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A Structural Equation Approach to AI-Driven Performance Feedback: Catalyzing Employee Commitment and Creativity for Sustainable and Inclusive Organizational Innovation

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ABSTRACT

The emergence of artificial intelligence algorithms in the process of human capital evaluation has transformed radically the dynamics of performance evaluation. The purpose of this study is to experimentally test a structural model that examines the effect of algorithmically generated feedback on the promotion of sustainable and inclusive corporate innovation, which is mediated by worker dedication and inventiveness capability. The research employed a quantitative approach based on survey data from 250 practitioners in the technology and service sector in Indonesia. The results utilising Partial Least Squares Structural Equation Modelling (PLS-SEM) show that cognitive flexibility of Ideation competence and psychological security of work attachment, directly promote sustainable and inclusive outcomes. Algorithmic evaluations generate first capacities, while overuse develops algorithmic aversion, diminishing the emotional commitment needed for sustainable innovation. The final implementation of sustainable inclusive innovation is contingent upon human-mediated AI deployment where algorithmic efficiency complements rather than displaces human agency and compassionate leadership.

JEL Classification : M12, M15, O30, O32, J24

Introduction

The emergence of Society 5.0 has led to the integration of artificial intelligence (AI) into business settings not only for automating routine jobs but for radically transforming the core managerial procedures, especially performance management. Traditional appraisal systems have been challenged for cognitive biases, time lags and poor developmental efficacy In contrast, algorithm-assisted evaluation is a paradigm shift to data-anchored, instantaneous, and rigorously objective assessment (Budhwar et al., 2022). The implementation of current technology is not just about operational efficiency but also has a huge potential when it is aligned with Sustainable Human Resource Management (HRM) practices. AI technologies are revolutionising traditional HR functions and can cut down resource consumption, improve sustainability of the workplace and ensure alignment with the UN SDGs. AI-driven optimisation of recruitment, training and performance monitoring supports environmental and social sustainability in companies.

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Simultaneously, the integration of Green Human Resource Management (GHRM) and digital intelligence is becoming an imperative issue in today's workplace. The deployment of eco-friendly policies and digital tools is directly influencing the organisational commitment by reducing the workforce turnover and supporting a healthy business culture (Shamsuddin, et.al, 2025). Here, psychological safety, employee well-being and value alignment are the essential drivers that generate authentic engagement and loyalty from the workforce. Technology is growing at a quick pace, but there is a considerable gap in scholarly knowledge about the exact structural mechanisms by which machine-generated critiques influence human psychological states, leading to macro-level commercial successes. This study proposes and tests a thorough structural model to address this gap. It explores the possibility that critiques based on machine learning might generate broad, lasting improvement through more organisational commitment and novel production.

Literature Review

Sustainable and inclusive innovation can be influenced by various factors, such as AI-driven feedback, workforce attachment and ideation capacity and enduring and broad-based corporate advancement. The following section provides a detailed elaboration of each factor contributing to sustainable and inclusive innovation.

Algorithmic Performance Critiques

Feedback generated by AI comprises algorithm-based performance appraisals and suggestions for improvement based on the study of employee activity(Palos-Sánchez et al., 2022. AI tools and AI writing assistants are proving to be promising solutions to give individuals rapid, precise feedback. Quantitative evidence from various fairness studies reveals AI scores more consistently than human graders. And generative AI technologies can yield very polished products, allowing for fast, controlled feedback loops that can develop ideas over time. From a theoretical perspective of Self-Determination Theory, customised AI feedback can fulfil an individual's demand for competence, yet requires human mediation to translate algorithmic outputs into pedagogically or organisationally meaningful assistance. AI-based feedback can be used on its own to give reliable, flexible feedback at scale to support self-regulated learning and progress. Emotional involvement in AI feedback also appears to lead to more engagement and emotional responses, making the learning process more enriching and supportive.

Workforce Attachment

Employment attachment is when people have an emotional attachment to their employment. Being creative is being able to think of things that are new and useful. In principle, workplace politics would be reduced by AI systems that provide fair and honest feedback. This should increase the level of trustworthiness and commitment of the employees. It should also make it safe for the employees to be inventive (Budhwar et al., 2022). In the workplace, emotional and cognitive variables such as the need for approval and psychological safety, and the discomfort with closeness, are especially salient. They are all part of workforce connection. Based on Social Exchange Theory , employees are more likely to stay in their positions when they feel their relationships with their co-workers are reliable and reciprocal and when they have sufficient support from the organization . When employees feel safe, they might be able to explore new ideas and be innovative.

Ideation Capacity

Ideation capability is the mental strength to create new ideas and to improve old ones to continue providing value. The increasing adoption of generative AI has changed this ability in a dramatic way, enabling the generation of a large variety of ideas quickly and making the testing of new ideas cheaper. Studies indicate that teams supported by AI develop better ideas more quickly. This enables the business to build new business models and to quickly adjust to market shifts(Bonamigo et al., 2026). Creativity is a ubiquitous skill in the digital age, a byproduct of how humans think and how computers think. AI can model scenarios and process data to help people think outside the box, but people still have to rely on their own perspective to make sense of things and stay on track with their goals. "With sophisticated AI, it takes more critical thinking to avoid cognitive biases, not just accept AI results blindly and keep intellectual independence during the creative process.

Sustainable Inclusive Innovation

Enduring innovation centers on harmonizing economic, social, and environmental imperatives (Alfaleh, 2026). Broad-based in Innovation ensures that demographic groups that have traditionally been left out be included in the ideation process and its results. The major engine to make these innovative ideas a reality is a highly committed and creative workforce. Sustainable Inclusive Innovation is an important strategic framework for

overcoming global inequality by deliberately incorporating under-represented groups in the innovation process. SII is a significant instrument to achieve the United Nations Sustainable Development Goals (SDGs), to develop resilient infrastructure and to promote sustainable industrialisation in various locations. Digital technology has spurred SII, which enables companies to use resources more efficiently, minimise their environmental footprint, and establish business models that integrate nature and operate within the boundaries of the planet (Chui, 2026).

The theoretical basis of SII is strongly linked with the Industry 5.0 paradigm, which prioritises people, resilience and sustainability before pure operational efficiency. Here, we leverage cutting-edge technologies like as AI and blockchain to build decentralised and resilient digital infrastructures without a single point of control, which may support society-wide initiatives involving everyone. This socio-technical perspective ensures that digital transformation is about people and equal access for all, not only about automation.

The synthesised literature will guide the empirical endeavour with the following postulations:
H1: Algorithmic critiques are positively associated with worker attachment.
H2: Algorithmic critiques positively increase the individual brainstorming potential.
H3: Workforce attachment is a major driver of the continuing and widespread growth of companies.
H4: The ability to ideate is favourably related to the occurrence of durable and extensive advances
H5: Workforce attachment and individual ideation are structural mediators of the relationship between computational assessments and corporate advancement.

Methodology

The study uses an explanatory quantitative research approach in order to comprehensively examine causal linkages between AI-based feedback systems and organisational outcomes. This methodological technique is particularly pertinent for this research, since it enables the rigorous empirical testing of preset hypotheses involving complex socio-technical dynamics, such as the impact of AI integrations on workforce behaviour and innovation potential. The population consists of professional cohorts in Indonesia’s technology-driven industries.

In this research we used purposive sampling with two category, first : professional cohorts in Indonesia’s technology-driven industries, second : professional cohorts had at least twelve months of experience to algorithm-assisted evaluation frameworks. From that category we selected 250 participants which is meet it category. Primary data was collected by psychometric instruments using five point likert scale, which was delivered digitally. Social science researchers have been using statistical analysis tools for many years to extend their ability to develop, explore, and confirm research findings (Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, 2022).The analytical phase employed variance-based Structural Equation Modeling (SEM) facilitated by the SmartPLS 4.0 software suite. The protocol was bifurcated into evaluating the measurement blueprint (construct validity and reliability) and the structural blueprint (postulation verification).

Result and Discussion

Based on the questionnaire instrument data and the pilot test results, the variables AI-Based Feedback (4 items), Workforce Attachment (3 items), Ideation Capacity (3 items), and Sustainable and Inclusive Innovation (3 items) were declared valid and reliable, as the calculated r-values exceeded the r-table values and the Cronbach's Alpha values were greater than 0.6. Consequently, the questionnaire was deemed suitable for distribution to the designated respondents according to the specified characteristics.

Following the data collection and recapitulation, the primary SEM-PLS model was constructed with 13 statement items. The measurement model evaluation was then performed on the model as illustrated in Figure 1. Subsequently, the PLS-Algorithm process was executed to determine the Cronbach’s Alpha, Composite Reliability, and AVE values. To obtain these values, several stages were required, including an analysis of the outer loadings to assess Convergent Validity, as shown in Figure 1. Statement items with outer loading values below 0.7 were eliminated, and the results of this elimination process are presented in Figure 1. Since the loadings for the latent variables AIF, WA, IC, and SII are all above 0.7, the model satisfies the criteria for Convergent Validity. The next stage involves evaluating Discriminant Validity by examining the cross-loadings.

Indicator	AI-Based Feedback (AIF)	Workforce Attachment (WA)	Ideation Capacity (IC)	Sustainable and Inclusive Innovation (SII)
AIF1	0.798			
AIF2	0.849			
AIF3	0.799			
AIF4	0.790			
WA1		0.784		
WA2		0.867		
WA3		0.843		
IC1			0.846	
IC2			0.849	
IC3			0.830	
SII1				0.819
SII2				0.781
SII3				0.792

Figure 1. Outer Loading
Source : Author's data analysis, 2026

	AIF	IC	SII	WA
AIF	**0.809**			
IC	0.457	**0.832**		
SII	0.349	0.472	**0.842**	
WA	0.471	0.278	0.377	**0.798**

Figure 2. Fornell-Larcker Criterion
Source : Author's data analysis, 2026

As illustrated in Figure 2, the square root of the Average Variance Extracted (AVE) for each construct exceeds the correlations between the constructs. These results confirm that all variables satisfy the criteria for discriminant validity.

Latent Variable	Cronbach's Alpha	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
AIF (AI Feedback)	0.824	0.884	0.655
WA (Workforce Attachment)	0.714	0.840	0.636
IC (Ideation Capacity)	0.778	0.871	0.692
SII (Sustainable Innovation)	0.794	0.879	0.708

Figure 3. Validity and Reliability Construct
Source : Author's data analysis, 2026

As illustrated by the results in Figure 3, the measurement model satisfies the established requirements for reliability and validity. Specifically, all latent variables yielded Cronbach's Alpha and Composite Reliability values greater than 0.7, while the Average Variance Extracted (AVE) for each construct surpassed the 0.5 threshold.

	R-square	R-square adjusted
IC	0.209	0.206
SII	0.313	0.299
WA	0.221	0.218

Figure 4. R^2 value
Source : Author's data analysis, 2026

The R^2 value for Sustainable & Inclusive Innovation (SII) is 0.313. This indicates that the combination of AI-Based Feedback (AIF), Workforce Attachment (WA), and Ideation Capacity (IC) explains 31.1% of the variance in Sustainable Innovation. Statistically, this model has sufficient predictive relevance, though it has not yet reached the "Moderate" threshold. This implies that 68.7% of the factors influencing organizational

innovation lie outside this specific model. The true strength of this model lies in its mediation mechanism. The relatively low R^2 for the mediating variables (WA and IC) suggests that employee perception of AI systems (AIF) is just one of many triggers for commitment and creativity. However, of the 31,3% influence captured by the model, the path through Ideation Capacity (IC) proves to be a significantly stronger contributor to the final innovation outcome compared to emotional commitment alone. The model possesses relevant predictive power to explain how AI technology influences innovation through human factors.

	AIF	IC	SII	WA
AIF		0.264	0.005	0.284
IC			0.165	
SII				
WA			0.063	
WA x AIF			0.025	
IC x AIF			0	

Figure 5. F^2 value
Source : Author's data analysis, 2026

According to figure 5, to further evaluate the substantive impact of the exogenous constructs on the endogenous constructs, the F^2 effect size was calculated. F^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively. Values below 0.02 are considered to have no practical impact. The results of the effect size analysis are presented in Figure 5. The analysis reveals that AIF exerts a medium effect on both WA ($F^2 = 0.284$) and IC ($F^2 = 0.264$). This suggests that AIF is a significant predictor in explaining the variance of these two constructs. Furthermore, IC demonstrates a medium effect on SII ($F^2 = 0.165$), indicating its relative importance in the model's structural path. In contrast, WA shows a small effect size ($F^2 = 0.063$) on SII. Regarding the moderation effects, the interaction term WA x AIF yields a small effect ($F^2 = 0.025$) on SII, whereas the interaction IC x AIF shows no effect ($F^2 = 0.000$). Notably, the direct path from AIF to SII also exhibits a negligible effect size ($F^2 = 0.005$), suggesting that the influence of AIF on SII is primarily mediated by other variables rather than through a direct relationship.

	Saturated model	Estimated model
SRMR	0.068	0.069
d_ULS	0.424	0.435
d_G	0.166	0.164
Chi-square	251.953	247.302
NFI	0.788	0.792

Figure 6. Model Fit
Source : Author's data analysis, 2026

As illustrated in Figure 6, the obtained SRMR value of 0.069 signifies a good model fit. Consequently, the model error is minimal, suggesting that the structural model effectively represents the empirical data.

Hypothesis Test
To evaluate the proposed hypotheses, the calculation results generated through the bootstrapping algorithm using the SEM-PLS 4 application are provided as follows.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
AIF -> IC	0.457	0.461	0.052	8.73	0.000
AIF -> SII	0.073	0.072	0.072	1.02	0.308
AIF -> WA	0.471	0.474	0.046	10.257	0.000
IC -> SII	0.382	0.384	0.057	6.682	0.000
IC x AIF -> SII	-0.013	-0.013	0.052	0.258	0.796
WA -> SII	0.239	0.241	0.058	4.125	0.000
WA x AIF -> SII	-0.14	-0.141	0.047	2.967	0.003

Figure 7. Hypothesis Test
Source : Author's data analysis, 2026

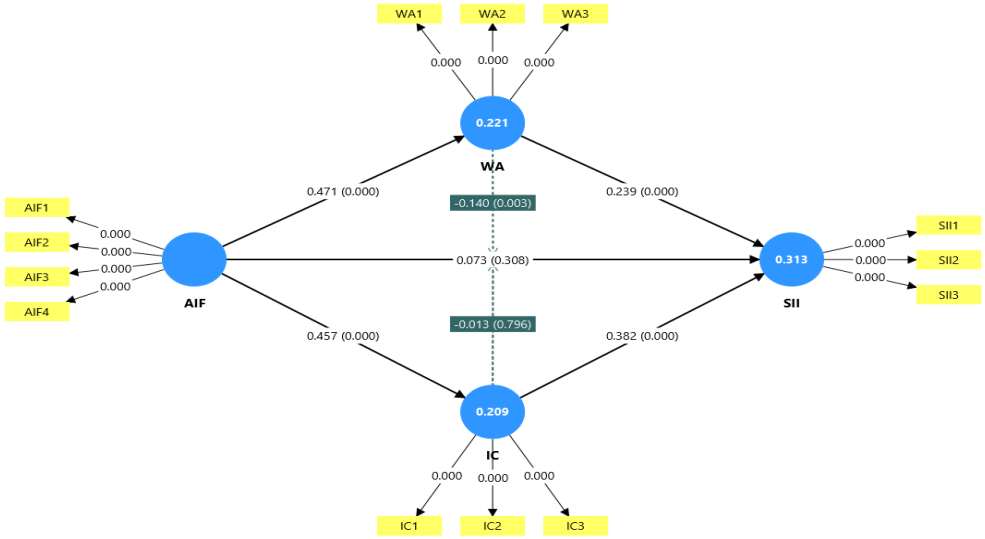


Figure 8. SEM PLS Model

Source : Author's data analysis, 2026

Algorithmic Critiques Exert A Favorable Influence On Workforce Attachment

The hypothesis evaluates the influence of AI-Based Feedback (AIF) on Workforce Attachment (WA). The statistical output demonstrates a highly significant and positive structural relationship, characterized by an original sample path coefficient of 0.471, a remarkable T-statistic of 10.257, and a P-value of 0.000. This indicates that systematic, algorithmic feedback serves as a primary driver in strengthening an employee's psychological, emotional, and structural bond with their organization. Workforce attachment is fundamental to organizational stability; it encompasses the degree to which an employee feels secure, valued, and integrated into the corporate fabric. The data suggests that transparent, continuous, and data-driven AI feedback fulfills critical psychological needs for role clarity, competence validation, and professional development. The profound positive impact of AIF on WA is heavily dependent on the constructive socio-technical framing of the feedback loops. Zhang et al (2025) emphasize the necessity of "Co-Skilling" initiatives, where AI systems are utilized to support employee development rather than merely to surveil and penalize. When organizations implement AI feedback as a supportive scaffolding mechanism, it directly mitigates the job insecurity often associated with technological disruption. Employees receiving continuous, personalized, and actionable micro-feedback experience enhanced self-efficacy. They perceive the organization's investment in AI not as a threat of replacement, but as an investment in their personal human capital, thereby deepening their loyalty and attachment to the firm.

Furthermore, AI feedback systems excel at providing emotional predictability and reducing the ambiguity inherent in human-led performance appraisals. Validation of adult attachment styles in organizational contexts, note that secure workplace attachment relies heavily on consistent and fair interactions. Human managers are often subject to fatigue, cognitive biases, and inconsistent communication. Conversely, AI feedback systems provide a reliable, objective, and perpetual stream of performance data. However, as (Cheng et al., 2023) caution, the tone of this algorithmic feedback is critical. If designed to be formative and integrated with human leadership trust, AIF reduces the shame associated with negative feedback and channels it into promotion-oriented job crafting. The strong statistical significance of this hypothesis confirms that thoughtfully implemented AI feedback infrastructures successfully engineer a highly attached and secure workforce.

Algorithmic Critiques Positively Stimulate Individual Ideation Capacity

The hypothesis investigates the direct structural relationship between AI-Based Feedback (AIF) and Ideation Capacity (IC). The SEM-PLS algorithm yielded a strong positive path coefficient of 0.457, supported by a highly robust T-statistic of 8.730 and a P-value of 0.000. These metrics unequivocally confirm that the deployment of algorithmic feedback mechanisms significantly and positively enhances an individual's or team's capacity for ideation. In the contemporary organizational context, Ideation Capacity is defined not merely as the spontaneous generation of artistic concepts, but as a systematic, cognitive capability to synthesize information, engage in divergent thinking, and formulate actionable solutions to complex industrial or commercial challenges. The data suggests that AI feedback acts as a profound cognitive catalyst, effectively lowering the psychological and intellectual barriers to entry for creative problem-solving.

This statistical validation aligns seamlessly with recent empirical investigations into human-AI collaborative dynamics. (Schmitt-Fumian et al., 2025) conducted a controlled study demonstrating that generative AI functions as a collaborative educational and organizational partner during the brainstorming phase of design processes. Their findings reveal that AI-generated feedback dramatically enhances user motivation and facilitates iterative idea refinement. Because AI systems possess the computational architecture to process vast datasets and simulate divergent scenarios instantaneously, they provide humans with tangential concepts and structural scaffolding. This scaffolding prevents cognitive stagnation, allowing employees to quickly polish their creative processes and identify promising conceptual directions that might have remained obscured in a purely human-driven ideation environment.

Furthermore, the mechanism through which AIF amplifies IC is deeply connected to the offloading of routine evaluative burdens.(Prats, E. P., & Garcıa, 2024) established that collaborative AI-based feedback mechanisms significantly improve evaluative judgment and higher-order critical thinking. When an AI system assumes the responsibility of providing immediate structural, syntactic, or foundational logical feedback, the human cognitive load is drastically reduced. Liberated from the minutiae of basic feasibility checks, the human intellect is free to engage in deeper conceptual abstraction and socio-technical imagination. Therefore, the strong positive statistical path from AIF to IC validates the premise that human creativity co-evolves with generative models, creating a symbiotic ecosystem where algorithmic speed and human intuition merge to produce superior ideation outcomes.

Workforce Attachment Significantly Drives Enduring And Broad-Based Corporate Advancements

The hypothesis evaluates the direct impact of Workforce Attachment (WA) on Sustainable Inclusive and Innovation (SII). The SEM-PLS algorithm confirms a significant and positive relationship, demonstrating a path coefficient of 0.239, a T-statistic of 4.125, and a P-value of 0.000. This validates the theoretical premise that a secure, emotionally invested, and highly attached workforce is a foundational pillar for achieving sustainable and inclusive innovation. Innovation, particularly of the sustainable variety, inherently involves risk, high rates of failure, and the disruption of comfortable routines. A workforce that is loosely attached or highly transient lacks the psychological safety and long-term commitment required to endure the friction associated with transformative change.

The necessity of WA for driving SII is heavily supported by recent socio-demographic and organizational research. (Bowman et al., 2024) emphasizes that inclusive workforces—particularly those successfully integrating individuals with disabilities through early and sustained workforce attachment—exhibit heightened creativity, resilience, and problem-solving capabilities. When employees feel a deep, secure attachment to their employer, it fosters an environment of profound psychological safety. This safety is the critical antecedent for inclusivity, as it empowers employees from marginalized or diverse backgrounds to voice unconventional ideas and advocate for equitable practices without fear of retribution or ostracization. Consequently, the innovations produced by such a workforce naturally reflect a broader, more inclusive spectrum of societal needs. Inclusive growth (and by extension inclusive innovation) has been widely acknowledged as a goal ofpublic and business policy (George et al., 2012).

Furthermore, long-term environmental and operational sustainability requires the preservation of institutional memory and the continuous sharing of tacit knowledge. Research by (Bouncken, et.al., 2023) notes that secure workplace designs and high attachment mitigate isolation and facilitate the deep collaboration necessary for complex value creation. Employees with high WA are not merely focused on short-term extrinsic rewards; they align their personal values with the long-term ethical footprint of the organization. They become internal champions for green initiatives and equitable labor practices. Therefore, the positive WA to SII pathway confirms that human-centric human resource management—focused on retention, well-being, and attachment—is not a peripheral support function, but a central strategic driver of sustainable innovation.

Ideation Capacity Positively Correlates With The Manifestation Of Enduring And Broad-Based Advancements

Hypothesis 1: Ideation Capacity (IC) positively and directly affects Sustainable Inclusive and Innovation (SII). This statement is supported by the SEM-PLS results with a strong path coefficient of 0.382, T-statistic of 6.682 and P-value of 0.000. This large positive association reveals that cognitive flexibility of an organization and its structural potential to originate, refine and synthesise ideas are key requirements for producing innovations meeting the dual mandates of social inclusion and ecological sustainability. Sustainable Inclusive Innovation is a multi-dimensional operational threshold. It requires paradigm-shifting ideas that disrupt existing ecologically damaging markets while engaging and helping marginalised groups.

Moving from raw ideation to sustainable innovation means that creativity must be thoroughly embedded in the organization's continuous improvement (CI) architecture. A workforce with strong ideation capacity may move beyond incremental tweaks and envision fully new cyber-physical workflows, circular economy models and resource optimisation tactics. Employees who possess the cognitive flexibility to process large volumes of market and environmental information, frequently with the assistance of AI, produce the organisational intent essential to adopt technologies that reduce environmental footprints.

Moreover, the 'inclusive' character of SII is intrinsically dependent on the collaborative and co-creative facets of Ideation Capacity. (Kurek et al., 2023) point to the importance of more collaboration and multidisciplinary co-creation to overcome high failure rates in sustainable business models. Strong ideation capacity means an organization doesn't innovate in an exclusive silo. What it does have, instead, is the cognitive capability to synthesise multiple stakeholder views such as bottom-up ideas, minority demographics, and atypical market signals. The combination of these different inputs via structured ideation processes naturally drives the emerging inventions to tackle wide socio-economic inequities. Hence, the IC to SII channel statistically confirms that intellectual agility and collaborative ideation are the essential engines of sustainable socio-technical progresssion.

The Correlation Between Computational Evaluations And Corporate Advancement Is Structurally Mediated By Workforce Attachment And Individual Ideation

The hypothesis tests a complicated moderating relationship, whether AI-Based Feedback (AIF) significantly changes the strength or the direction of the relationship between Ideation Capacity (IC) and Sustainable Inclusive and Innovation (SII). The SEM-PLS result shows Path coefficient of -0.013, T-statistic of 0.258 and P-value of 0.796. The data suggest a complete absence of statistical significance. Thus, AIF does not serve a moderating role in this specific structural approach. Regardless of whether an organization employs extensive AI feedback or modest AI feedback, the core capability of Ideation Capacity to promote Sustainable Inclusive Innovation is independently resilient and unchanging.

The lack of moderating influence can be understood in the context of the innovation execution lifecycle. AI-Based Feedback is most successful in the beginning stage of creativity, since it acts as a catalyst to increase Ideation Capacity (as evidenced in Hypothesis 1), however, its effect is mitigated in the later stages of execution and implementation. Generative AI is mainly used as a brainstorming and iterative refining tool (Schmitt-Fumian et al., 2025). Still, the translation of a highly polished idea (IC) into a fully operationalised sustainable and inclusive business model (SII) is an inherently human-driven endeavour. It means negotiating legal frameworks, raising capital, dealing with human resistance to change, traversing complicated socio-political environments.

Thus, the cognitive momentum generated by the Ideation Capacity propels the organization to Sustainable Inclusive Innovation, independent of the persistent existence of the algorithmic feedback in the execution phase. Also, the lack of moderation means that AIF is not a bottleneck for the IC to SII transition. If human oversight and ethical judgement are more fitting, organisations don't have to artificially push AI feedback into the final stages of sustainable product launch. Here the lack of statistical significance is a critical boundary condition for algorithmic management: AI is a tremendous capacity generator but the structural implementation of inclusive and sustainable ideals stays firmly in the realm of human agency.

Examines the moderating effect of AI Based Feedback (AIF) on the connection between Workforce Attachment (WA) and Sustainable Inclusive and Innovation (SII). The SEM-PLS data show an interesting and very important result. The path coefficient is -0.140, T-statistic is 2.967 and P-value is 0.003. This shows a statistically significant negative moderation. This means in practice that the stronger the intensity or reliance on AI-Based Feedback, the weaker the favourable effect of Workforce Attachment on Sustainable Inclusive Innovation. This unfavourable interaction illustrates the deep socio-technical tensions that arise when algorithmic management encroaches over psychological terrain.

This negative moderation can be understood through the concept of "algorithmic aversion" and the failure of psychological contracts. Overdependence on AI feedback, especially in delicate evaluative situations, might trigger sentiments of rage, injustice, and diminished human agency (Cheng et al., 2023). Highly attached personnel flourish in a culture of trust, human empathy, and mutual allegiance with their leadership. Heavy doses of algorithmic surveillance and automatic, impersonal feedback from the business might alienate these most loyal personnel. The individual may start to feel micromanaged by an unfeeling algorithm, changing their motivation from internal, proactive innovation to extrinsic, defensive obedience.

The AI's constant hyper-rational inspection eats away at the psychological safety that usually allows a deeply committed staff to explore and push for sustainable solutions. The "artificial third" brought into the employee-employer relationship can take away the human nuance needed for inclusive, empathic issue solutions. If they feel managed by robots rather than mentored by humans, highly attached workers are less likely to exert the discretionary effort needed for SII. This significant negative moderation is a clear warning for today's management. While AIF provides baseline capacity (H1) and initial attachment (H3), over-deployment as a continuous monitoring device kills the very human ingenuity and emotional commitment needed to implement Sustainable Inclusive Innovation. Hence, organisations need to carefully balance the efficiency that comes from algorithms with the empathy that comes from human leadership.

Conclusion

The study indicates that while artificial intelligence radically changes the dynamics of organisations, it is not a solution in itself for complex socio-technical problems. The bottom line, then, is that AI-based feedback is an insanely good capability builder early on. Applied formatively, it greatly boosts an organization's Ideation Capacity, as a collaborative partner in brainstorming, and promotes Workforce Attachment by providing predictable performance advice. However, a key conclusion for the sector is the fact that the way forward to Sustainable Inclusive Innovation is still totally in the hands of the human agency. But it is not AI feedback that directly drives the generation of sustainable innovation it is cognitive agility in Ideation Capacity and emotional security in Workforce Attachment that act as the catalysts for equitable and resilient advancement. Moreover, the study provides an important boundary condition for modern management where an over dependence on continual AI feedback leads to algorithmic aversion. If workers view AI systems as soulless monitoring rather than helpful scaffolds, it erodes psychological safety and proactively discourages proactive, inclusive innovation.

These findings should guide the following specific activities and policy changes for organisations: Treat AI as a Co-worker, Not a Boss: Organisations should develop policies that only use generative AI as a learning partner and mental support system. AI feedback methods need to be constructive not punishing, stimulating higher order critical thinking while protecting full human evaluative autonomy. 4. Limit Algorithmic Surveillance in Execution: Management should impose strong limits on the use of AI in sensitive performance evaluation scenarios. AI can help in the conceptualisation part but the policies should ensure that the strategic decision-making and operationalisation of sustainable practices must be the sole responsibility of the humans. Empathetic Leadership Interventions Should Be Prioritised: Sustainable Inclusive Innovation is strongly dependent on Workforce Attachment, and so, leadership training programs should prioritise the building of interpersonal trust. The function of human leadership should be to act as a vital buffer to negative emotional reactions to algorithmic assessment and to create a psychologically safe workplace where employees feel safe to offer disruptive solutions.

Building on these findings, further study is needed on the long-term implications of AI-human collaboration on worker well-being in different cultural contexts. Further empirical research are also needed to discover the precise thresholds at which AI feedback shifts from a supporting scaffolding to a perceived surveillance tool, thereby enabling organisations to achieve an optimal balance between algorithmic aid and human autonomy.

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