



Driving Performance in the Digital Era: The Mediating Role of Digital Transformation and the Dominance of Organizational Agility

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Abstract

Keywords: Digital transformation, leadership capability, digital investment, organizational agility and organizational performance. Using the Dynamic Capabilities View (DCV) as a foundation, the research aims to identify what organizational capabilities enhance institutional performance in conjunction with digital transformation. This study utilized a quantitative explanatory method with a population of 185 students at private universities in Banjarmasin, Indonesia. Data were analysed with Partial Least Squares Structural Equation Modelling (PLS-SEM) bootstrapping. The results show that the effects of digital investment, organizational flexibility and leadership capability on digital transformation are all significant effects but the strongest effect is from organizational flexibility. Yet, out of all the dimensions only organizational agility has a direct effect on organizational performance and an indirect effect via digital transformation. The impact of leadership capability and digital investment, does not directly add to organizational performance or indirectly through digital transformation. These findings show that organizational agility is actually the key capability by which digital transformation leads to improved organizational performance, and that neither technological investment nor leadership on their own are enough. The implications of these findings are developed and advance the understanding that higher education institutions can improve their digital transformation initiatives by strengthening organizational agility.

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1. INTRODUCTION

For Universities, Digital transformation has gone from just an expectation to a strategic necessity for higher education institutions (HEIs) around the world radically reshaping how universities deliver instruction, manage administration and compete for students (Bygstad et al., 2022; Timotheou et al., 2022). Indonesia an emerging economy National policy initiatives such as the Merdeka Belajar Kampus Merdeka agenda (Kemendikbud, 2020) (Freedom to Learn Independent Campus) have stimulated institutional investment in learning management systems, digital academic services and data infrastructure. And yet,



huge investments in digital did not automatically improve institutional performance, leaving an annoying question: when does investment in digital actually deliver?

This case is uniquely appropriate for analytics in Banjarmasin private higher education institutions, as these same institutions face intense competition but operate with comparatively limited organizational resources. Like many private universities in emerging economies, these institutions first adopted digital technologies to facilitate academic and administrative services after Indonesia's *Merdeka Belajar Kampus Merdeka* policy began. It remains uncertain, however, whether these digital programs have delivered information technology (IT) value in terms of organizational performance leading to Banjarmasin being an empirically relevant business environment for studying the mechanisms by which digital transformation generates organizational benefits.

Banjarmasin private higher education institutions are an appropriate context for exploring digital transformation given the growing competitive educational environment and limited organizational resources. Similar to many private universities in emerging economies, these institutions have invested in digital technologies to support academic and administrative services following the implementation of Indonesia's *Merdeka Belajar-Kampus Merdeka* policy. However, the extent to which these digital initiatives have translated into improved organizational performance remains unclear, making Banjarmasin an empirically relevant setting for investigating the mechanisms through which digital transformation creates organizational value.

The most prevalent characterization of digital transformation in the literature views it as a near-automatic source of performance improvement. This narrative, however, overshadows a more complex reality (Goraya et al., 2025; Wang & Yan, 2024). Digital transformation is not something institutions buy but a reconfiguration of institutional capabilities (Vial, 2019). As such, the antecedents that nurture transformation are often fundamentally different from those that can translate transformation into outcomes. While leadership vision, financial investment and organisational agility are often modelled as interchangeable drivers the Dynamic Capabilities View (DCV) (Teece, 2007) suggests they sit in different capability strata -ordinary capabilities, sensing capabilities and reconfiguring capabilities- each with different transmission properties.

Previous studies have consistently demonstrated that digital transformation plays an important role in improving organizational performance in higher education. Digital transformation enhances educational services through the integration of digital technologies into teaching, administration, and institutional decision-making processes (Bygstad et al., 2022; Chang & Gomes, 2022). Leadership capability, digital investment, and organizational agility have also been identified as key organizational capabilities that facilitate digital transformation and support organizational performance (Nwankpa & Merhout, 2020; Albannai et al., 2024; Motwani & Katatria, 2024).

Despite these findings, several important issues remain unresolved. Most previous studies rely on managerial perceptions and generally assume that digital transformation mediates the effects of organizational capabilities uniformly. Limited attention has been given to comparing different capability classes from the Dynamic Capabilities View or examining digital transformation from the perspective of service recipients, particularly students in private higher education institutions within emerging economies. These limitations provide a clear rationale for the present study to investigate whether digital transformation selectively mediates the effects of leadership capability, digital investment, and organizational agility on organizational performance.

Three gaps motivate this study. Thirdly, much of the empirical work on digital transformation in HEIs relies on managerial self-report to measure transformation (Michelotto & J6ia, 2024), managers report intention and students experience reality. Second, mediation studies usually assume that digital transformation does not transmit any antecedents as such an assumption has hardly been tested. Third, there is still little data on private HEIs in emerging-economies with resource constraints where the stakes from spending and misallocating resources for digital initiatives are high.

This study addresses these gaps by adopting a service-recipient perspective, treating students as key informants who directly experience institutional digitalization, and by testing a differentiated mediation model grounded in DCV. It poses three research questions: (RQ1) Do leadership capability, digital investment, and organizational agility differ in their effect on perceived digital transformation? (RQ2) Which of these antecedents reach perceived organizational performance, directly and through transformation? (RQ3) Does digital transformation transmit these antecedents symmetrically or differentially?

The study offers four contributions. It generalizes DCV by showing how capability class not only determines the size of an effect, but its very transmissibility; introduces the distal leadership paradox and the digital veneer as explanatory concepts; defines a boundary condition for upper-echelons theory in loosely coupled professional bureaucracies; and supplies direct perceptual evidence of the digital productivity paradox in higher education. And more importantly, it warns that digital budgets without organizational agility deliver no visible performance payback. The rest of the paper is structured as follows: next we review the literature, develop our hypotheses, outline our method, report the results and conclude with a discussion of theoretical and practical implications.

1.1. Literature Review

a. Digital Transformation in Higher Education

Digital transformation refers not to automation of existing processes but rather the incorporation of digital technologies that completely reconfigure value-creation mechanisms (Vial, 2019). It covers digitalisation in higher education, starting from teaching to administrative services and institutional decision making (Bygstad et al., 2022; Chang & Gomes, 2022). As scholars warn that while the link between digital transformation and institutional competitiveness (Li, 2024; Esteve-Mon et al., 2022), agility and other positive dimensions of quality is increasingly being established, technology adoption alone may not be enough transformation requires the organizational capabilities surrounding it (Russo et al., 2025; Michelotto & J6ia, 2024). The difference between adoption and reconfiguration is crucial for the current research.

b. The Dynamic Capabilities View

The DCV differentiates between ordinary capabilities (resources and routines that help to run an organization) and dynamic capacities, which include the higher-order capacity for sensing opportunities, seizing them, and reconfiguring the resource base as needed (Teece et al., 1997; Teece, 2007). Such hierarchy offers a parsimonious lens through which the drivers of digital transformation can be classified. Digital investments represent a quasi-static capability (a stock of resources), while leadership capabilities align with sensing and seizing, whereas organizational agility is represented by reconfiguration. A direct implication of this proposition is the relationship between digital investments and performance, because DCV predicts that mere capabilities do not create competitive outcomes (Wu et al., 2024; Yang & Gan, 2021).

c. Leadership Capability, Digital Investment, and Organizational Agility

Digital leadership has been broadly connected to transformation and innovation (Albannai et al., 2024; Chen et al., 2024; Kumar, 2022), with management aptitude frequently recognized as a driver of enterprise digitalization (Wu et al., 2024; Le et al., 2024). Digital investment, in turn, delivers the physical infrastructure, platforms and human capital where transformation must happen (Nwankpa & Merhout, 2020; Agarwal et al., 2024). Organizational agility, or the ability to sense and respond rapidly to change, has long been associated with both transformation and performance (Motwani & Katatricia, 2024; Zhang, Ding & Xiao, 2023; Cuong et al., 2025). In fact, recent work inverts the conventional order of events, framing agility as an antecedent by which to enable reconfiguration rather than a consequence that it facilitates at all: a position this research confirms and examines (Zhang, Ding & Xiao, 2023).

d. Digital Transformation as a Mediating Mechanism and the Research Gap

Another substantial research stream conceptualizes digital transformation as a mediator between organisational antecedents and performance (Chen et al., 2024; Liu et al., 2023; Al-Omush et al., 2023). This literature, however, has two limitations. First, It is generally based on managerial informants, which means it captures declared transformation. Second, it implicitly assumes symmetric mediation (that the transformation transmits each antecedent with similar proficiency). Neither assumption has been examined in the context of HEIs. The current research responds to both by overmeasuring transformation from the service recipients' perspective, and also directly comparing transmission efficiency between antecedents that occupy multiple levels of capability access. Next follows the resulting theoretical framework and hypotheses.

1.2. Theoretical Framework and Hypothesis Development

a. Theoretical Anchoring: DCV from a Service-Recipient Perspective

This study is grounded in the Dynamic Capabilities View (DCV) (Teece et al., 1997; Teece, 2007), which separates stocks of organizational resources from the capabilities needed to reconfigure them. In all this sense, digital investment is a normal capability or resource stock, leadership capability is sensing–seizing capability, and organizational agility is reconfiguring capability. Digital Transformation is thus seen as a process through which these capabilities of the organisation, are transformed into performance rather than an end in itself. This implies that having the digital resources alone is not enough to enhance performance in HEIs unless those resources are converted with organizational capabilities.

Based on student perceptions as an operationalization of all constructs, this study takes the perspective of service recipients. Through learning management systems, online academic services, and digital administration for students at all levels, as well as a more omnichannel expansion of traditional classroom experiences, we can anticipate that even novice learners can become thought leaders who determine how successful their institutions are in realizing transformation, not just planning it (Bygstad et al., 2022; Tran & Meacheam, 2020). Furthermore, student perceptions are a relevant measure of university performance in a higher education system where most service delivery outcomes are not directly observable and require assessment based on prior exposure (Hart & Rodgers, 2023). Similarly, digital leadership and investment capabilities, organizational agility, and IT-oriented transformational change, as well as organizational performance oriented toward individual student perceptions, were measured, which again aligns with the set of constructs analyzed.

b. Antecedents of Digital Transformation

Perceived leadership capability and perceived digital transformation. Under the lens of the sensing–seizing perspective of DCV, leadership capability equips institutions with the competencies to identify technological opportunities, set a strategic course of action and mobilize organizational resources for digital transformation (Vial, 2019; Wu et al., 2024). Digital transformation in higher education institutions (HEIs) needs leadership support to align and coordinate institutional inertias, changes at the levels of academic processes and administrative processes (Russo et al., 2025). Digital policy clarity and institutional responsiveness shape this sense of reliability for students. This has also been shown in past research, where leadership is key for successful organizational digitalization (Albannai et al., 2024; Chen et al., 2024). Accordingly, the following hypothesis is proposed:
H1. Perceived leadership capability is positively associated with perceived digital transformation.

Perceived investment in digital and perceived digital transformation. To implement digital transformation, we hope for enough technology infrastructure and platforms are available to create the human-capital for organizational change (Nwankpa & Merhout, 2020; Agarwal et al., 2024). This sort of investment gives the flexibility to experiment with

and reimagine digital processes (Martínez-Caro et al., 2020). Yet from the DCV standpoint, digital investment is an enabling, but not sufficient condition for transformation. Investments are experienced by students in terms of how well digital infrastructure, platforms, and academic information systems were put in place. Greater perceived digital investment is hence likely to reinforce perceived digital transformation.

H2. Perceived investment in digital is positively associated with perceived digital transformation.

Perceived organizational agility and perceived digital transformation. After Zhang, Ding & Xiao (2023), this study argues that agility is an antecedent of digital transformation rather than a consequence. This stance inverts the prevalent causal order in the literature. Transformation requires the integration of disruption: rapid re-sensing of stakeholder needs, agile staff redeployment and short decision cycles bottom up, even under conditions of uncertainty (Lee et al., 2021; Motwani & katatria 2024). Stuffy organizations do not transform; they just digitize old habits. When students think about agility, it is through the lens of their own experience with institutional speed its pace for resolving academic problems, adjusting schedules and learning methods and responding to changing needs. Since it represents a genuine reconfiguration capability, agility is expected to have the greatest impact among the three antecedents an assumption that we explicitly test rather than assume.

H3. Perceived organizational agility is positively associated with perceived digital transformation.

H3a (relative strength). The influence of perceived organizational agility on perceptions of digital transformation is stronger than the influence of perceived leadership capabilities and perceptions of investment in digital.

c. Direct Effects on Perceived Organizational Performance

Perceived leadership capability and perceived organizational performance. Standard upper echelons logic implies a straight effect. But then DCV predicts the opposite for loosely coupled professional bureaucracies like universities (Hart & Rodgers, 2023). Academics remain highly autonomous; leadership guidance is mediated by discipline mores and must be enabled with a structural intervention to translate into performance. This argument is further refined at the level of student-perception: is leadership proximal or distal to the service touchpoint. Students do not engage with leadership; they interact with systems, platforms, and processes. So in a nut shell, Leadership only mediates perceived performance through the changes management make on the digital systems. The hypothesis is framed in an adequately positive normal form for disproof, whereby DCV asserts attenuation to non-significance under modeling of digital transformation.

H4. Perceived Organizational Performance positively correlates with Perceived Leadership Potential.

Perceived Digital investment and perceived organizational performance This study expands the existing productivity paradox literature to higher education institutions. Performance investment is stock, not flow; routines are the flows that unlock it – there is no return on spending on learning management systems, data infrastructure and hardware without those routines to exploit them. In many cases, HEIs are acquiring a digital veneer without reconfiguring pedagogy or administration. From the student perspective this reads like presence of facilities, unchanged service: platforms provisioned but not combined; systems present but processes still manual and cumbersome. The direct path is thus expected to be insignificant, coherent with an indirect-only transmission mechanism.

H5. Perceived investment in digital is positively associated with perceived organizational performance.

Perceived organizational agility and perceived organizational performance. Agility in contrast is at the point of service delivery directly not through investment. Regardless of the digital channel, responsive rescheduling, adaptive curricula and rapid administrative resolution improve perceived performance (Budiman et al., 2023; Yang & Gan, 2021).

Whether the institution is digitally agile or navigating traditional paths, students feel agility first-hand. Therefore, agility is theorized as the only antecedent with direct and transformation-mediated pathway.

H6. Perceived organizational agility is positively associated with perceived organizational performance.

Perceived digital transformation and perceived organizational performance. At its core, digital transformation reorders the logic of value creation; it increases accessibility and quality of services through data, and integration across processes (Goraya et al., 2025; Yu & Moon, 2021; Wang & Yan, 2024). This translates to three among the five dimensions of performance experienced and assessed by students as service clients in HEIs: enhanced learning experience, administrative responsiveness, and institutional competitiveness (Chang & Gomes, 2022; Li, 2024).

H7. Perceived digital transformation is positively associated with perceived organizational performance.

d. Digital Transformation as a Transmission Mechanism

The mediation hypotheses constitute the theoretical core of this study. If DCV is correct that transformation is the conversion mechanism, then its mediating role should be differentiated rather than uniform a proposition rarely tested in a literature that generally assumes symmetric mediation across all antecedents.

H8. Perceived digital transformation mediates the relationship between perceived leadership capability and perceived organizational performance.

H9. Perceived digital transformation mediates the relationship between perceived investment in digital and perceived organizational performance.

H10. Perceived digital transformation mediates the relationship between perceived organizational agility and perceived organizational performance.

Differentiated mediation proposition (the study's novelty claim). We expect the mediating influence of digital transformation to differ based on the capability class of the antecedent. Agility in the organization (as a reconfiguring capability) 4. On the other hand, leadership capability mainly gives strategic guidance via sensing and seizing; however, digital investment is more or less a enabling resource stock. We theorize that based on the differences in capabilities, organizational agility should have a stronger digitally mediated relationship with organization performance than leadership capability and digital investment from the DCV perspective. This unique transmission is the basis for Proposition below:

P1. In terms of capability class, perceived digital transformation mediates the relation between both perceived organizational agility and organizational performance stronger than for perceived leadership capability and organizational performance, as well as for perceived digital investment and organizational performance.

1.3. Conceptual Model

Exogenous capability antecedents are represented by perceived leadership ability, perceived digital investment and perceived organizational agility. Perceived digital transformation is treated as an endogenous mediating mechanism, while perceived organizational performance is the end-construct and a terminal endogenous construct. The model includes three direct paths to performance (H4–H6), one mediator-to-outcome path (i.e., organizational change, H7) and three indirect paths from capability class to performance (H8–H10).

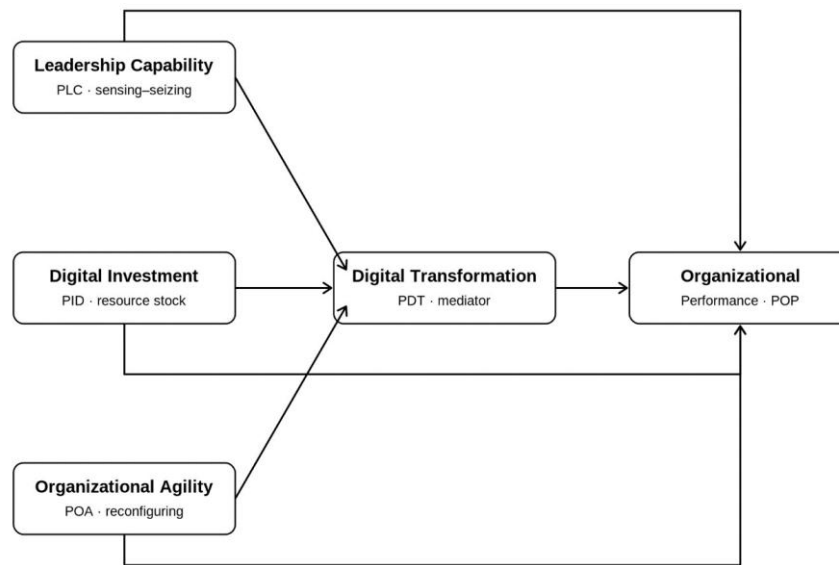


Figure 1. Conceptual Model
Source: Development by Researchers (2025)

2. METHODS

In this research, a quantitative-explanatory research design was applied through cross-sectional survey. Since the model is complex, prediction-oriented, includes a mediator and does not need mpvariate normality conditions as required in covariance based SEM (CB-SEM), the variance-based partial least squares structural equation modeling (PLS-SEM) approach was chosen. We used SmartPLS to conduct the analysis, utilizing a bootstrapping procedure with 5,000 resamples to estimate significance and bias-corrected confidence intervals for direct and indirect effects.

The population is from all students who attend private universities and colleges in the city Banjarmasin, Indonesia, amounting 23,294 students. Sample size is determined by Slovin formula which resulted to 185 students. Respondents were randomly picked using simple random sampling. Students were positioned as the main informants since, as recipients of services, they have continual and direct experiences with those digital services provided by the institution making them ideally suited to report on experienced and realized rather than declared transformation. The respondent profile by semester is presented in Table 1.

Table 1. Respondent Profile by Semester

Semester	Frequency (n)	Percentage (%)
Semester V	70	38
Semester VI	53	29
Semester VII	35	19
Semester VIII	27	14
Total	185	100

Note: The distribution indicates that respondents are predominantly mid-to-late-stage students who have accumulated sufficient exposure to institutional digital services to render informed perceptual judgments.

Source: Development by Researchers (2025)

The model includes five reflective constructs which were operationalized as a perception and measured using multi-item scales derived from previously validated instruments, anchored on a five-point Likert scale (1 = strongly disagree; 5 = strongly

agree). Perceived leadership capability students perception of the digital leadership of institutional clarity, consistency, and responsiveness (adapted from Albannai et al., 2024; Kumar, 2022). Perceived investment in digital (PID) describes perceptions on whether digital infrastructure, platforms and facilities are adequate or lack (Nwankpa & Merhout, 2020). Perceived Organizational Agility (POA) : POA measures an institution's self perceived responsiveness, flexibility and speed of adaptation (Motwani & Katatria, 2024). Perceived digital transformation is defined as the perceived extent to which academic and administrative services have been re-configured digitally (Vial, 2019). Perceived organizational performance (POP), POP is the collective perceptions of service quality, learning experience and institutional competitiveness (Hart & Rodgers, 2023). The operational definitions are summarized in Table 2.

Table 2. Constructs, Definitions, and Indicative Sources

Construct	Operational definition (perceived)	Indicative source
Perceived Leadership Capability (PLC)	Perceived clarity, consistency, and responsiveness of institutional digital leadership	Albannai et al. (2024); Kumar (2022)
Perceived Investment in Digital (PID)	Perceived adequacy of digital infrastructure, platforms, and facilities	Nwankpa & Merhout (2020)
Perceived Organizational Agility (POA)	Perceived institutional responsiveness, flexibility, and speed of adaptation	Motwani & Katatria (2024)
Perceived Digital Transformation (PDT)	Perceived reconfiguration of academic and administrative services via digital means	Vial (2019)
Perceived Organizational Performance (POP)	Perceived service quality, learning experience, and institutional competitiveness	Hart & Rodgers (2023)

Source: Development by Researchers (2025)

Analysis was performed according to the conventional two-stage PLS-SEM approach. Internal consistency reliability (composite reliability and Cronbach's alpha), convergent validity (indicator loadings and average variance extracted, AVE) were first evaluated for the measurement model with consideration towards discriminant validity (criterion Furrell Larcker test as well as heterotrait monotrait ratio, HTMT). Next, path coefficients, t-statistics, p-values, R^2 f^2 and Q^2 were used to assess the structural model. Indirect effects were estimated using the bootstrapping procedure, and mediation type was classified according to Zhao, Lynch and Chen logic.

Common method bias (CMB) was statistically assessed because all constructs were measured by the same type of respondents. In terms of methodology, respondent anonymity was ensured with items being pre-randomized so as to reduce consistency biases. Statistically, Harman's single-factor test and a full collinearity assessment confirmed that all inner variance inflation factors (VIF) should stay below the conservative threshold of 3.3, suggesting that CMB is not a meaningful risk.

3. RESULT AND DISCUSSION

3.1. Results

Respondent Characteristics

A total of 185 students from private higher education institutions in Banjarmasin participated in this study. As presented in Table 1, the respondents were predominantly enrolled in Semester V (38%) and Semester VI (29%), while Semester VII and Semester VIII accounted for 19% and 14% of the sample, respectively. This distribution indicates that most respondents were in the middle to later stages of their academic programs, allowing them to develop sufficient experience with the academic and administrative processes

within their institutions. Consequently, they were expected to provide informed perceptions regarding digital transformation and organizational performance.

Measurement Model Assessment

The measurement model was tested in terms of indicator reliability, internal consistency reliability and convergent validity. To assess the reliability, outer loading values of indicator reliability and internal consistency reliability using Cronbach alpha and Composite Reliability (CR). The Average Variance Extracted (AVE) was used to assess convergent validity. The recommended criteria for assessing PLS-SEM is that outer loadings should be greater than 0.70, Cronbach's alpha and Composite Reliability > 0.70, and AVE values greater than 0.50.

The findings show that every threshold of measurement model has met. All constructs had an AVE value between 0.600 and 0.808, indicating that convergent validity is satisfactory. Also, all indicators showed outer loading values greater than 0.70 (good indicator reliability). Additionally, both Composite Reliability (CR: 0.835–0.944) and Cronbach's alpha (0.700–0.920) were established the internal consistency reliability as well. These findings demonstrate that the measurement model possesses satisfactory reliability and convergent validity, supporting the suitability of the constructs for subsequent structural model analysis.

Table 3. Reliability and Convergent Validity

Construct	Cronbach's α	Composite Reliability	AVE
Perceived Leadership Capability (PLC)	0.776	0.870	0.692
Perceived Investment in Digital (PID)	0.833	0.882	0.600
Perceived Organizational Agility (POA)	0.707	0.835	0.628
Perceived Digital Transformation (PDT)	0.700	0.868	0.767
Perceived Organizational Performance (POP)	0.920	0.944	0.808

Source: Data Processed (2025).

Structural Model and Hypothesis Testing

Figure 2 presents the estimated structural model. Table 4 reports the direct and indirect path results obtained via bootstrapping ($n = 185$), together with each path's consistency with the theoretical prediction derived from DCV.

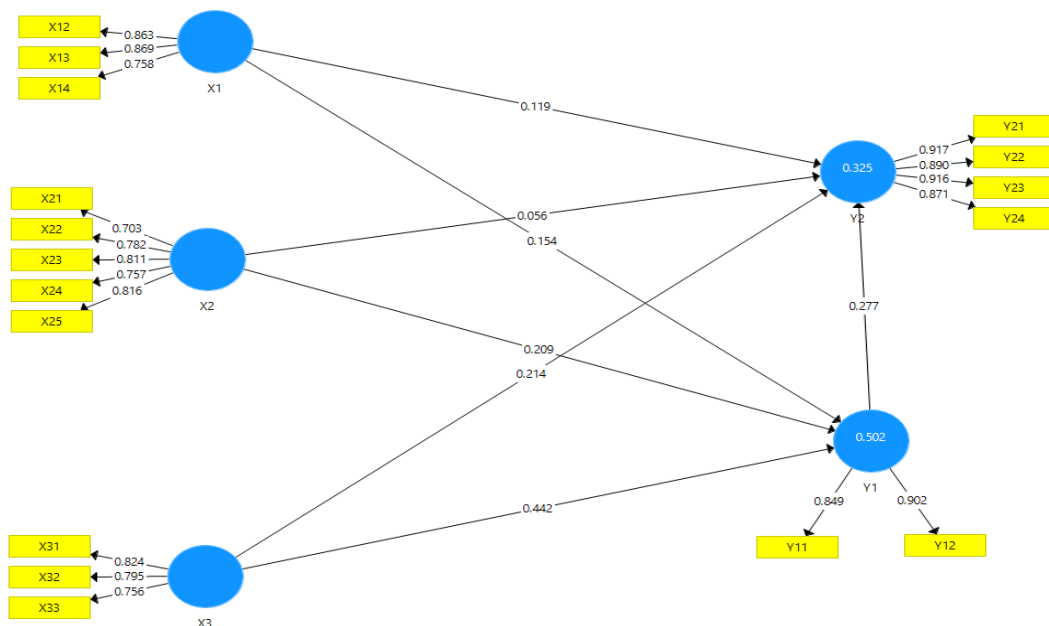


Figure 2. Structural Model Output (PLS-SEM)
Source: Data Processed (2025)

Table 4. Hypothesis Testing: Direct and Indirect Effects

Hypothesis	Path	β (O)	t-stat.	p-value	Theoretical prediction (DCV)	Result
H1	PLC $\rightarrow$ PDT	0.154	1.965	0.050	Positive (moderate)	Supported
H2	PID $\rightarrow$ PDT	0.209	2.632	0.009	Positive (enabling)	Supported
H3	POA $\rightarrow$ PDT	0.442	7.467	<0.001	Positive — strongest	Supported
H3a	POA > PLC; POA > PID	—	—	—	Agility dominance	Supported
H4	PLC $\rightarrow$ POP	0.119	1.368	0.172	Attenuated (distal)	As predicted
H5	PID $\rightarrow$ POP	0.056	0.640	0.522	Productivity paradox	As predicted
H6	POA $\rightarrow$ POP	0.214	2.216	0.027	Positive (dual path)	Supported
H7	PDT $\rightarrow$ POP	0.277	2.859	0.004	Positive	Supported
H8	PLC $\rightarrow$ PDT $\rightarrow$ POP	0.043	1.557	0.120	Non-significant	As predicted
H9	PID $\rightarrow$ PDT $\rightarrow$ POP	0.058	1.942	0.053	Non-significant	As predicted
H10	POA $\rightarrow$ PDT $\rightarrow$ POP	0.122	2.680	0.008	Significant	As predicted

Note: PLC = Perceived Leadership Capability; PID = Perceived Investment in Digital; POA = Perceived Organizational Agility; PDT = Perceived Digital Transformation; POP = Perceived Organizational Performance. Significance at $p < 0.05$.

Source: Data Processed (2025)

H1-H2 are supported because organizational agility has a positive effect on perceived digital transformation ($\beta = 0.442$), H3 is also supported, and H3a is confirmed. Performance has only agility coming directly (H6) and indirectly via transformation (H10). Neither leadership capability nor digital investment has a significant direct effect (H4, H5) or indirect effect (H8, H9). Most critically, all empirical results including the four non-significant hypotheses are consistent with the a priori theoretical predictions derived from DCV. This consistency converts the study from a confirmatory report into an actual test of the theory, which we discuss in the subsequent section.

3.2. Discussion.

This study examined the role of digital transformation as a mechanism through which organizational capabilities are translated into organizational performance from the perspective of students in private higher education institutions. Overall, the findings reveal that organizational capabilities contribute differently to digital transformation and organizational performance, indicating that digital transformation functions as a selective rather than universal transmission mechanism. While all organizational capabilities support digital transformation, only organizational agility demonstrates the ability to improve organizational performance both directly and indirectly through digital transformation. In contrast, leadership capability and digital investment primarily contribute to the transformation process but do not directly enhance organizational performance. These findings provide empirical support for the Dynamic Capabilities View by demonstrating that organizational capabilities differ according to their ability to facilitate organizational reconfiguration and generate performance outcomes. The following sections discuss each hypothesis in detail by relating the findings to the underlying theoretical perspective and previous empirical studies.

Antecedents of Digital Transformation

H1 results show that perceived leadership capability is positively associated with perceived digital transformation. This finding corroborates the Dynamic Capabilities View (DCV), which considers leadership capability as a sensing–seizing capability that facilitates

organizations to shape direction for strategy, mobilization of resources for organization transformation. Within higher education institutions, leadership creates a vision to enable organizational digitalization. This result is in accordance with the findings of Albannai et al. (2024) and Chen et al. (2024) also explained that digital leadership advances organizational adaptability and institutional dedication to embracing digital transformation. The current study builds upon these results but views leadership capability from an opposite area of the spectrum, where important stakeholders are considered students (i.e. service recipients) instead of managerial respondents.

The results of H2 reveal that perceived investment in digital positively affects on the perceived digital transformation. Digital investment, as per the Dynamic Capabilities View, is an enabling capability that provides the technological infrastructure needed for organizational change. Investment, on the other hand, is largely an enabling resource as opposed to a direct value generator for the organization. This is in line with finding of Nwankpa and Merhout (2020) and Agarwal et al. (2024) who claimed digital investment enhances organizational readiness through allowing innovation and process redesign. What we glean from the results is that digital investment follows on as a requirement for digital transformation in private higher education.

The results of H3 show that perceived organizational agility has a positive impact on perceived digital transformation and is the most important driver among the examined organizational capabilities. Under the Dynamic Capabilities View, organizational agility is one of a reconfiguring capability that responds rapidly to environmental change while realigning organizational processes in each situation. This is consistent with Zhang et al. (2023), Motwani and Katatria (2024), and the organizational agility was recognized as a key enabler of successful digital transformation. Also, possibly the most important finding of this study is that organizational agility has a strong effect on perceptions of students towards digital transformation, thereby supporting the proposition that reconfiguring capabilities are more influential than sensing or ordinary capabilities in driving digital transformation.

Direct Effects on Organizational Performance

H4 As identified by H4, perceived leadership capability does not directly enhance perceived organizational performance. This result can be explained by the Distal Leadership Paradox, whereby leadership capability serves as a strategic enabler rather than an outcome in the traditional sense of predicting performance-oriented results. Drawing from the Dynamic Capabilities View, leadership capability facilitates organizational change through strategic vision and resource mobilization, but its effects diminish at the service delivery level where students assess institutional performance. This observation corroborates the reusability of chiral opticals as described by Albannai et al. (2024) and Chen et al. (2024) Leadership (v.s.) on Organizational Readiness -> Digital Transformation -> Performance (through Successful Implementation. This study builds on that perspective by showing that, although leadership ability is crucial to start the digital transformation process, it does not directly influence students' evaluations of organizational performance.

H5 results suggest that perceived digital investment does not directly enhance perceived organizational performance. It reflects the argument heard in the Digital Productivity Paradox, that there is little organizational value to derive from technology investment alone. Digital investment is an enabling capability that offers technological resources, and performance takes place through the utilization of those capabilities by organizational processes according to the Dynamic Capabilities View. This is in line with Pashkov and Pashkova (2022) and Timotheou et al. (2022) the benefits and effectiveness from digital technologies relies on integration into organizational processes rather than reliance on just availability of technology. These findings hence imply that institutional performance can be meaningfully improved only when digital investments are complemented with capability development.

The results of H6 reveal that perceived organizational agility is positively related to perceived organizational performance. The Dynamic Capabilities View, which identifies

organizational agility as a reconfiguring capability to meet the changing needs of stakeholders and underpin continuous improvement in organizational processes. This is now reflected in greater agility of academic services, easier handovers and quicker access to administrative procedures resulting directly benefiting students, creating new learning experiences. This result confirms the finding made by Budiman et al. (2023) Yang and Gan (2021) by arguing that organizational agility delivers organizational effectiveness through responsiveness and strategic flexibility. From the perspective of higher education service recipients, the current study also shows that organizational agility is the only organizational capability that can directly produce better organizational performance.

Results of H7 show that perceived digital transformation has a significant positive impact on perceived organizational performance. This finding supports the Dynamic Capabilities View that organizational value is generated from the embedding of digital technologies in institutional processes than their mere adoption. Through reconfiguration of academic and administrative activities, digital transformation is expected to improve service quality as well as sensitivity in administration while making higher education institutions more competitive. This finding is similar to the Goraya et al (2023) and Wang & Yan (2024), this finding suggests that digital transformation improves organizational performance through a reinforcement of both organizational integration and innovation capability. We also confirm that successful digital transformation becomes a significant means of enhancing organizational performance as perception of students in private higher educational institutions.

The Mediating Role of Digital Transformation

Results H8 suggests that although these depressant aspects of digital transformation are mediators between perceived leadership capability and perceived organizational performance. This result integrates other studies testing the Distal Leadership Paradox showing that while leaders have limited effect on student achievement in a direct sense, their ability to exercise influence and shape organizational direction matters. Sensing–seizing capabilities, from the perspective of Dynamic Capabilities View, need complementary organizational arrangements to read as observable outcome. This findings is similar to those of Albannai et al. (2024) and Chen et al. (2024) argued that leadership enhances organizational preparedness but its effect on performance is contingent on successful deployment. These results suggest that digital transformation does not generate organizational performance on the part of standalone leadership capability.

H9 results show that digital transformation does not mediate the relation between perceived investment in digital and perceived organizational performance. This result confirms the Digital Productivity Paradox, that is, technological investment in itself does not create economic value for organizations. In line with the Dynamic Capabilities View, it has been argued that digital investment provides enabling resources and performance improvements happen only when those resources are transformed into effective services by organizational capabilities. This finding is consistent with those obtained by Pashkov and Pashkova (2022) and Timotheou et al. (2022), that acquiring technology without reorganizing rarely improves performance in higher education. The research thus indicates that the mere presence of technological investment necessitates also complementary capabilities within the organization to create durable value.

At H10, the results show that digital transformation mediates the role between perceived organizational agility and perceived organizational performance. This supports the Dynamic Capabilities View which sees organizational agility as a reconfiguring capability that can convert digital action into enhanced organizational performance. These findings are in line with Zhang et. al. (2023) and Goraya et al. (2025) showed that organizational agility is an important capability to successfully transform the organization within a digital context. Overall, the results for H8-H10 support the notion of Differentiated Mediation, showing that digital transformation is a conduit for transmitting reconfiguring

capabilities but not for using sensing or ordinary capabilities to translate into firm performance.

Theoretical and Practical Implications

This research contributes to the Dynamic Capabilities View (DCV) by showing that organizational capabilities differ in terms of strategic function as well as certain performance generation mechanisms through digital transformation. The results indicate that digital transformation operates as a differential transmission mechanism; Sensing capability (leadership capability) and ordinary capabilities (digital investment) does not create organizational value, while reconfiguring capabilities (organizational agility) do. Furthermore, considering a service-recipient perspective, this study adds to the digital transformation literature with concepts of Distal Leadership Paradox, Digital Productivity Paradox and Differentiated Mediation providing a broader explanation on how different capability classes mediate the relationship between dimensions of IT-enabled organizational performance in private higher education institutions.

The implication for university leaders is a stark warning: a digital budget is not a digital strategy. Investment in IT alone without a consistent process around growing agility within the organization will result in applications with no discernable value to students. Intervention prioritization has focused on capability to reconfigure the workforce doing things such as simplifying approval chains, delegating operational decision right, shortening service-response cycles and building cross-functional teams that can quickly pivot. Otherwise, digital transformation stops and, at best, transforms into a digital veneer. What that means for governments and accreditation bodies is that digital input indicators (such as the number of systems, size of IT budgets, bandwidth ratios) are poor proxies for institutional performance. Better proxies are response time to service and the perception of stakeholders about digital experience.

4. CONCLUSION

The results show that digital transformation in higher education does not simply reside on the shoulders of leadership and digital resources that digitally transforming performance depends fundamentally upon an institution's ability to adapt and recompose its organizational bones. Based on the Dynamic Capabilities View, the results show an asymmetric pattern between classes of capabilities. While leadership capability, digital investment and organizational agility are the antecedents of digital transformation and augment the ability to transform, we find that only organizational agility is both positively related directly to performance and as an enabler for improving performance through a digital transformation. However, leadership capability and investment in digital does not have a significant relationship with performance either directly or indirectly through the mediation of digital transformation. These results show that digital transformation is a selective mechanism of transmission rather than universal, with performance benefits from the effective transition to an agile organization.

In this way, the study adds to the Dynamic Capabilities View by showing that different dynamic capabilities not only differ in terms of being leverage for digital transformation but also how effective is their translation into performance. At a more service-recipient focused level, the results also provide support for the contention that technological investment and high-level leadership may catalyze digital change but their actual value may stay restricted when institutional processes do not deploy mechanisms of adequate responsiveness, flexibility and reconfiguration capacity. This immediately calls for a pivot in managerially priority for the way private higher education institutions develop organizational agility from merely expanding on digital infrastructure to producing digital resources and initiatives that holistically ensure measurable improvements of student-perceived institutional performance.

This study has several limitations that provide opportunities for future research. First, all constructs were measured from the perspective of students as service recipients, which captures realized digital transformation but may not fully reflect managerial or operational performance. Future studies should adopt a multi-source approach by combining student perceptions with managerial assessments and objective organizational performance indicators. Second, the study was limited to private higher education institutions in Banjarmasin, Indonesia; therefore, future research should examine public universities and institutions in other regions to improve the generalizability of the findings. Finally, the cross-sectional design limits causal inference. Longitudinal or panel studies are recommended to better understand how organizational capabilities and digital transformation evolve over time and to examine whether organizational agility strengthens the relationship between digital investment and organizational performance.

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