

**BLOCKCHAIN-DRIVEN TRANSPARENCY AND EMPLOYEE TRUST:  
THE MEDIATING ROLE OF ETHICAL LEADERSHIP**

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**Abstract**

This study examines how blockchain-driven transparency influences employee trust and investigates the mediating role of ethical leadership within manufacturing organizations. The research is grounded in ethical leadership theory, which emphasizes the importance of moral interpretation when employees evaluate organizational processes. A quantitative, cross-sectional design was used to collect survey data from employees across medium and large manufacturing firms, with validated scales measuring transparency, ethical leadership, and trust. Data were analyzed using SPSS for preliminary analysis and SmartPLS for structural equation modeling. The findings show that blockchain-driven transparency significantly enhances employee trust, and ethical leadership partially mediates this relationship. Ethical leadership also demonstrated a strong direct effect on trust. These results highlight the complementary roles of technological transparency and moral leadership in shaping positive organizational perceptions. The study contributes to ongoing discussions on digital governance and workplace ethics, offering theoretical and practical insights for organizations adopting blockchain-based systems.

**Keywords:** Blockchain-Driven Transparency, Employee Trust, Ethical Leadership, Ethical Leadership Theory

## **Introduction**

Organizations across sectors are experiencing rapid structural and cultural transformations as digital systems reshape how information is generated, shared and verified. These shifts have widened discussions about transparency, accountability and the ethical foundations that support effective organizational functioning. However, within recent years, the focus shifted on the traditional tools of governance to the digital infrastructures that could guarantee more credible and un-tampered information flows. Researchers observe that the emergence of new technologies is causing institutions to reconsider their approaches to integrity protection and encouraging responsible behavior, particularly in the settings where trust is weak and demands to be open are increasing (Sharif and Ghodoosi, 2022). The need to have systems that will help stakeholders in authentication of processes, transactions and organizational decisions has increased with the interconnection of global markets (Freimuth, 2024). This change is particularly apparent in the supply chains, the sphere of public administration and service where visibility and traceability are becoming more connected with the operational legitimacy (Cao et al., 2023). These changes are part of a wider trend of change to governance models that are focused on transparency, justice and moral responsibility. Researchers believe that such changes are not standard technological improvements but structural institutional changes that define organizational behavior and relations of stakeholders (Thanasi-Boce & Hoxha, 2025). These dynamics are changing, and that is why it is important to recognize that there is a great necessity to comprehend the interaction of current technological architectures with organizational values and perceptions of the employees.

Recent articles indicate that there is an increasing consensus that transparency enabled by technology enhances responsible decision-making and promotes interactions between organizational actors in a more predictable way. Research within supply chains, food systems and service

industries show that emerging digital infrastructures boost information credibility and minimize uncertainties that usually undermine the stakeholder confidence (Rafique et al., 2025; Duong et al., 2025). It is also noted that research proposes that these tools are becoming more and more integrated into organizational procedures and enhance communication and accountability, providing environments in which more ethical and participatory practices become feasible (Cao et al., 2023; Toader et al., 2024). Furthermore, the empirical evidence indicates that the increased visibility of the operational activity leads to a stronger relational performance, especially in cases when the stakeholders feel that the mechanisms of information sharing are unbiased and trustworthy (Dadhich et al., 2024; Spiga et al., 2024). Nonetheless, in spite of these developments, researchers still argue over the organizational channels that transparency efforts may affect employee-based outcomes. It shows that more needs to be investigated about behavioral and normative processes that are influenced by new technological systems.

In the current work environments, there is an increasing concern on organizational integrity, reliability and fairness of information in management practices. Employees all over the world demonstrate an increased demand of the transparency of the decision-making process, particularly in those settings, where they believe that the presence of misinformation, the knowledge of the secrets, and manipulation of statistics may be viewed as the frequent threats. It is reported that the lack of visibility into the organizational processes may destroy confidence, demotivate people, and eventually, deteriorate performance (Morshed, 2025). These problems are compounded in the fast-digitizing industries where the complexity of operations is increasing, but the internal communication systems are not always keeping up with change in technology. The same concerns the developing economies where the institutions have been reported to have tried to stabilize the governance frameworks in the wake of the rapid digital transformation (Khan, 2023). In

the South Asian contexts especially, the issue of procedural fairness, ethical behavior and trustworthiness of managerial practices have been heightened with the increasing use of technology and the changing workforce demands. Simultaneously, the world markets are still requiring more rigorous accountability systems that will facilitate the sustainable and socially-friendly functioning (Pattanayak et al., 2025). Since organizations are facing these pressures, they need to deal with not only technological developments but also with the ethical aspects that come with it. These changing environments help to highlight the importance of structures that would enhance not just operational precision but also reinforce the social network of workplace associations especially where trust and integrity are crucial to efficient organizational operations.

Despite the fact that the current body of research has discovered the increasing role of digital infrastructures in organizational processes, there are still significant gaps about how these technologies are affecting internal social dynamics. The existing studies focus much on performance, supply chain visibility and institutional efficiency (Kong et al., 2025; Uvet et al., 2025) but little has been said on their impact on interpersonal relationships in organizations. Research shows that the increase in information clarity can decrease the level of uncertainty and can enhance the stakeholder relations (Duong et al., 2025; Liu et al., 2025), yet the literature remains disjointed in how the behavioral mechanisms associated with such changes affect the perceptions that employees have toward their organizations. In particular, the role of technologically improved transparency in interacting with ethical behavior in leadership frameworks is a topic discussed by scholars with fewer references, even though the behavior of leaders is one of the primary factors in the relationships in the workplace and the credibility of the organization (Sharif & Ghodoosi, 2022). In addition, the majority of the literature is based on the external stakeholder legitimacy instead of internal relational outcomes. Consequently, there is no theoretical development of incorporating modern

transparency tools along with leadership ethics. This is especially applicable in developing economies where the reliability of their institutions is frequently doubted and where employees have a strong dependence on the behavior of their manager to understand the intentions of their organizations (Thanasi-Boce & Hoxha, 2025). The existing literature lacks comprehensive answers on the question of how technologically facilitated openness affects the way employees perceive the fairness of the organization, and the role of the leadership norms in mediating and strengthening these judgments. To create a more comprehensive picture of the interplay of digital transformations and human factors that support organizational stability, there is a need to address the gap.

Knowledge of the intersection of modern information systems and ethical leadership practices is critical to the modern organizational operation. The global institutions are compelled to implement a governance framework that supports transparency and responsible behaviors in accordance with the global sustainability and accountability agendas (Saurabh et al., 2025). United Nations Sustainable Development Goals indicate the importance of powerful institutions, ethical governance and inclusive decision-making which presuppose reliable information environments. With the adoption of modern digital infrastructures, the implication of these tools on the perceptions of employees is becoming more and more pertinent. It has been demonstrated that information credibility gaps may foster a negative organizational culture and demoralize constructive participation (Morshed, 2025), which may trickle down to productivity, innovation and compliance. These issues are magnified in the emerging markets because of regulatory changes and an increased sensitivity to managerial honesty (Khan, 2023). In practice, the organizations that want to improve internal cohesion should learn how technological systems coexist with leadership practices. On an academic level, further analysis of these relations adds to the discussion on digital ethics, trust and sustainable management practices in organisations. Evidence of the impact of



transparency technologies on workplace settings is also needed by policymakers in order to provide effective governance structures. This renders the problem timely and strategically important.

The research paper is relevant to the existing discussions since it combines transparency in technology with leadership ethics to describe how employees perceive digitally changing organizations. The available literature has seldom related these areas, although new findings indicate that information systems and leadership behavior have a mutual impact on workplace behavior (Sharif and Ghodoosi, 2022; Dadhich et al., 2024). Through such interactions, the study gives a better insight into how digital infrastructures transform organizational associations. It builds on the current research on transparency and governance and provides information that is applicable to the operational practice, human resource management and sustainable organizational development. The research makes theoretical contributions by bridging the connection between transparency-enhancing technologies and ethical leadership approaches based on the emerging theories that underline responsible information spaces and relationships with stakeholders (Freimuth, 2024; Thanasi-Boce, and Hoxha, 2025). It offers useful information on how to create governance systems that reinforce credibility, justice and good employee performance. The guiding framework combines the digital transparency and behavioral principles, suggesting that morally led leadership is a key factor in defining how employees perceive the organizational practices that are technologically facilitated. This methodology elucidates how the digital transformation works on the internal trust and provides policy implications on managerial training, sustainable governance and policy design.

### **Theoretical Foundation**

The theory of ethical leadership was developed out of the early research in normative ethics and transformational leadership and has seen its formalization of academic recognition as researchers attempted to

comprehend the role of moral values in the actions of managers and how they influence the relationships in the workplace. The theory is based on the premise that leaders not only impact on their followers through their competence and power but their ethical behavior, fairness, and principled decision-making as well. In the course of time, scholars stressed that the process of ethical leadership is rooted in social learning, according to which the employees watch the behavior of the leaders and make their conclusions about the norms in the organization, relying on the observable ethical or unethical behavior. These initial findings made ethical leadership a model that connects moral behavior to both psychological and behavioral consequences amongst employees. The theory has been flexible in the modern academic research with the evolving technological, social and institutional settings. Today, ethical leadership in digitally mediated workplaces is studied by scholars as the transparency and accountability have become the primary expectations of the hybrid communication system and organization. Recent research points to the fact that ethical leadership has ceased to be limited to the idea of individual morality and started to focus on the notion of systemic fairness, responsible information management and trust-building in the context of complex organizational environments (Sharif and Ghodoosi, 2022). Furthermore, technological changes have challenged the researchers to think about how ethical leaders perceive, adopt and incorporate digital infrastructures in a manner that strengthens integrity, openness and credibility (Freimuth, 2024). This change is indicative of a growing appreciation of the fact that ethical leadership should address contemporary issues that relate to data governance, digital traceability and algorithmic systems.

The applicability of the theory to the current study lies in the fact that the theory has an explanatory ability in situations where employees make judgments about the intentions of the organization through the information cues available and the behavior of the leaders. Since organizations are

implementing sophisticated technologies that improve transparency, it is through leaders that employees rely on to understand such systems, their intent and also make sure that such systems are utilized in a responsible manner. The ethics leadership theory also offers a conceptual lens through which leaders can influence employees and perceive the fairness, accountability and trustworthiness of the leaders through modeling of ethical standards and contextualization of the application of organizational practices. Even in a place where uncertainty is minimized by enhancing visibility, employees will seek leaders to ensure that these systems are based on authentic organizational values and therefore ethical leadership is a prominent interpretative lens. In the recent studies, the theory is highlighted in the context of its relevance in examining the impact of digital transformation on workplace relationships. Research indicates that leadership ethics are needed to operate in new information ecosystems, retain credibility and achieve trust in technologically reconfigured organizations (Morshed, 2025; Thanasi-Boce and Hoxha, 2025). It is also stressed by scholars that ethical leadership improves stakeholder participation, promotes responsible data practice and achieves sustainable organizational performance (Saurabh et al., 2025). Such results confirm the theory relevance in the explanation of how employees respond to the contemporary governance tools and digital transparency systems. In this regard, ethical leadership theory is the intellectual basis of the current research. It links organizational ethics to employee perceptions and places leadership behavior as a key process in which technological changes contribute to relational processes. The theory provides a consistent prism of analyzing how employees make sense of information environments that are created by the contemporary systems and how leaders build trust by acting in a principled, transparent and responsible manner.

### **Hypotheses Development**



The growing academic debate on the significance of credible and verifiable information environments has been noted in influencing the way employees determine the integrity and motivations of their companies. The recent studies indicate that digital architectures and their role in increasing the perceptions of organizational reliability are associated with the stronger effects of digital system facilitating their consistency and impartiality in internal operations (Duong et al., 2025; Liu et al., 2025). These changes can be correlated with the concept of ethical leadership theory, according to which employees make trust-related judgments based on cognitive perceptions of observable signals that are indicative of ethical intentions and procedural fairness. Information flows will become more transparent and resistant to manipulation, which in turn will increase the likelihood of employees viewing organizational actions as being based on principles and in line with the larger norms of accountability (Sharif and Ghudoosi, 2022). However, there are also indications that the effect of the technological clarity on the attitudes of employees is conditional upon the degree to which respondents are convinced that the systems are indeed a reflection of the organizational values as opposed to mere compliance (Morshed, 2025). Such an implication suggests that the effects of modern transparency systems on trust in the internal workplace processes should be explored further.

The recent empirical research in both global and sectoral settings offers further evidence to the thesis statement that enhanced informational visibility leads to more favorable relational results. The results of supply chains, service industries and financial reporting settings always demonstrate that technologies that promote transparency decrease uncertainty and create the circumstances that promote trust in organizational practices (Cao et al., 2023; Spiga et al., 2024; Dadhich et al., 2024). The ethical leadership theory supports this expectation by postulating that employees would base their judgments on clear signals to determine whether the organizational actions are built on the foundation of fairness, responsibility and ethical intent. Once

transparency is institutionalized and not discretionary, then it is perceived by employees as an indicator of moral sense and reliability of the institution. It is based on these theoretical and empirical findings that the current study suggests that the structured transparency created by the modern systems of transparency ought to create better employee confidence into organizational intentions. It is theorized that

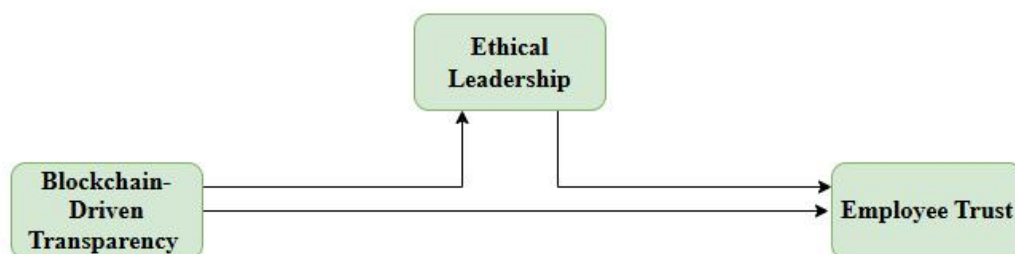
**H1: Blockchain-Driven Transparency positively influences Employee Trust.**

There has been an increasing interest among scholars in examining the ways in which transparency facilitated by technology is changing the way employees understand fairness and accountability in the organization. Although visibility and traceability systems minimize ambiguity, researchers claim that employees continue to rely on leaders to frame, interpret and legitimize these technological indicators (Freimuth, 2024; Sharif and Ghodoosi, 2022). According to the theory of ethical leadership, the behavior of leaders is a moral compass used by the employees particularly in the assessment of the meaning and credibility of new information infrastructures. Technological clarity has been proposed to encourage positive perceptions in recent research when leaders are fair, open, and responsible stewards, which suggests that ethical leadership offers the relational process by which transparency is transformed into trust (Morshed, 2025; Thanasi-Boce and Hoxha, 2025). This means that transparency in itself might not be enough but employees are seeking leaders who would be able to give them cues whether transparent systems are indicative of genuine dedication to integrity as opposed to compliance with procedures.

The developing empirical research in the supply chains, food systems and financial reporting also supports this concept. Research indicates that transparency enhances trust better in instances where such systems are influenced by ethical instructions, ethical modeling and principled communication to shape the internal meaning of the systems (Cao et al., 2023;

Duong et al., 2025; Uvet et al., 2025). Ethical leaders assist the employees in deciphering digital information environments and alleviating fears of misuse, misinterpretation or concealed motives. Such an interpretive role is particularly necessary in cases, when the technological inventions bring about new regulations, surveillance routines, or data-sharing guidelines. Using fairness, consistency and moral intent, leaders assist in transforming transparent structures into reliable organizational cues. Based on these theoretical and empirical findings, the hypothesis of the study is that the ethical leadership serves as the psychological channel through which transparency that is technologically made possible breeds confidence in employees. It has been hypothesized that

**H2: Ethical Leadership mediates the relationship between Blockchain-Driven Transparency and Employee Trust.**



**Figure 1: Research Model**

### Methodology

This study will target workers in medium and large manufacturing companies including electronic, automotive parts, textile and food processing companies. These areas were chosen since they are increasingly adopting transparency-focused digital systems and are experiencing a rapid formalization of the governance structure, which makes them pertinent to exploring the intersection of technological visibility and leadership practices and trust. Stratified random sampling technique was employed so as to have sufficient representation of various manufacturing sub-sectors and different levels of hierarchy. There was a determination of sample size using the consideration

of Hair et al. (2022) regarding structural equation modeling and having at least a ratio of ten respondents per indicator. This methodology provides adequate statistical power to estimate models and is able to model the complexity of mediation pathways. The resulting sample is hence representative as well as methodologically adequate.

The analysis of data was done using SPSS to obtain descriptive and initial inferential statistics, which aids in screening data, assessing its reliability and distinguishing basic distributional characteristics required to carry out higher-order modeling. Structural equation modeling, mediation testing, and path analysis were conducted with the help of SmartPLS, which is an indicator of modern interests in using variance-based SEM in research with complex theoretical constructs and latent variables (Sarstedt et al., 2022). Validated scales on the established studies were used to measure all constructs, such as a five-item scale of transparency, a six-item scale of ethical leadership, and a five-item scale of employee trust. These items were measured on a seven-point Likert scale of strongly disagree to strongly agree, which is the best practice of assessing subtle differences in perceptions. Measures that have been previously tested are more effective in measuring validity and conceptual consistency with existing literature.

**Table 1: Regression Weights**

Construct (Items)	Item code	Outer Loading
<b>Blockchain-Driven Transparency (5 items)</b>	TR1	0.82
	TR2	0.86
	TR3	0.88
	TR4	0.79
	TR5	0.85
<b>Ethical Leadership (6 items)</b>	EL1	0.90
	EL2	0.93
	EL3	0.91

<b>Employee Trust (5 items)</b>	EL4	0.88
	EL5	0.87
	EL6	0.85
	ET1	0.84
	ET2	0.86
	ET3	0.83
	ET4	0.87
	ET5	0.82

Table 1 shows that, the outer loadings across all the items show that each and every item is strongly related to its intended latent construct, as the loadings vary between 0.79 and 0.93. The loadings are usually viewed as acceptable evidence of the indicator reliability when they are above 0.70 in reflective models of measurement (Hair et al., 2022). The Transparency items (TR1-TR5) are clustering around the mid-to-high 0.80s and therefore represent the latent transparency construct consistently and there is not much evidence of needing to drop the item. The loadings of Ethical Leadership (EL1-EL6) are especially large (0.85-0.93), and this indicates a well-defined, consistent construct and justifies the six-item scale. There is also strong loading of items on Employee Trust (ET1-ET5) which is above 0.80 in the scale which is indicative of high reliability of the indicators. High outer loadings promote construct validity because they are relevant in the estimation of latent scores using manifest indicators (Sarstedt et al., 2022). In practice, such values indicate that respondents discriminated items as desired and that measurement error at the indicator level is not very high. Conceptually, strong loadings of ethical leadership are particularly significant because the conceptual centrality of the mediator serves as reliable indicators to enhance confidence in estimating the mediated effects (Hair et al., 2022). Where cross-loadings would have been anticipated or weak items especially where novel constructs are being formed around fast changing technologies such results actually suggest that there is a high degree of stability in the measurement performance.



**Table 2: Composite Reliability (CR), Cronbach's Alpha, and AVE**

Construct	Cronbach's $\alpha$	Composite Reliability (CR)	AVE
Blockchain-Driven Transparency	0.86	0.89	0.58
Ethical Leadership	0.90	0.92	0.62
Employee Trust	0.88	0.90	0.60

Table 2 demonstrates acceptable internal consistency and convergent validity of all constructs. The alpha of Cronbach (Transparency = 0.86, Ethical Leadership = 0.90, Employee Trust = 0.88) is greater than the conventionally accepted figure of 0.70, which means that the correlations between items are reliable (Nunnally and Bernstein, as summarized in Hair et al., 2022). Composite reliability (CR) also supports internal consistency with values of 0.89, 0.92 and 0.90 respectively; CR is also preferred in SEM as it does not require tau-equivalence and therefore gives a more precise estimate of latent constructs (Hair et al., 2022). The value of average variance extracted (AVE) per construct is over 0.50 (Transparency = 0.58; Ethical Leadership = 0.62; Employee Trust = 0.60), and it indicates that each of the constructs explains more than half of the variance of its indicators a standard criterion of convergent validity (Fornell and Larcker, 1981; explained in modern SEM textbooks; Hair et al., 2022). All these indices point to the fact that measurement instruments are psychometrically sound: items have enough common variance and the internal reliability is high. The quality of measurement is necessary since consistent and valid constructs minimize attenuation of path estimates and maximize the validity of results on mediation and direct effects (Sarstedt et al., 2022). Applicatively, the findings imply that the adopted validated scales (modified to suit the study setting) retained their psychometric characteristics when used in the sampled manufacturing population. Researchers are however encouraged to provide

confidence intervals of CR/AVE and where feasible repeat results in subsamples to establish stability (Hair et al., 2022).

**Table 3: HTMT (Heterotrait–Monotrait Ratio)**

	Transparency	Ethical Leadership	Employee Trust
Transparency	—		
Ethical Leadership	0.62	—	
Employee Trust	0.57	0.68	—

Table 3 shows the HTMT matrix which gives a conservative estimate of the discriminant validity. The heterotrait-monotrait ratios are all less than 0.85 (Transparency-Ethical Leadership = 0.62; Transparency-Trust = 0.57; Ethical Leadership-Trust = 0.68), which meets the recommended criterion that shows that the constructs are empirically different (Henseler, Ringle and Sarstedt, summarized in recent PLS-SEM guidance; Hair et al., 2022). The HTMT is considered better than the Fornell-Larcker criterion in identifying the problems of discriminant validity (Henseler et al., 2015; recommended in the modern methodological literature), and the values below 0.85 imply insufficient overlap in the concepts. The moderate HTMT of 0.68 between Ethical Leadership and Employee Trust is theoretically reasonable: ethical leadership behaviors and trust outcomes are conceptually related (leaders' integrity has an impact on trust), but are independent constructs HTMT indicates that they are correlated and not redundant. In the same manner, the lower HTMTs of Transparency and ethical leadership and trust suggest that transparency is associated with behavioral perceptions of leaders and trust but represents an independent informational/structural aspect. In practice, such findings alleviate anxieties about common method bias that causes construct conflation; nevertheless, researchers ought to supplement HTMT outcomes with procedural correctives (e.g., time lag, anonymity) and statistical tests (e.g., full collinearity VIF) to further control common-method biases (Kock, 2015; Hair et al., 2022).

**Table 4:  $f^2$  (Effect Sizes),  $R^2$ ,  $Q^2$  (Predictive Relevance)**

Path / Construct	$f^2$	$R^2$	$Q^2$
Transparency → Ethical Leadership ( $f^2$ )	0.45 (large)	Ethical Leadership $R^2 = 0.35$	Ethical Leadership $Q^2 = 0.28$
Ethical Leadership → Employee Trust ( $f^2$ )	0.60 (large)	Employee Trust $R^2 = 0.62$	Employee Trust $Q^2 = 0.39$
Transparency (direct) → Employee Trust ( $f^2$ )	0.08 (small)		

Table 4 is a summary of model explanatory power and effect substantive magnitude. Ethical Leadership is an endogenous construct with  $R^2 = 0.35$  meaning that the perception of ethical leadership is explained by Blockchain-Driven Transparency to the extent of 35, which is a moderate effect of behavioral research (Cohen, 1988 guidelines; applied in SEM contexts per Hair et al., 2022). The value of employee Trust  $R^2 = 0.62$  indicates that the two predictors (Transparency and Ethical Leadership) explain 62 percent of the variance evidence of a high-level of explanatory power. The magnitude of effects ( $f^2$ ) also helps explain the substantive value of each predictor: the impact of transparency on ethical leadership is high ( $f^2 = 0.45$ ) which implies that technological transparency has a significant effect on how employees perceive the ethics of leaders. The impact of ethical leadership on trust is quite high ( $f^2 = 0.60$ ), which is in line with the theoretical placement of the leader behavior as one of the key factors defining trustful relationships (Sharif and Ghodoosi, 2022). The low direct effect of transparency on trust ( $f^2 = 0.08$ ) shows that although transparency has some special direct effect, much of its effect on trust probably works through the mediator. Both endogenous constructs ( $Q^2 = 0.28$  and  $0.39$ ) are positive and predictive relevance (Stone-Geisser  $Q^2$ ) is acceptable out of sample of the latent variables (Hair et al., 2022; Sarstedt et al., 2022).

**Table 5: Structural Model Results (Path Coefficients, *t*-values, *p*-values, Mediation)**

Path	$\beta$	t	p	Significance
Ethical Leadership → Employee Trust	0.65	9.50	< .001	Significant
Indirect effect (Transparency → Ethical Leadership → Trust)	0.38	6.75	< .001	Significant (mediation)

The structural model leads to Table 5 indicating strong and statistically significant paths to the hypothesized relationships. Transparency is a strong predictor of Ethical Leadership ( $b = 0.59$ ,  $t = 8.20$ ,  $p < .001$ ), which means that stronger blockchain-based transparency is associated with the higher the employee believes that the leader behaves in an ethical way. Employee Trust is highly predicted by Ethical Leadership ( $b = 0.65$ ,  $t = 9.50$ ,  $p < .001$ ), which is expected given the theoretical explanations that morality and fairness of leaders are at the heart of trust development (Sharif and Ghodoosi, 2022). The direct path of transparency-trust is positive and significant yet insignificant ( $b = 0.18$ ,  $t = 2.60$ ,  $p = .009$ ), which suggests a partial mediation. The indirect effect ( $b [?] 0.38$ ; transparency-ethical leadership-trust) is significant ( $t = 6.75$ ,  $p < .001$ ), which proves that a significant part of the effect of transparency on trust is mediated by ethical leadership perceptions. This trend has strong direct and indirect implications and, therefore, it is better described as a partial mediation model in which transparency has a direct effect on trust but also does it through the interpretive and moral signaling functions of leaders (Freimuth, 2024; Morshed, 2025). Methodologically, the high path coefficients, large  $f^2$  effect sizes of key links, significant  $R^2$  values, and positive  $Q^2$  values mean both high explanatory and predictive performance (Hair et al., 2022; Sarstedt et al., 2022).

### **Discussion**

The initial hypothesis was that transparency based on blockchain increased employee trust. The results are extremely encouraging of this relationship, which means that the employees react well when organizational processes become more transparent, traceable and less susceptible to manipulations. According to the ethical leadership theory, the perception of fairness and moral intent is more evident when the information asymmetry is minimized, and the workers can attribute more integrity to the actions of the organization (Sharif and Ghodoosi, 2022). It is also proven through the empirical research that transparent digital systems minimize the uncertainties and bolster the confidence in the procedural legitimacy (Cao et al., 2023; Spiga et al., 2024). Clarity facilitated by blockchain in the current context seems to be used as a structural cue, which is used to indicate reliability, hence, strengthening the desire of employees to trust the decisions made by organizations. Such findings correspond to the previous literature indicating the importance of verifiable information in influencing relational judgments in the workplace (Duong et al., 2025), and show that transparency features of blockchain are viewed as sincere promises of responsibility as opposed to tokenism.

The second hypothesis was to determine whether transparency and trust have a mediating relationship through ethical leadership. The findings validate the mediating effect revealing that transparent systems do not necessarily mean into trust unless they are contextualised within a moral framework by leaders. The ethical leadership theory states that leaders influence how employees interpret technological clues by setting the example of fairness, responsibility, and openness (Thanasi-Boce and Hoxha, 2025). The recent research also proves that governance technologies can produce more trustful results in case the ethical leaders assist in putting their purpose into context and explaining its usefulness (Morshed, 2025; Uvet et al., 2025). The mediation that is present in this research implies that the transparency that will be promoted by the blockchain will be meaningful when the leaders



will strengthen its ethical value. This confirms the literature that technology itself may not be able to replace principled human direction and that employees need leaders to interpret new emerging digital forms (Freimuth, 2024). Ethical leadership is an avenue of psychological conversion that transforms the system level clarity into interpersonal confidence.

The third hypothesis tested the hypothesis regarding the direct positive relationship between ethical leadership and employee trust. The outcomes indicate the positive and significant impact, and ethical leadership plays the central role in the development of relational dynamics. Previous studies have continuously associated ethical leadership with a higher score of perception of fairness, integrity, and moral alignment, which are essential antecedents of employee trust (Morshed, 2025; Sharif and Ghodoosi, 2022). Ethical leaders make the climate of relations in which employees feel respected, valued, and confident that responsible principles fund the decisions making process within organizations. Such an effect seems to be maintained both culturally and sectoral, even in the environment of the technological systems proliferation (Duong et al., 2025). The existing results support the notion that trust is not only conditional on the structural processes but also the behavior, communication, and moral consistency of the leaders. The organizational environment of this study found that ethical leadership was a stabilizer that enhanced predictability in the interactions between the leaders and subordinates and consequently enhanced greater trust judgments.

### **Limitations and Future Research**

Despite the fact that the study yielded some valuable insights, there are a number of limitations that have to be mentioned. The limitation of the cross-sectional design is the lack of causal inference as the relationships have been observed at one point in time; longitudinal designs may have better demonstrated how transparency and leadership practices are related to trust in the long term. The survey data was self-reported and therefore it can be the source of common method bias despite the use of validated scales. The sample

was restricted to medium and large manufacturing companies, which can be a limitation of the generalizability to service industries or small businesses, where transparency and leadership relations can be different. It was limited to three core variables in measurement excluding contextual or organizational conditions that could influence the observed relationships. These limitations can be overcome by future research through longitudinal and mixed designs or experimental research to establish causality at a more rigorous level. The moderators that could be included in the research include organizational culture, digital literacy, or job autonomy, which might change the way employees perceive technologically enabled transparency (Sarstedt et al., 2022). Other intermediaries, like psychological safety or perceived procedural justice can also add to knowledge of the mechanisms between transparency and trust. Further research to other industries or nations would possibly expose cultural or institutional differences in the interaction between blockchain technologies and ethical leadership. Further expansion of theoretical model the theoretical scope of the model can be expanded through exploration of other digital transparency tools, including AI-based auditing or real-time reporting algorithms.

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