al., 2023; Kaewnaknaew et al., 2022).

This concludes that the Head of Human Capital, at the operational level for employees, is not merely focused on job satisfaction but also on realising the vision of the strategic level (CEO and Corporate GM) (Sypniewska et al., 2023). Also, this study criticises previous studies that often focused on operational or front-line roles in driving customer responsiveness in the service industry and in precast or construction-related sectors. This study highlights a broader and more integrated view (Alsafadi & Altahat, 2021; Martela, 2023). It extends previous research by positioning leadership and internal organisational culture as primary enablers of customer orientation, rather than just procedural improvements or individual performance (Alsafadi & Altahat, 2021).

The findings support the notion that long-term customer-centric transformation must begin at the top and be supported through structured internal systems, aligning with strategic human capital practices and cultural reinforcement throughout the organisation (Gonu et al., 2023; Lee & Kim, 2022; Qiu et al., 2022). Henceforth, this study offers a novel theoretical

contribution by challenging the prevailing service-sector paradigm and reframing customer orientation as a broader issue of organisational design and governance.

IMPLICATION, LIMITATION, AND FUTURE STUDY

This study contributes to the existing body of knowledge by reinforcing the multi-layered role of organisational actors in achieving customer-oriented employee behaviour, particularly within the context of the precast concrete industry in Indonesia and other developing countries such as Vietnam, Pakistan, Dominican Republic, Nigeria, Thailand, and other countries (Ahmad et al., 2023; Ebunoluwa et al., 2025; Kaewnaknaew et al., 2022; Nguyen & Nguyen, 2024; Reyes et al., 2022; Widyanty et al., 2020).

Using AHP, the study identifies the significant influence of upper management—especially CEOs, Presidents and Directors—in shaping a customer-oriented culture and across cultures. This finding supports prior literature that emphasises top-down influence in cultural transformation, while integrating strategic alignment and knowledge transfer as central enablers (Gledson et al., 2024; Lee & Kim, 2022). Theoretically, the study extends the scope of customer orientation beyond service industries by positioning it as a central concern of organisational design and governance within construction and precast manufacturing, where efficiency, safety, and customer value must coexist.

From a practical standpoint, the findings underscore the indispensable role of CEOs in spearheading customer-oriented cultural transformations not only in Indonesia but also across other developing economies. For example, evidence from Vietnam shows that managerial commitment and training are critical to sustaining satisfaction-driven customer orientation in service firms (Nguyen & Nguyen, 2024), while research in the Dominican Republic highlights how digital adoption in construction remains limited unless supported by internal practices that build employee buy-in (Reyes et al., 2022).

Similarly, studies in Indonesia stress the importance of safety culture in aligning workforce behaviour with organisational goals (Widyanty et al., 2020). Taken together, these cases demonstrate that in emerging economies, customer orientation must be embedded through leadership commitment, structured training, and supportive organisational systems. Extending this to the precast industry, the role of leadership in mobilising large-scale assets—often valued at hundreds of millions of USD—becomes essential for ensuring competitiveness, sustainability, and resilience in the face of market and environmental challenges.

Strengthening global competitiveness further requires CEOs and senior managers in the precast industry to lead infrastructural modernisation and to embed innovation-oriented cultures (Ebunoluwa et al., 2025; Nguyen & Nguyen, 2024). This is particularly relevant in cross-industry applications, such as property development, coastal protection, erosion control, and mega-infrastructure projects, such as sea walls and flood barriers, where precast solutions play a critical role. Beyond Indonesia, precast firms in other developing countries outside the G7 can leverage internal marketing, lean tools (JIT, CI, TQM), and digital transformation to scale their operations while ensuring long-term resilience in Thailand and other developing countries (Asante et al., 2025; Kaewnaknaew et al., 2022).

The leadership development programs tailored to enhance digital literacy, strategic agility, and customer orientation among top executives should be institutionalised across industries to ensure that customer-centric strategies are not fragmented but embedded holistically within organisational structures (e,g. in Pakistan, Nigeria, and Vietnam) (Ahmad et al., 2023; Ebunoluwa et al., 2025; Gledson et al., 2024).

Nevertheless, this study has limitations. First, the number of participants is relatively small (14 respondents), which constrains the breadth of perspectives and limits statistical generalizability. This is partly mitigated by purposive sampling of informants with substantial expertise and direct involvement in the precast sector, ensuring contextual richness and credibility (Kim et al., 2016). Second, the study is industry-specific, focusing on the precast concrete industry in Indonesia. While this provides in-depth insights, it limits generalisation to other sectors such as IT services, high-tech manufacturing, or logistics.

Future research could address these limitations by expanding the sample size, incorporating multiple organisational levels, and comparing findings across industries and geographies. Further study, which might include cross-country comparisons—particularly among developing nations outside the G7—would clarify how cultural, institutional, and technological contexts shape customer orientation strategies.

Comparative research could, for instance, examine how customer orientation in precast interacts with large-scale property development in Vietnam, market competitiveness of Nigerian construction firms, digital modernisation in the Dominican Republic, or coastal infrastructure resilience in Indonesia (Ebunoluwa et al., 2025; Nguyen & Nguyen, 2024; Reyes Veras et al., 2022; Widyanty et al., 2020).

Longitudinal studies could also trace how aligning leadership, culture, and human capital development sustains competitive advantage and organisational resilience over time (Asante et al., 2025; Bongomin, 2024; Dara et al., 2024). In doing so, future scholarship can bridge fragmented approaches and build an integrated framework that connects satisfaction, safety,

digitalisation, and resilience, thereby enhancing both theoretical robustness and practical relevance for the global construction and precast industries.

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