

LEADER-MEMBER EXCHANGE, RESPONSIBLE ARTIFICIAL INTELLIGENCE, AND SELF-DETERMINATION THEORY: AN INTEGRATIVE REVIEW OF LEADERSHIP, AUTONOMY, AND MOTIVATION IN AI-AUGMENTED WORKPLACES

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ABSTRACT

This review examines how leader-member exchange (LMX) quality, responsible artificial intelligence (AI) practices, and self-determination theory (SDT) jointly shape employee experiences in workplaces increasingly influenced by algorithmic management. Drawing on recent scholarship, we argue that digital performance dashboards and monitoring systems may restrict workers' autonomy and relatedness, thereby inducing stress and reducing engagement. In contrast, high-quality LMX relationships offer socioemotional support and foster intrinsic motivation. SDT further emphasizes that fulfilling the basic psychological needs of autonomy, competence, and relatedness enhances engagement and well-being. Because most studies examine these constructs in isolation, this synthesis integrates leadership and technology research while also considering generational differences. Through this integration, we propose a conceptual framework linking AI practices, LMX quality, psychological safety, and need satisfaction, and we identify directions for future research and practice.

KEYWORDS:

Generation Z, leader-member exchange, psychological safety, responsible AI, self-determination theory

1. Introduction

Artificial intelligence (AI) and digital analytics are transforming how organizations coordinate work, allocate resources, and monitor performance (Achmad et al., 2023). Predictive algorithms and generative AI optimize scheduling, forecasting, and customer interactions; however, their impact on worker motivation depends on whether employees perceive these systems as supportive or controlling (Al Naqbi, Bahroun & Ahmed, 2024; Ryan & Deci, 2020). Supportive systems afford meaningful

choice, transparent rationales, skill-building feedback, and access to human coaching or override, which supports autonomy, competence, and relatedness; controlling systems rigidly auto assign tasks, obscure decision logic, intensify surveillance, or attach penalties to metrics, which undermines these needs (Ryan & Deci, 2020). Self-determination theory (SDT) emphasizes that autonomy, competence, and relatedness are fundamental psychological needs (Olafsen & Deci, 2020). In AI mediated workplaces, configurable task choice,

transparent explanations, and avenues for peer collaboration and supervisor coaching can operationalize these needs by enhancing perceived volition, mastery feedback, and connection, whereas opaque or fully automated systems with no human override may thwart them (Meduri et al., 2024; González Cánovas et al., 2024). When these needs are satisfied, employees internalize organizational goals and demonstrate higher levels of intrinsic motivation and well-being (Ryan & Deci, 2020). Talent development programs that equip staff to use AI tools have been shown to improve job satisfaction and retention by preserving autonomy and fostering mastery (Achmad et al., 2023; Al Naqbi et al., 2024; Soviñara et al., 2023). For example, call center agents who receive AI training and constructive coaching are more likely to feel in control of their work and remain committed to their organizations (Achmad et al., 2023). Conversely, incentive schemes that rely solely on extrinsic rewards, such as bonuses, commissions, gift cards, or public rankings, can undermine intrinsic motivation because employees may perceive them as controlling (Akhmaaj, 2024). This highlights the importance of designing AI systems and training programs that support – rather than frustrate – basic psychological needs.

Generation Z employees bring distinct expectations that influence their responses to algorithmic management and leadership. Surveys indicate that younger workers prioritize flexibility, fairness, and emotional intelligence, and they expect managers to act more like teammates than supervisors (Aksakal & Ulucan, 2024). They also associate positive workplaces with recognition, growth opportunities, and respect for diversity, and

they value meaningful work and purpose in addition to compensation (Acheampong, 2021; Hart, 2025a; Leslie et al., 2021). High quality leader-member exchange (LMX) relationships, characterized by supervisor support and trust, have been linked to greater job satisfaction and engagement (Khair et al., 2024) and may counterbalance the depersonalizing effects of data-driven management; for example, supervisors can follow dashboard updates with one-on-one coaching that contextualizes metrics, invites employee voice on goals, and recognizes effort, thereby rehumanizing evaluation and supporting autonomy, competence, and relatedness (Olafsen & Deci, 2020). For example, a sales supervisor who involves junior colleagues in developing AI-informed strategies and provides constructive feedback can strengthen intrinsic motivation and organizational commitment (Aksakal & Ulucan, 2024; Hart, 2025b; Khair et al., 2024).

This article advances the literature by (a) specifying joint mechanisms through which leader-member exchange behaviors and responsible AI features shape the satisfaction or frustration of autonomy, competence, and relatedness at work, (b) documenting a tractable integrative-review protocol that future studies can replicate, and (c) illustrating three mini-cases in call center, enterprise sales, and scheduling contexts to guide application and hypothesis generation. We position Generation Z as a theoretically plausible boundary condition that may amplify these mechanisms in early-career, AI-augmented roles (Graen & Uhl-Bien, 1995; Ryan & Deci, 2020; Kinowska & Sienkiewicz, 2023; Slemph, Lee & Mossman, 2021).

Table no. 1
Operationalizing SDT needs in AI-augmented work

Need	Leader behaviors (LMX)	AI design features	Example measures	Proximal outcomes
Autonomy	Offers meaningful choice; provides rationales; invites voice on tools	Explainability views; reversible choices; user-set thresholds; human override	Work-related BNS autonomy subscale	Lower controlled motivation; stronger intrinsic motivation (Ryan & Deci, 2020)
Competence	Sets optimally challenging goals; coaches with task-specific feedback	Calibrated feedback; confidence scores; error diagnostics; learning prompts	Work-related BNS competence; self-efficacy	Skill growth; efficiency gains (Ryan & Deci, 2020)
Relatedness	Regular one-to-ones; fair workload negotiation; recognition rituals	Transparent tradeoff views; respectful notifications; visibility of peer impacts	Work-related BNS relatedness; team climate	Belonging; lower withdrawal cognitions (Ryan & Deci, 2020; Van den Broeck et al., 2010)

(Source: Table developed by the author, based on Ryan & Deci, 2020; Van den Broeck et al., 2010)

2. Problem Statement

AI dashboards and algorithmic scheduling are increasingly used across organizations; however, these systems often constrain autonomy and relatedness and diminish engagement when perceived as controlling rather than supportive (Kinowska & Sienkiewicz, 2023; Ryan & Deci, 2020). Grounded in current workforce realities, Generation Z expects fairness, digital fluency, strong communication, and teammate-like leadership, and they exhibit lower engagement when roles and systems fail to reflect these preferences (Aksakal & Ulucan, 2024; Pendell & Vander Helm, 2022).

The general problem is that data-centric performance architectures emphasize extrinsic metrics and comparative feedback, which can undermine intrinsic motivation and psychological safety in the absence of autonomy support and transparent leadership practices (Akhmaaj, 2024; González Cánovas et al., 2024; Ryan & Deci, 2020). The specific problem is especially acute in customer-facing sales,

where scripted interactions, surveillance, and quota dashboards frustrate Generation Z employees' needs for autonomy, competence, and relatedness. Without high-quality LMX and coaching, employee satisfaction, engagement, and retention are likely to suffer (Achmad et al., 2023; Graen & Uhl-Bien, 1995; Hart, 2025a; Khair et al., 2024; Soviñara et al., 2023).

Despite these challenges, the literature typically examines LMX, responsible AI, and SDT in isolation, leaving a gap in integrative models that connect algorithmic management, LMX quality, need satisfaction, psychological safety, and generational differences (Kinowska & Sienkiewicz, 2023; Liu et al., 2025; Slempe, Lee & Mossman, 2021). Integrating these frameworks adds value by linking AI design features and leadership behaviors to SDT mechanisms and psychological safety, thereby improving the accuracy of predictions for intrinsic motivation, engagement, and retention across cohorts and tasks (Olafsen & Deci, 2020; Slempe, Lee & Mossman, 2021). This paper

addresses that gap by proposing a synthesized framework and research agenda that specifies how responsible AI practices, combined with high-quality LMX and autonomy-supportive design, can enhance autonomy, competence, relatedness, and downstream outcomes for Generation Z sales professionals (González Cánovas et al., 2024; Hart, 2025a; Ryan & Deci, 2020).

3. Literature Review and Conceptual Framework

3.1. Leader-Member Exchange

LMX theory conceptualizes leadership as a series of dyadic relationships that vary in quality. In high quality LMX, supervisors provide support, information, and trust that meet Self Determination Theory needs by granting choice and voice for autonomy, offering developmental feedback and resources for competence, and conveying respect and availability for relatedness; by contrast, low quality transactional relationships restrict discretion, reduce feedback to compliance monitoring, and weaken social connection, thereby failing to support autonomy, competence, and relatedness (Graen & Uhl-Bien, 1995; Olafsen & Deci, 2020). Recent studies demonstrate that employees engaged in high-quality LMX relationships report greater dedication and engagement compared to those in low-quality exchanges (Aksakal & Ulucan, 2024; Hart, 2025a).

LMX quality also influences retention. For example, talent-development programs have been shown to strengthen employees' intentions to remain with their organizations primarily through increased job satisfaction rather than direct engagement (Achmad et al., 2023). These results highlight the critical role of leadership in shaping motivation by supporting employees' needs for autonomy, competence, and relatedness. When supervisors delegate meaningful tasks and acknowledge individual contributions, employees are more likely to internalize organizational goals and pursue innovative solutions (Ryan & Deci, 2020). For example,

a sales manager who invites a junior colleague to codesign a client pitch and provides constructive feedback not only grants autonomy but also fosters recognition, thereby enhancing intrinsic motivation and job satisfaction (Akhmaaj, 2024). Thus, high-quality LMX serves as a protective factor in environments increasingly mediated by algorithmic management.

3.2. Responsible AI and Algorithmic Management

Algorithmic management refers to the use of algorithms to monitor, evaluate, and direct workers (Kinowska & Sienkiewicz, 2023). Although these systems can enhance efficiency, they often prioritize quantifiable metrics and reduce employees' decision latitude. Research indicates that reliance on extrinsic incentives produces lower engagement than intrinsic motivators (Akhmaaj, 2024; Deci & Ryan, 2020). In addition, digital dashboards and comparative feedback may be experienced as controlling, thereby undermining autonomy and relatedness.

To counter these risks, organizations should design AI systems that preserve employee discretion, provide constructive feedback, and maintain opportunities for human interaction, including peer collaboration and supervisor coaching (Kinowska & Sienkiewicz, 2023). For instance, a call center manager might use AI-generated forecasts to balance workloads while still allowing agents to determine how best to organize their calls. Embedding ethical guidelines into algorithm design and promoting transparency can further mitigate perceptions of surveillance and strengthen psychological safety, for example through opt-in data collection, plain-language algorithmic explainability, and human review with accessible appeal channels at key decision points (González Cánovas et al., 2024). When employees understand how data informs decisions and perceive that managers use technology to support rather than penalize them, they are more likely to regard AI as a developmental tool.

3.3. Self-Determination Theory

SDT posits that human motivation depends on satisfying three basic psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 2020). Autonomy involves experiencing choice and volition; competence requires feeling effective and challenged; and relatedness refers to forming meaningful connections with others (Slemp et al., 2021). When these needs are met, individuals are more likely to internalize goals, display intrinsic motivation, and achieve higher performance (Ryan & Deci, 2020). Conversely, controlling contexts that frustrate these needs foster extrinsic motivation, disengagement, and ultimately burnout.

A systematic review of organizational SDT interventions found that the literature remains in its early stages and emphasized the need for rigorous research designs incorporating multilevel sampling and longitudinal analysis to capture both proximal and distal effects (Slemp et al., 2021). Empirical studies further demonstrate that intrinsic motivation exerts a stronger influence on performance and engagement than extrinsic rewards (Akhmaaj, 2024). Leaders who provide discretion over task execution and deliver constructive feedback can therefore strengthen employees' intrinsic motivation (Hart, 2025c). For example, a customer service supervisor who allows representatives to personalize their scripts and offers coaching rather than scripted evaluations supports autonomy and competence, thereby improving both motivation and service quality.

3.4. Generation Z and Work Values

Generation Z is entering the workforce with distinct preferences (Dick, 2019). Surveys and interviews indicate that younger employees expect leaders to demonstrate foresight, fairness, digital fluency, and emotional intelligence, as well as to involve them in decision-making (Aksakal & Ulucan, 2024). They place high value on flexibility, work-life balance, and

meaningful work, and they are motivated by purpose in addition to compensation (Aksakal & Ulucan, 2024). Research has also shown that Generation Z employees report lower engagement than older cohorts, and that career development opportunities and remote work arrangements strongly influence their job satisfaction and retention (Pendell & Vander Helm, 2022). When organizations align roles with these preferences, younger employees demonstrate higher engagement and lower turnover (Hart, 2025a).

For example, a technology firm that offered flexible schedules and continuous learning opportunities successfully attracted and retained Generation Z software engineers. In contrast, rigid schedules and limited growth opportunities prompted employees to seek jobs elsewhere. Understanding generational differences is therefore essential for designing AI-augmented workplaces that appeal to a diverse labor force.

While generational cohorts provide insight into broad trends, substantial heterogeneity exists within Generation Z (Gallup, 2024). For example, some employees read algorithmic dashboards as competence supporting feedback while others experience them as autonomy restricting surveillance; similarly, frequent check ins characteristic of high quality LMX energizes some and frustrate others, underscoring the need to calibrate transparency, cadence, and discretion at the individual level (Olafsen & Deci, 2020; London & Smither, 2002). Generational traits emerge because cultural values and practices evolve over time (Schroth, 2019), but individuals differ in their work values based on socioeconomic status, ethnicity, education, and life experiences. Generation Z is economically better off and more ethnically diverse than previous cohorts, yet many members have limited work experience and may hold unrealistic expectations regarding job responsibilities and autonomy (Schroth, 2019). Future research should

therefore examine within-cohort differences and cross-cultural variations rather than treating Generation Z as a monolithic group.

3.5. Integrated Framework and Research Questions

Synthesizing the literature, we propose a conceptual framework in which algorithmic management influences employee outcomes through need satisfaction and psychological safety, with LMX quality, ethical leadership, and person-job fit serving as moderators (Liu et al., 2025). High-quality LMX provides socioemotional resources that enable employees to interpret algorithmic feedback as informative rather than punitive, thereby sustaining intrinsic motivation (Liu et al., 2025). Ethical leadership fosters trust and perceptions of fairness, which strengthen psychological safety and organizational commitment (González-Cánovas et al., 2024). Person-job fit ensures alignment between employees' skills, values, and job demands, reducing stress and turnover (Kinowska & Sienkiewicz, 2023). Consistent with Self-Determination Theory, such alignment supports autonomy by increasing decision latitude and perceived volition and strengthens competence through an optimal match between task challenge and skill with clear mastery feedback, thereby enhancing intrinsic motivation and engagement (Olafsen & Deci, 2020).

Future research should examine how these moderators interact with AI practices across generational cohorts and cultural contexts. Key questions include: How does LMX quality influence the relationship between algorithmic control and need satisfaction? Does ethical leadership buffer the impact of AI adoption on psychological safety? How do Generation Z employees perceive algorithmic performance management compared with older workers? Addressing these questions requires longitudinal and multilevel designs capable of capturing dynamic processes (Slemp et al., 2021).

To operationalize this framework, future studies should test specific hypotheses.

For example, researchers might hypothesize that high-quality LMX mitigates the negative association between algorithmic control and need satisfaction, or that ethical leadership moderates the relationship between algorithmic management and psychological safety. Longitudinal and multilevel designs measuring LMX, algorithmic control, psychological safety, and need satisfaction over time could help establish causality, while cross-cultural comparisons would reveal whether generational patterns generalize across contexts. Articulating such hypotheses provides a road map for translating the conceptual framework into rigorous empirical inquiry.

4. Methodology

This integrative review drew on peer-reviewed articles, dissertations, and practitioner reports addressing LMX, AI-enabled management, SDT, and Generation Z work values. Databases including Web of Science, Scopus, and PsycINFO were searched using keywords such as “leader-member exchange”, “algorithmic management”, “autonomy support”, “generational differences”, and “Generation Z employment.” Articles were screened for relevance and included if they were published in English between 2018 and 2024 and provided empirical or theoretical insights into one or more of the focal constructs. Following standard research design guidelines, the search strategy and inclusion criteria were documented, and a citation trail was maintained to ensure transparency and reproducibility (Creswell & Creswell, 2021). Two reviewers independently assessed abstracts and full texts, resolving disagreements through discussion.

The references that met the inclusion criteria were organized into four thematic categories. *Leadership and LMX* studies examined LMX, ethical leadership, and servant leadership and their effects on motivation, engagement, and retention.

Motivation and SDT research investigated how intrinsic and extrinsic factors influence performance, engagement, and well-being. *Generation Z work values* studies explored preferences for flexibility, purpose, career development, and mental health support. *Responsible AI and algorithmic management* scholarship addressed ethical guidelines, transparency, and human oversight in AI-mediated workplaces. Most references were published between 2020 and 2024, reflecting the recent surge of research on AI, leadership, and generational differences; however, this recency may limit longitudinal inferences about trend stability, secular shifts, and cohort effects, thereby constraining temporal generalizability.

The current review is limited by possible publication bias and language restrictions inherent in the search strategy, which could reduce comprehensiveness and skew findings; these constraints are acknowledged to maintain transparency and rigor. The review focused on English-language sources from major databases, which may exclude relevant studies from non-English-speaking contexts or unpublished “gray” literature. Moreover, heterogeneity in study designs and the moderate to high risks of bias reported in intervention research underscore the importance of systematically evaluating study quality; future studies could reduce this heterogeneity by adopting standardized SDT measures and common reporting templates, pre-registering protocols, and employing multilevel meta-analytic techniques with robust variance estimation to synthesize effects across diverse designs (Slemp et al., 2021). Future iterations of this review could incorporate a formal quality appraisal tool and preregister the search protocol to minimize bias.

Following an integrative-review logic, we combined leadership, SDT, and algorithmic-management literatures and specified inclusion and exclusion criteria aligned to theoretically relevant mechanisms. Two coders independently extracted

constructs, measures, and putative mechanisms, reconciled disagreements through discussion, and organized findings into a crosswalk that links leader behaviors and AI features to autonomy, competence, and relatedness pathways. This protocol provides an auditable spine for replication and for extensions across industries and cohorts (Creswell & Creswell, 2021; Slemp et al., 2021).

5. Findings

5.1. Leader-Member Exchange

Empirical studies consistently demonstrate that high-quality LMX relationships enhance employees’ engagement, job satisfaction, and intention to stay (Smothers et al., 2024). For instance, Achmad et al. (2023) found that talent-development initiatives increased retention among Generation Z employees, primarily through improvements in job satisfaction rather than engagement (Achmad et al., 2023). Khair et al. (2024) reported that LMX quality, combined with organizational support, predicts job satisfaction, with employee engagement partially mediating this relationship. These findings highlight that LMX not only provides emotional and informational resources but also aligns employees’ sense of contribution with organizational goals. By offering mentoring, career coaching, and participatory decision making, supervisors create growth opportunities that satisfy competence through mastery and feedback, autonomy through meaningful choice, and relatedness through supportive ties, which in turn increase intrinsic motivation as specified by Self Determination Theory (Hart, 2025a; Olafsen & Deci, 2020). In customer service contexts, team leaders who provide regular coaching and solicit feedback from agents report lower turnover and higher customer satisfaction. Such relational practices are particularly salient for younger workers, who expect leaders to act as mentors and collaborators rather than distant supervisors (Aksakal & Ulucan, 2024).

5.2. Responsible AI and Algorithmic Management

Research on algorithmic management highlights both its efficiencies and potential risks. AI-driven performance dashboards and scheduling systems can enhance productivity; however, heavy reliance on extrinsic incentives and rigid metrics may reduce autonomy and relatedness (Akhmaaj, 2024; Al Naqbi et al., 2024). Acheampong (2021) noted that Generation Z employees are motivated by a combination of competitive compensation and intrinsic rewards, such as recognition and purpose. When algorithms focus solely on quantitative targets, they may neglect these intrinsic motivators and erode engagement (Al Naqbi et al., 2024). Implementing algorithmic management introduces trade-offs between efficiency and psychological need support, because optimization routines that minimize cycle time or cost can restrict choice, compress decision latitude, and obscure rationales, which risks undermining autonomy and engagement (Gagne & Deci, 2005; Meduri et al., 2024). Aligning algorithms with ethical guidelines, adding opt out and explanation features, and incorporating human oversight at key decision points can mitigate these effects while preserving acceptable efficiency levels (González Cánovas et al., 2024). For example, a hospitality firm implemented an AI-based scheduling tool that generated efficient rosters while allowing employees to swap shifts and provide input, preserving flexibility and autonomy. Managers who used the tool to facilitate conversations about workload and career development observed higher satisfaction than those who adopted a purely prescriptive approach (Hart, 2025a). These examples illustrate that responsible AI involves both technical design and leadership practices that respect employees' needs.

5.3. Self-Determination Theory

In organizational contexts, satisfaction of autonomy, competence, and relatedness is associated with higher intrinsic motivation,

stronger engagement, and better performance outcomes (Deci, Olafsen & Ryan, 2017). Leaders who provide meaningful choice, explain rationales, and acknowledge employee perspectives increase internalization and high-quality motivation, which is consistent with autonomy-supportive practice (Gagné & Deci, 2005). In algorithmic settings, similar effects emerge when AI tools surface transparent rationales, allow constrained choice, and preserve human override, whereas opacity and auto-assignment without voice are likely to frustrate needs (Floridi & Cows, 2019). For example, permitting sales representatives to select among model-ranked leads while exposing the reasons for each ranking supports competence through targeted feedback and timely coaching (Deci, Olafsen & Ryan, 2017; Ryan & Deci, 2020). Early-career workers' emphasis on development and voice positions Generation Z as a plausible boundary condition for stronger effects in AI-augmented roles (Hart, 2025a).

5.4. Generation Z Work Values

Studies indicate that Generation Z is technologically savvy, values-driven, and sensitive to organizational climate (Schroth, 2019). Aksakal and Ulucan (2024) found that Generation Z employees expect leaders to be fair, transparent, emotionally intelligent, and digitally proficient. Leslie et al. (2021) reported that Generation Z associates a positive workplace with recognition, growth opportunities, and respect for diversity. Pendell and Vander Helm (2022) found that more than half of young workers are disengaged, emphasizing the need for career development, flexible scheduling, and clear feedback. Acheampong (2021) and Chala et al. (2022) noted that while compensation is important, intrinsic motivators – such as meaningful work and autonomy – are critical for retention and performance. These preferences suggest that algorithmic management and leadership practices must align with generational values; otherwise, organizations

risk turnover and disengagement. For example, a retail company that implemented an AI-driven scheduling system without employee consultation faced backlash, whereas a similar implementation accompanied by participatory planning increased satisfaction among Generation Z staff.

5.5. Illustrative Mini-Cases

Call center queue triage. An inbound call center uses AI to triage calls by predicted complexity. A high-LMX supervisor invites agents to choose among vetted response paths and request secondary review when triage appears mismatched. The interface displays the top three reasons for each assignment and allows agents to flag misroutes for retraining. Agents report greater discretion, escalations decline, and routing precision improves, indicating autonomy satisfaction when leadership and explainability features work in tandem (Ryan & Deci, 2020; Kinowska & Sienkiewicz, 2023).

Enterprise sales lead scoring. A lead-scoring model prioritizes prospects. A high-LMX manager reviews discrepancies between model recommendations and outcomes and assigns two weekly skill drills informed by misclassifications. The dashboard exposes calibration curves and rationale replays on closed deals. Representatives report higher mastery and call-to-meeting efficiency, suggesting competence satisfaction through transparent task feedback and coaching (Graen & Uhl-Bien, 1995; Ryan & Deci, 2020).

Multi-site scheduling optimizer. A scheduling optimizer minimizes overtime. A high-LMX leader co-designs a “why this schedule” view that visualizes constraints and shows who is helped or inconvenienced by swaps, and establishes a ritual for compassionate overrides with reciprocal obligations. Employees report feeling seen by both leader and system while service levels hold, indicating relatedness satisfaction via transparent tradeoffs and inclusive norms (Ryan & Deci, 2020).

6. Discussion

This article contributes by articulating joint mechanisms linking LMX behaviors and responsible AI features to autonomy, competence, and relatedness, by documenting an integrative-review protocol suitable for replication, and by demonstrating applied relevance through three mini-cases. Together, these elements clarify how leadership actions and AI affordances can be coordinated to support intrinsic motivation and performance in AI-augmented roles (Graen & Uhl-Bien, 1995; Ryan & Deci, 2020; Slemp, Lee & Mossman, 2021).

6.1. Limitations of the Review

Despite surveying a broad body of literature, this integrative review has several limitations. The search focused on English-language studies published between 2018 and 2024, potentially omitting earlier research or contributions in other languages. Methodologically, most research on LMX, SDT, and responsible AI relies on cross-sectional or conceptual designs; the heterogeneity of interventions and moderate-to-high risk of bias limits the ability to draw causal inferences (Slemp et al., 2021). For example, Achmad et al. (2023) purposively sampled 342 Generation Z employees from 15 industries within a single Indonesian district and analyzed cross-sectional data using SmartPLS, restricting generalizability. Similarly, Aksakal and Ulucan (2024) employed conditional sampling to interview 183 participants aged 18-23 and posed only two open-ended questions, limiting the diversity of perspectives.

Generational differences intersect with other demographic and cultural factors. Generation Z itself is heterogeneous: more racially and ethnically diverse, better educated, and more economically advantaged than previous cohorts, yet often possessing less work experience and sometimes holding unrealistic expectations about work (Schroth, 2019). These limitations highlight the need for caution when generalizing

findings and underscore the importance of future research that examines within-cohort differences using longitudinal and multilevel designs.

6.2. Implications for Research

Our synthesis indicates that integrating LMX, responsible AI, and SDT advances understanding of motivation and well-being in AI-augmented workplaces. While algorithmic systems can streamline tasks and reduce biases, they risk constraining autonomy and relatedness if deployed without human oversight and empathy (Hart, 2025a). High-quality LMX relationships mitigate these risks by providing trust, open communication, and socioemotional support; however, their effectiveness may vary depending on contextual factors such as industry norms, task complexity, and the sophistication of AI systems involved. Servant-style leaders who communicate frequently and involve employees in decision-making foster autonomy, competence, and relatedness, enabling individuals to interpret AI feedback as developmental rather than punitive (Coun, De Ruiter & Peters, 2023). When leadership and technology are aligned, employees internalize organizational goals, demonstrate intrinsic motivation, and contribute to innovation and performance.

The findings also emphasize the importance of generational differences. Generation Z employees prioritize autonomy, flexibility, and purpose (Aksakal & Ulucan, 2024). They seek leaders who act as mentors and collaborators and expect feedback that acknowledges personal growth (Saxena, 2023). Organizations implementing AI should therefore design systems that support autonomy, provide transparent rationales, and allow employees to exercise discretion. Integrating person–job fit into AI deployment ensures that tasks align with employees’ skills and values, reducing stress and burnout; for example, an AI scheduling platform can assign projects based on individual competencies and

preferred work styles, ensuring employees are matched with tasks that best fit their strengths (Meduri et al., 2024). For example, assigning customer service representatives to AI-recommended roles that match their strengths and career aspirations can enhance satisfaction and performance. Ethical leadership further moderates the impact of AI by promoting fairness and trust (González-Cánovas et al., 2024).

While the framework is broadly applicable, it is likely to show its strongest effects in early-career contexts where employees expect voice in tool design, frequent coaching, and transparent system rationales. We therefore treat Generation Z as a boundary condition that may amplify autonomy-, competence-, and relatedness-supportive mechanisms, while inviting empirical comparison with older cohorts and cross-cultural samples in future research (Pendell & Vander Helm, 2022; Aksakal & Ulucan, 2024; Schroth, 2019).

7. Conclusion and Implications

This review contributes to leadership and technology scholarship by integrating LMX, responsible AI, and SDT. We demonstrate that algorithmic management can undermine autonomy, competence, and relatedness unless balanced through both thoughtful AI design features and supportive leadership practices, including high-quality LMX, ethical decision-making, and attention to person–job fit. SDT clarifies why these interventions are critical: satisfying basic psychological needs promotes intrinsic motivation and well-being, whereas frustration of these needs contributes to burnout and turnover.

Practitioners should adopt responsible AI principles, cultivate high-quality LMX through coaching and participatory decision-making, and design jobs that align with employees’ skills and values. Beyond articulating a conceptual framework, managers implementing AI-driven systems should ensure transparent data practices, provide autonomy-supportive coaching, and

prioritize person–job fit. Evidence indicates that algorithmic controls can undermine autonomy and relatedness without these safeguards (Kinowska & Sienkiewicz, 2023). Training programs should also help leaders develop the digital fluency, fairness, and empathy valued by Generation Z employees (Aksakal & Ulucan, 2024).

Tailored interventions that combine algorithmic tools with high-quality human interactions are likely to enhance retention and engagement among younger employees (Achmad et al., 2023). Future research should employ longitudinal and multilevel designs to test causal pathways, explore cross-cultural and generational differences in need satisfaction and LMX, and examine how AI-mediated work influences motivation over time in organizational contexts. By synthesizing evidence across disciplines and emphasizing generational diversity, this paper provides a road map for creating

AI-augmented workplaces that enhance both organizational effectiveness and human flourishing.

In practical terms, aligning high-quality leader-member relationships with ethically configured AI features offers a coherent route to enhance autonomy, competence, and relatedness in day-to-day work. The mini-cases provide immediate templates: pair explainability and reversible choices with autonomy-supportive coaching in call triage, turn calibration diagnostics into targeted skill drills in sales, and make scheduling tradeoffs transparent while instituting reciprocal flexibility norms. Organizations that synchronize these leadership and design levers should see reduced controlled motivation and stronger intrinsic motivation in AI-augmented roles (Ryan & Deci, 2020; Graen & Uhl-Bien, 1995; Kinowska & Sienkiewicz, 2023).

REFERENCES

- Acheampong, N.A.A. (2021). Reward preferences of the youngest generation: Attracting, recruiting, and retaining Generation Z into public sector organizations. *Compensation & Benefits Review*, 53(2), 88-94. Available at: <https://doi.org/10.1177/0886368720954803>.
- Achmad, L.I., Noermijati, N., Rofiaty, R., & Irawanto, D.W. (2023). Job satisfaction and employee engagement as mediators of the relationship between talent development and intention to stay in Generation Z workers. *International Journal of Professional Business Review*, 8(1), e0814. DOI:10.26668/businessreview/2023.v8i1.814.
- Akhmaaj, A. (2024). Intrinsic motivational factors as a dominant indicator of job satisfaction. *International Journal of Scientific and Research Publications*, 14(4), 38-45. DOI: 10.29322/IJSRP.14.04.2024.p14806.
- Aksakal, N.Y., & Ulucan, E. (2024). Revealing the leadership characteristics of the modern age: Generation-Z perspective. *International Journal of Organizational Leadership*, 13(1), 22-38. Available at: <https://doi.org/10.33844/ijol.2024.60397>.
- Al Naqbi, H., Bahroun, Z., & Ahmed, V. (2024). Enhancing work productivity through generative artificial intelligence: A comprehensive literature review. *Sustainability*, 16(3), 1166. Available at: <https://doi.org/10.3390/su16031166>.
- Chala, N., Poplavska, O., Danylevych, N., Ievseitseva, O., & Sova, R. (2022). Intrinsic motivation of millennials and Generation Z in the new post-pandemic reality. *Problems and Perspectives in Management*, 20(2), 536-550. Available at: [https://doi.org/10.21511/ppm.20\(2\).2022.44](https://doi.org/10.21511/ppm.20(2).2022.44).

Coun, M.J.H., De Ruiter, M., & Peters, P. (2023). At your service: Supportiveness of servant leadership, communication frequency and communication channel fostering job satisfaction across generations. *Frontiers in Psychology*, 14, 1183203. Available at: <https://doi.org/10.3389/fpsyg.2023.1183203>.

Creswell, J.W., & Creswell, J.D. (2021). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Dick, S.D. (2019). *A study of the generational differences in work values of Generations X, Y, and Z* (Publication No. 13880908) [Doctoral dissertation, Northcentral University]. ProQuest Dissertations and Theses.

Gagné, M., & Deci, E.L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362. Available at: <https://doi.org/10.1002/job.322>.

González-Cánovas, A., Trillo, A., Bretones, F.D., & Fernández-Millán, J.M. (2024). Trust in leadership and perceptions of justice in fostering employee commitment. *Frontiers in Psychology*, 15, 1359581. Available at: <https://doi.org/10.3389/fpsyg.2024.1359581>.

Graen, G.B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, 6(2), 219-247. Available at: [https://doi.org/10.1016/1048-9843\(95\)90036-5](https://doi.org/10.1016/1048-9843(95)90036-5).

Hart, G. (2025a). Conceptual explorations of employee coaching for Generation Z sales professionals. *Land Forces Academy Review*, 30(1), 118-133. Available at: <https://doi.org/10.2478/raft-2025-0012>.

Hart, G. (2025b). The importance of bottom-up collaboration in corporate organizational development. *World Conference on Emerging Science, Innovation and Policy 2025*. Futurity Research Publishing, Zenodo. Available at: <https://doi.org/10.5281/zenodo.15751818>.

Hart, G. (2025c). The spirit model: Sales performance through individual realization, impact, and transformation. *Scientific Bulletin – Nicolae Balcescu Land Forces Academy*, 30(1), 40-49. Available at: <https://doi.org/10.2478/bsaft-2025-0005>.

Khair, H., Jufrizen, J., Annisa, N., Pratiwi, R., & Rozak, A. (2024). Leader-member exchange, perceived organizational support, and job satisfaction: Mediating role of employee engagement. *Jurnal Manajemen*, 28(1), 64-87. Available at: <https://doi.org/10.24912/jm.v28i1.1638>.

Kinowska, H., & Sienkiewicz, Ł.J. (2023). Influence of algorithmic management practices on workplace well-being—evidence from European organisations. *Information Technology & People*, 36(8), 21-42. Available at: <https://doi.org/10.1108/ITP-02-2022-0079>.

Leslie, B., et al. (2021). Generation Z perceptions of a positive workplace environment. *Employee Responsibilities and Rights Journal*, 33(3), 171-187. Available at: <https://doi.org/10.1007/s10672-021-09366-2>.

Liu, P., Yuan, L., Liu, Z., & Yuan, J. (2025). Shaping innovation normative pressure: How algorithmic management drives employee innovation. *Leadership & Organization Development Journal*, 46(5), 649-673. Available at: <https://doi.org/10.1108/LODJ-02-2025-0142>.

Meduri, K., et al. (2024). Human-centered AI for personalized workload management: A multimodal approach to preventing employee burnout. *Journal of Infrastructure, Policy and Development*, 8(9), 6918. Available at: <https://doi.org/10.24294/jipd.v8i9.6918>.

Pendell, R., & Vander Helm, S. (2022). *Generation disconnected: Data on Gen Z in the workplace*. Gallup. Available at: <https://www.gallup.com/workplace/404130/generation-disconnected-data-gen-workplace.aspx>.

Ryan, R.M., & Deci, E.L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 101860. Available at: <https://doi.org/10.1016/j.cedpsych.2020.101860>.

Saxena, A. (2023). Mentoring at work: A talent development tool for Gen Y and Gen Z. *Development and Learning in Organizations*, 38(1). Available at: <https://doi.org/10.1108/dlo-03-2023-0079>.

Schroth, H. (2019). Are you ready for Gen Z in the workplace? *California Management Review*, 61(3), 5-18. Available at: <https://doi.org/10.1177/0008125619841006>.

Slemp, G.R., Lee, M.A., & Mossman, L.H. (2021). Interventions to support autonomy, competence and relatedness needs in organizations: A systematic review with recommendations for research and practice. *Journal of Occupational and Organizational Psychology*, 94(2), 427-457. Available at: <https://doi.org/10.1111/joop.12338>.

Smothers, J., Viktora-Jones, M., Ferreira, F., & Jankuhn, N. (2024). Managing generative AI innovation: The impact of proactive personality and LMX on work outcomes. *Journal of Behavioral and Applied Management*, 24(1), 90-102. Available at: <https://jbam.scholasticahq.com/>.

Soviñara, T., Sovang, L., & Bunteng, L. (2023). The factors affecting employee retention. *Journal of Social Sciences and Humanites*, 2(3), 67-93. Available at: <https://doi.org/10.56943/jssh.v2i3.379>.