

The Role of Digital Transformation Capability and Local Wisdom in Driving Industrial Competitiveness and Sustainable Economic Growth

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Abstract. This study analyzes the role of Digital Transformation Capability and Local Wisdom in enhancing Industry Competitiveness, as well as their impact on Sustainable Economic Growth and Community Well-Being in industries based on local wisdom in the Special Region of Yogyakarta. The study employed a quantitative cross-sectional approach using 101 valid responses from business owners/managers. Five reflective constructs, each measured by five indicators, were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS 4. Measurement quality was evaluated through indicator loadings, internal consistency, convergent validity, discriminant validity, and structural model diagnostics. Findings: DTC had a positive effect on IC ($\beta = 0.416$; $p < 0.001$), as did LW ($\beta = 0.346$; $p < 0.001$). IC is a strong predictor of SEG ($\beta = 0.720$; $p < 0.001$), which in turn predicts CWB ($\beta = 0.647$; $p < 0.001$). The model explains 37.1% of the variance in IC, 51.8% of the variance in SEG, and 41.9% of the variance in CWB. The Q^2 values were positive for all endogenous constructs. Reliability was considered adequate, although the LW-AVE (0.490) was slightly below conventional criteria with 100 respondents and was analyzed using PLS-SEM via SmartPLS 4. The results indicate that digital capabilities and local wisdom have a positive effect on industrial competitiveness. Industrial competitiveness has the strongest influence on sustainable economic growth, while sustainable economic growth has a positive effect on community well-being. These findings indicate that digitalization and local wisdom can complement each other in strengthening competitiveness, driving sustainable economic growth, and increasing economic benefits for the community.

Keywords: *digital transformation capability; local wisdom; industry competitiveness; sustainable economic growth; community well-being; PLS-SEM.*

1 Introduction

Digital transformation has changed the way businesses create value, reach markets, manage information, and respond to changes in the business environment. For small and medium-sized enterprises (SMEs), the strategic issue is no longer simply whether digital tools are available, but whether companies are able to integrate these tools with organizational routines and market knowledge to enhance their ability to adapt and create value. These changes are not only related to the use of technology but also to an organization's ability to continuously adapt its strategies, processes, resources, and business models [1], [2], [3]. In the context of micro, small, and medium-sized enterprises [4], the benefits of digitalization are largely determined by a

company's internal ability to integrate technology into its business activities. Thus, digital transformation is more accurately understood as a strategic capability rather than merely the adoption of digital tools [5], [6].

Digital capabilities are becoming increasingly important because they can improve efficiency, expand market access, strengthen innovation, and help businesses respond more quickly to business opportunities. Kim & Jin show that digital capabilities can enhance entrepreneurial performance through the ability to identify opportunities [7], while Fang et al. found that digital capabilities support business model innovation and enhance the competitiveness of MSMEs [8]. These findings suggest that digital transformation has the potential to be a key driver of economic growth if technological capabilities are successfully translated into stronger competitiveness.

This context is relevant to the Special Region of Yogyakarta, which has a strong local economic base in the batik industry, handicrafts, traditional cuisine, the creative industries, and businesses related to tourism and culture. These businesses face a dual challenge. On the one hand, they need to expand their market reach, improve efficiency, enhance information utilization, and increase responsiveness through digitalization; on the other hand, they must preserve the authenticity that sets their products apart. Thus, viewing digitalization and tradition as mutually exclusive would overlook the possibility that they actually function as complementary strategic resources. Meanwhile, in 2025, the DIY economy is projected to grow by 5.49 percent, up from 5.03 percent in 2024, while the manufacturing sector contributed approximately 11.80 percent to the structure of the DIY regional GDP [9]. These conditions indicate that the sustainability of local industries plays a crucial role in sustaining value creation, employment opportunities, and regional economic activity.

However, industries based on local wisdom have distinct characteristics because their competitiveness stems not only from technology and efficiency but also from traditional knowledge, skills, cultural symbols, authenticity, product philosophy, and regional identity. The Resource-Based View provides a relevant explanation of the strategic value of local wisdom. Resources that are valuable, rare, difficult to imitate, and difficult to substitute can support sustainable competitive advantage [4]. Local knowledge, inherited skills, cultural symbols, product narratives, and social relationships inherent to a community are generally formed over the long term and are therefore not easily replicated like standardized physical assets. Evidence from Indonesia's creative industries supports this logic: traditional knowledge can be developed into dynamic capabilities that contribute to sustainable performance, while local wisdom can strengthen sustainable competitive advantage [10], [11]. Recent evidence regarding digital heritage branding also indicates that digitization can reinforce—rather than erase—cultural authenticity when applied contextually [12].

At the same time, cultural uniqueness alone may not be sufficient in a rapidly changing market. Dynamic Capability Theory explains that companies need the ability to detect changes, capitalize on opportunities, and reconfigure resources as the environment changes [13]. Digital Transformation Capability (DTC) can be understood through this perspective because it reflects the ability to integrate technology into decision-making, customer interactions, processes, and strategic updates. Empirical studies show that digital capabilities enhance entrepreneurial performance, support innovation in digital business models, and contribute to the competitiveness of SMEs [8], [7], [14], [6].

However, existing research tends to focus solely on firm-level outcomes, such as innovation, performance, or competitive advantage. This creates a gap between strategic management research and development-oriented questions. In industries based on local wisdom, greater competitiveness has the potential to generate consequences beyond the firm, as

production, labor, suppliers, cultural knowledge, and market activities are often embedded within local communities. More competitive industries have the potential to preserve jobs, expand local demand, enhance business sustainability, and create broader economic opportunities. Nevertheless, economic expansion is not synonymous with community well-being. Well-being is multidimensional and depends on the extent to which economic benefits translate into material security, employment opportunities, social conditions, and quality of life [15].

This study fills that gap by testing an integrated sequential model: DTC and LW are positioned as two parallel antecedents of Industry Competitiveness (IC); competitiveness is then linked to Sustainable Economic Growth (SEG); and sustainable economic growth is further linked to Community Well-Being (CWB). Thus, the model links digital resources and cultural resources to competitiveness outcomes, economic outcomes, and social outcomes. The contribution of this study lies in explaining the relative roles of adaptive digital capabilities and culture-embedded resources within a single PLS-SEM framework, while expanding its implications from firm performance to perceived local development outcomes.

2 Theoretical Framework

2.1 Resource-Based View and Dynamic Capability Theory

RBV explains the heterogeneity of firm performance by emphasizing differences in the ownership of strategic resources. For culture-based enterprises, local wisdom is highly relevant because its economic value is inseparable from historical experience, tacit knowledge, collective meaning, and production practices unique to a particular place. These characteristics increase causal ambiguity and social complexity, both of which make imitation more difficult. Therefore, local wisdom can function as a strategic cultural resource, rather than merely a symbolic attribute of a product [4].

Dynamic Capability Theory complements the Resource-Based View (RBV) by explaining how resources retain their value as markets and technologies change. [13] emphasizes sensing, seizing, and reconfiguring as core processes that enable organizations to renew their resource base. In digital transformation, these processes are reflected in the ability to identify digital opportunities, reorganize routines, develop new customer interfaces, leverage data in decision-making, and realign business models. The combination of RBV and dynamic capabilities is therefore appropriate for this study: LW represents the resource base inherent in culture, while DTC represents the adaptive capability to leverage and renew resources in a digital environment.

2.2 Digital Transformation Capability and Industry Competitiveness

Digital Transformation Capability refers to an organization's ability to integrate digital technology into its strategy, business processes, marketing, customer relationships, information management, and value creation [1], [2]. This capability can enhance competitiveness through efficiency, market expansion, accelerated information flow, strengthened customer relationships, and business model innovation.

Kim & Jin found that digital capabilities support the performance of SMEs through the ability to identify opportunities [7], while Fang et al demonstrated that digital capabilities contribute to business model innovation that enhances competitiveness [8]. Meier et al. also emphasized that digital transformation can foster competitiveness when technological, strategic, organizational, and cultural elements are effectively aligned [14].

2.3 Digital Transformation Capabilities and Industrial Competitiveness

Digital Transformation Capability refers to an organization's ability to integrate digital technology into its strategy, processes, customer relationships, information utilization, and value creation. This concept is broader than mere technology adoption because companies using similar technologies can produce different outcomes depending on how those technologies are combined with managerial routines and organizational resources [16], [1]. Digital capabilities can strengthen competitiveness by reducing transaction friction, expanding market reach, accelerating communication with customers, improving information quality, and facilitating business model innovation.

Fang et al, show that digital capabilities drive several dimensions of digital business model innovation, and that innovations in value creation, value propositions, and value capture contribute to the competitiveness of MSMEs [8]. Kim & Jin also report that digital capabilities enhance the entrepreneurial performance of MSMEs, with opportunity capability serving as a key mechanism [7]. Meier et al., argue that competitiveness arises when the technical, organizational, strategic, and cultural elements of digital transformation can be aligned [14]. These findings support the hypothesis that DTC is positively related to IC.

H1: Digital Transformation Capability has a positive effect on Industry Competitiveness.

2.4 Local Wisdom and Industrial Competitiveness

Local Wisdom encompasses the knowledge, values, production practices, symbols, skills, and social meanings inherent in a culture and passed down and reconstructed within a community. In a market context, these resources can create differentiation through authenticity, specialized skills, local narratives, and distinctive product characteristics. Their value becomes strategic when consumers recognize these attributes and companies are able to translate them into quality, innovation, identity, and market positioning.

Research on Indonesia's creative industries provides empirical support for this relationship. Permatasari et al, [11] demonstrate that capabilities based on traditional knowledge contribute to competitive advantage and sustainable performance in the weaving craft industry. Mahrinasari et al, [10] identify local wisdom as a crucial foundation for sustainable competitive advantage in the creative industries. Purwati et al. [12] further demonstrate that digital heritage branding can strengthen competitive advantage when cultural authenticity is preserved. Taken together, these findings suggest that local wisdom is not an obstacle to modernization but can instead serve as the basis for a differentiated competitive position.

H2: Local Wisdom Has a Positive Impact on Industry Competitiveness

2.5 Industry Competitiveness and Sustainable Economic Growth

Industry competitiveness reflects the ability of a company or industry to maintain and improve its market position through quality, innovation, productivity, differentiation, flexibility, and the ability to respond to external changes. In this study, competitiveness is positioned as an organizational outcome that gives DTC and LW economic consequences. A company may possess digital tools or unique cultural resources, but these assets only generate developmental value if they enhance the ability to survive, grow, innovate, and create demand.

The relationship between competitiveness and sustainable economic growth is particularly relevant in industries deeply embedded in the local economy. When competitive companies are able to maintain their market share and expand production, the impact can extend to labor demand, suppliers, distribution, related services, and local entrepreneurial opportunities. The concept of SEG in this study does not refer to the rate of macroeconomic growth, but rather captures respondents' perceptions of the extent to which industrial activity supports sustainable

productivity, income opportunities, employment, and the continuity of the local economy. This interpretation aligns with SDG 8, which links productive activities, entrepreneurship, technological advancement, decent work, and inclusive growth [17].

2.6 Sustainable Economic Growth and Social Well-being

Economic growth is not an end in itself. Development outcomes depend on the extent to which economic activity improves people's opportunities, material conditions, job security, and quality of life more broadly. The OECD's well-being framework emphasizes that well-being is multidimensional, encompassing income and wealth, employment, skills, environmental quality, social relationships, security, and subjective well-being [15]. Therefore, the positive relationship between economic expansion and well-being needs to be tested, not merely assumed.

In industries rooted in local wisdom, communities often play a role not only as workers and consumers but also as custodians of cultural knowledge that gives products their distinctive character. The economic growth generated by such industries carries greater developmental significance if it can sustain local livelihoods, expand opportunities, and distribute benefits to the communities whose knowledge and identity underpin the production process. This logic leads to the hypothesis that perceived sustainable economic growth will be positively correlated with community well-being.

H4: Sustainable Economic Growth has a positive effect on Community Well-Being.

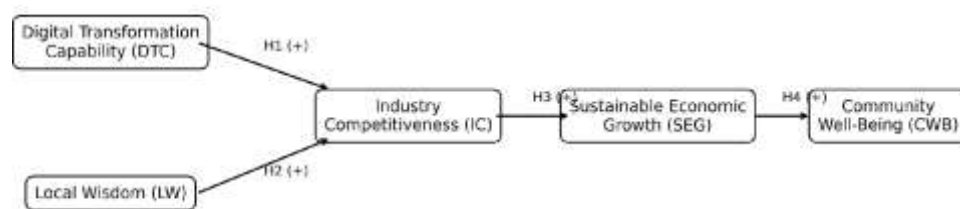


Figure 1. Research framework (Source: Created by the authors based on the proposed hypotheses).

3. Method

Research design and unit of analysis. This study employs an explanatory, cross-sectional quantitative design to test the theoretically defined relationships among five latent constructs. The unit of analysis is an industry or business based on local wisdom operating in the Special Region of Yogyakarta, while the respondents are owners or managers who possess sufficient knowledge regarding the company's digital practices, product cultural characteristics, competitive position, and contribution to the local economy. The analyzed dataset consists of 101 valid responses.

Measurement. The model consists of five reflective constructs: Digital Transformation Capability (DTC), Local Wisdom (LW), Industry Competitiveness (IC), Sustainable Economic Growth (SEG), and Community Well-Being (CWB). Each construct is measured using five indicators (DTC1–DTC5, LW1–LW5, IC1–IC5, SEG1–SEG5, and CWB1–CWB5). Responses are recorded using a five-point scale. DTC measures the strategic use of digital technology in

processes, market interactions, information, and value creation. LW represents the integration of cultural knowledge, symbols, skills, and identity into business activities. IC measures differentiation, quality, innovation, efficiency, adaptation, and market position. SEG is a perception-based construct that refers to the sustainability of local economic opportunities, productivity, income, employment, and the continuity of activities; this construct should not be interpreted as the actual GRDP growth rate. CWB represents the socioeconomic benefits perceived by the community, including economic opportunities, material security, and quality of life.

Data analysis. PLS-SEM was conducted using SmartPLS 4 because the study estimated several latent constructs and was oriented toward both explanation and prediction [18]. The analysis was conducted in two stages. First, the reflective measurement model was evaluated using outer loadings, Cronbach's alpha, rho_A, composite reliability (rho_C), Average Variance Extracted (AVE), cross-loadings, and the Fornell-Larcker criteria. Loading values close to or above 0.708 are considered ideal; however, indicators in the range of 0.40–0.70 may be retained if reliability, AVE, and construct content coverage support their inclusion. Alpha and composite reliability values above 0.70 indicate adequate internal consistency, while an AVE of 0.50 or higher indicates that the construct is capable of explaining at least half of the variance in its indicators [18]

Second, the structural model was evaluated using path coefficients, R^2 and adjusted R^2 , effect size (f^2), Q^2 predict, RMSE, MAE, and model fit diagnostics. The significance of direct paths was assessed using nonparametric bootstrapping results from SmartPLS, with $p < 0.05$ as the decision criterion. Predictive relevance is indicated when Q^2 -predict is positive. Since the available output does not include bootstrapping results for specific indirect effects, the magnitude of indirect paths is reported only as the product of their component coefficients and is not treated as an inferential mediation test in this manuscript

4. Results and Discussion

4.1 Descriptive Profile of Constructs

Descriptive statistics at the indicator level show a generally high level of agreement across all constructs. Average indicator scores ranged from 4.070 for LW to 4.335 for DTC on a five-point response scale. This pattern indicates that respondents generally perceive digital capabilities, competitiveness, sustainable economic contributions, and benefits to society at relatively high levels, although there are still significant variations among indicators.

Table 1. Descriptive summary of construct levels (N = 101; Source: SmartPLS descriptive output processed by the author).

Construct	Indicator	Average Indicator Score	Indicator Mean Range	Standard Deviation Range of Indicators
DTC	5	4.335	4.089–4.515	0.663–0.785
LW	5	4.070	3.921–4.297	0.704–0.941
IC	5	4.263	4.119–4.446	0.682–0.812
SEG	5	4.150	4.059–4.238	0.704–0.847
CWB	5	4.087	4.000–4.109	0.757–0.900

4.2 Measurement Model

The outer loading values range from 0.552 to 0.870. Most indicators are around or above the generally recommended value of 0.708, while some indicators have lower values: DTC1 (0.683), DTC4 (0.552), IC2 (0.692), LW1 (0.697), LW2 (0.587), LW5 (0.670), and SEG2 (0.647). These indicators are still above 0.50 and were retained to maintain construct coverage. Internal consistency is considered adequate: Cronbach's alpha ranges from 0.742 to 0.855, and composite reliability (rho_C) ranges from 0.826 to 0.896. The AVE values are greater than 0.50 for DTC, IC, SEG, and CWB. LW has an AVE of 0.490, just 0.010 below the conventional criterion. Thus, the measurement quality of LW is more accurately assessed as marginal rather than definitively meeting convergent validity; its adequate reliability and discriminant validity patterns support retaining the construct, but a robustness test should be conducted before the manuscript is submitted.

Table 2. Evaluation of the measurement model (Source: Data analyzed using SmartPLS 4).

Construct	Outer loading	Alpha	rho_A	CR	AVE
DTC	0.683, 0.796, 0.804, 0.552, 0.741	0.772	0.806	0.842	0.520
LW	0.697, 0.587, 0.706, 0.821, 0.670	0.742	0.771	0.826	0.490
IC	0.763, 0.692, 0.713, 0.745, 0.749	0.786	0.793	0.853	0.537
SEG	0.783, 0.647, 0.740, 0.794, 0.755	0.801	0.812	0.862	0.556
CWB	0.870, 0.722, 0.793, 0.832, 0.758	0.855	0.866	0.896	0.634

Discriminant validity was evaluated using the Fornell-Larcker criteria and the cross-loading patterns available in the output. The square root of the AVE for each construct was greater than its correlation with other constructs. The closest pair was IC and SEG (correlation = 0.720), which was still below their respective diagonal values (0.733 for IC and 0.746 for SEG). These results support the existence of empirical differentiation among constructs, although reporting the HTMT in the final manuscript would strengthen the evidence for discriminant validity.

Table 3. Fornell-Larcker criteria (diagonal = square root of AVE; Source: SmartPLS 4 output).

Construct	CWB	DTC	IC	LW	SEG
CWB	0.796				
DTC	0.381	0.721			
IC	0.596	0.510	0.733		
LW	0.657	0.272	0.459	0.700	
SEG	0.647	0.507	0.720	0.452	0.746

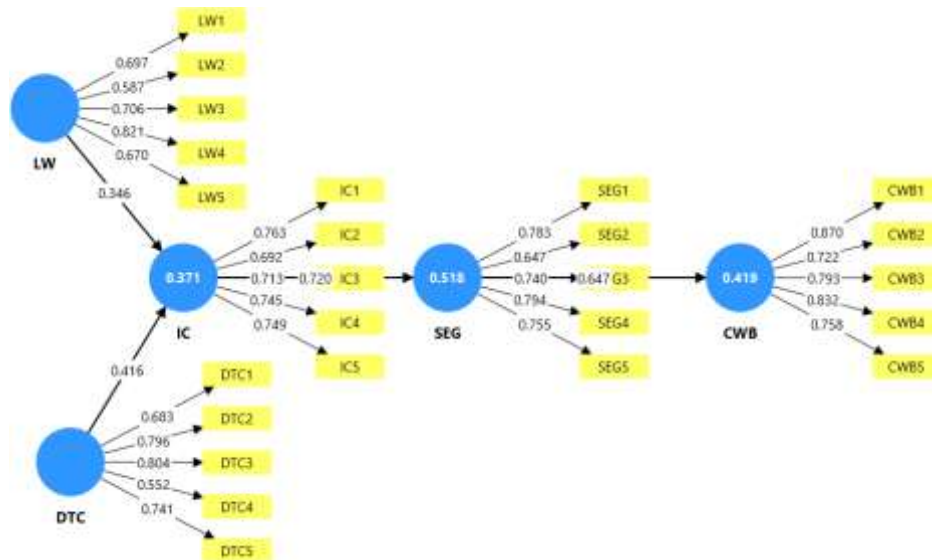


Figure 2. PLS-SEM measurement and structural model. (Source: SmartPLS output)

4.3 Structural Model and Predictive Evaluation

The structural model explains 37.1% of the variance in IC, 51.8% of the variance in SEG, and 41.9% of the variance in CWB. These values indicate a meaningful explanatory power, with the highest level of explanation found for SEG. All Q2 predict values are positive (0.321 for IC, 0.303 for SEG, and 0.263 for CWB), indicating predictive relevance compared to a naive benchmark based on the mean value. The f2 values indicate a moderate contribution from DTC (0.255) and LW (0.177) to IC, while IC makes a very large contribution to SEG (1.076) and SEG makes a large contribution to CWB (0.721).

Table 4. Evaluation of the explanatory and predictive capabilities of endogenous constructs (Source: SmartPLS 4 output).

Construct	R ²	Adjusted R ²	Q2 Predict	RMSE	MAE
IC	0.371	0.359	0.321	0.841	0.646
SEG	0.518	0.513	0.303	0.863	0.641
CWB	0.419	0.413	0.263	0.879	0.702

Table 5. Effect size (f2) evaluation (Source: SmartPLS 4 output).

STRUCTURAL PATHS	f2	INTERPRETATION
DTC -> IC	0.255	Moderate
LW -> IC	0.177	Moderate
IC -> SEG	1.076	High
SEG -> CWB	0.721	High

Global fit diagnostics must be interpreted with caution. The SRMR for the saturated model is 0.090 and for the estimated model is 0.119; the latter value exceeds the commonly used reference range of 0.08–0.10. The NFI is 0.617 for the saturated model and 0.589 for the estimated model. Since PLS-SEM is primarily prediction-oriented, these statistics should not be interpreted as the sole pass-fail test for the model. However, these values indicate that the approximate global fit of the model is not yet ideal. Therefore, the positive Q2-predict value and strong structural effects should be considered alongside these limitations, rather than used as a substitute for them.

4.4 Hypothesis Testing

The bootstrapping results show that all direct paths are positive and statistically significant. DTC has a positive effect on IC (beta = 0.416; $t = 4.867$; $p < 0.001$), thus supporting H1. LW also has a positive effect on IC (beta = 0.346; $t = 3.888$; $p < 0.001$), thus supporting H2. IC exerts the strongest direct structural effect in predicting SEG, with a beta of 0.720 ($t = 15.284$; $p < 0.001$), thus supporting H3. SEG has a positive effect on CWB (beta = 0.647; $t = 7.687$; $p < 0.001$), thus supporting H4.

Table 6. Direct hypothesis testing (Source: SmartPLS 4 bootstrapping output).

Hyp.	Path	Beta	Mean	SD	t	p	Decision
H1	DTC → IC	0.416	0.423	0.086	4,867	<0.001	Supported
H2	LW → IC	0.346	0.353	0.089	3.888	<0.001	Supported
H3	IC → SEG	0.720	0.728	0.047	15.284	<0.001	Supported
H4	SEG → CWB	0.647	0.656	0.084	7.687	<0.001	Supported

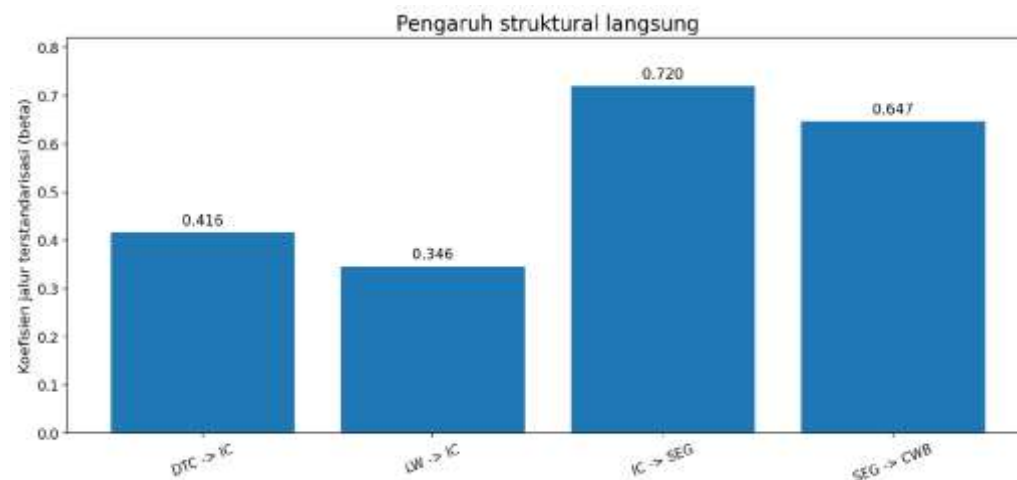


Figure 3. Standardized direct path coefficients (Source: SmartPLS 4 output)

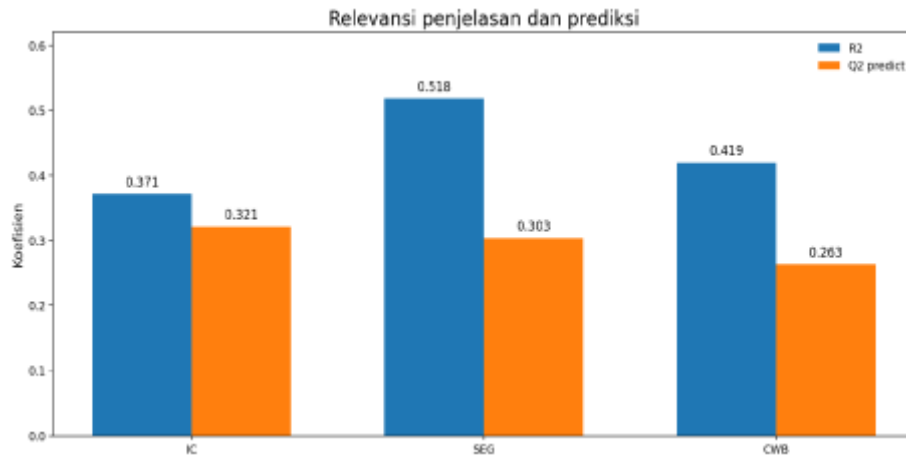


Figure 4. Explanatory and predictive relevance of the endogenous construct (Source: SmartPLS 4 output).

4.5 Magnitude of Indirect Mechanisms

The sequential specifications yield several indirect mechanisms. Multiplying the relevant path coefficients yields point estimates of 0.300 for $DTC \rightarrow IC \rightarrow SEG$, 0.249 for $LW \rightarrow IC \rightarrow SEG$, 0.466 for $IC \rightarrow SEG \rightarrow CWB$, 0.194 for $DTC \rightarrow IC \rightarrow SEG \rightarrow CWB$, and 0.161 for $LW \rightarrow IC \rightarrow SEG \rightarrow CWB$. The largest derived indirect effect is found in the $IC \rightarrow SEG \rightarrow CWB$ path, which illustrates the central role of sustainable economic growth in channeling the benefits of competitiveness toward societal well-being. These values are merely descriptive coefficient estimates. Since the available SmartPLS output does not yet include bootstrap standard errors, confidence intervals, or p-values for Specific Indirect Effects, H5–H8 cannot yet be formally accepted or rejected until these bootstrapping results are exported and incorporated into the analysis. Table 7. Indirect effect estimates (point estimates only; significance requires bootstrapping of specific indirect effects).

Indirect Path	Coefficient Product	Statistical Status
DTC → IC → SEG	0.300	Not yet tested inferentially on the available output
LW → IC → SEG	0.249	Not yet tested inferentially on the available output
IC → SEG → CWB	0.466	Not yet tested inferentially on the available output
DTC → IC → SEG → CWB	0.194	Not yet tested inferentially on the available output
LW → IC → SEG → CWB	0.161	Not yet tested inferentially on the available output

4.6 Digital Capabilities as a Mechanism of Competitiveness

The positive coefficient for DTC → IC confirms that digital transformation capabilities are associated with a stronger competitive position in industries based on local wisdom. The magnitude of the effect cannot be considered small: $\beta = 0.416$ and $f^2 = 0.255$ indicate that DTC makes a significant contribution to explaining IC alongside LW. These results are consistent with research that views digital capabilities as organizational capabilities, not merely a collection of technologies. Fang et al [8] demonstrate that digital capabilities enable business model innovation, while Kim and Jin [7] show that digital capabilities enhance MSME performance through capabilities related to opportunities. Meier et al, [14] also confirm that digital competitiveness depends on the alignment of technical, organizational, strategic, and cultural elements.

For culture-based industries, these findings indicate that digitization creates value when it enhances market reach, customer interaction, information processing, and organizational adaptability. These findings do not mean that companies need to pursue technology as an end in itself. Rather, digital capabilities become strategically important when they help companies respond more quickly, make better decisions, communicate product value, and access markets without eroding the characteristics that make local products unique

4.7 Local Wisdom as a Strategic Resource

LW also has a positive and significant effect on IC ($\beta = 0.346$; $F^2 = 0.177$). These results provide direct support for the RBV interpretation of cultural resources. Local knowledge, production skills, product philosophy, symbolism, and authenticity can serve as differentiating assets because they are historically formed and socially embedded. These findings are consistent with Mahrinasari et al, [10] who identified local wisdom as a source of sustainable competitive advantage in the creative industries, as well as Permatasari et al. [11] who demonstrated how traditional knowledge can support sustainable performance through dynamic capabilities.

The key point is that the influence of LW emerges alongside DTC, rather than replacing it. This empirical structure supports the perspective of complementarity. Digital capabilities provide adaptability and market connectivity, while local wisdom offers differentiation and authenticity. Purwati et al, [12] reached a similar conclusion, demonstrating that digital heritage branding can strengthen competitive advantage as long as the authenticity of MSMEs rooted in local wisdom is preserved. For policymakers and managers, this finding implies that digitization programs should not standardize culture-based businesses into mere generic online sellers; rather, such programs need to help companies translate their specific cultural values into digital channels.

4.8 From Competitiveness to Sustainable Local Economic Growth

The strongest structural relationship was found between IC and SEG ($\beta = 0.720$), accompanied by a very high f^2 value of 1.076. These results position competitiveness as the primary transmission mechanism between internal resources and perceived development outcomes. Competitive firms are better positioned to retain customers, expand markets, improve product quality, innovate, and ensure the continuity of production. In local industries, these changes can create demand for labor, inputs, distribution, and supporting services. Thus, these results expand the research on competitiveness at the firm level by showing how respondents associate competitive strength with more sustainable local economic activity.

The interpretation of the results must remain consistent with the SEG measurement. This construct reflects perceptions of opportunities, productivity, income, employment, and continuity, rather than directly observed macroeconomic growth. Therefore, this coefficient cannot be interpreted as evidence that a firm's competitiveness causes a 0.720 increase in regional GRDP. Its contribution is behavioral and perceptual in nature: respondents who perceive higher industrial competitiveness also report stronger outcomes of sustainable economic development. This distinction is important for maintaining the research's level of inference.

4.9 Sustainable Economic Growth and Community Well-being

SEG has a strong positive relationship with CWB (beta = 0.647; $f^2 = 0.721$). These results support the proposition that competitive success becomes socially meaningful when it translates into sustainable economic opportunities. These findings are consistent with a development framework that views employment, income security, opportunities, and quality of life as interrelated yet distinct dimensions of well-being. The OECD [15] emphasizes that well-being goes beyond income alone, while the SDG framework emphasizes inclusive and productive economic development [17].

The sequential logic within the model is therefore crucial. DTC and LW do not directly enter the CWB equation; both first contribute to competitive capabilities, which in turn contribute to economic sustainability, and subsequently to perceived societal well-being. The product of the derived coefficients for $IC \rightarrow SEG \rightarrow CWB$, amounting to 0.466, represents the largest indirect effect in the model. These results confirm SEG's role as a bridge between competitive success at the firm level and benefits at the societal level. However, the formal significance of the mediation effect still needs to be established using bootstrapped Specific Indirect Effects prior to publication.

This study contributes by integrating the Resource-Based View (RBV) and Dynamic Capability Theory at several outcome levels. The RBV explains why local wisdom can lead to differentiation, while Dynamic Capability Theory explains why companies need digital adaptability to update and leverage resources amid technological change. The model then expands on both perspectives by tracing their consequences from strategic resources to competitive capabilities, perceived economic sustainability, and community well-being. This sequential structure helps bridge the frequent disconnect between research on digital transformation at the firm level and research on development at the community level. Managers of businesses based on local wisdom need to view digital transformation as capability development. Investment priorities should include digital interactions with customers, market intelligence, data utilization, process coordination, and flexible business models—not merely the adoption of platforms. At the same time, cultural resources must be documented, narrated, protected, and integrated into product design and branding so that digital scaling does not diminish authenticity.

For local governments and development agencies, the research findings indicate that support for digitalization and cultural economic policies must be designed in an integrated manner. Training programs can combine digital marketing and data skills with product storytelling, heritage branding, intellectual property rights awareness, quality improvement, and market development. Since IC is a strong predictor of SEG, interventions that strengthen competitive capabilities have the potential to generate broader economic benefits. However, the ultimate goal should not be limited to sales growth; policy evaluations must also monitor job quality, the involvement of local suppliers, income opportunities, and benefits at the community level.

5. Conclusion

This study tests an integrated PLS-SEM model linking Digital Transformation Capability and Local Wisdom to Industry Competitiveness, Sustainable Economic Growth, and Community Well-Being in the Special Region of Yogyakarta. All four direct structural hypotheses were supported. Both DTC and LW strengthen IC, with a larger coefficient for DTC. IC strongly predicts SEG, and SEG in turn predicts CWB. The model explains 37.1% of the variance in IC, 51.8% of the variance in SEG, and 41.9% of the variance in CWB, while all Q2 predict values are positive.

In essence, the research findings show that digitalization and local culture need not be two competing development paradigms. Digital capabilities provide adaptability, the ability to utilize information, and market connectivity, while local wisdom offers differentiation, authenticity, and values rooted in culture. The contributions of both become more far-reaching when these resources are converted into competitiveness and when competitive performance generates sustainable local economic opportunities, thereby improving community well-being. Thus, the model supports the pathway of resources → competitiveness → development, rather than a direct leap from technology or culture to well-being.

6. Limitations

Several limitations should be noted. First, the study design is cross-sectional and uses perceptual data, so causal interpretations must be made with caution. A longitudinal design could be used to test whether improvements in capabilities precede changes in competitiveness and development outcomes. Second, SEG is a latent perceptual construct, not a directly observed regional growth statistic. Future research could combine survey measures with objective indicators such as labor absorption, sales growth, labor productivity, local procurement, or business sustainability.

Third, the measurement model exhibits marginal convergent validity for LW (AVE = 0.490), and the SRMR for the estimated model is 0.119. These values do not invalidate the structural findings but indicate room for improvement in measurement and model specification. Further robustness analysis should assess whether revising the weak LW indicator can improve the AVE without compromising content validity, and should report the HTMT along with Fornell-Larcker evidence. Fourth, the currently available output does not include bootstrapped Specific Indirect Effects. Before H5–H8 are formally reported as supported hypotheses, the indirect paths DTC → IC → SEG, LW → IC → SEG, and the two serial chains leading to CWB need to be tested using bootstrap confidence intervals. Finally, replication in other regions and sectors is needed to determine whether the complementarity between digital capabilities and local wisdom found in this study is specific to Yogyakarta or can be generalized to other culture-based economies.

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References

- [1] Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901. <https://doi.org/10.1016/j.jbusres.2019.09.022>
- [2] Vial, G. (2019). Understanding digital transformation: A review and a research agenda. In *Journal of Strategic Information Systems* (Vol. 28, No. 2, pp. 118–144). Elsevier B.V. <https://doi.org/10.1016/j.jsis.2019.01.003>
- [3] Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, 52(3), 326–349. <https://doi.org/10.1016/j.lrp.2018.12.001>
- [4] Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- [5] Saeedikiya, M., Salunke, S., & Kowalkiewicz, M. (2024). Toward a dynamic capability perspective of digital transformation in SMEs: A study of the mobility sector. *Journal of Cleaner Production*, 439. <https://doi.org/10.1016/j.jclepro.2024.140718>
- [6] Sagala, G. H., & Őri, D. (2024). Toward the success of digital transformation in SMEs: a systematic literature review. *Information Systems and E-Business Management*, 22(4), 667–719. <https://doi.org/10.1007/s10257-024-00682-2>
- [7] Kim, J., & Jin, W. (2024). Impact of digital capabilities on entrepreneurial performance in SMEs. *Journal of Innovation and Knowledge*, 9(4). <https://doi.org/10.1016/j.jik.2024.100609>
- [8] Fang, T. M., Ahmad, N. H., Halim, H. A., Iqbal, Q., & T. Ramayah. (2024). *Pathway toward SME competitiveness: Digital capability and digital business model innovation*.
- [9] BPS DIY. (2026). Economic Growth of the Special Region of Yogyakarta, Fourth Quarter 2025. In *Central Statistics Agency of the Special Region of Yogyakarta*.
- [10] Mahrinasari, M. S., Bangsawan, S., & Sabri, M. F. (2024). Local wisdom and the government's role in strengthening the sustainable competitive advantage of creative industries. *Heliyon*, 10(10). <https://doi.org/10.1016/j.heliyon.2024.e31133>
- [11] Permatasari, A., Dhewanto, W., & Dellyana, D. (2023). *The role of traditional knowledge-based dynamic capabilities in improving the sustainable performance of the weaving craft in Indonesia*. 17(3), 664–683.
- [12] Purwati, A. A., Irman, M., Siddik, M., Hamzah, M. L., Selvi, & Mery, S. (2026). Digital Heritage Ecosystem: Empowering MSMEs with local wisdom for sustainable competitive advantage. *Social Sciences and Humanities Open*, 13. <https://doi.org/10.1016/j.ssaho.2026.102624>
- [13] Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350. <https://doi.org/10.1002/smj.640>
- [14] Meier, A., Eller, R., & Peters, M. (2025). Creating competitiveness in incumbent small- and medium-sized enterprises: A revised perspective on digital transformation. *Journal of Business Research*, 186. <https://doi.org/10.1016/j.jbusres.2024.115028>
- [15] OECD. (2024). *How's Life? 2024*. OECD Publishing. <https://doi.org/10.1787/90ba854a-en>

- [16] Sagala, A. E. (2025). Development of Community-Based Culinary Tourism: A Case Study of Lembah Desa Pulutan, Pulutan Village, Wonosari District, Gunungkidul Regency. *The Journal of Gastronomy Tourism*, 12(2), 236–251. <https://doi.org/10.17509/gastur.v12i2.80892>
- [17] Nation, U. (2025). *The Sustainable Development Goals Report*.
- [18] Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. In **European Business Review** (Vol. 31, No. 1, pp. 2–24). Emerald Group Publishing Ltd. <https://doi.org/10.1108/EBR-11-2018-0203>