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Exploring the Effect of AI Trust on Firm Creativity to Generate Performance at AI-Ready Firms

Eksplorasi Pengaruh *AI Trust* pada Kreativitas Perusahaan untuk Menghasilkan Kinerja pada Perusahaan yang Sudah Menggunakan AI

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ABSTRACT

Artificial Intelligence (AI) is increasingly popular to be provided by firms to support the work of employees. This study aims to establish the circumstances under which AI can bring organizational value to firms which analyzes the concept of AI Capabilities to increase Firm Creativity and Firm Performance while also discovering the extent to which AI Trust plays a role in generating creativity. Primary data was collected from 61 respondents, analyzed using PLS-SEM to discover the relationship between variables. Highlighting the moderating effect of AI Trust between AI Capabilities and Firm Creativity within Indonesian firms, this study found that AI Capabilities themselves are more significant in building upon creativity, although trust is not embedded to generate performance. Such a finding provides a critical point whereby trust should be channeled towards ensuring its ethical and responsible utilization rather than being used as a mechanism to curtail AI's ability to stimulate creativity. While AI-ready firms are still very limited in Indonesia, this study suggests more firms start facilitating employees with AI to support their work by not only enhancing the capabilities but also sharing knowledge in a systematic, incremental, and iterative manner to generate the same understanding and ethics on how to collaborate with AI at work.

***Keywords**: AI capabilities, AI trust, firm creativity, artificial intelligence, firm performance.*

ABSTRAK

Kecerdasan Buatan (AI) semakin populer disediakan oleh perusahaan untuk mendukung pekerjaan karyawan. Penelitian ini mencoba untuk menetapkan keadaan di mana AI dapat membawa nilai organisasi bagi perusahaan yang menganalisis konsep Kemampuan AI untuk meningkatkan Kreativitas Perusahaan dan Kinerja Perusahaan sekaligus menemukan sejauh mana Kepercayaan AI berperan dalam menghasilkan kreativitas. Data primer dikumpulkan dari 61 responden, dianalisis menggunakan PLS-SEM untuk menemukan hubungan antar variabel. Menyoroti efek moderasi dari AI Trust antara Kapabilitas AI dan Kreativitas Perusahaan di perusahaan-perusahaan di Indonesia, penelitian ini menemukan bahwa Kapabilitas AI itu sendiri lebih signifikan dalam membangun kreativitas, meskipun kepercayaan tidak tertanam untuk menghasilkan kinerja. Temuan ini memberikan poin penting di mana kepercayaan harus disalurkan untuk memastikan pemanfaatannya secara etis dan bertanggung jawab, dan bukan digunakan sebagai mekanisme untuk membatasi kemampuan AI dalam menstimulasi kreativitas. Meskipun perusahaan yang siap menggunakan AI masih sangat terbatas di Indonesia, studi ini menyarankan agar lebih banyak perusahaan mulai memfasilitasi karyawan dengan AI untuk mendukung pekerjaan mereka dengan tidak hanya meningkatkan kemampuan, tetapi juga berbagi pengetahuan dengan cara yang sistematis,

bertahap, dan berulang untuk menghasilkan pemahaman dan etika yang sama tentang bagaimana berkolaborasi dengan AI di tempat kerja.

Kata kunci: Kecerdasan buatan, kemampuan AI, kepercayaan AI, kinerja perusahaan, kreativitas perusahaan.

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INTRODUCTION

In today's global phenomenon of Industry 4.0, artificial intelligence (AI) has become an intrinsic component of many sectors, transforming corporate operations and contributing significantly to innovation and productivity (Chen *et al*., 2022; Kordon, 2020). AI has emerged as an important amplifier of business model innovation, transformation process, disruption, and competitive advantage in organizations with a data-centric and digital culture (Chowdhury *et al*., 2021). From smart factories to automated systems, AI capabilities are reshaping the way organizations operate. In one source, it is stated that companies can improve their performance by utilizing and enhancing AI capabilities (Obaydin *et al*., 2023). Another is Chen *et al*. (2022) who see that AI that is utilized properly can affect the success of the company. Common ways for companies to improve their performance are by producing the latest products and services (Yao *et al*., 2021; Mikalef & Gupta, 2021). With the company's ability to always strive to produce the latest products and services, the company can always adapt to all changes in the business environment (Chen *et al*., 2022). However, the use of AI is also not without risk, so trying to build trust in the AI system is also very important for companies to utilize their capabilities properly (Mikalef & Gupta, 2021). In one source, companies that have confidence in AI will tend to adopt and use AI technology more effectively, which will lead to increased innovation and business performance. Trust in AI is considered very important, because studies show that AI plays a significant role in determining the relationship between AI capabilities and corporate creativity to produce optimal performance (Chen *et al*., 2022). Unfortunately, not all companies understand the relationship between AI capabilities and innovation capabilities, so this is a highlight in the literature (Kordon, 2020). On the other hand, the understanding of AI capabilities and innovation capabilities is still focused on individuals rather than companies and this is a gap that needs to be studied further (Chen *et al*., 2022; Chowdhury *et al*., 2021; Mikalef & Gupta, 2021). However, there is not much literature that has examined the impact of AI trust on AI competence, corporate innovation, and corporate performance adequately, so further research on this topic is needed (Kakatkar *et al*., 2020). This study bridges this gap by offering a unique perspective on how organizations can optimize AI to foster innovation and enhance competitive advantage.

The primary objective of this research is to determine: (1) the extent to which AI capability has a significant role on firm creativity and firm performance, (2) the mediating role of firm creativity between AI capability and firm performance, and (3) the moderating role of AI trust between AI capabilities and firm creativity, on workers at various levels (supervisor, management, director, and owner) in Jakarta, Bogor, Depok, Tangerang and Bekasi. By focusing on professionals who have experience with AI technology in their organizations, this research aims to provide insights for organizations adopting AI to enhance performance.

Resource-Based View and AI Capability

An organization can be conceptualized as a collection of resources that may be utilized to create a competitive advantage and deliver great organizational performance in both the short and long term according to the Resources-Based View (RBV) theory (Lubis, 2022). In RBV, there are two types of resources, namely tangible resources and intangible resources, both of which are considered to be able to help companies strengthen their competitive advantage through value creation and ultimately improve the company's business performance (Chen *et al*., 2022). Tangible resources are financial and material resources, such as factories and equipment, that can be sold or purchased on the open market. While intangible resources, including as knowledge, technology, and reputation, are more difficult to copy by other organizations and are of heightened relevance in uncertain and volatile markets (Mikalef & Gupta, 2021; Lubis, 2022). Companies can earn "economic rent" or an above-average return by acquiring a long-lasting competitive advantage through attaining and maintaning excellence throughout the business processes (Silva & Oliveira, 2020).

Artificial intelligence capabilities have the potential to be strategic intangible resources, and when artificial intelligence is applied in an organization, it can give the organization a competitive advantage that is difficult for other organizations to imitate (Chowdhury *et al*., 2021; Dubey *et al*., 2020; Belhadi *et al*., 2024) supported the idea that AI capability arguably improves firms' performance. Mikalef & Gupta (2021) identifies AI capability is a firm's ability to identify, orchestrate, and maximize AI-specific resources. RBV's assertions explore the potential direct connections between strategic resources-which will be developed into capabilities, and performance (D'Oria *et al*., 2021). Therefore, this research will apply the RBV in the subsequent processes.

AI Trust

Employees' trust in AI within the organization is vital in determining the level of acceptance, thereby impacting the scale and effectiveness of implementing and utilizing AI solutions in businesses (Łapińska *et al*., 2021). As noted by Ferreira *et al*. (2021), trust is the primary way to enhance user's confidence in a system. Trust from the perspective of Human-Computer Interaction can be defined "as a sentiment resulting from knowledge, beliefs, emotions and other experiential factors", generating positive or negative expectations about system's reactions and the interaction with it (Hoffman *et al*., 2018). Chowdhury *et al*. (2021) highlight the importance of employee trust in the AI system, the clarity of AI's role in the work environment which is expected to be collaborative, and AI is also contributing the improvement of employee capabilities which eventually enhancing business performance.

Hypothesis Development

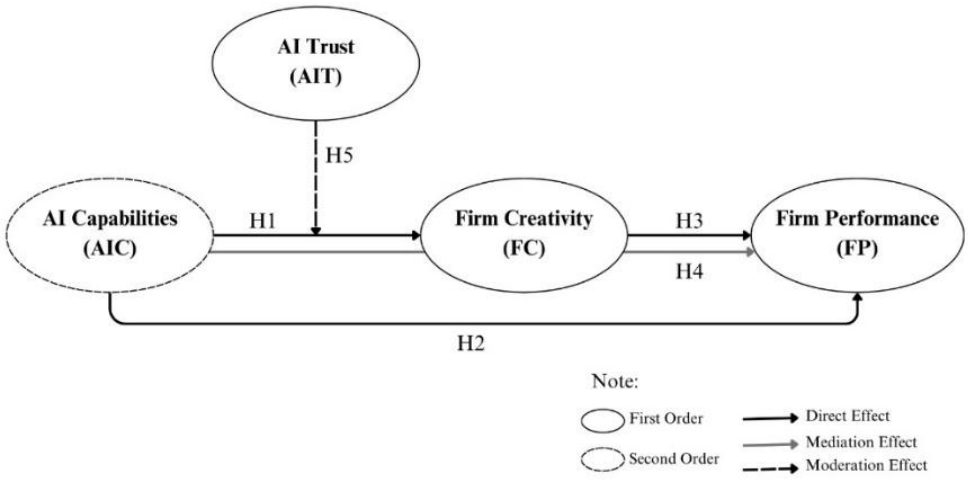

Figure. 1. Research Model

AI is pervasive in today's business landscape, transforming the way organizations operate and innovate. Existing studies discovered that AI systems have the ability to enhance human creativity as it can automate repetitive tasks, identify novel patterns, and generate innovative ideas (Anantrasirichai & Bull, 2022). Where AI has the ability to take over repetitive jobs, AI can potentially be used by firms when dealing with complex problems (Raisch & Krakowski, 2018) to enhance firms' creativity (Amabile, 2020), allowing workers to focus more on the strategic and creative aspects. Therefore, it was found that AI capabilities have a significant effect on firms' overall creativity and innovative output (Chen *et al*., 2022; Anantrasirichai & Bull, 2022; Rafner *et al*., 2023).

H1: AI Capabilities has a significant effect to Firm Creativity.

AI utilized in business can ideally improve company performance. The role of AI in helping businesses improve their performance can be seen from the more efficient work process when AI is presented in the midst of the business process (Vrontis *et al*., 2022). In human resource management, the role of AI is to help employees complete assigned tasks faster (Poba-Nzaou *et al*., 2021). Because of the positive role of the presence of AI in business, AI indirectly helps companies streamline operations, and increase productivity and profitability. In addition, AI also allows high-quality decisions to be made, so that company performance will be more effective (Wamba-Taguimdje *et al*., 2020), as in the study by Mikalef and Gupta (2021) which found a direct positive effect of AI capabilities on company performance, in addition to the study by Chowdhury *et al*. (2021), which highlights that knowledge sharing is an important antecedent to developing collaborative intelligence capabilities in organizations.

H2: AI Capabilities has a significant effect to Firm Performance.

AI-enabled systems have more computing capability than the human brain, which results in improved analytical capabilities and information retrieval capacity (Duan *et al*., 2019). AI-supported decision making can assist organizations in making better decisions (Pietronudo *et al*., 2022; Pietronudo *et al*., 2022) that can enhance the creativity of individuals, and as an extension, on organizations (Mikalef & Gupta, 2021). Jia *et al*. (2024) argue that the increase of employee's creativity is critical for AI assistance to enhance organizational performance. It is because AI assistance is more likely to

empower highly skilled employees to discover innovative and practical solutions to complex problems, thereby showcasing enhanced creativity positively affecting firms' creativity enhancement (Amabile, 2020; Jia *et al*., 2024). Consequently, boosting employee creativity is essential for AI assistance to improve organizational performance (Chen *et al*., 2022; Jia *et al*., 2024). Indirectly, AI is able to influence company performance through the creativity that the company has (Shi *et al*., 2020). As also found by Chen *et al*. (2022) is also supported by previous research by Chen & Lin (2020) and Haftor *et al*. (2021) that AI Capability does not directly affect firm performance, but indirectly affects firm performance through firm creativity.

H3: Firm Creativity has a significant effect to Firm Performance.
H4: AI Capabilities has a significant effect to Firm Performance mediated by Firm Creativity.

Previous studies suggested that utilizing AI technologies can significantly increase firm-level creativity and innovation. It was also indicated that AI capabilities are able to increase employee creativity as knowledge sharing is improved and fear of criticism is reducing. Where AI can automate repetitive tasks, it free up human resources to focus on more innovative work (Chen *et al*., 2022). In addition to the findings, using AI at work can also leads to greater emotional trust among employees to share ideas more openly and contribute to firms' creative culture. However, the extent to which AI capabilities enhance firm creativity may depend on the level of trust employees have in the AI technology (Li *et al*., 2022; Jia *et al*., 2024). Employee are more likely to embrace and leverage AI technology when AI is perceived to be reliable and trustworthy (Jia *et al*., 2024). On the other hand, low trust in AI make employees hesitant to utilize AI technology, limiting the potential benefits to foster firm creativity (Mikalef & Gupta, 2021).

H5: AI Capabilities has a significant effect to Firm Creativity moderates by AI Trust.

RESEARCH METHODS

Data Collection

This study is quantitative and descriptive with the aim of identifying relationships between variables through the hypotheses built based on relevant literatures (Sekaran *et al*., 2016; Sekaran & Bougie, 2016). Online questionnaires using Google form are distributed to employees via social media to target middle to top tier management that its firm provides AI to accommodate daily work of its employees. As data collection was quite difficult, recognizing that it is still very limited in Indonesia for firms to provide AI for their employees, this research was only able to obtain 61 responses that are valid and suitable with the targeted respondents from 103 responses received by which still accepted following minimum observation-to-variable ratio of 15:1 (Memon *et al*., 2020). Table I displays the characteristics of the respondents who filled out the survey. A 5-point Likert scale (1 = strongly disagree; 5 = strongly agree) is applied to all variables.

Table 1. Respondent Profile

Characteristics	Items	Number (n=61)	%
Industry Type	Technology	10	16.39%
	Consulting Services	6	9.84%
	Consumer Goods	6	9.84%
	Banking & Finance	5	8.20%
	Advertising	4	6.56%
	Consumer Services	4	6.56%
	Education	4	6.56%
	ICT & Telecommunication	4	6.56%
	Consumer Services	4	6.56%
	Others	12	22.95%
Job Position	Director	9	14.75%
	Manager	23	37.70%
	Senior Leader	14	22.95%
	Supervisor	15	24.59%
Working Department	Information Technology	15	24.59%
	Research & Development	12	19.67%
	Marketing	10	16.39%
	Sales	6	9.84%
	Administration	5	8.20%
	Others	13	21.31%
Firm Age	<1 year	4	6.56%
	2 - 10 years	23	37.70%
	11 - 25 years	18	29.51%
	26 -50 years	10	16.39%
	>50 years	6	9.84%
No. of Employees	> 250 employees	27	44.26%
	10-49 employees	15	24.59%
	1-9 employees	11	18.03%
	50-249 employees	8	13.11%
Total Years of Using AI	< 1 year	19	31%
	1-2 years	24	39%
	3-4 years	10	16%
	> 4 years	8	13%

A 5-point Likert scale (1 = strongly disagree; 5 = strongly agree) is applied to all variables. Using a definition from Chen *et al*. (2022), AI capability is the capability of firms to develop, incorporate, and apply AI-related resources to achieve competitive advantage, which is a formative-second order construct measured through five-items related to AI basic (tangible resources), five-items related to AI skills (human resources), and five-items related to AI proclivity (intangible resources). Given the specific focus on AI impact to firm creativity and performance in this study, we utilize measurements from Mikalef and Gupta (2021) and Chowdhury *et al*. (2021), as these studies provide relevant items for our research variables. AI trust is measured through eleven-items from Chowdhury *et al*. (2021) based on the perceptions of AI among employees in a collaborative work environment, as well as how it can affect job duties and responsibilities. Firm creativity is adapted from Mikalef and Gupta (2021) using five-items that measure the extent to which a firm can produce innovative and useful concepts (or goods) in a complex organizational environment.

Data Analysis

This study uses partial least square-structural equation modeling (PLS-SEM) to evaluate the hypotheses since it can simultaneously analyze a complicated relationship using causal and predictive analysis (Hair, 2018). The goal of this study is to identify the relationship between AI capability and firm performance directly and mediated through firm creativity, and to also examine whether AI trust will moderate the relationship between AI capability and firm creativity as a novelty of this study. Path models, such as PLS-SEM, are frequently used to predict a further effect of variables in previously hypothesized causal sequence to another variables (Garson, 2016). Following SEM process for analysis, this study will first test the validity, reliability, and model fit through the measurement model and test the developed hypotheses through the structural model by using SmartPLS.

RESULT & DISCUSSION

This study employs PLS-SEM analysis that has two components to be fulfilled: measurement model for conforming validity and reliability and structural model for analyzing the relationship between constructs (Hair, 2018). Data were analyzed using the newest software of SmartPLS, SmartPLS 4 (Mikalef *et al*., 2023).

Measurement Model

Convergent validity, reliability, and discriminant validity are tested as part of the measurement model. Analyzing data on the software includes examining validation of first-order constructs (AIT, FC, and FP) and second-order construct (AIC). Although formative-second order construct was incorporated in the model, AIC that comprised of AIB (Basic), AIP (Proclivity), and AIS (Skills) following the other constructs were confirmed for the convergent validity as factor loadings are higher than 0.7 (Table 2) and average variance extracted (AVE) are also higher than 0.5 for each construct (Table 3) after the removal of seven items out of 41 items including AIS4, AIT3, AIT4, AIT5, AIT10, FP4, and FP9. Reliability was confirmed following results of cronbach's alpha and composite reliability that were higher than 0.7 (Table 3). Data were also validated for discriminant validity by which Fornell Larcker were found higher correlations between constructs compared to each construct's square root of AVE (Table 3), HTMT were all confirmed below 0.9 (Table 4), and the indicator loading value for each item with its construct is higher than the cross loading value (Table 2), thus the model demonstrated sufficient discriminant validity. Then, the results obtained from the measurement model indicate that it is valid and reliable to proceed to the next stage (Chen *et al*., 2022; Hair, 2018).

Table 2. Convergent Validity (Factor Loadings) and Discriminant Validity (Cross Loadings)

Item	AIB	AIP	AIS	AIT	FC	FP
AIB1	0.743	0.459	0.471	0.498	0.505	0.459
AIB2	0.746	0.485	0.336	0.302	0.369	0.408
Item	AIB	AIP	AIS	AIT	FC	FP
AIB3	0.897	0.607	0.636	0.526	0.532	0.504
AIB4	0.853	0.730	0.662	0.537	0.637	0.475
AIB5	0.814	0.561	0.618	0.425	0.523	0.423
AIP1	0.537	0.815	0.554	0.517	0.684	0.602
AIP2	0.657	0.924	0.596	0.529	0.721	0.555
AIP3	0.718	0.919	0.605	0.459	0.713	0.666
AIP4	0.623	0.862	0.576	0.591	0.710	0.597

Item	AIB	AIP	AIS	AIT	FC	FP
AIP5	0.496	0.773	0.541	0.424	0.637	0.548
AIS1	0.627	0.562	0.914	0.509	0.592	0.548
AIS2	0.645	0.635	0.865	0.458	0.627	0.530
AIS3	0.567	0.584	0.924	0.550	0.645	0.580
AIS5	0.552	0.552	0.792	0.510	0.548	0.653
AIT1	0.618	0.528	0.471	0.825	0.500	0.372
AIT2	0.496	0.567	0.512	0.847	0.582	0.500
AIT6	0.475	0.479	0.582	0.879	0.527	0.508
AIT7	0.541	0.471	0.480	0.902	0.483	0.381
AIT8	0.359	0.438	0.397	0.795	0.468	0.457
AIT9	0.329	0.408	0.448	0.718	0.579	0.379
AIT11	0.491	0.495	0.455	0.841	0.553	0.526
FC1	0.658	0.728	0.637	0.516	0.895	0.685
FC2	0.580	0.685	0.575	0.548	0.836	0.664
FC3	0.503	0.624	0.661	0.674	0.853	0.587
FC4	0.511	0.764	0.541	0.570	0.935	0.645
FC5	0.587	0.781	0.662	0.559	0.935	0.682
FP1	0.554	0.637	0.680	0.524	0.674	0.847
FP2	0.434	0.562	0.511	0.424	0.620	0.847
FP3	0.459	0.591	0.594	0.428	0.614	0.893
FP5	0.388	0.456	0.339	0.321	0.469	0.703
FP6	0.387	0.475	0.524	0.502	0.560	0.858
FP7	0.272	0.359	0.436	0.412	0.461	0.829
FP8	0.485	0.551	0.474	0.412	0.574	0.779
FP10	0.565	0.743	0.630	0.468	0.719	0.773

Table 3. Convergent Validity, Reliability & Discriminant Validity (Fornell, Larcker)

Construct	AIB	AIP	AIS	AIT	FC	FP
AIB	0.813					
AIP	0.709	0.861				
AIS	0.684	0.667	0.875			
AIT	0.569	0.585	0.578	0.831		
FC	0.639	0.805	0.690	0.641	0.892	
FP	0.558	0.690	0.658	0.541	0.733	0.818
Cronbach's Alpha	0.870	0.911	0.897	0.925	0.935	0.929
Composite Reliability	0.906	0.934	0.929	0.940	0.951	0.942
AVE	0.661	0.741	0.766	0.691	0.795	0.669

Table 4. Convergent Validity (Factor Loadings) and Discriminant Validity (Cross Loadings)

Construct	AIB	AIP	AIS	AIT	FC	FP
AIB						
AIP	0.782					
AIS	0.759	0.740				
AIT	0.630	0.637	0.634			
FC	0.699	0.873	0.754	0.686		
Construct	AIB	AIP	AIS	AIT	FC	FP
FP	0.604	0.729	0.705	0.573	0.769	

Adding the formative-second order construct validation from Chen *et al*. (2022), the removal of AIS4 resulted in the significance of AIC and all three first-order constructs were less than 0.001 to conclude that AIC demonstrated a well-constructed second-order model (Table 5) and is a higher-model constructed from the three first-order constructs.

Table 5. Formative Constructs Validation

Constructs	Measures	Weighting	t-values	Significance
Basic	AIB1	0.209	5.858	0.000
	AIB2	0.204	10.79	0.000
	AIB3	0.271	21.954	0.000
	AIB4	0.284	12.075	0.000
	AIB5	0.254	21.316	0.000
Skills	AIS1	0.291	38.557	0.000
	AIS2	0.297	21.101	0.000
	AIS3	0.288	39.521	0.000
	AIS5	0.266	11.228	0.000
Proclivity	AIP1	0.216	8.258	0.000
	AIP2	0.248	30.089	0.000
	AIP3	0.255	33.763	0.000
	AIP4	0.235	15.171	0.000
	AIP5	0.205	9.266	0.000
AI Capabilities	Basic	0.898	29.775	0.000
	Skills	0.908	25.486	0.000
	Proclivity	0.856	16.696	0.000

Structural Model

Since the measurement model and formative structure have been confirmed, the structural model will then be tested to explore the relationship between constructs (Chen *et al*., 2022; Hair, 2018). Table VI shows the bootstrapping results for the structural model. For direct effects, this study found a significant relationship of AIC to FC ($\beta = 0.696$; $p < 0.001$), a significant relationship of AIC to FP ($\beta = 0.367$; $p < 0.05$), and a significant relationship of FC to FP ($\beta = 0.437$; $p < 0.05$) in which H1, H2, and H3 are confirmed. In addition, these three hypotheses were found having a positive relationship between constructs which implied that AIC increased FC (Chen *et al*., 2022), AIC increased FP and FC increased FP (Mikalef & Gupta, 2021). The mediation effect for H4 is confirmed as this study found that FC mediates the relationship of AIC to FP ($\beta = 0.304$; $p < 0.05$), This underscores the importance of FC as a key intermediary mechanism through which AIC impacts FP, strengthening the understanding of how innovation capability translates into improved performance through enhanced competence. meanwhile H5 is rejected as bootstrapping results demonstrated that AIT does not moderates the relationship of AIC to FP ($\beta = 0.024$; $p > 0.05$) by which further analysis will be discussed in the latter part. The coefficient determination also suggests good explanatory power as R2 value of FC and FP are 0.675 and 0.587 respectively (Figure 2).

Table 6. Hypothesis Testing Results

Hypothesis		Path Coefficient	*t*- values	*p* -values	Result
H1	AIC → FC	0.696	6.292	0.000	Supported
H2	AIC → FP	0.367	2.218	0.027	Supported
H3	FC → FP	0.437	2.454	0.014	Supported
H4	AIC → FC → FP	0.304	2.179	0.029	Supported
H5	AIT* AIC → FP	0.024	0.437	0.662	Not Supported

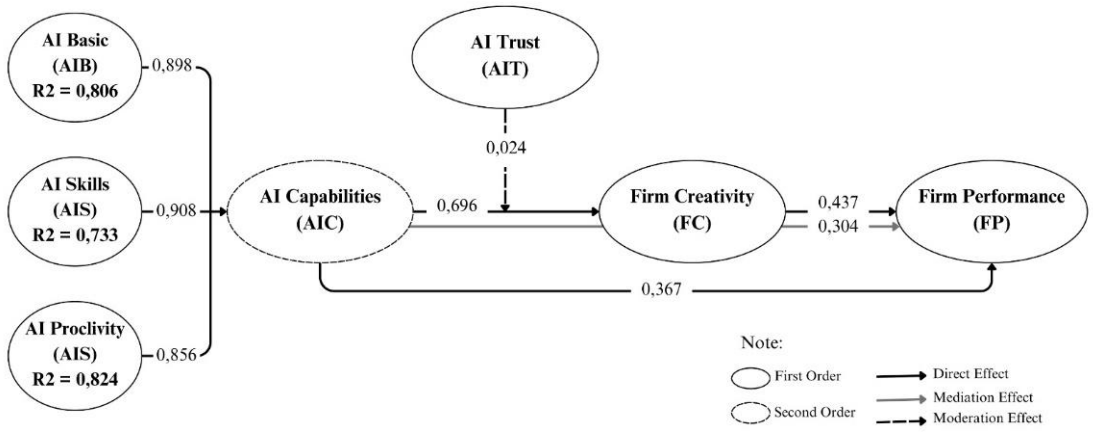

Figure 2. PLS-SEM Results

This study intends to identify the conditions in which AI can provide organizational value for firms, building on previous studies on its worth. which investigates the construct of Artificial Intelligence Capability, discovers the impacts of firm creativity on firm performance and investigates the moderating effects of AI Trust. To address this question, we conceptualized AI around the basic Resources Based View (Lubis, 2022) which according to Chen *et al*. (2022), AI as an intangible asset can provide organizations with a competitive advantage. This research aligns with the dynamic capabilities' framework, which emphasizes the need for firms to adapt to changing environments to maintain competitiveness. Dubey *et al*. (2019) found that AI plays an important role in business, especially in improving operational performance in a dynamic environment.

Based on the findings of the study, AI capabilities not only aim to encourage creativity in companies but also enable companies to have the ability to respond effectively to environmental changes. This possibility leads to the transformative potential of AI where AI can improve the company's adaptability and overall performance which is in line with the dynamic capability perspective. Previous research has seen the benefits that can be obtained if companies adopt AI technology. AI that is integrated with the innovation process can change the way companies approach problem solving and develop new products. In addition, companies can also use AI to increase company creativity by automating repetitive tasks (Chen *et al*., 2022). Cultivating a culture of innovation and staying in tune with environmental changes can strengthen the impact of AI capabilities on creativity and company performance (Lee *et al*., 2019; Lee *et al*., 2019). Chowdhury *et al*. (2021) shows that trust in AI systems among workers can increase business creativity. Amabile's (2020) study on creativity highlights that AI technology can automate routine tasks, allowing employees to focus on more strategic and creative things.

This perspective is echodes in the fidings of Anantrasirichai and Bull (2022), Chen *et al*. (2022) and Rafner *et al*. (2023) which explain that AI capabilities have significant effect on both firm creativity and firm performance. These studies higlighted that creativity can be enhanced if a firm is being capable with AI as it can automate repeatable processes and provide more answers for firms when facing complicated issues. Having AI capability that is enabled to generate efficient and effective high-quality decisions compared to competitors who do not possess this capability will impact firm performance subsequently (Mikalef & Gupta, 2021; Chowdhury *et al*., 2021).

The role of firm creativity on firm performance has confirmed significant in this research as in line with Chen *et al*. (2022) and Jia *et al*. (2024), and its mediating role between AI capabilities and firm performance is then approved in accordance with Chen *et al*. (2022), Chen and Lin (2020), and Haftor *et al*. (2021). In light with previous research by Li *et al*. (2022) and Jia *et al*. (2024) where employee's trust in AI determines innovative engagement which will turn to firm creativity enhancement (Chen *et al*., 2022), this study found AI trust has no moderating effect in the relationship between AI capabilities and firm performance.

In the context of this research, AI capability that also include AI skills in employees may be sufficient to foster creativity within the firm. As employees have the necessary competencies to use AI in transforming data from AI into insights, having trust in AI has no effect on the increase or decrease in the firm creativity. Human-Computer Interaction (HCI) theory can be used to support this perspective, as it emphasizes the importance of user experience and trust in the technology adoption process. Hoffman *et al*. (2018) define trust as a sentiment formed by the user's knowledge and experience when interacting with a system. Furthermore, Syed *et al*. (2022) stated that companies need to encourage the ethical and responsible use of AI. Trust in AI should be directed towards its ethical and responsible use by encouraging an environment conducive to the exploration and development of new ideas and solutions, and AI should not be used as a mechanism to limit the ability of creativity (Syed *et al*., 2022; Amato *et al*., 2019).

AI technology, despite being potentially increase creativity within various industries, Benjamin (2006) supported the the finding of this research that trust is not a moderating role that can determine whether AI capability can enhance innovation and creativity. The result of this study offers valuable key insights for practitioners. The findings prove that Firm's AI Capability is well developed, therefore organizations are required to obtain the real value of AI technology to improve firm performance and cannot rely on other hardware devices or software, technical resources, and data resources (Chen *et al*., 2022). As AI capabilities take time to develop, it is necessary for companies to continuously invest in updated technology that is required for AI to distinguish competencies that can help their business outperform the competition.

Utilizing AI technology has substantially increased the inventiveness of business. Organizations may implement AI technologies to execute repetitive business duties, thereby freeing up additional personnel and reducing expenses (Mikalef & Gupta, 2021). Furthermore, organizations may also strive to utilize AI for innovative endeavors by employing deep mining of internal and external resources to identify the current preferences and demands of customers. This would enable them to allocate more time towards optimizing processes, products and understanding which consumers are most likely to favor by capturing and analyzing current customer's needs.

In this research, the moderating effect of trust in fostering AI in business processes, has not significantly affected firm's performance. The strategy for the companies is to

share knowledge in a systematic, incremental and iterative manner, organizations must provide information how the nature of work, employees' roles and responsibilities, also communicate how AI will be used and rationale for its adoption. Enhancing trust in the use of AI technology can be improved by providing training programs and coaching (Chowdhury *et al*., 2021), where employees can experience the benefits of using AI technology in their daily work.

CONCLUSION

This study investigates the impact of AI capabilities on firm creativity and performance, emphasizing the moderating role of AI trust. The findings confirm that AI capabilities significantly enhance firm creativity and performance, aligns with RBV theory which identifies AI as strategic intangible asset. Furthermore, firm creativity serves as mediator in translating AI capabilities into tangible performance outcomes. While AI trust does not moderate this relationship, this indicates that trust should focus on ensuring ethical use rather than influencing creativity. Therefore, this study suggests that firms should effectively leverage AI resources and employee skills as a strategic resource to drive the desired outcomes. For firms in Indonesia, where AI adoption remains limited, the findings emphasize the urgency to integrate AI into business operations strategically and incrementally. Further research should explore broader datasets and examine other contextual factors, such as organizational culture, to get deeper understanding of AI's transformative potential can be achieved.

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