

# **The Role of *Innovation Capability* in Mediating the Influence of *Strategic Agility*, *Organizational Learning Capability*, and *Digital Leadership* on the *Organizational Performance* of Indonesian Army Hospitals in Indonesia**

Muhammad Fadhil Ardiansyah, Bahtiar Usman, Wahyuningsih Santosa  
*Trisakti University, Jakarta*

---

## **Abstract**

*Research purposes* This is For test role innovation capability in mediate influence strategic agility, organizational learning capability, and digital leadership to Organizational performance of the Indonesian Army Hospital. *Research* This use method analysis Structural Equation Modeling (SEM) - Partial Least Squares Path Modeling (PLS-SEM) with tool data analysis , namely software Smart PLS 3.0. *Sample used in study* This that is as many as 270 respondents who are ranks leaders and personnel of the Indonesian Army Hospital Level II

*Research result* show that strategic agility , digital leadership , and innovation capability influential positive and significant to organizational performance . Meanwhile that is , organizational learning capability No influential direct to performance organization , but influential significant through innovation capability as a full mediator . Apart from that , strategic agility , organizational learning capability , and digital leadership proven influential positive to Innovation capability . *Mediation test results* show that innovation capability play a role as mechanism strategic main thing that strengthens influence third variables the to performance organization .

*Theoretical implications study* This strengthen dynamic capabilities theory with confirm that performance organization determined by ability adaptation strategic , digital leadership , and conversion learning become innovation . In managerial , research This emphasize importance strengthening strategic agility , learning based implementation , applicable digital leadership , and system innovation work unit based For increase quality service and efficiency operational of the Indonesian Army Hospital. *The limitations study* This located in space scope variables , objects research limited to the Indonesian Army Hospital, as well as use approach quantitative , so that study furthermore recommended For add variables other , expanding object research , as well as use approach mixed methods .

**Originality:** *Study* This give contribution in development study management strategic sector health with put innovation capability as mediation key in connect strategic agility, organizational learning capability, and digital leadership to organizational performance of the Indonesian Army Hospital .

**Kata Kunci:** *Strategic Agility, Organizational Learning Capability, Digital Leadership, Innovation Capability, Organizational Performance.*

---

Date of Submission: 12-05-2026

Date of acceptance: 28-05-2026

---

## **I. LATAR BELAKANG**

Health is fundamental aspects in life people and become the main capital For undergo life in a way worthy . Government responsible answer ensure all over citizens obtain service quality health , while individuals also have obligation guard health himself and his dependents . With Thus , the fulfillment need health is not quite enough answer together between state and society , where is home Sick hold role important as institutions main in provide service health for public (Suciati, 2023).

As institutions that hold role strategic , house Sick faced with increasing challenges complex along current development . Hospital depicted as center care that must be taken adapt with change demographics , progress technology , and hope changing public (WHO, 2025) . Demands For Keep going grow and develop the more increased , especially in organization professional , quality , efficient and effective service , so that ability House Sick in fulfil demands it really influences performance in a way overall (Furry et al ., 2023). Conditions This push occurrence competition between House Sick in provide superior and quality services to meet need patient optimally ( Fauziyah et al ., 2022).

In Indonesia, the number of House Sick show trend consistent improvement from 2,877 units in 2019 to 3,155 units in 2023 or increase of 9.67% (Ministry of Health, 2024). However, Thus , the increase amount House Sick No as well as immediately ensure quality service . Many houses Sick Still face various constraint like limitations facilities and infrastructure (Yohan et al ., 2022), management room care unaccompanied stay efficient (Putri et al ., 2024), distribution power medical that has not been evenly ( Latupeirissa , 2025), and time limited services ( Harokan , 2024). In addition , adaptation use technology in operational House still sick too classified as low ( Latupeirissa , 2025 ).

Various problem the impact on low level satisfaction patients , even push part Indonesian people choose seek medical treatment to abroad such as Malaysia because cost more low speed services , as well as quality better service good (Asa et al ., 2024; Zain et al ., 2021). The phenomenon This become signal that performance House Sick national Not yet fully capable fulfil expectation public (Noto et al ., 2021).

Challenge improvement performance House Sick the more complex since the COVID-19 pandemic which brought change based on the system service global health . Hospital sued For develop more strategies adaptive and efficient as well as do innovation to be able to survive and thrive (Alhassani & Al-Somali, 2022).

Problems This also happened at the Indonesian Army Hospital (RS TNI AD). Of the 145 hospitals TNI hospital , as many as 29 have not accredited (Ulya and Belarminus, 2025; Mulyawati , 2025). In addition , the lack of power specialist and slow implementation System Information Hospital Management (SIMRS) causes service not optimal, time Wait patient increased , as well as bother continuity service health . The Indonesia Health Services Survey (2022) shows that from 737 houses sick , only 203 have been apply record medical electronics , showing weakness digital readiness (Aviat, 2022). Limitations infrastructure , human resource readiness , and capacity managerial become factor inhibitor main implementation digitalization (Izza & Lailiyah, 2024).

Condition the show that improvement the performance of the Indonesian Army Hospital is not only need repair technical , but also transformation managerial skills that include strategic agility, organizational learning capability, and digital leadership. factor This is determinant important in improve organizational performance (AlQadi, 2023; Chen & Zheng, 2022; Shin et al ., 2023). However, Thus , the results study previously show inconsistency related influence third variables the on organizational performance, so that required study more further . In addition , research about House Sick military , especially the Indonesian Army Hospital, is still very limited , even though own characteristics structural and challenges different strategies compared to institutions health civil .

For bridge gap said , research This integrating innovation capability as variables mediation . Innovation capability is ability organization For convert knowledge and ideas become product , process, or valuable system high (Mendoza-Silva, 2021), as well play a role important in increase efficiency operational , quality services , and power competition organization (Purwanto et al ., 2023; Masoomzadeh et al ., 2019). In context House sick , innovation like record medical electronics and systems information management proven capable increase quality service and satisfaction patients (Wakiso & Kinyua, 2025 ).

With Thus , research This focuses on strengthening the organizational performance of the Indonesian Army Hospital through integration of strategic agility, organizational learning capability, and digital leadership with innovation capability as variables mediation , in order to answer challenge performance and transformation service health in the environment House Sick military .

## II. THEORETICAL BASIS

### *Resource-Based View (RBV)*

*Resource-Based View* (RBV) theory is one of the approach main in studies management strategic that emphasizes importance source internal organizational power as runway in build superiority sustainable competitive approach This assume that source unique , valuable , and difficult power and capability imitated can become base superiority compete if managed optimally (Wartini et al ., 2024). RBV theory provides framework comprehensive conceptual in help organization build and maintain superiority competitive through strengthening internal strength , as well as become guidelines in develop adaptive strategies to dynamics environment business .

### *Dynamic Capability Theory*

*Dynamic capability* theory emphasize that superiority competitive organization No only determined by ownership source valuable , rare , and difficult power imitated , but also by the ability organization For adapt in a way fast to change environment (Teece, Pisano, & Shuen , 1997). This theory assume that in environment dynamic business , configuration source previous power profitable can lost its relevance , so that organization need own capacity For update , combine reset , and reconfigure the assets he owns so that they remain competitive ( Alokshet al ., 2025).

**Strategic Agility**

The definition put forward by Alkandi& Helmi (2024) emphasizes that *strategic agility* reflect ability organization adapt self in a way fast and right in the middle dynamics and uncertainty . Concept This covers various action strategically designed For create value in the middle unfavorable market conditions stable and difficult predicted . Agility the allows management in take responsive decisions through process and structure adjustments organization in a way systematic .

**Organizational Learning Capability**

*Organizational learning capability* refers to capacity something organization For maintain and improve performance through a learning process that is sourced from past experiences ( Hilmiyanti&Kusumastuti , 2021) . In context this , learning No only become mechanism adaptive , but also a instrument strategic in push sustainability and excellence competitive organization .

**Digital Leadership**

*Digital leadership* reflect competencies and behavior of leaders in utilise opportunity digital technology for push change organizations that are transformational (Benitez et al ., 2022). Leadership This nature collaborative cross levels organization , focused on change , and capable of push innovation in a way comprehensive . The impact can seen in change attitudes , behavior , and improvement performance at the level individual , team , up to organization in a way overall ( Abbu et al ., 2020).

**Innovation Capability**

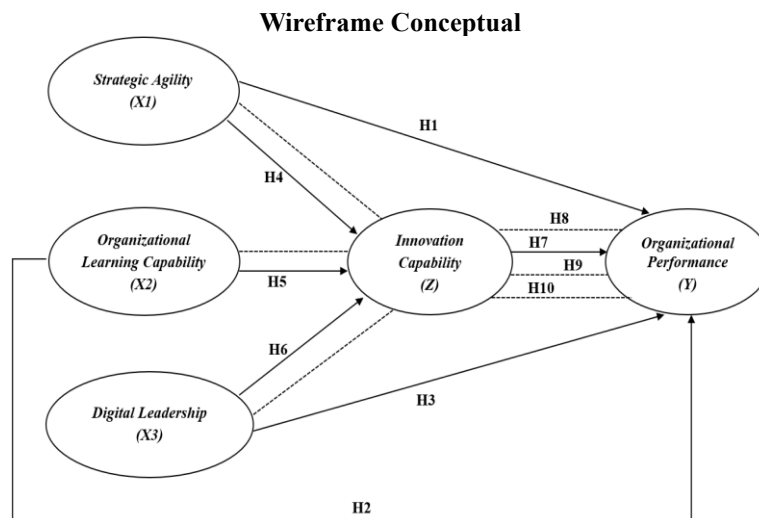
*Innovation capability* refers to a series of activity complex that allows organization For creating and adopting new ideas , which ultimately produce innovative products ,services , or business models (Ferreira et al ., 2020). According to Ganguly et al ., (2020) *innovation capability* defined as capacity organization in manage and organize repeat source the power to create various innovation product and services . Capabilities This rooted in culture open organization to changes and updates , as well as depends on ability For move energy and skills employees to support development of progressive business models and competitive products ( Zahoor et al ., 2023) .

**Organizational Performance**

*Organizational performance* is representation main from effectiveness A entity in reach objective strategically . This performance reflect how optimal is a organization manage source power and process for produce appropriate results with the target that has been set . In perspective evaluative ,*organizational performance* can interpreted as results actual compared with standard or gauge measuring certain . This is covers ability organization in realize objective through strong governance , efficient management , and consistency in strategy implementation ( Mwagona , 2023).

**CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT**

Framework study This If depicted in form connection like scheme following This :



### **Influence Strategic Agility Against Organizational performance at the Indonesian Army Hospital**

*Strategic agility* or dexterity strategic is capability organization For respond change environment in a way fast and adaptive with still maintain direction sustainable strategic agility (Purwanto et al ., 2023). *Strategic agility* allows organization arrange source Power in a way efficient and running direction strategic in a way appropriate time so that increase performance , which is influenced by ability align flexibility to stakeholders interests (Asheq & Hossain, 2019). In context of the Indonesian Army Hospital, p. This reflected in efficiency allocation source Power medical , technology , and personnel as well as strategic alignment with system service health military . Research previously show that *strategic agility* contribute positive to *organizational performance* , where the study of Palanisamy et al . (2021), Sunghong et al . (2025), Lungu (2020), and Yea & Islam (2025) show that organization with level *strategic agility* tall own performance more Good through ability absorb changes , adapt strategies, and execute action in a way fast and precise . Therefore that , the hypothesis proposed is :

H1: There is influence positive *strategic agility* towards *organizational performance*.

### **Influence Organizational Learning Capability Against Organizational performance at the Indonesian Army Hospital**

*Organizational learning capability* is ability organization For get outlook through the learning process based experience as well as maintain knowledge the although face limitations time and place (Zhang et al ., 2020). *Organizational learning capability* play a role important as foundation strategic in improvement *organizational performance* Because facilitate the update process knowledge , taking more decisions smart , and transformation culture more work dynamic . In context of the Indonesian Army Hospital, approach This involving training sustainable , evaluation service medical , as well as collaboration cross -unit for repair quality service and preparedness operational ( Pusparani et al ., 2023). A number of studies show existence connection significant between organizational learning capability and organizational performance. Kurniawan & Azis (2025) and Chen and Zheng (2022) emphasize this that *organizational learning capabilities* own impact positive to *organizational performance* , especially in dynamic environment . Findings Kozcu& Özmen (2023), Berndt et al . (2022), Pusparani et al . (2023), and Hussain et al . (2023) also showed that ability organization For learn and adapt increase performance in a way overall . Therefore that , the hypothesis proposed is :

H2: There is influence positive *organizational learning capability* against *organizational performance*.

### **Influence Digital leadership against Organizational performance at TNI AD Hospital**

*Digital leadership* is ability strategic owned a leader in direct organization face digital transformation through innovative strategy design as well as management adaptive change to development technology ( Sagung& Sri, 2020). *Digital leadership* is type leadership that combines ability leadership and digital skills for increase *organizational performance* with optimize digital technology (Amelda et al ., 2021). In In the context of the Indonesian Army Hospital, digital leadership reflects capacity leader in utilise technology For support taking decision , push innovation , and improve efficiency operational . Research previously show that digital leadership has an influence positive on organizational performance. Shin et al . (2023), Okunlola et al . (2024), Al- Husban et al . (2021), and Tulungen et al . (2022) found that digital leadership improves efficiency , innovation , and excellence competitive organization . Digital leaders are able to align technology with operational organization so that increase effectiveness service and performance in a way overall . Therefore that , the hypothesis proposed is :

H3: There is influence positive *digital leadership* towards *organizational performance*.

### **Influence Innovation Capability Against Organizational performance at the Indonesian Army Hospital**

*Innovation capability* refers to capacity organization For designing as well as implement new products , services , or processes as effort create sustainable growth ( Herhausen et al ., 2020). Capabilities This allows organization For respond market changes , adapting preference customers , and build superiority competitive that contributes to the improvement *organizational performance* (Wanyoike & Kinyua, 2025). At the Indonesian Army Hospital, innovation play a role in increase efficiency operational as well as quality service medical to patients . Various studies empirical show that *innovation capability* influential positive on organizational performance. Khan and Kumar (2019), Purwanto et al . (2023), and Masoomzadeh et al . (2019) emphasized that innovation capability is determinant important in achievement performance superior organization . Organizations that integrate innovation strategies tend increase efficiency , quality services , and power competitive . Therefore that , the hypothesis proposed is :

H4: There is influence positive *innovation capability* against *organizational performance*.

#### **2.4.5. Influence Strategic Agility Against Innovation capability at RS TNI AD**

*Strategic agility* is a set activity strategic that allows organization create mark plus in dynamic and unpredictable environment stable . Adoption practice Work based *strategic agility* allows organization recognize market

opportunities and explore innovation in a way proactive (Manurung&Sudhartio, 2024). In the Indonesian Army Hospital, *strategic agility* allows service model development new as well as adjustment channel Work in a way flexible in accordance dynamics need service health. Research show that *strategic agility* influential positive to *innovation capability*. Sahasranamam and Soundararajan (2021), Mata et al. (2024), and Purwanto et al. (2023) show that strategic agility accelerates the innovation and decision-making process decision. Jooss et al. (2023) and Bouguerra et al. (2023) also found that *strategic agility* strengthen internal *innovation capability* condition crisis. Therefore that, the hypothesis proposed is:

H5: There is influence positive *strategic agility* towards *innovation capabilities*.

#### **Influence Organizational Learning Capability Against Innovation capability at RS TNI AD**

*Organizational learning capability* is ability organization in create environment learning that encourages acquisition and utilization knowledge in a way sustainable (Ferreira et al., 2020). In the TNI AD Hospital, *organizational learning capability* increase ability House Sick For adapt, innovate, and navigate complexity service health through learning collective and internal collaboration. Research show that *organizational learning capabilities* influential positive to *innovation capability*. Berndt et al. (2023), Dominguez- Escrig et al. (2022), and Haile & Tüzüner (2022) emphasized that culture strong learning push creation innovation. Findings Thahira et al. (2020), Hilmiyanti (2021), and Li & Wang (2022) showed that organization with capacity learning tall more capable generate and implement innovative ideas. Therefore that, the hypothesis proposed is:

H6: There is influence positive *organizational learning capability* against *innovation capabilities*.

#### **Influence Digital Leadership Against Innovation capability at RS TNI AD**

*Digital leadership* play a role important in increase *innovation capability* through ability leader in understand technology and respond dynamics market needs (Fatima & Masood, 2023). In the Indonesian Army Hospital, *digital leadership* create environment work that encourages creativity and experimentation, as well as support power health in produce innovation services. Research show that digital leadership has an influence positive to *innovation capability*. Öngel et al. (2023), Eng et al. (2022), Zia et al. (2024), and Zeike et al. (2019) found that capable digital leaders create culture innovative, improving commitment employees, and speed up transformation innovation organization. Therefore that, the hypothesis proposed is:

H7: There is influence positive *digital leadership* towards *innovation capabilities*.

#### **Influence Strategic agility against Organizational Performance Mediated by Innovation Capability at RS TNI AD**

Organizations that operate in environment turbulent and very dynamic work need maintain good performance as well as build superiority sustainable competitiveness in order to face rapid and unpredictable changes unpredictable. Strategic agility allows organization For adapt to condition changing work through strengthening sensing capabilities as well ability For reconfigure source Power in a way flexible (Clauss et al., 2020; Pereira et al., 2019; Cunha et al., 2020). *Strategic agility* also allows organization create mark plus for customer with explore untapped market opportunities cultivated so that more capable fulfil desires and preferences customers (Farhana & Swietlicki, 2020). More continue, *strategic agility* contribute in increase *innovation capability* later impact on organizational performance. Olaleye et al. (2021) showed that strategic agility has connection positive with *innovation capability*, while Cai et al. (2019) emphasized that flexibility management source Power support creation innovation. With Thus, *innovation capability* plays a role as bridging mechanism influence *strategic agility* towards improvement performance organization. Therefore that, the hypothesis proposed is:

H8: There is influence positive *strategic agility* towards *organizational performance* that mediated by *innovation capability*.

#### **Influence Organizational Learning Capability Against Organizational Performance Mediated by Innovation Capability at RS TNI AD**

*Organizational learning capability* allows organization For create environment supportive learning acquisition, distribution, and utilization knowledge as base innovation. Learning organization strengthen capacity in creating ideas and practices new to be foundation main *innovation capability* (Berndt et al., 2023). Organizational learning capability also supports the transformation and response process fast to very important changes in context service health (Dominguez- Escrig et al., 2022). Relationship between *organizational learning capability* and *organizational performance* become more strong when mediated by *innovation capability*. *Organizational learning capability* allows organization process knowledge become applicable innovation so that impact on increasing performance. Haile & Tüzüner (2022) emphasized that organization with ability learning tall own capacity more big For implement innovation in a way sustainable. Therefore that, the hypothesis proposed is:

H9: There is influence positive *organizational learning capability* against *organizational performance* that mediated by *innovation capability*.

### **Influence Digital Leadership Against Organizational Performance Mediated by Innovation Capability at RS TNI AD**

*Digital leadership* play a role in push *innovation capability* through ability leader in utilise digital technology , building culture innovative , as well as create environment supportive work creativity and experimentation (Fatima & Masood, 2023). Digital leaders are able to align objective strategic organization with practice innovative as well as push involvement employee in the innovation process (Eng et al ., 2022). In context of the Indonesian Army Hospital, *digital leadership* become factor important in speed up digital transformation and improving quality service health . Influence *digital leadership* towards *organizational performance* to become more optimal through role *innovation capability* as a mediator. Zia et al . (2024) and Öngel et al . (2023) showed that *digital leadership* push creation environment innovative that has an impact on increasing performance organization . With Thus , *innovation capability* strengthen connection between *digital leadership* and *organizational performance* . Therefore that , the hypothesis proposed is :

H10: There is influence positive *digital leadership* towards *organizational performance* mediated by *innovation capability*.

### **III. RESEARCH METHODOLOGY**

This study uses a quantitative method with a survey approach and *cross-sectional design* to analyze the causal relationship between *strategic agility* , *organizational learning capability* , and *digital leadership* as independent variables, *innovation capability* as a mediating variable, and *organizational performance* as a dependent variable. The unit of analysis is individuals including leaders and structural officials of Level II Indonesian Army Hospitals (Rumkit TNI AD) in 14 hospitals spread across Indonesia. The study population consists of hospital leaders and structural officials who have strategic authority in organizational management. Samples were taken using a *non-probability sampling technique* with a *purposive sampling method* based on job relevance and experience criteria, with a minimum sample size of 200 respondents, and 270 respondents were successfully collected. Data were obtained through a questionnaire distributed online using *Google Forms* .

Model submitted in study This consists offrom 2 equations structural , namely :

$$(1) \text{ OP} = \beta_1 \text{ SA} + \beta_2 \text{ OLC} + \beta_3 \text{ DL} + \beta_4 \text{ IC} + \varepsilon_2$$

$$(2) \text{ IC} = \alpha_1 \text{ SA} + \alpha_2 \text{ OLC} + \alpha_3 \text{ DL} + \varepsilon_1$$

Keterangan:

OP : *Organizational Performance*

SA : *Strategic Agility*

OLC : *Organizational Learning Capability*

DL : *Digital Leadership*

IC : *Innovation Capability*

$\alpha, \beta$  : Coefficient of influence of independent variables on dependent variables dependent for each structural equation

$\varepsilon$  : Residual (*error*)

### **VARIABLES AND MEASUREMENT**

Study This examining five variables main that is *strategic agility* , *organizational learning capability* , and *digital leadership* as variables independent , *innovation capability* as variables mediation , as well as *organizational performance* as variables dependent variable . Each variable measured with relevant indicators use Likert scale . *Strategic agility* (X1) is measured with 9 indicators that include dimensions *strategic sensitivity* , *leadership unity* , and *resource fluidity* . *Organizational learning capability* (X2) is measured with 6 indicators that reflect the learning process organization , involvement employees , and transparency towards new ideas . *Digital leadership* (X3) is measured with 6 indicators that include awareness leadership to technology , strengthening understanding strategic , as well as support to digital transformation . *Innovation capability* (Z) is measured with 13 indicators which include dimensions *product innovation* , *process innovation* , *organizational innovation* , and *marketing innovation* . *Organizational performance* (Y) is measured with 6 indicators that include improvement productivity , efficiency service , quality patients , and experiences patient For measure indicator said , used Likert scale , which is effective in measure attitudes , opinions , and perceptions individual with five levels response . This method considered make it easier evaluation quantitative to the phenomenon being studied .

#### IV. RESULTS AND DISCUSSION

Test results This based on on research data processing with use analysis *Partial Least Square (PLS)* with use *Smart PLS software 3.0*. As for based on hypothesis test results , obtained results as following :

<b>Hypothesis Test Results</b>				
<b>Hypothesis Study</b>	<b>Coef.</b>	<b>P-Values</b>	<b>Information</b>	
<b>Influence Direct Effect</b>				
H1: There is influence positive <i>strategic agility</i> towards <i>organizational performance</i> .	0.230	0.036	Hypothesis Supported	
H2: There is influence positive <i>organizational learning capability</i> towards <i>organizational performance</i> .	-0.062	0.419	Hypothesis Not Supported	
H3: There is influence positive <i>digital leadership</i> towards <i>organizational performance</i> .	0.348	0.001	Hypothesis Supported	
H4: There is influence positive <i>innovation capability</i> towards <i>organizational performance</i> .	0.381	0.001	Hypothesis Supported	
H5: There is influence positive <i>strategic agility</i> towards <i>innovation capability</i> .	0.387	0,000	Hypothesis Supported	
H6: There is influence positive <i>organizational learning capability</i> against <i>innovation capabilities</i> .	0.166	0.014	Hypothesis Supported	
H7: There is influence positive <i>digital leadership</i> towards <i>innovation capabilities</i> .	0.420	0,000	Hypothesis Supported	
<b>Indirect Effect</b>				
H8: There is influence positive <i>strategic agility</i> towards <i>organizational performance</i> mediated by <i>innovation capability</i> .	0.147	0.011	Hypothesis Supported	
H9: There is influence positive <i>organizational learning capability</i> against <i>organizational performance</i> that mediated by <i>innovation capability</i> .	0.063	0.042	Hypothesis Supported	
H10: There is influence positive <i>digital leadership</i> towards <i>organizational performance</i> mediated by <i>innovation capability</i> .	0.160	0.001	Hypothesis Supported	

Source : Processed Data SmartPLS (2024)

Based on hypothesis test results in study this , from a total of ten the proposed hypothesis , nine hypothesis stated supported ( significant in a way statistics ) and one hypothesis No supported . In more details discussion each the test results are as following

##### **Influence Strategic Agility Against Organizational performance at the Indonesian Army Hospital**

Test results hypothesis show that *strategic agility* influential positive and significant to *organizational performance* of the Indonesian Army Hospital. Findings This confirm that ability organization in respond change strategic in a way fast , flexible , and focused is factor important in increase performance institutions service health military ( Doz& Kosonen, 2020; Teece, 2023). In perspective *dynamic capabilities theory* , *strategic agility* viewed as ability organization For align , build , and configure repeat source Power strategic to maintain performance superior in dynamic environment (Teece, 2020) . Findings This in line with research by Clauss et al . (2021), Park et al . (2023), and Li et al . (2022) which shows that organization with level *strategic agility* tall own performance more Good through acceleration strategy adaptation and optimization source power . In sector health , *strategic agility* increase efficiency operational and quality service through innovation , empowerment employees , and utilization technology ( Karatu et al ., 2023; Hendra & Hanita, 2025). Therefore that is , *strategic agility* is determinant strategic in increase performance of the Indonesian Army Hospital.

##### **Influence Organizational Learning Capability Against Organizational performance at TNI AD Hospital**

Test results show that *organizational learning capabilities* No influential significant in a way direct to *organizational performance* . Findings This show that the learning process organization No in a way automatic produce improvement performance , because results learning Not yet converted become process changes , decisions strategic , or impactful innovation real . In perspective *dynamic capabilities theory* , *organizational learning capability* more appropriate positioned as capability supporters who provide a knowledge base for formation other capabilities that are more implementation (Teece, 2020). Findings This in line with Li et al . (2022) and Clauss et al . (2021) shows that learning organization influential to performance through mechanism No directly . In Indonesian Army Hospital practice , learning often stop at the stage administrative without implementation Because structure hierarchical organization and the existence of *implementation gap* between learning and its application (Wamba et al ., 2021). Therefore that , learning organization functioning as foundation strategic that requires conversion become innovation or other capabilities to impact performance .

### **Influence Digital leadership Against Organizational performance at the Indonesian Army Hospital**

Research result show that *digital leadership* influential positive and significant to *organizational performance* of the Indonesian Army Hospital. Findings This confirm that digital leadership is mechanism strategic bridging digital transformation with achievement performance organization (Nambisan et al ., 2020). Success performance No only determined not by technology , but by capabilities leadership in utilise technology in a way strategic and structured . Findings This supported by research by Verhoef et al . (2021), Kurniawati et al . (2023), and El Sawy et al . (2020) which shows that *digital leadership* increase efficiency operational , quality services , and pickup decisions . In the Indonesian Army Hospital, digital leadership also encourages change method work , improve collaboration , as well as reduce resistance to technology (Wrede et al ., 2020). With thus , *digital leadership* become factor key in increase performance organization .

### **Influence Innovation Capability Against Organizational performance at the Indonesian Army Hospital**

Test results show that *innovation capability* influential positive and significant to *organizational performance* of the Indonesian Army Hospital. Findings This confirm that ability organization in produce and implement innovation in a way direct increase performance organization . In perspective management strategic , *innovation capability* is internal capabilities that integrate knowledge , processes, and resources Power For increase effectiveness operational and quality services (Vial, 2019). Findings This consistent with Verhoef et al . (2021), Appio et al . (2021), and Binsar et al . (2024) which showed that innovation is element key improvement performance organization . In framework *Resource-Based View* , *innovation capability* become source superiority competitive influences performance in a way directly (Barney, 1991; Grant, 1991). With Thus , *innovation capability* is determinant main in increase performance of the Indonesian Army Hospital.

### **Influence Strategic Agility Against Innovation capability at the TNI AD Hospital**

Research result show that *strategic agility* influential positive and significant to *innovation capability* . Findings This show that ability organization in respond change in a way fast and flexible push strengthening innovation . In *dynamic capability theory* , *strategic agility* play a role in the *sensing* and *seizing* process that drives transformation through innovation (Teece et al ., 1997). Findings This in line with Cheng et al . (2020) and Alolayyan et al . (2022) which shows that organization with level high strategic agility own capability innovation more strong . In the Indonesian Army Hospital, *strategic agility* push development innovation procedural and service in a way sustainable without ignore structure organization military . Therefore that is , *strategic agility* is foundation important for *innovation capability* .

### **Influence Organizational Learning Capability Against Innovation capability at RS TNI AD**

Research result show that *organizational learning capability* influential positive and significant to *innovation capability* . Findings This show that innovation develop through the learning process structured and sustainable organization (Zhang et al ., 2020) . Learning organization allows integration knowledge to in practice Work so that produce relevant innovation ( Kozcu& Özmen, 2023) . Findings This supported by Domínguez-Escrig et al . (2022), Berndt et al . (2023), and Hussain et al . (2023) which show that learning organization strengthen innovation . In the Indonesian Army Hospital, learning collective and sharing knowledge allows innovation integrated in system Work organization . With Thus , *organizational learning capability* is foundation main development *innovation capability* .

### **Influence Digital Leadership Against Innovation capability at RS TNI AD**

Research result show that *digital leadership* influential positive and significant to *innovation capability* . Findings This confirm that innovation No appear from technology only , but triggered by capable leadership translate potential technology become practice Work real (Benitez et al ., 2022). *Digital leadership* form environment work that encourages creativity , collaboration , and data utilization in taking decision . findings This in line with perspective *Resource-Based View* and *dynamic capability theory* , which places leadership as capability strategic in push innovation (Barney, 1991; Teece et al ., 1997). The studies of Zia et al . (2024) and Öngel et al . (2023) showed that digital leadership strengthens culture innovative and accelerating transformation organization . With thus , *digital leadership* become catalyst main in increase *innovation capability* of TNI AD Hospital.

### **Influence Strategic agility Against Organizational Performance Mediated by Innovation Capability at the Indonesian Army Hospital**

Research result show that *strategic agility* influential positive and significant to *organizational performance* through *innovation capability* . Findings This confirm that performance organization No only determined by speed response strategic , but by ability organization institutionalize response the through innovation . In context of TNI AD Hospital, *innovation capability* play a role as mechanism important to ensure that strategic adjustments are realized in solution innovative that improves quality service and efficiency

organization (Manurung&Sudhartio, 2024). Findings This in line with Cheng et al. (2020) and Al-Nawafah et al. (2022) which shows that influence *strategic agility* to performance become more strong when mediated by *innovation capability*. In the Indonesian Army Hospital, strategic agility allows adjustment policy in a way fast, while innovation ensure impactful implementation real on performance. Therefore that, the relationship between *strategic agility* and *organizational performance* nature No directly and depends on *innovation capability* as capability intermediary.

#### **Influence Organizational Learning Capability Against Organizational Performance Mediated by Innovation Capability at RS TNI AD**

Test results show that *organizational learning capability* influential positive and significant to *organizational performance* through *innovation capability* as a full mediator. Findings This indicates that learning organization only impact on performance if succeed realized in form implemented innovation. Learning organization allows accumulation and distribution knowledge, but performance increase when knowledge the produce update real in services and work processes (Domínguez- Escrig et al., 2022). In perspective management strategic, learning organization nature potential, whereas innovation nature actual. Without *innovation capability*, learning tend stop at an increase knowledge without produce change significant on the organization. Findings This in line with *dynamic capability theory* that puts learning as *sensing* and innovation as *transforming* that produces performance real (Teece et al., 1997). Therefore that, integration learning and innovation become key improvement performance of the Indonesian Army Hospital.

#### **Influence Digital Leadership Against Organizational Performance Mediated by Innovation Capability at the Indonesian Army Hospital**

Research result show that *digital leadership* influential positive and significant to *organizational performance* through *innovation capability* as a partial mediator. Findings This show that digital leadership improves performance organization Good in a way direct and through strengthening capability innovation. *Digital leadership* play role central in direct utilization technology to have an impact real on performance through change method work, integration technology in services, as well as creation environment innovative (Mollah et al., 2023). The role of mediation partial *innovation capability* show that digital leadership creates conditions that allow innovation develop and contribute to performance organization. Digital leaders encourage learning based technology, collaboration cross-unit, and experimental, so that organization capable change potential technology become innovation sustainable services and work processes (Purwanto et al., 2025; Shin et al., 2025). With thus, *digital leadership* become driving force main thing that strengthens connection innovation and performance of the Indonesian Army Hospital.

## **V. DISCUSSION AND CONCLUSION**

### **KESIMPULAN**

Study This conclude that *strategic agility*, *digital leadership*, and *innovation capability* own influence positive and significant to *organizational performance* Indonesian Army Hospital, both in a way direct and through mechanism mediation. Findings This show that ability organization in respond change in a way fast and adaptive, supported by effective digital leadership, capable of increase performance organization especially when converted become implemented innovation. Meanwhile that is, *organizational learning capability* No influential in a way direct to *organizational performance*, however give contribution significant through *innovation capability* as a full mediator, that shows that learning organization new impact if produce innovation real in process and service.

In addition, the results research also shows that *strategic agility* and *digital leadership* influential to performance through mediation partial *innovation capability*, so strengthen role innovation as mechanism strategic in increase performance organization. In general overall, research This confirm that *innovation capability* play a role as connector main (*strategic linking mechanism*) that transforms capability strategic and digital leadership becomes improvement performance organization House Sick an adaptive, efficient and sustainable military

### **IMPLICATIONS**

Research result This give implications important for the head of the Indonesian Army Hospital in increase performance organization through strengthening capability strategic and innovation. Improvement *strategic agility* can done through strengthening ability strategic adaptation and flexibility allocation source power. Strengthening *digital leadership* need focused on utilization technology in a way strategic, encouraging change method work, and build culture Work digital-based and innovative. In addition, the development *organizational learning capabilities* need directed at implementation real in form innovation services and work processes. Therefore that, the increase *innovation capability* through strengthening culture innovation, learning

organization and utilization technology become key strategic in increase quality service , efficiency operational , as well as Power competitiveness of the Indonesian Army Hospital sustainable .

## VI. LIMITATIONS AND SUGGESTIONS

Study This own limitations on the variables studied which only covers *strategic agility* , *organizational learning capability* , and *digital leadership* with *innovation capability* as a mediator against *organizational performance* , so that Not yet consider other possible variables influential . In addition , research This limited to the Indonesian Army Hospital so that generalization results study Still limited to context House Sick military . Therefore that , research furthermore recommended For add other relevant variables , expanding object study to type House Sick others , and develop approach further research comprehensive For strengthen results findings .

## DAFTAR PUSTAKA

- [1]. Abbu, H., Mugge, P., Gudergan, G., & Kwiatkowski, A. (2020). Digital leadership character and competency differentiates digitally mature organizations. *2020 IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC)*. <https://doi.org/10.1109/ice/itmc49519.2020.9198576>
- [2]. Alhassani, A., & Al-Somali, S. (2022). impact of dynamic innovation capabilities on organizational agility and performance in saudi public hospitals. *Journal on Innovation and Sustainability RISUS*, 13(1), 44–59. <https://doi.org/10.23925/2179-3565.2022v13i1p44-59>
- [3]. Al-Husban, D., Almarshad, M., & Altharawi, M. (2021). Digital leadership and organizational performance: The mediating role of innovation capability. *International Journal of Entrepreneurship*, 25(5), 1–16.
- [4]. Alkandi, I., & Helmi, M. A. (2024). The impact of strategic agility on organizational performance: The mediating role of market orientation and innovation capabilities in emerging industrial sector. *Cogent Business & Management*, 11(1), Article 2396528. <https://doi.org/10.1080/23311975.2024.2396528>
- [5]. Al-Nawafah, S., Al-Shra'ah, A., & Al-Madi, F. (2022). Strategic agility and organizational performance: The mediating role of innovation capability. *Journal of Business & Industrial Marketing*, 37(9), 1861–1873. <https://doi.org/10.1108/JBIM-09-2020-0434>
- [6]. Al-Qadi, N. S. (2023). Strategic agility as a driver of organizational adaptability and innovation. *Management Research Review*, 46(7), 912–928. <https://doi.org/10.1108/MRR-10-2021-0736>
- [7]. Amelda, B., Alamsjah, F., & Author, C. (2021). Does the digital marketing capability of Indonesian banks align with digital leadership and technology capabilities on company performance? *Communication & Information Technology Journal*, 15(1), 9–17.
- [8]. Appio, F. P., Frattini, F., Messeni Petruzzelli, A., & Neirotti, P. (2021). Digital transformation and innovation management: A synthesis of existing research and an agenda for future studies. *Journal of Product Innovation Management*, 38(1), 4–20. <https://doi.org/10.1111/jpim.12562>
- [9]. Asa, G. A., Fauk, N. K., McLean, C., & Ward, P. R. (2024). Medical tourism among Indonesians: A scoping review. *BMC Health Services Research*, 24 (49). <https://doi.org/10.1186/s12913-023-10528-1>
- [10]. Asheq, A.A., & Hossain, M.U. (2019). SME performance: Impact of market, customer, and brand orientation. *Academy of Marketing Studies Journal*, 23 (1).
- [11]. Aviat. (2022). *Government make it mandatory implementation of SIMRS throughout House sick* . <https://aviat.id/pemerintah-wajibkan-penerapan-simrs-di-seluruh-rumah-sakit/>
- [12]. Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- [13]. Benitez, J., Arenas, A., Castillo, A., & Esteves, J. (2022). Impact of digital leadership capability on innovation performance: The role of platform digitization capability. *Information and Management*, 59(2), 103590. <https://doi.org/10.1016/j.im.2022.103590>
- [14]. Berndt, A. C., Gomes, G., & Borini, F. M. (2024). Exploring the antecedents of frugal innovation and operational performance: the role of organizational learning capability and entrepreneurial orientation. *European Journal of Innovation Management*, 27(5), 1704–1722. <https://doi.org/10.1108/EJIM-06-2022-0320>
- [15]. Binsar, B., Hendra, H., & Hanita, M. (2024). Does digital leadership impact the performance of lower-middle-class hospitals? *International Journal of Innovation and Technology Management*, 21(4), 2450031. <https://doi.org/10.1142/S021987702450031X>
- [16]. Bouguerra, A., Hughes, M., Rodgers, P., Stokes, P., & Tatoğlu, E. (2023). Confronting the grand challenge of environmental sustainability within supply chains: how can organizational strategic agility drive environmental innovation?. *Journal of Product Innovation Management*, 41(2), 323–346. <https://doi.org/10.1111/jpim.12692>
- [17]. Cai, Z., Liu, H., Huang, Q., & Liang, L. (2019). Developing organizational agility in product innovation: The roles of IT capability, KM capability, and innovative climate. *R&D Management*, 49(3), 421–438. <https://doi.org/10.1111/radm.12349>
- [18]. Chen, Li, & Zheng, Ying. (2022). Influence of organizational learning and dynamic capability on organizational performance of human resource service enterprises: Moderation effect of technology environment and market environment. *Frontiers in Psychology*, 13, 889327.
- [19]. Cheng, C. C. J., Yang, C. L., & Sheu, C. (2020). The link between strategic agility and innovation performance. *Journal of Business Research*, 120, 63–75. <https://doi.org/10.1016/j.jbusres.2020.07.020>
- [20]. Clauss, T., Abebe, M., Tangpong, C., & Hock, M. (2019). Strategic agility, business model innovation, and firm performance: An empirical investigation. *IEEE Transactions on Engineering Management*, 68(3), 767–784. <https://doi.org/10.1109/tem.2019.2910381>
- [21]. Clauss, T., Abebe, M., Tangpong, C., & Hock, M. (2021). Strategic agility, business model innovation, and firm performance: An empirical investigation. *IEEE Transactions on Engineering Management*.
- [22]. Cunha, M. P. E., Gomes, E., Mellahi, K., Miner, A. S., & Rego, A. (2020). Strategic agility through improvisational capabilities: Implications for a paradox-sensitive HRM. *Human Resource Management Review*, 30(1), 100695. <https://doi.org/10.1016/j.hrmr.2019.100695>
- [23]. Domínguez-Escrig, E., Broch, F., Chiva, R., & Alcamí, R. (2022). Authentic leadership: boosting organisational learning capability and innovation success. *The Learning Organization*, 30(1), 23–36. <https://doi.org/10.1108/tlo-01-2021-0007>
- [24]. Doz, Y. L., & Kosonen, M. (2010). Embedding strategic agility: A leadership agenda for accelerating business model renewal. *Long Range Planning*, 43(2–3), 370–382. <https://doi.org/10.1016/j.lrp.2009.07.006>

- [25]. El Sawy, O. A., Kræmmergaard, P., Amsinck, H., & Vinther, A. L. (2020). How LEGO built the foundations and enterprise capabilities for digital leadership. *MIS Quarterly Executive*, 19(2).
- [26]. Eng, S., Kim, J., & Lee, S. (2022). Digital leadership and employee innovation behavior: The mediating role of trust and commitment. *Technological Forecasting and Social Change*, 179, 121640. <https://doi.org/10.1016/j.techfore.2022.121640>
- [27]. Farhana, M., & Swietlicki, D. (2020). Dynamic capabilities impact on innovation: Niche market and startups. *Journal of Technology Management & Innovation*, 15(4), 83–96. <https://doi.org/10.4067/S0718-27242020000400083>
- [28]. Fatima, T., & Masood, A. (2024). Impact of digital leadership on open innovation: A moderating serial mediation model. *Journal of Knowledge Management*, 28(1), 161–180. <https://doi.org/10.1108/JKM-11-2022-0872>
- [29]. Fauziyah , NLL, Prayoga , D., & Mahendra, MGD (2022). Factors influencing satisfaction and loyalty patient House sick : Literature review. *Prepotif: Journal of Public Health*, 6 (3).
- [30]. Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation* , 92–93 , 102061.
- [31]. Furry, STR, Suryana , Y., & Yusuf, Y. (2023). The Influence remuneration and commitment to achievement performance nurse room care inpatient at the TNI AD Hospital Level IV Guntur Garut .
- [32]. Ganguly, A., Kumar, C., Saxena, G., & Talukdar, A. (2020). Firms' reputation for innovation: Role of marketing capability, innovation capability, and knowledge sharing. *Journal of Information & Knowledge Management*, 19(2), 2050004. <https://doi.org/10.1142/S0219649220500045>
- [33]. Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, 33(3), 114–135.
- [34]. Haile, B., & Tüzüner, V. L. (2022). Organizational learning capability as a driver of innovation in healthcare organizations. *International Journal of Healthcare Management*, 15(4), 312–320. <https://doi.org/10.1080/20479700.2021.1959213>
- [35]. Herhausen, D., Miočević, D., Morgan, R. E., & Kleijnen, M. H. P. (2020). The digital marketing capabilities gap. *Industrial Marketing Management*, 90, 276–290. <https://doi.org/10.1016/j.indmarman.2020.07.022>
- [36]. Hilmiyanti, N. D. (2021). The influence of organizational learning capability and organizational creativity on organizational innovation (Study at PT XYZ). *Hasanuddin Economics and Business Review*, 4(3), 13. <https://doi.org/10.26487/hebr.v4i3.2542>
- [37]. Hussain, A., Khan, M., Rakhmonov, D. A., Mamadiyarov, Z. T., Kurbonbekova, M. T., & Mahmudova, M. Q. K. (2023). Nexus of training and development, organizational learning capability, and organizational performance in the service sector. *Sustainability*, 15(4). <https://doi.org/10.3390/su15043246>
- [38]. Izza, A. A., & Lailiyah, S. (2024). Literature review: Overview of the implementation of electronic medical records in Indonesian hospitals based on Minister of Health Regulation Number 24 of 2022. *Media Gizi Kesmas*, 13(1), 549–562. <https://doi.org/10.20473/mgk.v13i1.2024.549-562>
- [39]. Jooss, S., Collings, D. G., McMackin, J., & Dickmann, M. (2023). A skills-matching perspective on talent management: Developing strategic agility. *Human Resource Management*, 63(1), 141–157. <https://doi.org/10.1002/hrm.22192>
- [40]. Karatu, E., Mutunga, S., & Rintari, N. (2023). Impact of strategic agility on performance of medical employees in county referral hospitals in Kenya. *JSM*, 3(3), 8–15. <https://doi.org/10.70619/vol3iss3pp8-15>
- [41]. Ministry of Health of the Republic of Indonesia. (2023). Ministry of Health official launch record medical electronic Integrated SATUSEHAT. *Healthy My Country* . <https://sehatnegeriku.kemkes.go.id>
- [42]. Kozcu, G. Y., & Özmen, Ö. N. T. (2023). Organizational learning capability, organizational resilience, organizational performance, and market turbulence: A moderated mediation model. *YönetimBilimleri Dergisi*, 21(49), 482–503. <https://doi.org/10.35408/comuybd.1252398>
- [43]. Li, Y., & Wang, X. (2022). A study on the correlations among organizational learning, dynamic capabilities, and innovation performance of innovative firms. *Discrete Dynamics in Nature and Society*, 2022(1). <https://doi.org/10.1155/2022/5082178>
- [44]. Li, Y., Chen, H., Liu, Y., & Peng, M. W. (2022). Strategic agility and firm performance: The roles of organizational learning and digital transformation. *Journal of Business Research*, 144, 1003–1016. <https://doi.org/10.1016/j.jbusres.2022.01.073>
- [45]. Lungu, M. F. (2020). Factors determining company performance in the IT industry. *Management and Marketing*, 15(1), 59–77. <https://doi.org/10.2478/mmcks-2020-0004>
- [46]. Manurung , MISR, & Sudhartio , L. (2024). Analyzing the influence of strategic agility, innovation capability and organizational readiness on the performance of PT Pegadaian . *Al Qalam: Journal Religious Science and Society* , 18 (3), 1669. <https://doi.org/10.35931/aq.v18i3.3178>
- [47]. Masoomzadeh, A., Zakaria, N. W. W., Masrom, M., Streimikiene, D., & Tavakoli, R. (2019). Organizational innovation factors, capabilities and organizational performance in automotive industry. *Montenegrin Journal of Economics*, 15(3), 83–100. <https://doi.org/10.14254/1800-5845/2019.15-3.6>
- [48]. Mata, M. N., Martins, J. M., & Inácio, P. L. (2024). Collaborative innovation, strategic agility, and absorptive capacity adoption in SMEs: The moderating effects of customer knowledge management capability. *Journal of Knowledge Management*, 28(4), 1116–1140. <https://doi.org/10.1108/JKM-10-2022-0803>
- [49]. Mendoza-Silva, A. (2021). Innovation capability: A systematic literature review. *European Journal of Innovation Management*, 24 (3), 707–734. <https://doi.org/10.1108/EJIM-09-2019-0263>
- [50]. Mulyawati , A. (2025). 29 TNI Hospitals have not been accredited Because lack doctor specialist . *Detik.com* . <https://www.detik.com/sumut/berita/d-7892775/29-rs-tni-belum-terkredit-karena-kekurangan-dokter-spesialis>
- [51]. Mwagona, M. N., & Kinyua, G. M. (2023). Organizational performance from the perspective of customer experience management: A critical review of literature. *International Journal of Education and Research*, 11(9), 101–106.
- [52]. Nambisan, S., Wright, M., & Feldman, M. (2020). The digital transformation of innovation and entrepreneurship. *Research Policy*, 49(8), 103773. <https://doi.org/10.1016/j.respol.2019.103773>
- [53]. Nilsson, M., Gadolin, C., Larsman, P., Pousette, A., & Törner, M. (2023). Perceived organizational support and ethical conflicts among nurses. *Journal of Advanced Nursing*, 80(2), 765–776. <https://doi.org/10.1111/jan.15889>
- [54]. Olaleye, S. A., Sanusi, I. T., Ukpabi, D., & Mogaji, E. (2021). Strategic agility and innovation capability: The role of digital transformation. *Technological Forecasting and Social Change*.
- [55]. Pereira, V., Mellahi, K., Temouri, Y., Patnaik, S., & Roohanifar, M. (2019). Investigating dynamic capabilities, agility and knowledge management within EMNEs. *Journal of Knowledge Management*, 23(9), 1709–1729. <https://doi.org/10.1108/JKM-06-2018-0391>
- [56]. Sahasranamam, S., & Soundararajan, V. (2021). Internationalization, innovation and human capital: Evidence from emerging market firms. *Journal of Business Research*, 128, 564–575. <https://doi.org/10.1016/j.jbusres.2021.02.022>
- [57]. Sousa-Zomer, T. T., & Neely, A. (2020). The impact of digital transformation on servitization and sustainable business models. *Production Planning & Control*, 31(12), 1015–1029. <https://doi.org/10.1080/09537287.2019.1695926>
- [58]. Teece, D. J. (2020). Dynamic capabilities and entrepreneurial management in large organizations: Toward a theory of the (entrepreneurial) firm. *European Economic Review*, 86, 202–216.

- [59]. Teece, D. J. (2023). Dynamic capabilities: What are they and how do they matter?. *Long Range Planning*.
- [60]. Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- [61]. Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., 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>
- [62]. Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- [63]. Wamba, S. F., Gunasekaran, A., Akter, S., Ren, S. J. F., Dubey, R., & Childe, S. J. (2021). Big data analytics and firm performance: Effects of dynamic capabilities. *Journal of Business Research*, 70, 356–365.
- [64]. Wrede, M., Velamuri, V. K., & Dauth, T. (2020). Top managers in the digital age: Exploring the role and practices of top managers in firms' digital transformation. *Managerial and Decision Economics*, 41(8), 1549–1567. <https://doi.org/10.1002/mde.3202>
- [65]. Zahoor, N., Al-Tabbaa, O., Khan, Z., & Wood, G. (2023). Collaboration and innovation in organizations: A systematic review. *Journal of Business Research*, 157.
- [66]. Zeike, S., Bradbury, K., Lindert, L., & Pfaff, H. (2019). Digital leadership skills and associations with psychological well-being. *International Journal of Environmental Research and Public Health*, 16(14), 2628. <https://doi.org/10.3390/ijerph16142628>
- [67]. Zhang, M., Guo, H., Huo, B., Zhao, X., & Huang, J. (2020). Linking supply chain quality integration with mass customization and product modularity. *International Journal of Production Economics*, 224.