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# THE ROLE OF DIGITALIZATION AND DIGITAL READINESS IN SHAPING COMMITMENT TO THE DIGITAL TRANSFORMATION OF MANAGEMENT ACCOUNTING PRACTICES AMONG MSMEs IN BANDA ACEH

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**Abstract**

*This study examines eight potential factors associated with the commitment of micro, small, and medium enterprises (MSMEs) in Banda Aceh to the digital transformation of their management accounting practices, encompassing external pressures and internal organizational conditions. Survey data were collected from 52 MSME operators whose businesses had operated for at least five years and used digital applications for financial reporting or payments, and the data were analyzed using partial least squares structural equation modeling (PLS-SEM). Digital technology (β = 0.407, p = 0.005) and digital readiness (β = 0.498, p = 0.023) were positively and significantly associated with commitment to digital transformation, whereas governance pressure, competitive pressure, customer pressure, human resources, financial resources, and digital leadership showed no statistically significant associations. The model explains 75.8% of the variance in digital transformation commitment and shows good out-of-sample predictive power. The findings suggest that programs supporting the digitalization of management accounting in MSMEs should prioritize the use of digital technology and strengthen firms' readiness to use it.*

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## 1. Introduction

Digitalization can help businesses of all sizes, including micro, small, and medium enterprises (MSMEs), compete more effectively. Digital transformation goes beyond adopting new technology: it involves changing how businesses operate and reflects changes in organizational culture, knowledge, orientation, and commitment to continuously leveraging digital technologies (Cardoso et al., 2023; Faruque et al., 2024; Marolt et al.,



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2024). For MSMEs, digital tools can improve management accounting by providing timely, accurate, and relevant information for planning, monitoring operations, evaluating performance, and making decisions (Barreto et al., 2025; Quang Huy & Kien Phuc, 2023; Xiaoli et al., 2024). However, MSMEs' commitment to digital transformation remains highly varied, particularly in developing countries facing resource constraints, disparities in internal capabilities, and increasingly complex environmental pressures (Díaz-Arancibia et al., 2024; Huyen & Ly, 2024; Přívara et al., 2025).

Institutional and environmental pressures, particularly governance, competitive, and customer pressures, influence MSMEs' commitment to digital transformation. Governance pressure encourages organizations to adapt to increasingly digitalized regulations, standards, and professional practices (Gupta et al., 2020; Kuo et al., 2022). Competitive pressure encourages MSMEs to use digital tools in daily operations and accounting to work more efficiently, lower costs, and stay competitive (Anjarwati et al., 2023; Gillani et al., 2020), while customer pressure reflects rising expectations for convenient transactions, faster services, information transparency, and better digital experiences (Mou et al., 2022; Nabila et al., 2023). From a management accounting perspective, these pressures encourage MSMEs to adopt more structured, digitalized, and accountability-oriented recording, reporting, and control systems, including the implementation of SAK EMKM, the Indonesian financial accounting standard for micro, small, and medium entities (Barreto et al., 2025; Vonna et al., 2023).

Whereas external pressures can prompt MSMEs to pursue digital transformation, internal conditions, namely human resources, financial resources, digital technology, digital leadership, and digital readiness, largely determine whether the effort succeeds. Implementing digital accounting technologies requires adequate competence, digital literacy, and adaptability (Arnu et al., 2024; Díaz-Arancibia et al., 2024), as well as the financial capacity to invest in infrastructure, software, and digital accounting systems (Chwiłkowska-Kubala et al., 2023; Ramadhani & Trisnaningsih, 2022). Digital technology enables automation, data integration, and greater efficiency through accounting applications, online platforms, and cloud-based solutions (Aryanto et al., 2023; Hunitie & Akhorshaideh, 2025), while digital leaders set a clear direction for change, encourage new ways of working, and address employees' concerns about adopting new technologies (Aryanto & Farida, 2022; Thanh et al., 2025; Weber et al., 2022).

Digital readiness is a multidimensional construct reflecting an organization's preparedness in terms of technological infrastructure, strategic orientation, human resource competencies, internal motivation, and organizational support to adopt and use digital technologies effectively (Okfalisa et al., 2021; Pingali et al., 2023). It indicates not only the technical ability to use technology but also the organization's maturity in integrating technology into work processes and managerial decision-making (Williams et al., 2022, 2024). Studies of Indonesian MSMEs indicate that better-prepared organizations are more likely to innovate, learn, and adopt technology-based ways of working (Abdi et al., 2022; Anatan & Nur, 2023). In management accounting, the adoption of cloud accounting, e-invoicing, and digital financial planning requires adequate system, process, and behavioral readiness so that digital


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transformation generates sustained commitment rather than stopping at technology use (Musyaffi et al., 2025; Nguyen et al., 2025).

In Banda Aceh City, MSMEs play an important role in the local economy but still face challenges in adopting modern, digitally enabled management accounting practices, including limitations in standardized financial record-keeping, the use of digital technologies in business processes, and capacity building for sustainable competitiveness (Shifa et al., 2025; Vonna et al., 2023). Commitment to digital transformation in management accounting therefore cannot be explained solely by external pressures; it must also be understood through internal organizational readiness. Accordingly, this study examines the effects of governance pressure, competitive pressure, customer pressure, human resources, financial resources, digital technology, digital leadership, and digital readiness on digital transformation commitment in the management accounting practices of MSMEs in Banda Aceh City. By identifying factors that help MSMEs adopt digital tools, the study also contributes to Sustainable Development Goal (SDG) 8 (Targets 8.2 and 8.3) and SDG 9 (Targets 9.3 and 9.c) and is expected to inform policies, business support programs, and training initiatives that help MSMEs adapt to technological change, strengthen accountability, and remain competitive.

## 2. Literature Review and Hypothesis Development

### 2.1. Digital Transformation Commitment

Digital transformation commitment represents the sustained psychological, strategic, and resource-backed dedication of an organization and its leadership to continuously embed digital technologies into core business practices despite transitional challenges (Appio et al., 2024; Ghosh et al., 2020). In MSME management accounting, commitment is reflected in the sustained use of digital accounting tools for budgeting, cost control, performance evaluation, and strategic planning rather than temporary or symbolic adoption. Strong commitment ensures that digitalization becomes institutionalized as a permanent pillar of managerial decision-making (Obaid, 2024; Thanasas et al., 2026) and enables MSMEs to continuously refine their management accounting routines in response to evolving technologies and market demands (Broccardo et al., 2024; Prima et al., 2025). Drawing on Institutional Theory, the Technology–Organization–Environment (TOE) framework, and the Resource-Based View (RBV), the following hypotheses are proposed.

### 2.2. Governance Pressure

Governance pressure refers to regulatory mandates, fiscal policies, statutory reporting standards, and institutional programs that compel businesses to formalize and digitize their financial and managerial records (Ogbanufe et al., 2021). For MSMEs, electronic tax filing, digital financial reporting standards, and accountability requirements for accessing public financing act as coercive institutional forces that push them away from manual bookkeeping toward digitalized management accounting to ensure compliance and legitimacy (Jede et al., 2026; Sappor et al., 2023). Government-sponsored digitalization incentives and regulatory audits further require structured, real-time cost and revenue records (Bakar et al., 2026;


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Goeyardi et al., 2026). Stronger governance pressure is therefore expected to foster a more enduring commitment to digital transformation.

**H1:** *Governance pressure positively influences digital transformation commitment.*

### 2.3. Competitive Pressure

Competitive pressure reflects the intensity of industry rivalry, which forces firms to continuously innovate and optimize internal operations. Competitors that leverage real-time cost tracking, automated budgeting, and data-driven pricing gain substantial efficiency advantages (Pedroso & Gomes, 2024; Ratmono et al., 2023). Competitive pressure thus acts as a mimetic force that drives MSMEs to adopt modern management accounting tools to strengthen cost control, speed up decision-making, and maintain competitive parity (Lu & Shaharudin, 2024), as failing to do so exposes them to margin erosion and slower strategic responsiveness (Badria & Hasanah, 2024; Khalil et al., 2026; Subranta et al., 2026).

**H2:** *Competitive pressure positively influences digital transformation commitment.*

### 2.4. Customer Pressure

Customer pressure denotes buyers' and supply chain partners' demands regarding transaction speed, billing accuracy, digital invoicing, and transparent pricing (Nasereddin, 2024; Omol, 2023). As consumers and business-to-business (B2B) clients increasingly prefer seamless digital transactions, MSMEs face normative pressure to integrate customer-facing digital platforms with back-end management accounting systems. Meeting these expectations requires real-time inventory valuation, receivable tracking, and customer profitability analysis, thereby strengthening commitment to accounting digitalization (Bhimani et al., 2025; Hnatyshyn et al., 2025; Huyen & Ly, 2024; Prasetianingrum & Sonjaya, 2024).

**H3:** *Customer pressure positively influences digital transformation commitment.*

### 2.5. Human Resources

Human resources encompass the technical competencies, analytical skills, digital literacy, and adaptability of employees responsible for accounting and operational tasks (Kanakriyah et al., 2025). Successful digital management accounting in MSMEs relies on personnel who can operate accounting software, interpret financial dashboards, and translate transactional data into managerial insights. A lack of skilled personnel is a primary barrier to digitalization, whereas digitally competent staff reduce operational friction and strengthen the enterprise's capacity to sustain new accounting technologies (Elo et al., 2025; Fülöp et al., 2024; Kaur et al., 2021).

**H4:** *Human resources positively influence digital transformation commitment.*

### 2.6. Financial Resources

Financial resources represent the capital, liquidity, and budget allocation needed to acquire, implement, maintain, and upgrade digital accounting infrastructure (Halim, 2023). Because MSMEs frequently operate under tight cash-flow constraints, the costs of software subscriptions, cloud storage, hardware, and staff training significantly influence strategic


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decisions. Adequate financial slack reduces perceived risk, enables systematic investment in management accounting digitalization, and prevents the premature abandonment of digital initiatives (Ratmono et al., 2023; Roffia & Dabić, 2023; Ulupui et al., 2024).

**H5:** *Financial resources positively influence digital transformation commitment.*

### 2.7. Digital Technology

Digital technology refers to the availability, compatibility, and sophistication of information technology infrastructure, such as cloud-based accounting software, enterprise resource planning (ERP) modules, point-of-sale (POS) integrations, and data analytics tools, that supports management accounting functions (Jackson & Allen, 2023a, 2023b). Beyond transaction recording, these technologies enable automated cost allocation, variance analysis, cash flow forecasting, and real-time performance monitoring (Inayah & Susliyanti, 2025). When integrated across operational units, digital platforms eliminate data silos and provide managers with timely, granular accounting information (Elo et al., 2025; Goeyardi et al., 2026; Maryanti et al., 2026), thereby encouraging commitment to digital transformation.

**H6:** *Digital technology positively influences digital transformation commitment.*

### 2.8. Digital Leadership

Digital leadership is the strategic vision, technological awareness, and proactive championship demonstrated by business owners or top managers in steering digital change (Graham, 2026). In MSMEs, where decision-making authority is typically centralized in the owner-manager, leadership orientation determines whether digitalization is treated as a peripheral expense or a core strategic priority (Canhoto et al., 2021; Quinton et al., 2017; Sagala & Őri, 2024). Consistent with Upper Echelons perspectives, effective digital leaders foster an innovation-supportive culture, allocate resources to modernizing management accounting, model data-driven decision-making, and reduce internal resistance to new accounting workflows (Elo et al., 2025; Milačić & Zarkovic, 2025).

**H7:** *Digital leadership positively influences digital transformation commitment.*

### 2.9. Digital Readiness

Digital readiness refers to an organization's holistic preparedness, capability, and willingness to adopt, assimilate, and leverage digital technologies to transform business processes (Gold et al., 2026). Rather than merely possessing hardware or software, it reflects the synchronization of technological infrastructure, financial backing, skilled personnel, and leadership support in responding to external pressures (Chwiłkowska-Kubala et al., 2023; Jöhnk et al., 2020). From a dynamic capabilities perspective, high digital readiness equips MSMEs with the confidence and agility to move from retrospective bookkeeping to proactive, analytics-driven accounting, acting as an absorptive bridge that determines whether pressures and resources materialize into sustained digital transformation (Badria & Hasanah, 2024; Shbail et al., 2026).

**H8:** *Digital readiness positively influences digital transformation commitment.*

The conceptual framework of this study is presented in Figure 1.


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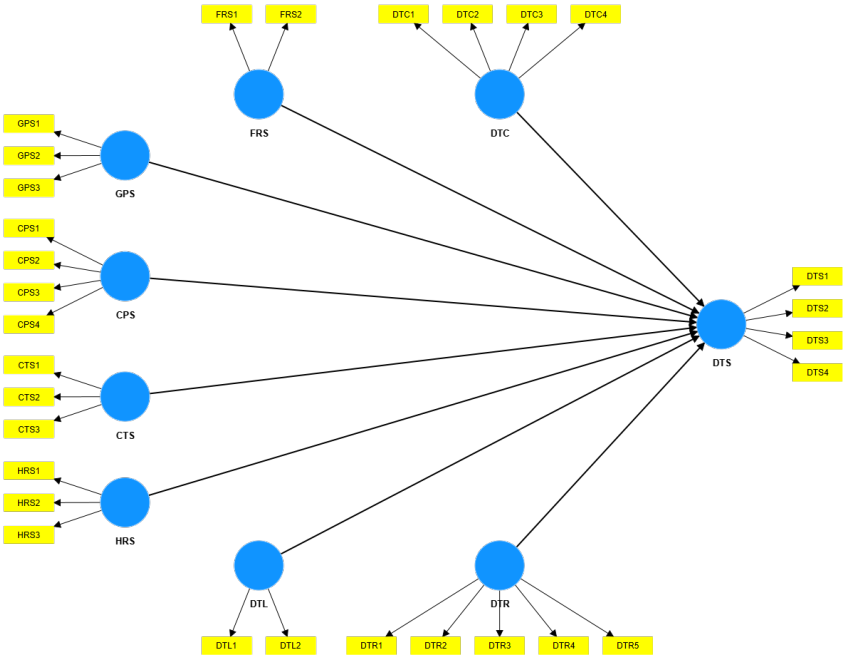



**Figure 1.** Conceptual Framework
*Source: Authors' conceptualization (2026)*

## 3. Research Methods

### 3.1. Research Design and Analysis

This study used a cross-sectional, explanatory quantitative survey to examine how external pressures and internal organizational factors are associated with commitment to digital transformation in the management accounting practices of MSMEs in Banda Aceh City, Indonesia. The model specifies eight direct paths to digital transformation commitment (DTS) from governance pressure (GPS), competitive pressure (CPS), customer pressure (CTS), human resources (HRS), financial resources (FRS), digital technology (DTC), digital leadership (DTL), and digital readiness (DTR).

The target population comprised registered MSMEs in Banda Aceh City; as a reference, the Banda Aceh City Office of Cooperatives and SMEs reported 9,591 registered MSMEs in 2025. The MSME was the unit of analysis, and MSME operators were the respondents. Eligible enterprises had operated for at least five years and used digital applications for real-time online financial reporting or digital payments. Purposive sampling was used to apply these criteria, and convenience sampling was used to recruit reachable operators. Eligibility was checked before the questionnaire was administered, and a total of 52 eligible respondents completed the questionnaire, all of whom were included in the analysis.

Data were collected from June to September 2026 through online and in-person questionnaires. Respondents received an explanation of the study's purpose and gave their consent before participating, and their identities were kept confidential. All items used a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The data were analyzed using partial least squares structural equation modeling (PLS-SEM) in SmartPLS


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4, which allowed the reflective measurement models and the eight hypothesized relationships to be estimated within a single framework (Hair et al., 2019).

Convergent validity was assessed using outer loadings (≥ 0.70) and average variance extracted (AVE ≥ 0.50); discriminant validity was assessed using cross-loadings; and internal consistency was assessed using Cronbach's alpha and composite reliability (≥ 0.70) (Hair et al., 2019). The structural model was evaluated using the path coefficients (β), $R^2$, and adjusted $R^2$ of DTS, with bootstrapping used to test the significance of the eight paths at the 5% level. Out-of-sample predictive performance was assessed using PLSpredict, which generates predictions for observations held out from model estimation through cross-validation (Shmueli et al., 2019); a positive $Q^2_{predict}$ indicates that the model outperforms a benchmark based on the training-sample mean.

### 3.2. Measurement Items

Table 1 presents the English versions of the 30 questionnaire items used to measure the nine constructs and their sources.

**Table 1.** Measurement Items

| Variable | Code | Indicator | Source |
|---|---|---|---|
| *Dependent variable* | | | |
| Digital Transformation Commitment (DTS) | DTS1 | Our business prioritizes the use of digital technology in its operations. | Cardoso et al. (2023); Thanh et al. (2025) |
| | DTS2 | Our business is committed to keeping up with developments in digital technology. | |
| | DTS3 | Our experience with digital technology encourages our business to digitize other business activities. | |
| | DTS4 | Our business is committed to maintaining and expanding the use of digital technology in accounting and business management. | |
| *Independent variables* | | | |
| Governance Pressure (GPS) | GPS1 | Government agencies encourage our business to use digital technology for recordkeeping and business management. | Adapted from Kuo et al. (2022); Thanh et al. (2025) |
| | GPS2 | Business associations, MSME communities, or business support organizations encourage our business to digitize its operations. | |
| | GPS3 | External organizations involved in MSME development encourage our business to use digital technology for transactions, recordkeeping, or reporting. | |
| Competitive Pressure (CPS) | CPS1 | Competitors in our line of business that use digital technology gain substantial benefits in their operations. | Adapted from Kuo et al. (2022); Thanh et al. (2025) |
| | CPS2 | Customers, business partners, or the public view competitors that use digital technology more favorably. | |
| | CPS3 | Competitors that have adopted digital technology are better able to attract customers and manage their businesses. | |


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| Variable | Code | Indicator | Source |
|---|---|---|---|
| | CPS4 | Customers tend to view competitors that offer digital services, such as digital payments or online promotions, favorably. | |
| Customer Pressure (CTS) | CTS1 | Customers expect our business to offer digital services, such as online product information, online ordering, or digital payments. | Adapted from Gupta et al. (2020); Kuo et al. (2022); Thanh et al. (2025) |
| | CTS2 | Customers prefer to place orders or make transactions through digital services that are quick and easy to use. | |
| | CTS3 | Our business needs to use digital technology to meet customer needs for product information, ordering, and transactions. | |
| Human Resources (HRS) | HRS1 | Our cashiers or employees readily accept the use of digital technology in their daily work. | Nasiri et al. (2020); Thanh et al. (2025) |
| | HRS2 | Our business supports digital skills development for cashiers or employees to help them carry out business activities. | |
| | HRS3 | Our cashiers or employees have adequate skills to use digital applications in their work. | |
| Financial Resources (FRS) | FRS1 | Our business has funds or access to financing to use digital technology in its operations. | Chwiłkowska-Kubala et al. (2023); Thanh et al. (2025) |
| | FRS2 | Our business has sufficient financial resources to purchase, use, or maintain the digital devices and applications it needs. | |
| Digital Technology (DTC) | DTC1 | Our business uses digital applications or devices to support transactions, sales recording, and payments. | Adapted from Gillani et al. (2020); Thanh et al. (2025) |
| | DTC2 | Our business uses digital technology to make customer service, transactions, recordkeeping, and business management faster and more efficient. | |
| | DTC3 | Our business uses digital applications or systems to summarize sales, record expenses, monitor inventory, or store transaction data. | |
| | DTC4 | Our business uses digital technology to track business information, such as product data, inventory levels, transaction histories, or sales reports. | |
| Digital Leadership (DTL) | DTL1 | Our owners or managers recognize that digital technology is important for improving competitiveness and business management. | Weber et al. (2022); Thanh et al. (2025) |
| | DTL2 | Our owners or managers actively look for opportunities to use digital technology in transactions, recordkeeping, customer service, or business decision-making. | |
| Digital Readiness (DTR) | DTR1 | Our business has adequate digital devices and applications to support digitalization. | Rieg & Vanini (2026) |
| | DTR2 | Our cashiers or employees can draw on their existing experience and skills to support digitalization. | |
| | DTR3 | Our cashiers or employees have adequate digital skills to implement digitalization. | |


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| Variable | Code | Indicator | Source |
|---|---|---|---|
| | DTR4 | Our business has sufficient budget and capacity to implement digitalization now and in the near future. | |
| | DTR5 | Digitalization will change how our business carries out transactions, keeps records, serves customers, and manages its operations in the future. | |

*Source: Compiled by the authors (2026).*

## 4. Results and Discussion

### 4.1. Respondent Profile

Table 2 summarizes the characteristics of the 52 MSME respondents. Most respondents were female (63.46%), aged 20–39 years (78.85%), and held managerial positions (73.08%). Microbusinesses dominated the sample (76.92%), and trade, hotels, and restaurants were the largest sector (67.31%). Most MSMEs were relatively recent adopters of digitalized accounting systems, with 63.46% having used them for less than two years.



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**Table 2.** Respondent Profile

| Characteristic | Category | Frequency | Percentage (%) |
|---|---|---|---|
| Gender | Male | 19 | 36.54 |
| | Female | 33 | 63.46 |
| Age | 20–29 years | 22 | 42.31 |
| | 30–39 years | 19 | 36.54 |
| | 40–49 years | 10 | 19.23 |
| | > 50 years | 1 | 1.92 |
| Position | Manager | 38 | 73.08 |
| | Finance staff/cashier | 14 | 26.92 |
| Business size | Micro (annual revenue up to IDR 500 million) | 40 | 76.92 |
| | Small (revenue > IDR 300 million–IDR 2.5 billion) | 11 | 21.15 |
| | Medium (revenue > IDR 2.5 billion–IDR 50 billion) | 1 | 1.92 |
| Economic sector | Trade, hotels, and restaurants | 35 | 67.31 |
| | Services | 7 | 13.46 |
| | Agriculture, livestock, forestry, and fisheries | 3 | 5.77 |
| | Finance, leasing, and business services | 3 | 5.77 |
| | Processing industry | 2 | 3.85 |
| | Transportation and communication | 1 | 1.92 |
| | Electricity, gas, and clean water | 1 | 1.92 |
| Duration of digital accounting use | < 2 years | 33 | 63.46 |
| | 3–5 years | 12 | 23.08 |
| | 6–8 years | 4 | 7.69 |
| | > 8 years | 3 | 5.77 |
| **Total** | | **52** | **100.00** |

*Note: No respondents operated in building construction or mining and quarrying.*
*Source: Processed data (2026).*

## 4.2. Measurement Model Evaluation

As shown in Table 3, all outer loadings exceed 0.70 and all AVE values exceed 0.50, confirming convergent validity.


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**Table 3.** Convergent Validity Results

| Variable | Indicator | Outer Loading | AVE | Result |
|---|---|---|---|---|
| Governance Pressure (GPS) | GPS1 | 0.921 | 0.658 | Valid |
| | GPS2 | 0.792 | | |
| | GPS3 | 0.707 | | |
| Competitive Pressure (CPS) | CPS1 | 0.901 | 0.762 | Valid |
| | CPS2 | 0.857 | | |
| | CPS3 | 0.905 | | |
| | CPS4 | 0.826 | | |
| Customer Pressure (CTS) | CTS1 | 0.926 | 0.690 | Valid |
| | CTS2 | 0.789 | | |
| | CTS3 | 0.769 | | |
| Human Resources (HRS) | HRS1 | 0.904 | 0.814 | Valid |
| | HRS2 | 0.892 | | |
| | HRS3 | 0.911 | | |
| Financial Resources (FRS) | FRS1 | 0.899 | 0.824 | Valid |
| | FRS2 | 0.916 | | |
| Digital Technology (DTC) | DTC1 | 0.919 | 0.826 | Valid |
| | DTC2 | 0.911 | | |
| | DTC3 | 0.900 | | |
| | DTC4 | 0.904 | | |
| Digital Leadership (DTL) | DTL1 | 0.945 | 0.902 | Valid |
| | DTL2 | 0.954 | | |
| Digital Readiness (DTR) | DTR1 | 0.761 | 0.628 | Valid |
| | DTR2 | 0.748 | | |
| | DTR3 | 0.900 | | |
| | DTR4 | 0.757 | | |
| | DTR5 | 0.787 | | |
| Digital Transformation Commitment (DTS) | DTS1 | 0.889 | 0.840 | Valid |
| | DTS2 | 0.885 | | |
| | DTS3 | 0.952 | | |
| | DTS4 | 0.938 | | |

*Source: Data processed with SmartPLS 4 (2026).*



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Discriminant validity was assessed by comparing each indicator's loading on its intended construct with its loadings on the other constructs (Table 4). Each indicator loads more highly on its designated construct than on the other constructs, supporting discriminant validity.

**Table 4.** Discriminant Validity Results (Cross-Loadings)

| Item | GPS | CPS | CTS | HRS | FRS | DTC | DTL | DTR | DTS |
|---|---|---|---|---|---|---|---|---|---|
| GPS1 | **0.921** | 0.021 | −0.005 | 0.122 | 0.330 | 0.163 | 0.126 | 0.335 | 0.355 |
| GPS2 | **0.792** | 0.188 | 0.051 | 0.121 | 0.010 | 0.065 | −0.127 | 0.015 | 0.072 |
| GPS3 | **0.707** | 0.112 | 0.023 | 0.110 | 0.123 | 0.218 | −0.011 | 0.046 | 0.174 |
| CPS1 | 0.114 | **0.901** | 0.429 | 0.462 | 0.274 | 0.354 | 0.422 | 0.392 | 0.486 |
| CPS2 | −0.026 | **0.857** | 0.527 | 0.382 | 0.202 | 0.320 | 0.487 | 0.339 | 0.390 |
| CPS3 | 0.048 | **0.905** | 0.620 | 0.430 | 0.208 | 0.318 | 0.415 | 0.313 | 0.393 |
| CPS4 | 0.142 | **0.826** | 0.614 | 0.457 | 0.072 | 0.319 | 0.181 | 0.281 | 0.333 |
| CTS1 | 0.042 | 0.616 | **0.926** | 0.761 | 0.235 | 0.595 | 0.458 | 0.518 | 0.492 |
| CTS2 | 0.095 | 0.565 | **0.789** | 0.598 | 0.148 | 0.348 | 0.348 | 0.287 | 0.229 |
| CTS3 | −0.101 | 0.344 | **0.769** | 0.355 | 0.384 | 0.321 | 0.523 | 0.404 | 0.320 |
| HRS1 | 0.133 | 0.485 | 0.658 | **0.904** | 0.407 | 0.631 | 0.435 | 0.545 | 0.473 |
| HRS2 | 0.200 | 0.417 | 0.616 | **0.892** | 0.391 | 0.648 | 0.265 | 0.466 | 0.474 |
| HRS3 | 0.041 | 0.437 | 0.643 | **0.911** | 0.384 | 0.670 | 0.385 | 0.536 | 0.439 |
| FRS1 | 0.237 | 0.167 | 0.222 | 0.346 | **0.899** | 0.400 | 0.430 | 0.588 | 0.516 |
| FRS2 | 0.261 | 0.241 | 0.334 | 0.443 | **0.916** | 0.566 | 0.489 | 0.713 | 0.564 |
| DTC1 | 0.179 | 0.410 | 0.547 | 0.743 | 0.487 | **0.919** | 0.507 | 0.702 | 0.703 |
| DTC2 | 0.183 | 0.442 | 0.569 | 0.749 | 0.520 | **0.911** | 0.550 | 0.702 | 0.705 |
| DTC3 | 0.204 | 0.276 | 0.425 | 0.570 | 0.495 | **0.900** | 0.328 | 0.642 | 0.683 |
| DTC4 | 0.152 | 0.223 | 0.404 | 0.539 | 0.440 | **0.904** | 0.336 | 0.599 | 0.613 |
| DTL1 | 0.024 | 0.446 | 0.578 | 0.393 | 0.470 | 0.488 | **0.945** | 0.674 | 0.520 |
| DTL2 | 0.099 | 0.393 | 0.445 | 0.369 | 0.493 | 0.422 | **0.954** | 0.631 | 0.568 |
| DTR1 | 0.120 | 0.162 | 0.182 | 0.252 | 0.519 | 0.565 | 0.575 | **0.761** | 0.622 |
| DTR2 | 0.229 | 0.444 | 0.572 | 0.709 | 0.466 | 0.718 | 0.438 | **0.748** | 0.549 |
| DTR3 | 0.308 | 0.334 | 0.485 | 0.614 | 0.584 | 0.648 | 0.508 | **0.900** | 0.687 |
| DTR4 | 0.242 | 0.119 | 0.319 | 0.356 | 0.840 | 0.559 | 0.489 | **0.757** | 0.567 |
| DTR5 | 0.116 | 0.437 | 0.461 | 0.360 | 0.519 | 0.446 | 0.675 | **0.787** | 0.755 |
| DTS1 | 0.293 | 0.440 | 0.408 | 0.589 | 0.506 | 0.789 | 0.448 | 0.740 | **0.889** |
| DTS2 | 0.371 | 0.355 | 0.335 | 0.317 | 0.556 | 0.566 | 0.530 | 0.670 | **0.885** |
| DTS3 | 0.267 | 0.426 | 0.395 | 0.444 | 0.589 | 0.653 | 0.595 | 0.815 | **0.952** |
| DTS4 | 0.247 | 0.481 | 0.504 | 0.513 | 0.534 | 0.714 | 0.532 | 0.743 | **0.938** |

*Note: Bold values indicate loadings on the designated construct.*
*Source: Data processed with SmartPLS 4 (2026).*

As shown in Table 5, Cronbach's alpha and composite reliability exceed 0.70 for every construct, indicating that the indicators within each construct are internally consistent.



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**Table 5.** Reliability Test Results

| Variable | Cronbach's Alpha | Composite Reliability | Result |
|---|---|---|---|
| Governance Pressure | 0.784 | 1.046 | Reliable |
| Competitive Pressure | 0.896 | 0.914 | Reliable |
| Customer Pressure | 0.781 | 0.900 | Reliable |
| Human Resources | 0.886 | 0.887 | Reliable |
| Financial Resources | 0.786 | 0.791 | Reliable |
| Digital Technology | 0.930 | 0.932 | Reliable |
| Digital Leadership | 0.891 | 0.896 | Reliable |
| Digital Readiness | 0.851 | 0.861 | Reliable |
| Digital Transformation Commitment | 0.936 | 0.939 | Reliable |

*Source: Data processed with SmartPLS 4 (2026).*

### 4.3. Structural Model Evaluation

The model explains 75.8% of the variance in MSMEs' commitment to digital transformation in management accounting ($R^2$ = 0.758; adjusted $R^2$ = 0.713), as shown in Table 6. The PLSpredict results show a $Q^2_{predict}$ of 0.574 for digital transformation commitment, with an RMSE of 0.680 and an MAE of 0.493, indicating good out-of-sample predictive power.

**Table 6.** Coefficient of Determination and Predictive Relevance

| Variable | $R^2$ | Adjusted $R^2$ | $Q^2_{predict}$ | RMSE | MAE |
|---|---|---|---|---|---|
| Digital Transformation Commitment | 0.758 | 0.713 | 0.574 | 0.680 | 0.493 |

*Source: Data processed with SmartPLS 4 (2026).*

### 4.4. Hypothesis Testing

The hypotheses were tested using bootstrapping in SmartPLS 4. Figure 2 shows the p-values of the structural paths, and Table 7 summarizes the hypothesis testing results.



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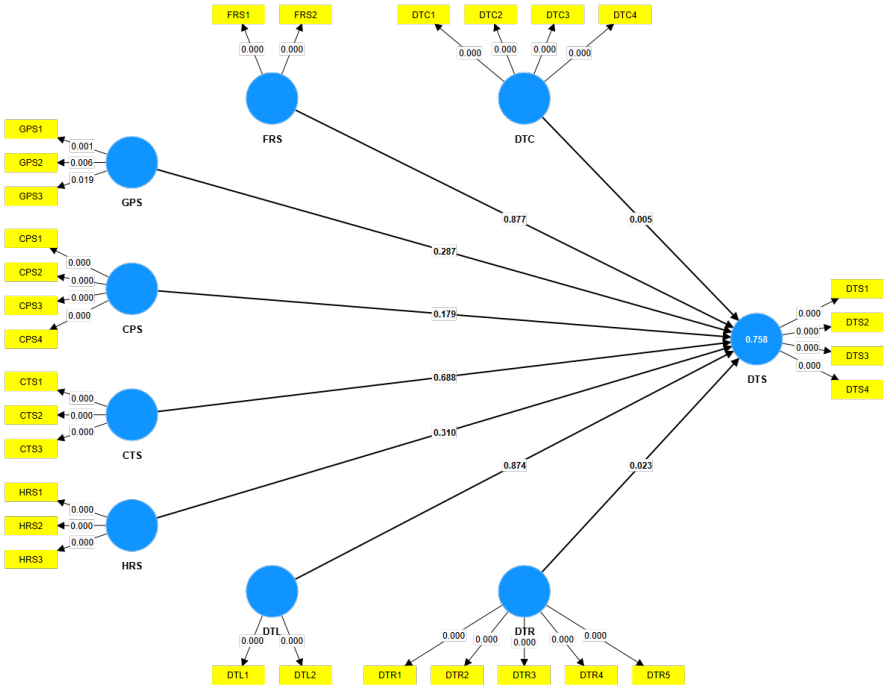



**Figure 2.** PLS-SEM Path Diagram for Hypothesis Testing
*Source: Data processed with SmartPLS 4 (2026)*

**Table 7.** Hypothesis Testing Results

| Hypothesis | Path | β | t-Statistic | p-Value | Result |
|---|---|---|---|---|---|
| H1 | GPS → DTS | 0.113 | 1.065 | 0.287 | Not supported |
| H2 | CPS → DTS | 0.215 | 1.344 | 0.179 | Not supported |
| H3 | CTS → DTS | −0.062 | 0.402 | 0.688 | Not supported |
| H4 | HRS → DTS | −0.160 | 1.015 | 0.310 | Not supported |
| H5 | FRS → DTS | 0.016 | 0.155 | 0.877 | Not supported |
| H6 | DTC → DTS | 0.407 | 2.791 | 0.005 | Supported |
| H7 | DTL → DTS | 0.024 | 0.159 | 0.874 | Not supported |
| H8 | DTR → DTS | 0.498 | 2.272 | 0.023 | Supported |

*Source: Data processed with SmartPLS 4 (2026).*

As shown in Table 7, digital technology (β = 0.407, t = 2.791, p = 0.005) and digital readiness (β = 0.498, t = 2.272, p = 0.023) are positively and significantly associated with digital transformation commitment, supporting H6 and H8. In contrast, governance pressure (p = 0.287), competitive pressure (p = 0.179), customer pressure (p = 0.688), human resources (p = 0.310), financial resources (p = 0.877), and digital leadership (p = 0.874) show no statistically significant associations; thus, H1–H5 and H7 are not supported.


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## 4.5. Discussion

### *4.5.1. External Pressures and Digital Transformation Commitment*

Governance pressure was not significantly associated with digital transformation commitment, indicating that local regulations and institutional governance have not yet become the main drivers of MSMEs' commitment to digitizing their accounting systems. This finding diverges from Institutional Theory and studies arguing that regulatory mandates and government digitalization programs act as effective coercive forces (Bakar et al., 2026; Ogbanufe et al., 2021; Sappor et al., 2023). Unlike larger or tightly regulated enterprises, in which audits and statutory reporting enforce digital compliance (Goeyardi et al., 2026; Jede et al., 2026), MSMEs in Banda Aceh face relatively lenient oversight focused on basic tax administration rather than managerial reporting, so governance pressure is perceived more as an administrative formality than as a trigger for commitment.

Competitive pressure was likewise not significantly associated with commitment, contrasting with the mimetic mechanism posited in Institutional Theory and with studies showing that intense rivalry forces firms to adopt real-time cost tracking and automated budgeting (Badria & Hasanah, 2024; Lu & Shaharudin, 2024; Ratmono et al., 2023). Local competition among MSMEs in Banda Aceh still revolves mainly around front-end factors such as product differentiation, pricing, and customer outreach rather than back-office accounting, and many MSMEs can still compete effectively with conventional recording systems. Competitors' digital accounting practices therefore do not create sufficient urgency to drive commitment (Khalil et al., 2026; Pedroso & Gomes, 2024).

Customer pressure also showed no significant association, which is reasonable in the context of internal management accounting. MSME customers generally focus on product quality, price, and service and have no particular expectations regarding how an MSME processes cost data or financial reports. Although prior studies show that buyer demands for digital invoicing and integrated platforms can compel firms to modernize back-end accounting (Bhimani et al., 2025; Nasereddin, 2024; Prasetianingrum & Sonjaya, 2024), MSMEs in Banda Aceh predominantly serve end consumers who rely on simple digital payment channels, so customer expectations remain decoupled from internal management accounting routines.

### *4.5.2. Internal Resources and Digital Transformation Commitment*

Human resources were not significantly associated with commitment, challenging the RBV assumption that employee competencies and digital literacy directly strengthen commitment to accounting digitalization (Kanakriyah et al., 2025; Kaur et al., 2021). Although MSMEs may have sufficient staff, these employees often lack the specific digital skills needed to operate accounting software, which makes management hesitant to commit fully. General workforce availability thus does not equate to specialized management accounting literacy and cannot independently sustain commitment unless it is paired with targeted upskilling (Elo et al., 2025; Fülöp et al., 2024).

Financial resources were also not significantly associated with commitment, diverging from RBV-based studies arguing that financial slack reduces investment risk and prevents the


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abandonment of digital accounting initiatives (Halim, 2023; Roffia & Dabić, 2023; Ulupui et al., 2024). MSMEs in Banda Aceh tend to allocate available funds to working capital, product expansion, and marketing rather than to accounting infrastructure, whose benefits are less immediately visible. Moreover, because many cloud-based accounting tools are now available at low subscription costs, capital is no longer the decisive factor in shaping commitment to management accounting transformation.

Similarly, digital leadership was not significantly associated with commitment, contrasting with Upper Echelons Theory and studies emphasizing that owner-managers' digital vision decisively steers commitment in centralized small enterprises (Canhoto et al., 2021; Graham, 2026; Quinton et al., 2017; Sagala & Őri, 2024). Owner-managers in Banda Aceh often focus their digital leadership on marketing, sales channels, and customer engagement rather than on internal cost accounting, and limited delegation and the absence of structured systems prevent leadership vision from translating into changes in management accounting practices (Milačić & Zarkovic, 2025).

#### *4.5.3. Digital Technology, Digital Readiness, and Digital Transformation Commitment*

Digital technology was significantly associated with digital transformation commitment. Smart financial recording applications and cloud-based accounting software are increasingly affordable and user-friendly, and when MSME operators realize that these tools simplify cost analysis and provide accurate, real-time management data, they are motivated to commit to digital transformation. This result corroborates the technological dimension of the TOE framework and prior evidence that accessible and compatible digital tools are foundational drivers of management accounting modernization (Inayah & Susliyanti, 2025; Jackson & Allen, 2023a, 2023b). The tangible operational value of integrated platforms that streamline cost allocation, cash flow monitoring, and reporting reinforces MSMEs' long-term commitment (Goeyardi et al., 2026; Maryanti et al., 2026).

Digital readiness had the strongest association with commitment ($\beta = 0.498$, $p = 0.023$), confirming that fundamental preparedness, including employees' basic understanding of technology, internet connectivity, and adequate hardware, is a crucial foundation for transformation. This finding is consistent with dynamic capabilities theory, the TOE framework, and prior studies identifying digital readiness as the absorptive catalyst that converts technological and organizational potential into sustained digital transformation (Badria & Hasanah, 2024; Chwiłkowska-Kubala et al., 2023; Jöhnk et al., 2020; Shbail et al., 2026). Notably, the significant effect of digital readiness alongside the non-significance of isolated human and financial resources suggests that individual resources foster transformation commitment only when they are synchronized into a cohesive state of organizational readiness.

## 5. Conclusion and Suggestion

### 5.1. Conclusion

All constructs met the validity and reliability criteria, supporting the interpretation of the structural model. Commitment to digital transformation in the management accounting



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practices of MSMEs in Banda Aceh City is significantly associated with digital technology and digital readiness, whereas governance pressure, competitive pressure, customer pressure, human resources, financial resources, and digital leadership have no significant effects. These findings indicate that digital technology capabilities and organizational readiness are the principal drivers of MSMEs' adoption of more effective and precise digital management accounting practices.

### 5.2. Limitations

The study focused on MSMEs in Banda Aceh; the findings should therefore be interpreted in the local context and extrapolated with caution to regions with different cultural backgrounds and economic infrastructures. The relatively small sample (n = 52) and the cross-sectional design limit generalizability and capture adoption behavior only at a single point in time. The model also excludes other factors that may affect digital transformation commitment, and the self-reported questionnaire may introduce perceptual bias among MSME owners and managers.

### 5.3. Suggestions and Directions for Future Research

Future studies could extend the model by examining other factors that shape MSMEs' commitment to digitally transforming their management accounting practices, using larger samples and longitudinal designs. From a managerial standpoint, MSME owners and managers should ensure internal resource readiness, including digital preparedness, and build staff understanding of the strategic advantages of technology so that digital investments support overall business objectives rather than administrative functions alone. Local governments could strengthen hands-on training that teaches MSME owners and managers how to use digital accounting tools, interpret the data they produce, and apply those insights to decisions that support long-term business growth.

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