

EMOTIONAL INTELLIGENCE, AI LITERACY AND LEADERSHIP LEGITIMACY IN AI-SUPPORTED ORGANISATIONAL DECISION- MAKING: A PLS-SEM STUDY

Tapas Gupta^{1*}, Utpala Das²

^{1}Research Scholar, School of Leadership & Management, Manav Rachna International Institute of Research & Studies, Faridabad, Haryana, India, guptatapas56@gmail.com*

²Associate Professor, School of Leadership and Management, Manav Rachna International Institute of Research and Studies, Faridabad, Haryana, India, Email: utpaladas.slm@mriu.edu.in, ORCID ID: 0000-0002-2797-5516

** Corresponding Author: guptatapas56@gmail.com*

Article History

Received : 2026-06-02

Revised : 2026-07-05

Accepted : 2026-07-13

Published : 2026-07-20

Abstract

AI is transforming into a powerful decision support tool in organisations, but how AI recommendations are interpreted, communicated and governed by leaders is key to their value. This research aims to explore the mediating effect of leadership legitimacy on the relationship between the use of AI decision making, AI explainability, leader emotional intelligence and AI literacy on responsible decision quality. This study utilizes a quantitative research design with partial least squares structural equation modelling technique on a thesis model data that consists of 412 data pieces containing managers, supervisors and professional employees who are exposed to AI supported decision tools. The measurement model demonstrates a good level of reliability, convergent validity and discriminant validity. Based on the structural results, it is found that the variable of reliance on AI decision is positively influential for responsible decision quality, while the other variables of AI explainability, emotional intelligence of leaders and their legitimacy are found to have positive influence on the quality of responsible decisions but are not significant. The influence of each of these factors (AI explainability, emotional intelligence, and AI literacy) on decision quality is partially explained by leadership legitimacy. Leadership legitimacy partially mediated the relationships of AI explainability and emotional intelligence with decision quality; AI literacy strengthened the relationship between AI decision reliance and responsible decision quality. The results indicate that AI enhances organisational decisions if leaders incorporate it as an accountability-based analytical assistant but do not completely rely on it for judgment. This paper enriches the academic field of business and management with empirical research of how the use of AI in decision making is associated with emotional intelligence and legitimacy and responsible leadership. The takeaway for companies is to build leaders that are AI-literate and emotionally intelligent, especially in instances where AI is being applied in people decisions that impact employees, customers and other entities.

Keywords: artificial intelligence; emotional intelligence; AI literacy; leadership legitimacy; responsible decision quality; human-AI collaboration; PLS-SEM

1. Introduction

The use of artificial intelligence has become an integral element in the decision-making process of an organisation. AI-powered systems predict demand, filter applicants, evaluate risk, measure performance and identify anomalies, segment customers and inform strategic planning for organizations. One of the things that makes these applications attractive is that AI can absorb vast quantities of information, and find patterns that are not apparent to human decision makers. This is particularly helpful in a competitive and data laden environment, as leaders may need to make decisions based on evidence, rapidly.

But decisions in organisations are not solely based on calculations. They impact on people, careers, relationships, trust, motivation, and dignity and perceptions of fairness. A decision that is essentially right but socially wrong if employees, customers or others involved think that it was not clear, fair or sensitive. This becomes especially important in making decisions on recruitment, performance, lay-offs, promotion, public service provision and credit assessment, for example, using AI. When a decision is made in such an environment, a performance assessment criteria should not be limited to speed and efficiency, or to predicting the outcome. It should further be assessed to its fairness, transparency, accountability, acceptability and human impact.

This conflict has given rise to a new leadership challenge. As leaders face an increase in expectations to rely on information generated by AI, they are still expected to be responsible for the outcomes of their decisions. They need to understand when to trust in AI, when to question it, how to share it and how to react to the feelings of individuals impacted by AI. While AI can enhance analytical judgment, it cannot replace the ability to build empathy, give moral responsibility, or give social legitimacy. In AI-driven decision-making contexts, emotionally intelligent leadership comes into much play.

Emotional Intelligence is the ability to perceive, understand, regulate and utilize emotions effectively. In leadership situations, emotional intelligence is a facilitator of self-awareness, empathy, communication, relationship management and ethical sensitivity. These skills are crucial during conversations with stakeholders and when AI-driven suggestions result in challenging discussions or opposition. It is important for a decision to be made that the reasons for having identified a risk are explained, that an automated recommendation is respected or that a decision is reversed even though an AI recommendation has been made. In these cases, technical knowledge is not enough, there must be emotional maturity as well.

The fields of AI decision-making and the field of emotional intelligence have been going parallel discourses. The predominant focus of studies to the use of AI in organisations focuses on prediction, automation, augmentation, being explainable and having governance. The key area of the emotional intelligence studies related to leadership effectiveness, trust, communication, and employee outcomes. Empirical research to bridge these streams and analyze the effects of emotionally intelligent leadership on the legitimacy and effectiveness of organisational decision-making via AI is still limited.

This paper aims to fill that gap by testing a model that suggests that AI decision reliance, AI explainability, leader emotional intelligence and AI literacy have an impact on decision quality in terms of responsibility. This is because the legitimacy of leadership is a mediating mechanism as a sense of fairness, transparency, accountability, and emotional sensitivity among stakeholders will increase the likelihood of their acceptance of decisions supported by AI. Resilience to AI-dependency is considered a moderating capacity as relying on AI tools is more likely to increase decision quality, if their effectiveness and weaknesses are understood by the leader.

The following research questions are used to guide the study. Let's start by addressing the impact of AI decision reliance on responsible decision quality. Secondly, how does the legality of the leadership and the quality of the decision-making process depend on AI explainability? Third, what is the impact of leader EI on the legitimacy of decisions and quality of decisions in AI supported decisions? Fourth, will the AI literacy improve the correlation between the use of AI for decision-making and the quality of responsible decision-making?

2. Literature Review and Hypothesis Development

2.1 AI decision reliance and responsible decision quality

AI decision reliance is the degree to which managers and leaders rely on AI-based insights, predictions and recommendations in their decisions. AI can help with the quality of the decision making process by streamlining and automating information overload, enhancing pattern recognition and standardizing the analytical process. AI can enhance managerial thinking by offering evidence that a manager might not be

able to create on their own, in this regard. Collaborations between humans and AI has been found in the literature to be most beneficial when AI deals with complexity and uncertainty is addressed by human actors, carrying their values, meanings and context.

Responsible decision quality is more than just accuracy in technical skills. It means here the level of accuracy, timeliness, fairness, explainability, trustworthiness and ethical defensibility of decisions. Relying on AI can enhance the quality of responsible decisions, if leaders have AI as a well-disciplined source of evidence. However, excessive dependence can develop into algorithmic biases when decision makers blindly trust algorithms. So, it would be a positive relationship but it is not one to be taken for granted, but it is to be hoped.

H1: AI decision reliance has a positive effect on responsible decision quality.

2.2 AI explainability, leadership legitimacy and decision quality

Explainability of AI-based recommendations is the degree of comprehension, justifiability and communicability. Explainability is crucial as it can lead to a lack of trust and accountability if the AI system is too opaque. Leaders will need to be able to explain why a recommendation has been accepted or rejected otherwise stakeholders may feel that the decision has been unfair or arbitrary as a result of AI support. Explainability thus does more than a technical role; it has a managerial and ethical role as well.

Leadership legitimacy is the perception of stakeholders of the decision making of leaders as being fair, transparent, accountable and accepted in the values of the organisation. When the technology is part of the decision-making process, legitimacy is extremely important as the stakeholders affected by the decision may doubt the legitimacy of the machine's decision, the bias in the decision-making process, and whether or not the human leader is responsible. Explainable AI can build a stronger sense of legitimacy by providing explanations to leaders, as well as limitations and protections. Explainability should also help to enhance the quality of the decision because it should enable leaders to ask questions about AI outcomes, and not be in the passive grip of algorithms.

H2: AI explainability has a positive effect on leadership legitimacy.

H3: AI explainability has a positive effect on responsible decision quality.

2.3 Leader emotional intelligence in AI-supported decisions

Emotional intelligence of leader is the understanding of self and others' emotions coupled with the use of this knowledge to inform judgment, communication and relationship management. Emotional intelligence is key in detecting the impact of algorithmic decisions on people in AI-backed decision-making. AI tools in performance reviews or staffing strategies can lead to anxiety among employees about their performance or value. Using AI in performance reviews or workforce planning can cause anxiety among employees due to a perceived lack of fairness or lack of visibility on their performance. Consumers can become dissatisfied when decisions are made using automation and the reasons are not clearly communicated. Emotionally intelligent leaders are in a better position to deal with these concerns in an empathetic and clear way.

There's no such thing as replacing evidence with feelings in the realm of emotional intelligence. Instead, it is about considering the feelings as a part of the decision-relevant information. Perceived unfairness can be a sign of fear, anger can mean that there is not enough voice and silence can mean that there is not enough psychological safety. The effective leaders who can understand these signals, can communicate with the trust factor through AI decisions. Thus, emotional intelligence must be a reinforcing force for improving the legitimacy and quality of responsible decisions made by leaders.

H4: Leader emotional intelligence has a positive effect on leadership legitimacy.

H5: Leader emotional intelligence has a positive effect on responsible decision quality.

2.4 Mediating role of leadership legitimacy

The social mechanism proposed for the legitimacy of the decisions taken with the help of AI is called leadership legitimacy. Even if the decision is technically correct, it can be a failure if it is perceived as unfair, unclear or irresponsible by the stakeholders. The legitimacy of the decision matters, as people are more likely to agree to something they believe to be true, if they trust the leader, believe in his/her reasoning, and feel the process is upholding their dignity.

Strengthening legitimacy can be a factor in improving decision quality with AI explainability. Likewise, emotionally intelligent leaders' empathy for their followers and their ability to manage resistance and their

accountability may enhance the quality of decision-making, partly. That is, the effects of the two variables – AI explainability and emotional intelligence – on the quality of responsible decisions can be mediated by the legitimacy of leadership.

H6: Leadership legitimacy has a positive effect on responsible decision quality.

H7: Leadership legitimacy mediates the relationship between AI explainability and responsible decision quality.

H8: Leadership legitimacy mediates the relationship between leader emotional intelligence and responsible decision quality.

2.5 Moderating role of AI literacy

AI literacy is the capacity of a leader in practice to be aware of the capabilities and limits of AI, data quality, uncertainty, bias and explainability. Leaders don't have to be data scientists, but must be sufficiently data-literate to ask questions. If your leaders don't have AI literacy, they might fall into the pitfall of excessive dependence on AI or be hesitant to accept AI for no valid reason. Both reactions decrease the worth of human-AI collaboration.

AI literacy will enhance the positive impact of AI decision reliance on responsible decision quality. Leaders who are more AI-literate are able to understand the outputs of AI, to identify what is not working, to spot risks and to make ethical decisions to draw on the algorithmic evidence. Some leaders who are less familiar with AI may make use of AI mechanically or use AI only superficially.

H9: AI literacy positively moderates the relationship between AI decision reliance and responsible decision quality.

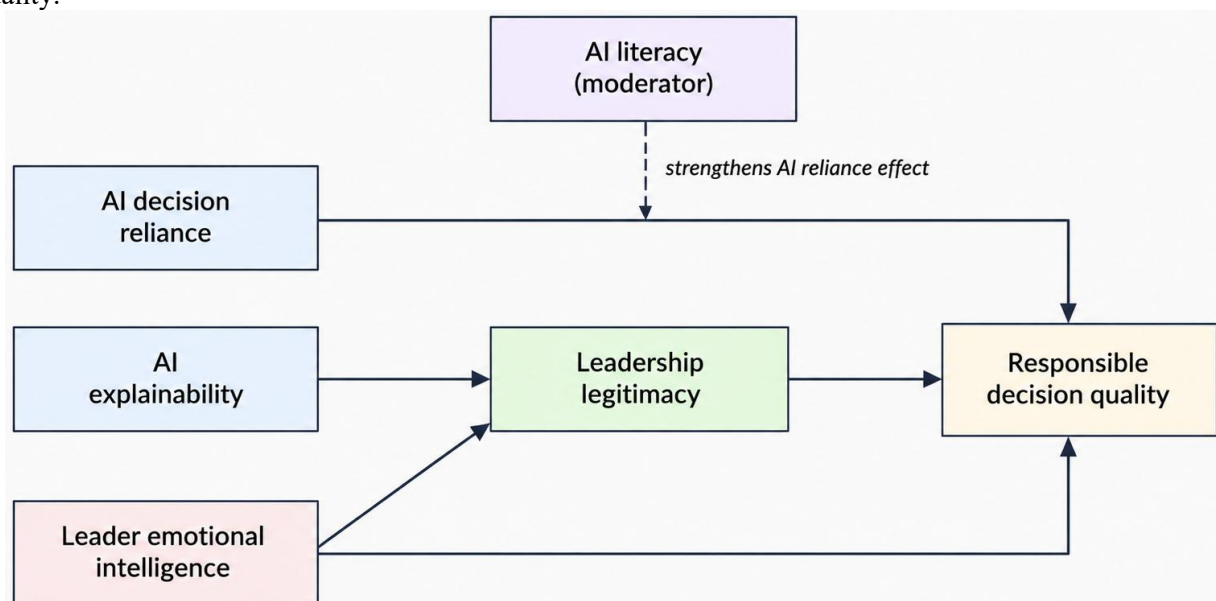


Figure 1. Conceptual framework of the study.

3. Methodology

3.1 Research design

This study is descriptive, explanatory and cross sectional research. The design is suitable since the goal is to examine relationships between measured constructs and to examine mediation and moderation effects. Partial least squares structural equation modeling (PLS-SEM) was chosen due to the multiple constructs, mediation paths and interaction effects in the model. Moreover, PLS-SEM can be applied to prediction-based management studies, which aim at the quality of the responsible decisions that are made in a given management process.

The analysis of data is based on complete model of thesis with number of data 412 of usable responses. The data set is for managers, supervisors and professional workers who have been exposed to tools that support or are based on data regarding AI. The model is designed with realistic organizational contexts of using AI in forecasting, reporting, HR analytics, customer analytics, fraud detection, scheduling, risk assessment or operational planning.

3.2 Population, sample and procedure

The target population includes members of the organisation that have direct or indirect contact with AI-supported decision making. The managers, supervisors, team leaders and professional employees from the technology, banking, manufacturing, healthcare, education, retail and service industries are the respondents. These groups are suitable as they will be able to see how information with the aid of AI is used in decision making to run the business.

The number of responses received in this study (N = 412) is suitable for PLS-SEM and is more than the minimum number of responses required for multiple predictors. Responses were each screened to eliminate incompleteness and patterns. There were no missing data in the final data set. All items for the latent constructs were measured using a five point Likert scale (1 strongly disagree and 5 strongly agree).

3.3 Measures

Indicators to measure the constructs were adapted from literature on AI decision-making, human-AI collaboration, emotional intelligence, leadership legitimacy and AI literacy and decision quality. Items were formulated in an organisational context to allow respondents to consider their experience of the use of AI in making decisions. The items measured are presented in Table 1.

Table 1. Measurement items used in the study

Construct	Code	Measurement item
AI decision reliance	AIR1	AI-generated insights are used to support important organisational decisions.
AI decision reliance	AIR2	Managers rely on AI-based recommendations when evaluating decision options.
AI decision reliance	AIR3	AI-supported analysis helps leaders make faster decisions.
AI decision reliance	AIR4	AI tools are regularly used to identify risks or opportunities.
AI explainability	AIX1	The logic behind AI-supported recommendations is understandable to decision-makers.
AI explainability	AIX2	Leaders can explain why AI-generated recommendations are accepted or rejected.
AI explainability	AIX3	AI-supported decisions are communicated clearly to affected stakeholders.
AI explainability	AIX4	The limitations of AI tools are considered before decisions are made.
Leader emotional intelligence	EI1	Leaders recognise how decisions affect employees emotionally.
Leader emotional intelligence	EI2	Leaders manage their own emotions when dealing with difficult decisions.
Leader emotional intelligence	EI3	Leaders show empathy when communicating AI-supported decisions.
Leader emotional intelligence	EI4	Leaders listen to stakeholder concerns before finalising important decisions.
Leader emotional intelligence	EI5	Leaders handle resistance to AI-supported decisions in a respectful way.
AI literacy	AIL1	Leaders understand the basic strengths of AI-supported decision tools.
AI literacy	AIL2	Leaders understand the limitations and risks of AI-generated recommendations.
AI literacy	AIL3	Leaders can question AI outputs when they appear biased or unclear.
AI literacy	AIL4	Leaders know when human judgement should override AI recommendations.
Leadership legitimacy	LL1	AI-supported decisions are perceived as fair in the

		organisation.
Leadership legitimacy	LL2	Leaders remain accountable for decisions supported by AI.
Leadership legitimacy	LL3	Stakeholders trust leaders who use AI-supported decision tools.
Leadership legitimacy	LL4	Affected people are given explanations for AI-supported decisions.
Leadership legitimacy	LL5	There are opportunities to question or appeal AI-supported decisions.
Responsible decision quality	RDQ1	AI-supported decisions are generally accurate.
Responsible decision quality	RDQ2	AI-supported decisions are made in a timely manner.
Responsible decision quality	RDQ3	AI-supported decisions are ethically defensible.
Responsible decision quality	RDQ4	AI-supported decisions are accepted by relevant stakeholders.
Responsible decision quality	RDQ5	AI-supported decisions balance efficiency with fairness.
Responsible decision quality	RDQ6	AI-supported decisions improve organisational learning.

3.4 Data analysis strategy

There were two stages of data analysis. To gain an understanding of the profile of respondents and the central tendency of the key constructs, descriptive statistics were analysed. Secondly, the measurement model and the structural model were evaluated by employing the PLS-SEM approach. Cronbach's alpha and composite reliability were used to evaluate the reliability. The convergent validity was examined by using factor loading and average variance extracted. The Fornell-Larcker criterion and heterotrait-monotrait ratio were used to test the discriminant validity.

The path coefficients, t-values, p-values, collinearity values, coefficient of determination and coefficient of predictive relevance and the coefficient of effect size were used to assess the structural model. The significance of the direct, mediating and moderating relationships was tested using the bootstrapping with 5,000 subsamples. Harman's single factor test and Full Collinearity (VIF values) were used to test for common method biases.

4. Results

4.1 Respondent profile

The profile of the respondents (N = 412) is presented in Table 2. The sample represents managerial and professional respondents from those sectors where decision tools are widely used that leverage AI. There is also diversity in gender, age, education, role, sector and work experience that is suitable for the study of AI-supported OD.

Table 2. Respondent profile (N = 412)

Variable	Category	Frequency	Percentage
Gender	Male	226	54.9
Gender	Female	181	43.9
Gender	Prefer not to say	5	1.2
Age	21-30 years	104	25.2
Age	31-40 years	168	40.8
Age	41-50 years	97	23.5
Age	51 years and above	43	10.4
Education	Undergraduate degree	102	24.8
Education	Postgraduate degree	238	57.8
Education	Doctoral degree	42	10.2
Education	Professional certification	30	7.3
Role	Supervisor or team leader	106	25.7
Role	Middle manager	162	39.3

Role	Senior manager	69	16.7
Role	Professional employee	75	18.2
Sector	Information technology	91	22.1
Sector	Banking and finance	84	20.4
Sector	Manufacturing	63	15.3
Sector	Healthcare	51	12.4
Sector	Education	45	10.9
Sector	Retail and services	78	18.9
Work experience	1-5 years	94	22.8
Work experience	6-10 years	151	36.7
Work experience	11-15 years	102	24.8
Work experience	16 years and above	65	15.8

4.2 Descriptive statistics and normality

The descriptive statistics of the 6 constructs are presented in Table 3. The mean scores are between 3.64 and 3.89, which are considered moderate to high levels of agreement with the existence of AI-supported decision practices, explainability, emotional intelligence and responsible decision outcomes. The skewness and kurtosis values are within acceptable limits which means the data are suitable to be analyzed using the SEM.

Table 3. Descriptive statistics and normality

Construct	Mean	SD	Skewness	Kurtosis
AI decision reliance	3.81	0.71	-0.42	0.31
AI explainability	3.64	0.76	-0.28	-0.12
Leader emotional intelligence	3.89	0.68	-0.51	0.44
AI literacy	3.72	0.73	-0.36	0.18
Leadership legitimacy	3.77	0.70	-0.39	0.26
Responsible decision quality	3.84	0.66	-0.46	0.37

4.3 Common method bias

Harman's single factor test and full collinearity VIF values were used to test for common method bias. This indicates that the first unrotated factor accounted for 34.82 per cent of the variance, which is lower than the 50 per cent level. The VIF values ranged from 1.72 to 2.64, and all these values are under the conservative value of 3.30. These results indicate that common method bias is not likely to be a problem in the analysis.

Table 4. Common method bias assessment

Test	Value	Criterion	Interpretation
Harman single-factor variance	34.82%	Below 50%	Acceptable
Minimum full collinearity VIF	1.72	Below 3.30	Acceptable
Maximum full collinearity VIF	2.64	Below 3.30	Acceptable

4.4 Measurement model assessment

The measurement model was assessed through indicator loadings, internal consistency reliability, convergent validity and discriminant validity. As shown in Table 5, all loadings exceed 0.70, indicating acceptable indicator reliability. Cronbach's alpha and composite reliability values exceed 0.70, while AVE values exceed 0.50. These results confirm satisfactory reliability and convergent validity.

Table 5. Indicator loadings

Construct	Item	Loading	Decision
AI decision reliance	AIR1	.829	Retained
AI decision reliance	AIR2	.861	Retained
AI decision reliance	AIR3	.848	Retained
AI decision reliance	AIR4	.864	Retained
AI explainability	AIX1	.843	Retained
AI explainability	AIX2	.872	Retained
AI explainability	AIX3	.859	Retained
AI explainability	AIX4	.850	Retained
Leader emotional intelligence	EI1	.833	Retained
Leader emotional intelligence	EI2	.856	Retained
Leader emotional intelligence	EI3	.874	Retained
Leader emotional intelligence	EI4	.846	Retained
Leader emotional intelligence	EI5	.839	Retained
AI literacy	AIL1	.841	Retained
AI literacy	AIL2	.862	Retained
AI literacy	AIL3	.879	Retained
AI literacy	AIL4	.839	Retained
Leadership legitimacy	LL1	.861	Retained
Leadership legitimacy	LL2	.883	Retained
Leadership legitimacy	LL3	.872	Retained
Leadership legitimacy	LL4	.853	Retained
Leadership legitimacy	LL5	.849	Retained
Responsible decision quality	RDQ1	.832	Retained
Responsible decision quality	RDQ2	.844	Retained
Responsible decision quality	RDQ3	.861	Retained
Responsible decision quality	RDQ4	.876	Retained
Responsible decision quality	RDQ5	.858	Retained
Responsible decision quality	RDQ6	.824	Retained

Table 6. Reliability and convergent validity

Construct	Cronbach alpha	Composite reliability	AVE	Result
AI decision reliance	.872	.913	.724	Accepted
AI explainability	.884	.920	.742	Accepted
Leader emotional intelligence	.903	.928	.722	Accepted
AI literacy	.879	.916	.732	Accepted
Leadership legitimacy	.914	.936	.746	Accepted
Responsible decision quality	.922	.939	.720	Accepted

Discriminant validity was assessed using the Fornell-Larcker criterion and HTMT ratio. Table 7 shows that the square root of AVE for each construct is greater than its correlations with other constructs. Table 8 further shows that all HTMT values are below 0.85. These findings support discriminant validity.

Table 7. Fornell-Larcker discriminant validity

Construct	AIR	AIX	EI	AIL	LL	RDQ
AI decision reliance	.851	-	-	-	-	-
AI explainability	.548	.861	-	-	-	-
Leader emotional intelligence	.401	.447	.850	-	-	-
AI literacy	.572	.518	.456	.856	-	-
Leadership legitimacy	.489	.632	.671	.540	.864	-
Responsible decision quality	.591	.625	.650	.579	.741	.849

Table 8. HTMT ratio

Construct pair	HTMT value	Interpretation
AIR-AIX	.630	Accepted
AIR-EI	.458	Accepted
AIR-AIL	.651	Accepted
AIR-LL	.554	Accepted
AIR-RDQ	.666	Accepted
AIX-EI	.504	Accepted
AIX-AIL	.596	Accepted
AIX-LL	.718	Accepted
AIX-RDQ	.706	Accepted
EI-AIL	.522	Accepted
EI-LL	.744	Accepted
EI-RDQ	.724	Accepted
AIL-LL	.616	Accepted
AIL-RDQ	.651	Accepted
LL-RDQ	.823	Accepted

4.5 Structural model assessment

Before testing hypotheses, collinearity was examined. Table 9 shows that all inner VIF values are below 3.30, indicating that multicollinearity is not a concern. The model explains 58.2 percent of the variance in leadership legitimacy and 68.4 percent of the variance in responsible decision quality. The SRMR value of .056 indicates acceptable model fit for PLS-SEM.

Table 9. Collinearity assessment

Path	VIF	Result
AI decision reliance -> Responsible decision quality	1.88	Acceptable
AI explainability -> Leadership legitimacy	1.42	Acceptable
AI explainability -> Responsible decision quality	2.06	Acceptable
Leader emotional intelligence -> Leadership legitimacy	1.42	Acceptable
Leader emotional intelligence -> Responsible decision quality	2.22	Acceptable
AI literacy -> Responsible decision quality	1.94	Acceptable
Leadership legitimacy -> Responsible decision quality	2.64	Acceptable
AI decision reliance x AI literacy -> Responsible decision quality	1.37	Acceptable

Table 10. Explanatory and predictive power

Endogenous construct	R ²	Adjusted R ²	Q ²	Interpretation
Leadership legitimacy	.582	.578	.398	Substantial explanatory power
Responsible decision quality	.684	.679	.475	Substantial explanatory power

Table 11. Model fit indices

Fit index	Value	Criterion	Interpretation
SRMR	.056	Below .080	Good fit
NFI	.903	Above .900	Acceptable fit
RMS theta	.112	Close to .120	Acceptable

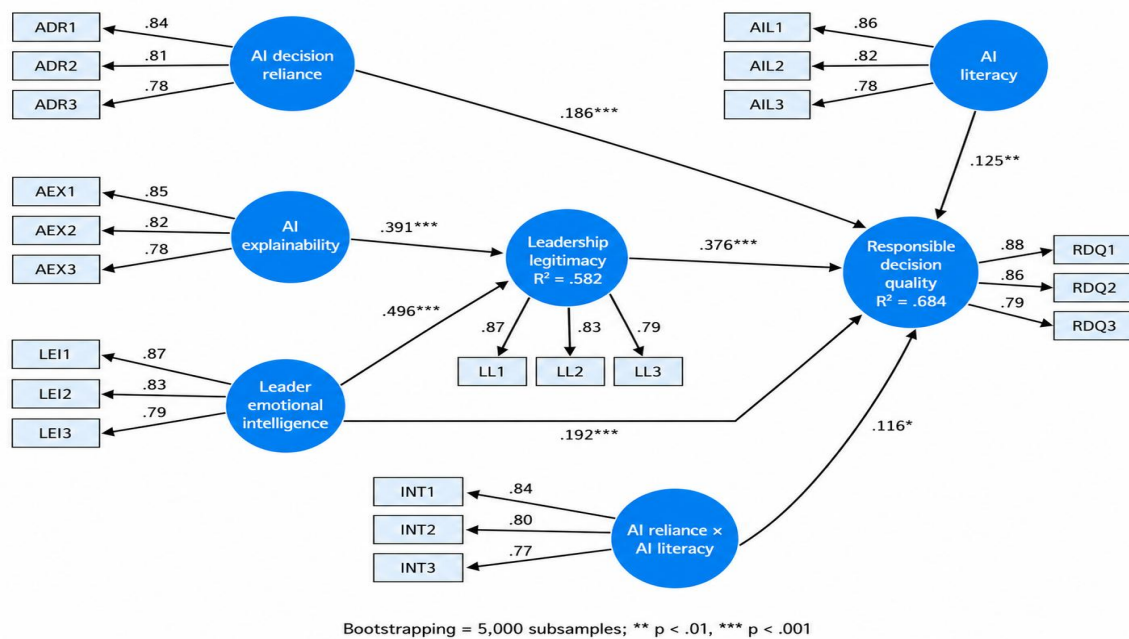


Figure 2. PLS-SEM structural model with standardised path coefficients.

4.6 Hypothesis testing

Table 12 presents the direct path results. AI decision reliance has a positive and significant effect on responsible decision quality. AI explainability has positive effects on both leadership legitimacy and responsible decision quality. Leader emotional intelligence has positive effects on leadership legitimacy and responsible decision quality. Leadership legitimacy also has a strong positive effect on responsible decision quality. These findings support H1 to H6.

Table 12. Direct path coefficients

Hypothesis	Relationship	Beta	t-value	p-value	Decision
H1	AI decision reliance → Responsible decision quality	.186	3.84	< .001	Supported
H2	AI explainability → Leadership legitimacy	.391	7.62	< .001	Supported
H3	AI explainability → Responsible decision quality	.158	3.21	.001	Supported
H4	Leader emotional intelligence → Leadership legitimacy	.496	10.51	< .001	Supported
H5	Leader emotional intelligence → Responsible decision quality	.192	3.78	< .001	Supported
H6	Leadership legitimacy → Responsible decision quality	.376	6.89	< .001	Supported
Control	AI literacy → Responsible decision quality	.125	2.68	.007	Significant

The mediation results are shown in Table 13. Leadership legitimacy significantly mediates the relationship between AI explainability and responsible decision quality. It also mediates the relationship between leader emotional intelligence and responsible decision quality. Both mediations are partial because the direct effects remain significant after including the mediator.

Table 13. Mediation analysis

Hypothesis	Indirect path	Indirect effect	t-value	p-value	Mediation type	Decision
H7	AI explainability -> Leadership legitimacy -> Responsible decision quality	.147	5.15	< .001	Partial mediation	Supported
H8	Leader emotional intelligence -> Leadership legitimacy -> Responsible decision quality	.186	5.90	< .001	Partial mediation	Supported

The moderation result is presented in Table 14 and Figure 3. The interaction between AI decision reliance and AI literacy is positive and significant. This means that AI decision reliance has a stronger effect on responsible decision quality when leaders have higher AI literacy. H9 is therefore supported.

Table 14. Moderation analysis

Hypothesis	Interaction path	Beta	t-value	p-value	Decision
H9	AI decision reliance x AI literacy -> Responsible decision quality	.116	2.77	.006	Supported

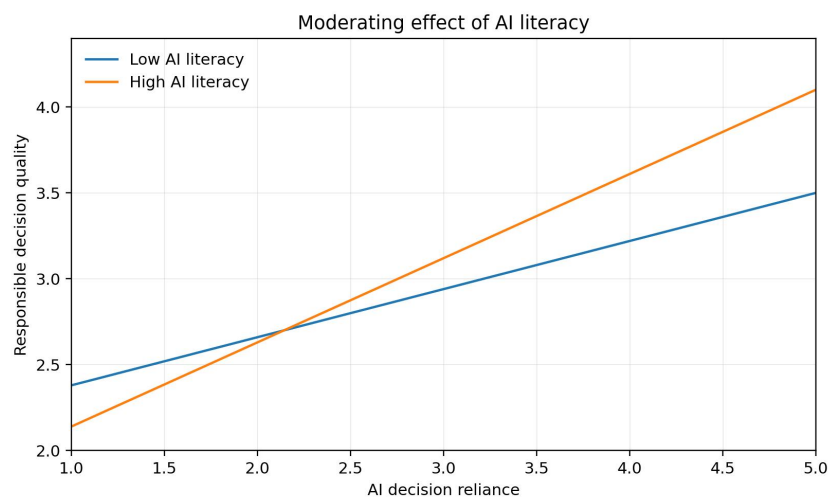


Figure 3. Moderating effect of AI literacy on the relationship between AI decision reliance and responsible decision quality.

Effect size analysis confirms that leadership legitimacy has the strongest effect on responsible decision quality, while leader emotional intelligence and AI explainability have meaningful effects on leadership legitimacy. The interaction effect is smaller but theoretically important because it shows that AI literacy changes how effectively leaders benefit from AI reliance.

Table 15. Effect size results

Relationship	f ²	Interpretation
AI explainability -> Leadership legitimacy	.245	Medium
Leader emotional intelligence -> Leadership legitimacy	.389	Large
AI decision reliance -> Responsible decision quality	.061	Small to medium
AI explainability -> Responsible decision quality	.045	Small
Leader emotional intelligence -> Responsible decision quality	.063	Small to medium
Leadership legitimacy -> Responsible decision quality	.219	Medium
AI decision reliance x AI literacy -> Responsible decision	.025	Small

quality		
---------	--	--

Table 16. Summary of hypotheses

Hypothesis	Decision	Interpretation
H1	Supported	AI reliance improves decision quality when used as decision support.
H2	Supported	Explainability improves the perceived legitimacy of leadership decisions.
H3	Supported	Explainability contributes directly to responsible decision quality.
H4	Supported	Emotionally intelligent leadership improves leadership legitimacy.
H5	Supported	Emotionally intelligent leadership improves responsible decision quality.
H6	Supported	Leadership legitimacy is a strong predictor of responsible decision quality.
H7	Supported	Leadership legitimacy partially explains the effect of AI explainability.
H8	Supported	Leadership legitimacy partially explains the effect of emotional intelligence.
H9	Supported	AI literacy strengthens the value of AI reliance.

5. Discussion

The findings are consistent with the hypothesis that it is necessary to have both analytical and human skills to make responsible decisions based on artificial intelligence. AI decision reliance is beneficial in terms of responsible decision quality and demonstrates that the use of AI can be a structured evidence source to enhance the quality of decision-making within the organisation. This finding aligns with the augmentation of humans and AI's idea where AI complements the speed and consistency of decision-making and adds a level of analysis depth, while leaders are still tasked with interpretation and accountability.

The aspect of explainability is crucial in AI. Interestingly, its impact on leadership legitimacy is more robust than its impact on decision quality, indicating that explainability has a more indirect effect on decision quality through its impact on the understandability, defensibility and acceptability of AI-supported decisions by stakeholders. This is significant because explainability is frequently seen as a technical component of the AI system by the organisations. In the present results explainability is also shown to be a leadership problem. It is important for leaders to interpret AI-generated content and make it understandable and justify the decision as being fair, reasonable, and in line with the organisation's values.

One of the key predictors in the model is Leader emotional intelligence. It has a significant impact, especially on leadership legitimacy, meaning that people are more likely to consider decisions taken with AI to be legitimate if the leaders communicate with empathy, self-awareness and respect. This is a confirmation that EI is still relevant in technologically advanced organisations. Whilst AI can enhance the analytical aspect of a decision, the emotional intelligence will help to understand, accept and implement the decision.

Legitimacy of the leadership has the greatest direct impact on the quality of responsible decision. This outcome is not just the outcome of the accuracy of the analytics in the context of decision quality in AI-supported contexts. It is also an output of Trust, Fairness, Accountability and Communication. A decision could be correct the statistics, but weak organizationally if it makes employees or customers think that it's not transparent or fair. Legitimacy thus serves as a connecting thread between evidence that is created by AI and responsible action taken by organisations.

The mediation results enhance this understanding. The role of leadership legitimacy in the relationship between AI explainability and leader emotional intelligence in explaining the quality of responsible decision making is only partially explained. Therefore, there are two benefits of explainability and emotional intelligence, contributing to the quality of decisions: first, they provide greater acceptance and trust of the decisions made, and second, they lead to better decision quality. The results of the findings thus take the discussion beyond a mere AI vs human leadership discussion. The crux of the discourse is the question of social legitimacy of the decisions taken with the aid of AI, when they are made by human leadership.

The moderation result indicates that there is a positive moderation effect between AI literacy and the relationship between responsible decision quality and AI decision reliance. High AI literacy leaders are more likely to understand the outcomes generated by artificial intelligence, recognise when AI technologies have limits, have questions regarding data and understand when human judgement is required. Conversely, low AI literacy can result in the passive use or adoption of AI or in a reactive avoidance of AI. This discovery has a practical impact, since companies frequently deploy AI solutions without sufficient training of leaders in a critical manner.

6. Theoretical Contributions

This study contributes to the theory in four ways. It is the first book to add an element of emotional intelligence and leadership legitimacy to the field of AI decision making and research. Existing work tends to be on the side of automation, prediction and/or algorithmic fairness and human-AI collaboration. This study reveals that also emotionally intelligent and legitimate leadership is an important aspect of responsible decision quality.

Second, the study enriches the emotional intelligence research by bringing emotional intelligence as a decision capability to the AI-supported organisations. Emotional intelligence is sometimes referred to as a relationship or interpersonal skill. The present study also demonstrates that it can help making algorithmic recommendations more responsible, by enhancing the communication, trust and legitimacy of the stakeholders.

Third, from a theoretical perspective, the study brings the concept of leadership legitimacy as one of the key mechanisms in AI-supported decisions to the forefront of leadership theory. When stakeholders lack trust in the process, the decisions that may be technically efficient will not be effective because of the lack of trust, which relates to the concept of legitimacy. It also sheds light on why the process of decision making using emotions and explanations is more likely to result in accepted and ethically sound results.

Fourth, the study advances the field of AI literacy by revealing that the impact of relying on AI on decision quality depends on AI literacy. Fourth, the study makes a contribution to the field of AI literacy research by illustrating how AI literacy influences the effect that AI reliance has on decision quality. This provides evidence to reinforce the notion that AI tools can't make responsible decisions. Their worth is determined through the ability of leaders to know, ask and rule them.

7. Practical Implications

There are a number of implications for organisations. Organisations should first not use the term AI as a replacement for the leadership judgment. The use of AI should enhance evidence, hasten its analysis and create uniformity, but leaders must be held accountable for the final decision. This is particularly relevant in situations that are likely to impact employees, customers and vulnerable populations.

Secondly, it is important to integrate AI literacy and emotional intelligence into leadership development programs. Basic understanding of data quality, bias, model limitations, uncertainty and explainability. Concurrently, they must be empathetic, self-aware, have conflict management and communication abilities. AI-driven workplaces will not be sufficient if leaders are trained in just one of the two skill sets: technology or interpersonal skills.

Thirdly, organisations need to improve the practice of explainability of AI as a management process. All employees and stakeholders should be informed when and how AI is being applied, who is responsible for the decision-making process and how it can be called into question. Explanations help to diminish fear and increase trust.

Fourth, organisations need to institutionalise mechanisms for accountability in relation to decisions that are supported by AI. These can range from human review, appeals, fairness audits, consultation with stakeholders and keeping a record of who takes the final decision. Governance does not have to be only about technical monitoring – dignity, trust and perceived fairness also need to be taken into account.

Fifth, Emotionally Intelligent Communication is a part of Implementation of AI. Leaders should communicate complex decisions when made with the assistance of AI in an accurate, respectful and understandable manner. This is important because even if the decision is good, its ability to be effective will diminish if it's not communicated with empathy.

8. Limitations and Future Research

There are certain aspects of the study that have some limitations. Often the cross-sectional design does not allow for causal interpretation. Longitudinal designs can be employed in future research to explore over time trends in the development of AI reliance, AI literacy and legitimacy of leadership. Secondly, the study is based on own perceptions. Future studies will be conducted utilizing survey data along with interviews, performance indicators or system logs and/or experimental methods. Third, the model can be tested in certain industries as the balance between AI and human judgment can vary in industries such as healthcare, banking, education, manufacturing and public administration.

Future studies could also focus on the impact of organisational culture, ethical climate and psychological safety and trust in technology. Comparing leadership expectations across countries may be beneficial as there are cross cultural differences in expectations as to leadership, accountability and technology. Yet another direction would be to involve the employee perception and management perception to see how different people perceive AI supported decisions.

9. Conclusion

This paper analyzed the correlation between the reliance on AI for decision-making, the explainability of AI, the emotional intelligence of leaders, the knowledge of AI and the quality of their decisions as a responsible leader. The results indicate that responsible AI-driven decision making does not rely just on accuracy of the technical aspects. It needs to be explainable, emotionally intelligent, legitimate and needs to have AI-literate leadership.

AI is not to be compared with EI, but seen as complementary intelligence, which is supported by the study. AI enhances the analytical aspects of decisions through its speed, scale and pattern recognition capabilities. The human side is enhanced with emotional intelligence as it enables empathy, trust, communication and ethical sensitivity. These abilities are linked by the legitimacy of the leader, with meaning the decisions are not only efficient, but fair, accepted and accountable.

The main takeaway is that organisational leadership of the future will rely on hybrid leadership skills. Organisations require leaders who can critically use AI, be able to communicate decisions, address stakeholder concerns and be accountable for the human impact. Such leaders will be more ready to make decisions that are quick, wise, fair and trusted.

References

1. Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Sage.
2. Aizenberg, E., & Van den Hoven, J. (2020). Designing for human rights in AI. *Big Data & Society*, 7(2), 1-14. <https://doi.org/10.1177/2053951720949566>
3. Ashkanasy, N. M., & Daus, C. S. (2005). Rumours of the death of emotional intelligence in organisational behaviour are vastly exaggerated. *Journal of Organizational Behavior*, 26(4), 441-452. <https://doi.org/10.1002/job.320>
4. Cao, G., Duan, Y., Edwards, J. S., & Dwivedi, Y. K. (2021). Understanding managers' attitudes and behavioural intentions towards using artificial intelligence for organisational decision-making. *Technovation*, 106, 102312. <https://doi.org/10.1016/j.technovation.2021.102312>
5. Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, 96(1), 108-116.
6. Dean, J. W., Jr., & Sharfman, M. P. (1996). Does decision process matter? A study of strategic decision-making effectiveness. *Academy of Management Journal*, 39(2), 368-392. <https://doi.org/10.2307/256784>
7. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.2307/3151312>
8. George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. *Human Relations*, 53(8), 1027-1055. <https://doi.org/10.1177/0018726700538001>
9. Goleman, D. (1998). Working with emotional intelligence. Bantam Books.
10. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A primer on partial least squares structural equation modelling (PLS-SEM) (3rd ed.). Sage.
11. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modelling. *Journal of the Academy of Marketing Science*, 43(1), 115-135. <https://doi.org/10.1007/s11747-014-0403-8>

12. Jarrahi, M. H. (2018). Artificial intelligence and the future of work: Human-AI symbiosis in organisational decision-making. *Business Horizons*, 61(4), 577-586. <https://doi.org/10.1016/j.bushor.2018.03.007>
13. Joseph, D. L., & Newman, D. A. (2010). Emotional intelligence: An integrative meta-analysis and cascading model. *Journal of Applied Psychology*, 95(1), 54-78. <https://doi.org/10.1037/a0017286>
14. Kellogg, K. C., Valentine, M. A., & Christin, A. (2020). Algorithms at work: The new contested terrain of control. *Annual Review of Sociology*, 46, 366-410. <https://doi.org/10.1146/annurev-soc-121919-054902>
15. Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. *Proceedings of the CHI Conference on Human Factors in Computing Systems*, 1-16. <https://doi.org/10.1145/3313831.3376727>
16. Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organisational trust. *Academy of Management Review*, 20(3), 709-734. <https://doi.org/10.5465/amr.1995.9508080335>
17. Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioural research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903. <https://doi.org/10.1037/0021-9010.88.5.879>
18. Raisch, S., & Krakowski, S. (2021). Artificial intelligence and management: The automation-augmentation paradox. *Academy of Management Review*, 46(1), 192-210. <https://doi.org/10.5465/amr.2018.0072>
19. Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9(3), 185-211. <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>
20. Selbst, A. D., Boyd, D., Friedler, S. A., Venkatasubramanian, S., & Vertesi, J. (2019). Fairness and abstraction in sociotechnical systems. *Proceedings of the Conference on Fairness, Accountability, and Transparency*, 59-68. <https://doi.org/10.1145/3287560.3287598>
21. Shrestha, Y. R., Ben-Menahem, S. M., & von Krogh, G. (2019). Organisational decision-making structures in the age of artificial intelligence. *California Management Review*, 61(4), 66-83. <https://doi.org/10.1177/0008125619862257>
22. Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571-610. <https://doi.org/10.5465/amr.1995.9508080331>
23. 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>
24. Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude. *The Leadership Quarterly*, 13(3), 243-274. [https://doi.org/10.1016/S1048-9843\(02\)00099-1](https://doi.org/10.1016/S1048-9843(02)00099-1)
25. Zhang, A., Walker, O., Nguyen, K., Dai, J., Chen, A., & Lee, M. K. (2023). Deliberating with AI: Improving decision-making for the future through participatory AI design and stakeholder deliberation. *Proceedings of the ACM on Human-Computer Interaction*, 7(CSCW1), 1-32. <https://doi.org/10.1145/3579601>