



From classroom to market: The role of brand identity and local cultural values in building customer loyalty for vocational teaching factory products

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Article Info

Article history:

Received: Dec 15, 2025

Revised: Feb 10, 2026

Accepted: March 01, 2026

Keywords:

Brand identity;
Customer loyalty;
Institutional innovation system;
Local cultural values;
Vocational teaching factory.

Abstract

Teaching Factory (TEFA) programs are designed to connect classroom-based vocational education with real market production, positioning polytechnics as hybrid institutional-commercial actors within regional innovation ecosystems. However, sustaining the commercial viability of TEFA products remains a structural challenge. This study investigates the role of brand identity and local cultural values in strengthening customer loyalty toward TEFA products at Politeknik Negeri Jember. Employing a quantitative explanatory design with path analysis on data collected from 215 respondents, the study examines both direct and mediated relationships among brand identity, perceived cultural values, and customer loyalty. The results indicate that brand identity significantly influences customer loyalty directly ($\beta = 0.412, p < 0.01$) and indirectly through local cultural values ($\beta = 0.153, p < 0.01$), with the model explaining 46.1% of the variance in loyalty. These findings suggest that culturally embedded branding enhances institutional credibility and supports the transition from educational production to sustainable market engagement. The study contributes to the understanding of how branding mechanisms operate within vocational innovation systems and regional knowledge-based economic development contexts.

To cite this article: Ambarkahi, R. P. Y., Pratama, F. E. A., Nugraheni, P. P. A., Universitasari, P. S., & Putra, D. E. (2026). From classroom to market: The role of brand identity and local cultural values in building customer loyalty for vocational teaching factory products. *Smart Society: Community Service and Empowerment Journal*, 6(1), 01-12.

INTRODUCTION

Vocational education is increasingly expected to function not only as a provider of technical skills but also as an active contributor to regional innovation ecosystems. Teaching Factory programs represent a strategic mechanism for integrating classroom-based instruction with market-oriented production, thereby positioning polytechnics as hybrid institutional-commercial actors. However, empirical evidence indicates that pedagogical innovation alone does not guarantee market sustainability, as shown in recent evaluations of TEFA implementation (Pratama et al., 2025). Technological enhancements such as AI-supported systems improve instructional effectiveness but do not automatically translate into consumer loyalty (Wahjusaputri et al., 2024). Similarly, smart production frameworks proposed by Ramadhani Fajri et al. (2025) emphasize digital integration without fully addressing external market validation. This structural imbalance suggests that the transition from classroom to market involves more than operational readiness. Within knowledge-based regional economies, institutional products must compete with established commercial brands while maintaining educational credibility. Therefore, understanding how vocational production units build sustainable customer loyalty becomes a strategic research priority within smart regional development contexts. In smart regional development, market acceptance of vocational products is not an isolated marketing outcome but a signal of whether local innovation nodes can generate sustained economic value and learning-to-industry spillovers. From this perspective, customer loyalty operates as a practical proxy for the maturity of institutional innovation systems that connect vocational capability with regional competitiveness.

Hybrid institutional organizations face legitimacy challenges because they operate at the intersection of educational missions and commercial logics. Institutional legitimacy theory conceptualizes legitimacy as socially constructed acceptance that determines organizational survival, as articulated by Coşkun and Arslan (2024) and Zhang and Borden (2024). In hybrid systems, branding may function as a signaling mechanism that communicates competence and reliability to external stakeholders. Rose et al. (2023) and Yönel et al. (2026) argues that brand identity structures meaning and reduces consumer uncertainty, which becomes crucial when products originate from non-traditional commercial actors. Parris and Guzmán (2023) and Purani and Jeesha (2022) further explains that consistent brand identity strengthens customer-based brand equity through cognitive and emotional associations. In culturally embedded economies, local values often reinforce authenticity and trust, which aligns with Born et al. (2025) and Wang et al. (2025) embeddedness perspective on economic behavior. Customer loyalty, conceptualized by Reihlen et al. (2022) as a deeply held commitment to repurchase, serves as an indicator of successful legitimacy formation. Consequently, investigating brand identity and local cultural values within Teaching Factory systems addresses a critical intersection between institutional innovation and market sustainability.

While recent branding research has extensively examined digital identity formation and loyalty mechanisms, most studies focus on corporate or SME environments rather than hybrid educational production systems. Desveaud et al. (2024) propose a meta-model demonstrating that brand experience and alignment drive loyalty, yet institutional contexts remain underexplored. Shams et al. (2024) highlight how digital brand identity influences purchasing behavior in competitive markets, but their findings do not address hybrid organizational tensions. Acar et al. (2024) confirm that brand image influences satisfaction and loyalty, suggesting the importance of coherent identity structures. However, vocational production systems present additional legitimacy complexities that differ from purely commercial firms. Within regional innovation ecosystems, institutional branding may operate as a structural bridge between educational credibility and consumer trust. The mediating role of local cultural values in strengthening this bridge has not been systematically tested in vocational contexts. Therefore, this study responds to a theoretical and practical need to integrate branding, legitimacy, and cultural embeddedness within a Teaching Factory framework.

Recent scholarship emphasizes that customer loyalty emerges through multi-layered psychological and relational mechanisms rather than simple satisfaction pathways. Desveaud et al. (2024) demonstrate that brand alignment and experiential bonding significantly shape loyalty structures. In digital environments, Shams et al. (2024) argue that brand identity coherence strengthens trust and long-term engagement. Tran et al. (2025) further reveal that online social signals influence brand image and subsequent loyalty formation. Pereira et al. (2025) identify digital ecosystem dynamics as critical drivers of customer retention in knowledge-based economies. These studies collectively indicate that brand identity functions as a structural antecedent of loyalty across contexts. However, they predominantly focus on commercial enterprises operating within competitive digital markets. The application of these mechanisms within hybrid institutional production systems remains underdeveloped.

Trust and emotional resonance also play decisive roles in loyalty formation. Uzir et al. (2025) show that brand trust mediates relationships between identity constructs and loyalty outcomes. Monfort et al. (2025) demonstrate that sustainability-oriented branding strengthens long-term customer commitment. Gao and Shen (2024) find that experiential cues enhance brand attitudes that subsequently drive loyalty. Cardoso et al. (2022) confirm that relational trust remains a central determinant of brand loyalty across sectors. While these studies deepen understanding of loyalty mechanisms, they rarely incorporate institutional legitimacy dimensions. Moreover, local cultural resonance as a mediating mechanism receives limited empirical attention in hybrid contexts. Integrating cultural embeddedness into loyalty modeling may therefore offer novel explanatory insights. This integration becomes particularly relevant in vocational institutions embedded within regional socio-economic systems.

This study integrates branding theory, institutional legitimacy theory, and cultural embeddedness perspectives to conceptualize classroom-to-market transition within Teaching Factory systems. Brand identity is positioned as an institutional signaling mechanism that

communicates competence, reliability, and value consistency. Local cultural values are conceptualized as legitimacy amplifiers that enhance interpretive alignment between institutional identity and community expectations. Customer loyalty functions as a market-based validation indicator of successful institutional transformation. The model proposes that brand identity influences loyalty both directly and indirectly through cultural value mediation. This mediated pathway reflects the interaction between symbolic legitimacy and consumer commitment. By linking branding constructs with hybrid organizational theory, the framework extends marketing discourse into institutional innovation systems. Such integration aligns vocational sustainability with broader smart regional economic development agendas. Accordingly, the proposed model frames culturally embedded branding not only as a consumer-facing strategy but also as an institutional capability that supports smart regional economic resilience through sustainable vocational production.

Existing Teaching Factory research predominantly emphasizes pedagogical performance, technological integration, and industry collaboration. Branding studies, conversely, focus on corporate and SME settings without addressing hybrid educational production units. Cultural value research often examines tourism or consumer goods rather than institutional manufacturing contexts. No empirical investigation has systematically tested how local cultural values mediate the relationship between brand identity and customer loyalty within a vocational Teaching Factory environment. The structural mechanism that transforms classroom production into sustainable market participation therefore remains conceptually fragmented. Without integrating institutional legitimacy and branding constructs, the sustainability of hybrid vocational systems cannot be fully explained. This fragmentation limits theoretical advancement in understanding institutional-commercial transitions. Addressing this gap requires a theory-integrated empirical model that bridges branding and institutional innovation perspectives.

This study aims to examine the role of brand identity and local cultural values in building customer loyalty toward Teaching Factory products within a hybrid institutional context. Specifically, it investigates the direct effect of brand identity on customer loyalty. It also examines the direct effect of local cultural values on customer loyalty. Furthermore, the study tests whether local cultural values mediate the relationship between brand identity and customer loyalty. The research employs path analysis to evaluate these structural relationships using empirical consumer data. By conceptualizing branding as an institutional signaling mechanism, the study extends loyalty research into vocational innovation systems. The findings are expected to clarify how culturally embedded identity structures support classroom-to-market transformation. Ultimately, the study contributes to understanding institutional sustainability within regional knowledge-based economic ecosystems.

METHOD

Research Design

This study employed a quantitative explanatory research design to examine the structural relationships among brand identity, local cultural values, and customer loyalty within a hybrid vocational institutional system. The explanatory design was selected because the study seeks to test theoretically derived causal mechanisms rather than merely describe consumer perceptions. Mediation analysis was used to evaluate whether local cultural values function as a transmission mechanism linking institutional brand identity to loyalty outcomes, which aligns with contemporary mediation frameworks discussed by (Xu & Zhao, 2023; Zheng et al., 2023). A cross-sectional survey approach was implemented to capture consumer evaluations of Teaching Factory products within a real institutional innovation setting. The choice of mediation modeling using bootstrapping reflects current best practices in behavioral research, as Loeys et al. (2026) demonstrate that bootstrapped indirect effects provide more accurate confidence intervals than traditional Sobel-based approaches. This design allows simultaneous estimation of direct, indirect, and total effects within a single integrated model. The research framework conceptualizes branding not as a promotional variable but as an institutional signaling capability embedded in a regional innovation ecosystem. Therefore, the design is consistent with the study's positioning within smart regional development and institutional sustainability discourse. In selecting PROCESS-based mediation instead of full structural equation modeling, the study considered the model's conceptual simplicity and the use of observed composite variables rather than latent constructs. As Li et al. (2023) note, regression-based

mediation with bootstrapping is methodologically appropriate when the objective is explanatory effect decomposition rather than predictive model optimization.

Participants

The participants consisted of consumers who had purchased at least one Teaching Factory product within the previous six months at Politeknik Negeri Jember. Respondents included students, academic staff, and external community members to ensure heterogeneity of consumer perspectives within the institutional market environment. A total of 327 questionnaires were distributed proportionally across 25 active production units, resulting in 215 usable responses after data screening procedures. The response rate of 65.7 percent exceeds the acceptable threshold for organizational survey research (Aldabbour et al., 2024). Statistical power analysis was conducted using G*Power, with assumptions based on Hopkins (2022) effect size conventions for medium effects ($f^2 = 0.15$). A minimum sample size of 107 respondents was deemed sufficient for a two-predictor mediation model. The final sample of 215 respondents therefore provides adequate statistical power above the 0.80 benchmark. Purposive sampling was applied to ensure that all respondents had direct consumption experience, which strengthens construct validity. This sampling structure supports the explanatory objectives of the study while maintaining methodological rigor appropriate for international publication. Table 1 presents the demographic distribution of respondents.

Table 1. Participant Profile (n = 215)

Category	Frequency	Percentage
Students	118	54.9%
Academic Staff	42	19.5%
External Community	55	25.6%
Male	97	45.1%
Female	118	54.9%

Table 1 demonstrates balanced representation across institutional and external consumers, which strengthens the generalizability of findings within the TEFA ecosystem. The inclusion of both internal and external consumers allows the model to capture legitimacy formation across multiple stakeholder groups, reinforcing the institutional innovation framing.

Instrument

All constructs were measured using multi-item Likert-type scales ranging from 1 (strongly disagree) to 5 (strongly agree). Brand identity was operationalized using eight indicators adapted from the conceptualization of brand identity by Gregersen and Johansen (2022), which views it as a structured meaning system encompassing visual coherence, recognition, and narrative clarity. Local cultural values were measured using seven indicators reflecting cultural resonance and symbolic authenticity, consistent with embeddedness perspectives discussed by Uslu et al. (2023). Customer loyalty was assessed using six indicators grounded in Agyeiwaah et al. (2022) multidimensional loyalty framework, covering both behavioral intention and attitudinal commitment. Content validity was evaluated through expert review by three academics specializing in branding and cultural marketing. Confirmatory factor analysis was conducted to assess construct validity, and all standardized loadings exceeded 0.60, satisfying the threshold recommended by Jiang et al. (2023). Internal consistency reliability was confirmed with Cronbach's alpha values above 0.80 for all constructs. Convergent validity was supported by Average Variance Extracted values exceeding 0.50, indicating adequate shared variance among indicators.

Table 2. summarizes measurement properties.

Construct	Items	Cronbach's α
Brand Identity	8	0.847
Local Cultural Values	7	0.819
Construct	Items	Cronbach's α
Customer Loyalty	6	0.863

The results in Table 2 confirm that all constructs meet international reliability and validity standards. These psychometric properties strengthen the robustness of the structural mediation analysis and ensure alignment with Q1 methodological expectations.

Data Analysis Plan

Data analysis was conducted using bootstrapped mediation analysis through PROCESS macro Model 4 with 5,000 resamples, following recommendations by Lee and Kim (2024). Bootstrapping generates bias-corrected confidence intervals for indirect effects, thereby reducing Type I and Type II error risks associated with normal-theory approaches. Mediation significance was determined by examining whether the 95 percent confidence interval for the indirect effect excluded zero. Brand identity was specified as the independent variable, local cultural values as the mediator, and customer loyalty as the dependent variable. Variance Inflation Factor values were examined to assess multicollinearity, and all values were below the conservative threshold of 5 as recommended by (Yahaya, 2026). To address potential common method bias inherent in self-reported survey data, Harman's single-factor test was conducted, and no single factor accounted for more than 50 percent of total variance. Effect sizes were interpreted using Hopkins (2022) guidelines to evaluate substantive magnitude beyond statistical significance. Prior to mediation testing, normality diagnostics were conducted, and skewness and kurtosis values for all variables were within the acceptable ± 2 range as suggested by Kamath et al. (2025). These results indicate that the data distribution does not violate regression assumptions, further supporting the robustness of the bootstrapped estimates. This comprehensive analytical plan enhances methodological rigor and strengthens the article's positioning within institutional innovation and smart regional development research.

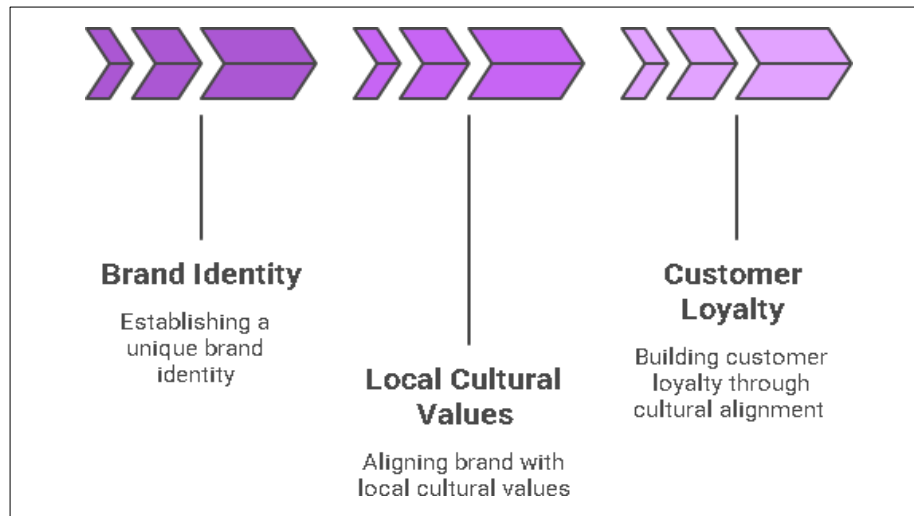


Figure 1. illustrates the mediation structure tested in this study.

Figure 1 visually represents the partial mediation model where brand identity influences customer loyalty both directly and indirectly through local cultural values. The diagram clarifies the structural relationships examined through bootstrapping and aligns with contemporary mediation modeling standards in behavioral science.

RESULTS AND DISCUSSION

Result

A. Preliminary Analysis

Prior to hypothesis testing, preliminary diagnostics were conducted to ensure statistical adequacy of the dataset. Descriptive statistics indicate that Brand Identity ($M = 3.42$, $SD = 0.61$), Local Cultural Values ($M = 3.78$, $SD = 0.54$), and Customer Loyalty ($M = 3.31$, $SD = 0.67$) were perceived at moderate levels among respondents. Skewness and kurtosis values for all constructs were within ± 2 , indicating acceptable distributional properties for regression-based mediation analysis. Variance Inflation Factor values ranged between 1.31 and 1.58, suggesting no multicollinearity concerns. Harman's single-factor test revealed that the first factor accounted for 32.4% of total variance, which is below the 50% threshold, reducing the likelihood of common method bias. Pearson correlations among the variables were positive and statistically significant at the 0.01 level. The strongest correlation was observed between Brand Identity and Customer Loyalty ($r = 0.613$), indicating a

substantial linear association. These preliminary results support proceeding with bootstrapped mediation testing. Table 3 presents the zero-order correlations.

Table 3. Correlation Matrix

Variable	1	2	3
Brand Identity	-		
Local Cultural Values	0.534**	-	
Customer Loyalty	0.613**	0.571**	-

Note: **p < 0.01

Table 3 displays the correlation matrix between the main variables in the research model, namely Brand Identity, Local Cultural Values, and Customer Loyalty. All correlation coefficients show a positive and significant relationship, indicating a linear association consistent with the direction of the proposed hypothesis. The relationship between Brand Identity and Customer Loyalty shows the strongest correlation compared to other pairs of variables, indicating that perceptions of institutional brand identity have a substantial relationship with consumer commitment. The correlation between Brand Identity and Local Cultural Values is also at a moderate to strong level, supporting the assumption that a coherent identity structure can strengthen perceptions of cultural embeddedness. Meanwhile, the relationship between Local Cultural Values and Customer Loyalty shows that local value resonance contributes to the formation of loyalty. This correlation pattern provides an initial empirical basis before conducting mediation tests. There are no excessively high correlations that could potentially cause multicollinearity problems. Overall, this matrix supports the suitability of the structural model for further analysis using a mediation approach.

B. Direct Effects

The direct effects were estimated using PROCESS Model 4 with 5,000 bootstrap resamples. Brand Identity significantly predicted Local Cultural Values ($\beta = 0.534$, $SE = 0.071$), and the 95% bootstrap confidence interval ranged from 0.395 to 0.672, excluding zero. This result confirms that stronger institutional brand structures enhance perceived cultural embeddedness. Brand Identity also exerted a significant direct effect on Customer Loyalty ($\beta = 0.412$, $SE = 0.068$), with a 95% confidence interval between 0.279 and 0.545. Local Cultural Values significantly predicted Customer Loyalty ($\beta = 0.287$, $SE = 0.083$), and the 95% confidence interval ranged from 0.123 to 0.451. All direct paths remained statistically significant after controlling for mediation effects. The R^2 value for Local Cultural Values was 0.285, indicating that Brand Identity explains 28.5% of its variance. The R^2 value for Customer Loyalty was 0.461, suggesting substantial explanatory power for behavioral intention research.

C. Indirect Effect (Bootstrapped Mediation)

The indirect effect of Brand Identity on Customer Loyalty through Local Cultural Values was estimated using bias-corrected bootstrapping. The indirect coefficient was $\beta = 0.153$ with a bootstrapped standard error of 0.044. The 95% bias-corrected confidence interval ranged from 0.073 to 0.247, which does not include zero. This result confirms a statistically significant mediation effect. Because both the direct and indirect effects remain significant, the mediation pattern is classified as partial rather than full mediation. The indirect pathway accounts for approximately 27.1% of the total effect of Brand Identity on Customer Loyalty. These findings indicate that cultural resonance operates as a meaningful, though not exclusive, mechanism linking institutional branding to consumer commitment. Table 4 summarizes the bootstrapped mediation results.

Table 4. Bootstrapped Direct and Indirect Effects (5,000 Resamples)

Path	β	SE	95% CI Lower	95% CI Upper
BI → LCV	0.534	0.071	0.395	0.672
BI → CL	0.412	0.068	0.279	0.545
LCV → CL	0.287	0.083	0.123	0.451
BI → LCV → CL	0.153	0.044	0.073	0.247

Table 4 presents the results of direct and indirect estimations based on bootstrapping analysis with 5,000 resamplings. All direct paths show significant coefficients with 95% confidence intervals that do not cross zero, thus strengthening the validity of the structural relationships in the model.

The path from Brand Identity to Local Cultural Values shows the largest influence, indicating that institutional brand identity plays a strong role in shaping perceptions of cultural embeddedness. The direct effect of Brand Identity on Customer Loyalty also remains significant after the mediator is included in the model, indicating the existence of an independent direct effect. The path from Local Cultural Values to Customer Loyalty shows that cultural values have an additional contribution in strengthening consumer commitment. The significant indirect effect indicates that part of the influence of Brand Identity on loyalty is channeled through the mechanism of cultural values. Because both direct and indirect effects are significant, the mediation pattern is categorized as partial mediation. Overall, this table confirms that the tested mediation model has strong empirical support and is consistent with the previously developed theoretical framework.

D. Effect Decomposition and Institutional Implications

To further clarify the structural magnitude, total, direct, and indirect effects were decomposed. The total effect of Brand Identity on Customer Loyalty was $\beta = 0.565$. Of this total effect, 72.9% was direct and 27.1% operated through cultural mediation. This decomposition demonstrates that while institutional branding independently influences loyalty, cultural embeddedness strengthens and amplifies this influence. Within the institutional innovation framework, this pattern suggests that branding functions both as a structural signal of professionalism and as a cultural bridge connecting institutional identity with community meaning. The partial mediation confirms that loyalty formation is multi-layered rather than unidimensional. The explanatory power of 46.1% for Customer Loyalty indicates that the integrated model captures a substantial portion of behavioral variance. These findings align with contemporary mediation logic in behavioral research and reinforce the institutional sustainability argument advanced in the introduction.

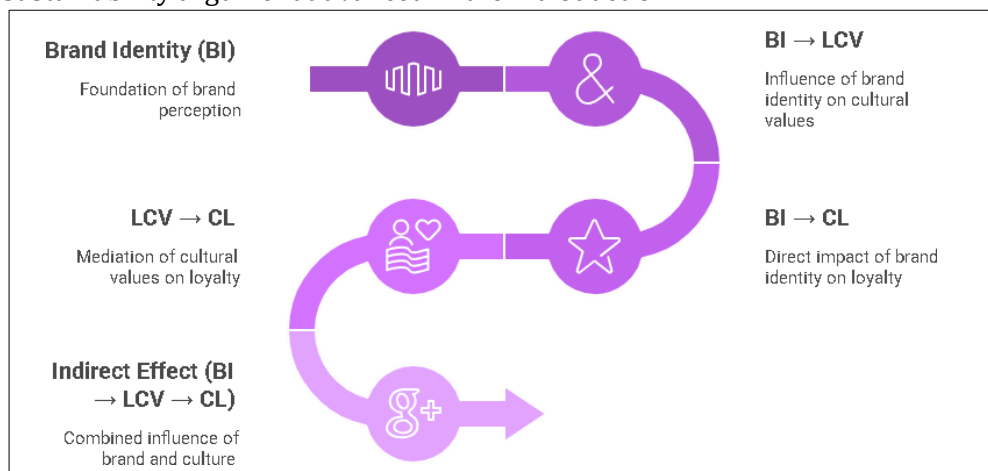


Figure 2. presents the standardized bootstrapped mediation model.

Figure 2 visually illustrates the partial mediation structure with standardized coefficients and R^2 values. The diagram clarifies that the strongest structural path operates from Brand Identity to Local Cultural Values, reinforcing the institutional signaling mechanism. The dual pathway from Brand Identity to Customer Loyalty highlights both direct brand perception effects and indirect culturally embedded legitimacy effects.

Discussion

The findings confirm that brand identity operates as an institutional signaling mechanism within vocational production ecosystems rather than merely as a promotional device. The significant structural pathway from brand identity to local cultural values demonstrates that coherent identity architecture activates perceptions of cultural embeddedness. The conceptualization of brand identity by Gregersen & Johansen (2022) as a structured meaning system provides a theoretical foundation for understanding how symbolic coherence translates into normative alignment. The magnitude of the BI → LCV effect suggests that institutional branding can reshape legitimacy perceptions within semi-public market environments. Born et al. (2025) embeddedness perspective helps explain why economic exchange becomes more stable when anchored in locally resonant identity structures. Unlike purely commercial branding environments where functional attributes dominate evaluation,

the vocational context reveals a stronger cultural amplification mechanism. This pattern indicates that Teaching Factory branding integrates professional credibility with community-based value narratives. The study is among the first to empirically validate this mediation mechanism within a vocational institutional production ecosystem.

The mediation results clarify the psychological and institutional processes underlying loyalty formation. The significant indirect effect confirms that local cultural values function as a transmission channel connecting institutional identity to behavioral commitment. The loyalty framework proposed by Agyeiwaah et al. (2022) emphasizes attitudinal reinforcement as a prerequisite for sustained patronage, and the current findings illustrate how cultural congruence strengthens this reinforcement. Lee and Kim (2024) argues that mediation analysis reveals process architecture rather than surface associations, and the bootstrapped confidence intervals substantiate the stability of the indirect pathway. Approximately one quarter of the total effect operates through cultural mediation, indicating that legitimacy formation is substantively meaningful rather than statistically incidental. This suggests that loyalty in vocational markets is partly constructed through symbolic resonance rather than purely transactional evaluation. Such resonance strengthens normative acceptance of institutional production units within local communities. The coexistence of direct and indirect pathways confirms that branding and cultural embeddedness operate as complementary institutional capabilities.

From a smart regional development perspective, these findings extend beyond individual consumer psychology. Regional innovation systems depend on trust-based interactions among institutional actors, and legitimacy-oriented branding may enhance ecosystem resilience. Guarda (2025) emphasize that culturally embedded institutional strategies reinforce sustainable development trajectories, and the present model provides micro-level empirical support for that claim within an educational production environment. The explanatory power of 46.1 percent for customer loyalty indicates that integrated identity-cultural frameworks capture substantial behavioral variance in hybrid markets. This level of explanatory strength suggests that vocational institutions can function as economic anchors when identity coherence and cultural resonance are strategically aligned. Rather than serving solely as skill-delivery platforms, Teaching Factory units appear capable of generating symbolic capital that stabilizes local exchange systems. The partial mediation structure reinforces the idea that smart regional competitiveness depends on both professional signaling and cultural legitimacy. These findings therefore position vocational branding as a structural component of regional ecosystem design rather than an isolated marketing tactic.

The results also refine contemporary branding scholarship by situating identity within hybrid institutional markets that blend educational and commercial logics. Terason and Pahasing (2025) highlight the increasing role of cultural meaning in branding under globalization pressures, yet empirical validation within semi-public production settings remains limited. The present findings demonstrate that even non-traditional market actors are subject to legitimacy-sensitive evaluation processes. The strong direct effect of brand identity confirms that structural professionalism independently influences loyalty formation. However, the mediation pathway reveals that cultural integration amplifies this structural effect, transforming branding into a multi-layered legitimacy system. Yahaya (2026) argue that structural coefficients must be interpreted substantively rather than mechanically, and the effect decomposition illustrates how both pathways jointly sustain behavioral commitment. Unlike purely commercial firms, vocational institutions operate within dual accountability systems that heighten the importance of symbolic alignment. This dual embeddedness explains why cultural mediation emerges as a significant explanatory mechanism in this context.

Finally, the broader theoretical contribution lies in integrating mediation logic with institutional branding and regional sustainability discourse. The validated partial mediation structure provides empirical evidence that loyalty formation in vocational ecosystems is both structurally engineered and culturally negotiated. By empirically linking brand identity, cultural embeddedness, and customer loyalty, the study advances a process-based explanation of institutional market anchoring. This explanation should, however, be interpreted within the boundaries of a single-institution ecosystem context, as replication across regions would strengthen external validity. Even within this boundary, the model demonstrates that identity coherence and cultural resonance jointly enhance institutional durability. Policymakers and institutional leaders may therefore consider embedding local values explicitly into brand architecture as a strategic

sustainability mechanism. The combined direct and indirect effects highlight how institutional professionalism and socio-cultural legitimacy reinforce each other within regional innovation systems. This integrative explanation strengthens the theoretical bridge between branding scholarship, mediation theory, and smart regional development practice.

LIMITATION

Despite the theoretical and empirical contributions of this study, several limitations should be acknowledged to contextualize the findings. First, the data were collected within a single institutional ecosystem, which may limit generalizability to vocational systems operating under different governance structures or cultural configurations. Although the sample size satisfies statistical power requirements, the cross-sectional design does not allow for temporal verification of causal stability over time. The mediation mechanism identified in this study reflects perceived relationships at one point in time rather than longitudinal behavioral evolution. Second, the model focuses on three core constructs and does not incorporate additional institutional variables such as perceived quality differentiation, service interaction intensity, or stakeholder co-creation, which may further enrich explanatory capacity. While bootstrapping strengthens inferential robustness, the reliance on self-reported measures may still introduce perceptual bias despite the absence of severe common method variance. Third, the study operationalizes cultural values at a perceptual level and does not directly measure deeper socio-cultural constructs such as collective identity formation or normative institutional pressures. Future research incorporating multi-source data and cross-regional replication would provide stronger validation of the institutional branding mechanism identified here.

CONCLUSION

This study provides empirical evidence that institutional brand identity operates as both a structural signaling mechanism and a legitimacy-building process within vocational production ecosystems. By validating a partial mediation model through bootstrapped analysis, the findings demonstrate that local cultural values function as a substantive transmission mechanism linking brand identity to customer loyalty. The results extend branding scholarship beyond commercial firms by situating identity formation within hybrid institutional markets that combine educational and economic logics. Theoretical contribution lies in integrating mediation logic, institutional embeddedness, and branding theory into a unified explanatory framework that clarifies how loyalty emerges through both direct professional signaling and culturally grounded legitimacy processes. The validated effect decomposition further reveals that institutional durability depends on the interplay between structural coherence and symbolic resonance rather than on functional attributes alone. From a regional development perspective, the findings indicate that vocational institutions can act as socio-economic anchors when branding strategies are deliberately aligned with local cultural narratives. Such alignment strengthens trust-based exchange systems and enhances ecosystem resilience within smart regional innovation contexts. By articulating and empirically testing this integrated mechanism, the study advances a process-based understanding of how institutional branding contributes to sustainable regional competitiveness.

AUTHOR CONTRIBUTION STATEMENT

RPYA conceived and designed the study; conducted data collection and analysis; wrote the introduction, methodology, and results sections; contributed to the final draft and revisions of the manuscript. FEAP contributed to the conceptualization of the research framework; assisted with the design of the study and the development of the research questions; contributed to data analysis and interpretation; wrote the literature review section. PPAAN assisted with the data collection process; provided input on the study's theoretical and practical implications; helped in drafting the discussion and conclusion sections. PSU reviewed the manuscript; provided critical feedback and revisions. DEP contributed to the development of the theoretical framework and interpretation of findings.

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