

Enhancing Employee Productivity in Manufacturing Smes: A Self-Determination Theory Perspective

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Abstract

Small and Medium Enterprises (SMEs) in manufacturing serve as a cornerstone of Malaysia's economic development, making substantial contributions to industrial output, job creation, and technological innovation. Despite their strategic importance, many manufacturing SMEs continue to face persistent challenges in sustaining employee productivity. Traditional efforts to improve productivity have largely focused on operational upgrades and technology adoption, often overlooking the psychological dimensions of employee motivation. To address this gap, this study adopts Self-Determination Theory (SDT) as a conceptual framework to explore how fulfilling employees' psychological needs autonomy, competence, and relatedness can enhance intrinsic motivation and, in turn, improve productivity within manufacturing SMEs. A literature review was conducted. Empirical studies published between 2011 and 2024 were identified from academic databases including Scopus, Web of Science, and Google Scholar. Relevant articles were selected based on relevance and focus on SDT constructs in workplace settings. The selected studies were then synthesized accordingly to examine how each SDT component contributes to employee productivity in the context of Malaysian manufacturing SMEs. The findings affirm that autonomy, promoted through participatory decision-making and flexible work arrangements, enhances employee initiative, innovation, and accountability factors directly linked to improved work output and operational agility. Competence is supported by targeted training, mentoring, and psychologically safe environments, leading to higher task performance, skill mastery, and adaptive learning, which are critical in lean-staffed manufacturing settings. Relatedness, rooted in interpersonal trust and team cohesion, fosters collaboration, emotional commitment, and employee retention. When employees feel connected to their teams and supported by leadership, they are more likely to engage proactively, remain loyal, and sustain consistent performance even under resource constraints. Overall, the review underscores the strategic value of embedding psychological need satisfaction into human resource and leadership practices, particularly for manufacturing SMEs with limited capacity to rely solely on extrinsic incentives. Integrating SDT principles offers a low cost yet effective pathway for

cultivating intrinsically motivated, high-performing employees capable of driving innovation and operational resilience. The review also identifies previous study on SDT construct relevance to employee productivity especially in context of SMEs. Future research should explore how SDT based interventions unfold over time and across diverse manufacturing subsectors. This study contributes to advancing theoretical understanding of motivation in SME contexts and offers practical insights for manufacturing SME leaders seeking sustainable, human centered strategies to enhance employee productivity.

Keywords: Self Determination Theory (SDT), Employee Productivity, Autonomy, Competence, Relatedness, Intrinsic Motivation, Manufacturing SMEs

Introduction

Small and Medium Enterprises (SMEs) are vital to economic development, particularly in emerging economies, due to their significant contributions to employment, innovation, and industrial growth (Razak & Rahim, 2024). In Malaysia, SMEs comprise 96.9% of all registered businesses and contribute around 39.1% to the national GDP, with manufacturing SMEs playing a key role in technological advancement and export competitiveness (Department of Statistics Malaysia, 2024). Despite their importance, these enterprises face persistent productivity challenges, including limited capital, technological shortfalls, and skills gaps, which contribute to a productivity gap compared to larger firms and may impede Malaysia's ambition to become a high-income nation (SME Corp. Malaysia, 2024). While traditional strategies have focused on technology and infrastructure, less attention has been paid to intrinsic motivational factors. Overreliance on extrinsic rewards such as financial incentives may not be sustainable for resource-constrained SMEs, underscoring the need for alternative approaches that enhance productivity through intrinsic motivation. Self-Determination Theory (SDT), developed by Deci and Ryan (2017), offers a robust framework for understanding motivation through the satisfaction of three core psychological needs: autonomy, competence, and relatedness which foster intrinsic motivation linked to engagement, creativity, and performance (Gagné & Deci, 2005). This study applies SDT to Malaysian manufacturing SMEs to explore how fulfilling these needs can enhance productivity. In doing so, it provides theoretical insights and practical strategies for developing resilient, engaged workforces, thereby contributing to national productivity and economic transformation.

Literature Review

Self-Determination Theory (SDT) provides a critical lens for understanding employee motivation in Malaysian manufacturing SMEs, particularly where financial and operational limitations reduce reliance on extrinsic rewards. Instead, fostering intrinsic motivation through the satisfaction of psychological needs such as autonomy, competence, and relatedness offers a sustainable pathway to enhancing productivity (Deci & Ryan, 2017; Gagné & Deci, 2005). Employees whose needs are fulfilled tend to be more engaged, satisfied, and productive. Evidence shows that autonomy supportive leadership, skill development, and supportive environments positively influence motivation and performance (Li et al., 2019; Kaabomeir et al., 2022). Autonomy, which refers to the experience of volition and self-direction, is especially vital in the dynamic nature of SMEs. Empowering leadership styles that encourage employee initiative promote innovation and accountability (Gagné & Deci, 2005; Lee et al., 2019). Moreover, strategies like Lean Manufacturing and transparent workflows bolster autonomy and efficiency (Putra et al., 2021; Davidson et al., 2023), while also

facilitating knowledge sharing and skill application in agile teams (Alexandrino et al., 2024). For Malaysian SMEs, nurturing autonomy through leadership, systems, and culture is essential for long term productivity. Likewise, competence, the confidence in one's abilities, is crucial in SMEs where employees often juggle multiple roles. It is strengthened through training, constructive feedback, and meaningful tasks (Lee et al., 2019; Kaur & Kaur, 2021), while competence supportive leadership and psychological safety further promote skill growth and innovation (Mao et al., 2018; Khan, 2023). Operational practices such as peer coaching and daily problem solving enhance effectiveness (Putra et al., 2021; Alexandrino et al., 2024), and strong team communication reinforces competence outcomes (Santosa et al., 2020). Therefore, satisfying the need for competence contributes to organizational resilience and performance. Furthermore, relatedness, the need for connection and social support, is fundamental in driving collaboration and employee retention. A sense of belonging improves well-being, engagement, and knowledge sharing, which are essential for smooth operations (Autin et al., 2019; Kaabomeir et al., 2022). Leadership that fosters transformation and emotional support can reduce burnout and build loyalty (Razak & Rahim, 2024; Patel & Bartholomew, 2021), while social capital elements such as trust, cohesion, and communication enhance teamwork and productivity (Santosa et al., 2020; Gupta, 2017). Hence, relatedness is not merely an emotional consideration but a strategic factor for boosting employee commitment and performance in Malaysian manufacturing SMEs.

Methodology

This study employed a literature review approach to synthesize empirical evidence on how Self-Determination Theory (SDT), through the fulfillment of autonomy, competence, and relatedness, enhances employee productivity within Malaysian manufacturing SMEs. This method was selected to ensure a comprehensive assessment of the extant literature. The process began with a structured search across reputable academic databases including Scopus, Web of Science, and Google Scholar, using keywords such as "*Self-Determination Theory*," "*employee productivity*," "*autonomy*," "*competence*," "*relatedness*," "*SMEs*," and "*Malaysia manufacturing*." Inclusion criteria were limited to journal articles published between 2011 and 2024, with a focus on empirical studies relevant to SDT constructs in workplace and SMEs settings. After rigorous screening for relevance, quality, and duplication, articles were selected and analyzed accordingly.

Results

The review of literature from 2011 to 2024 consistently affirms that satisfying the core SDT needs autonomy, competence, and relatedness positively influences employee productivity in Malaysian manufacturing SMEs. Autonomy stands out as a key driver of intrinsic motivation, where decision-making authority and self-initiated tasks enhance innovation and accountability. Autonomy supportive leadership and practices such as lean systems and flexible workflows (Putra et al., 2021; Davidson et al., 2023; Lee et al., 2023; Cvetkoska et al., 2024) effectively promote initiative in constrained environments. Similarly, competence plays a vital role, especially in lean staffed SMEs, with evidence showing that training, mentoring, and psychological safety significantly improve engagement and performance (Kaur & Kaur, 2021; Khan, 2023). Competence supportive settings that foster peer learning and shared knowledge enhance team effectiveness (Santosa et al., 2020). Relatedness is also critical, as emotional connection, recognition, and social capital such as trust and cohesion contribute to engagement, proactive behavior, and reduced burnout (Gupta et al., 2017; Kaabomeir et al.,

2022; Santosa et al., 2020; Patel & Bartholomew, 2021; Liu et al., 2023). Overall, the literature supports integrating psychological need fulfillment into HR and operational strategies, offering SMEs a cost-effective means to boost individual and organizational productivity, innovation, and retention.

Discussion and Conclusion

This review highlights the relevance of Self-Determination Theory (SDT) as a useful lens to understand the antecedents of employee productivity in Malaysian manufacturing SMEs. The findings suggest that when the psychological needs of autonomy, competence, and relatedness are supported, employees are more likely to exhibit engagement, resilience, and sustained performance factors particularly critical in resource-constrained SME environments. Autonomy was associated with enhanced initiative and ownership; competence with adaptability and task mastery; and relatedness with stronger interpersonal connections and team cohesion. These elements were further influenced by leadership practices and organizational climates that prioritize psychological well-being and inclusive communication. While the evidence supports the applicability of SDT in this context, it is important to acknowledge that much of the current literature is cross-sectional and concentrated in specific settings. More longitudinal and intervention-based studies are needed to better understand how need satisfaction translates into productivity over time, particularly in culturally diverse and sector-specific environments. For practitioners, this review suggests that integrating SDT informed practices such as participative decision-making, continuous learning support, and fostering a sense of belonging may contribute to improved work engagement and productivity without requiring substantial financial investment. In conclusion, this paper affirms the value of exploring employee productivity in manufacturing SMEs through the lens of SDT, offering a psychologically grounded and context-sensitive perspective that complements more traditional performance strategies. Continued empirical work in this area will be essential to refine theoretical applications and inform practical approaches tailored to the evolving needs of Malaysia's SME sector.

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