



UNLEASHING GROWTH AND RETAINING TALENT: A PEOPLE-CENTRIC STRATEGY FOR SUSTAINABLE SUCCESS IN OTTO'S DESIGN ENGINEERING

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DOI: <https://doi.org/10.63544/jbii.v5i10.238>

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Article History:

Received: 30.08.2026

Accepted: 20.09.2026

Published: 02.10.2026

Abstract

In technology-intensive manufacturing organizations, sustainable growth increasingly depends on the ability to attract, develop, engage, and retain highly skilled employees. Design engineering is particularly dependent on human expertise because innovation requires technical knowledge, creativity, collaboration, problem-solving, and accumulated organizational experience. This article examines how a people-centric strategy can support growth and talent retention in OTTO's design engineering environment. OTTO Engineering operates as a vertically integrated manufacturer with mechanical, electrical, radio-frequency (RF), software, testing, and production capabilities, making engineering talent an important organizational resource. The study uses a qualitative conceptual approach based on secondary sources, including organizational information, academic literature, and contemporary research on talent management, employee engagement, leadership, organizational culture, and digital transformation. The analysis is informed primarily by the Resource-Based View (RBV) and Job Demands-Resources (JD-R) theory. The article argues that employee retention should not be understood simply as an HR function but as a strategic requirement for protecting technical knowledge and sustaining innovation. A people-centric strategy for OTTO should integrate career development, meaningful engineering work, continuous learning, supportive leadership, employee autonomy, recognition, psychological safety, flexible working arrangements where operationally feasible, and systematic knowledge sharing. Recent evidence also suggests that technology and artificial intelligence can complement rather than replace engineering talent when organizations invest in human capability alongside technological transformation. The article proposes a strategic framework linking people practices with employee engagement, retention, engineering capability, innovation, and sustainable organizational growth.

Keywords: OTTO Engineering, Talent Retention, Design Engineering, People-Centric Strategy, Employee Engagement, Talent Management, Innovation, Engineering Workforce, Organizational Growth

1. Introduction

The success of modern engineering organizations increasingly depends on people as much as technology. Machines, software, production systems, and artificial intelligence can improve organizational capabilities, but they cannot independently replace the creativity, experience, judgment, and problem-solving abilities of skilled engineers. This is particularly important in design engineering, where employees transform technical knowledge into new products, improved systems, manufacturing solutions, and customer-oriented innovations. Consequently, organizations operating in technologically competitive markets need strategies that simultaneously support business growth and create an environment in which talented professionals want to remain and develop.



OTTO Engineering provides an appropriate context for examining this relationship. The company describes itself as a U.S.-based manufacturer with capabilities across controls, communications, and tooling, supported by mechanical, electrical, and RF design engineering, software development, testing, and vertically integrated manufacturing. OTTO also reports having more than 50 full-time engineers. Such an organizational structure means that engineering knowledge is closely connected with product development and manufacturing capabilities. When experienced engineers leave, the organization may lose not only an employee but also accumulated technical knowledge, project experience, customer understanding, and informal knowledge about production and design processes.

Talent retention has therefore become an important strategic issue for engineering-intensive organizations. The contemporary labour market requires companies to compete for individuals with specialized technical skills while also responding to changing employee expectations regarding career development, flexibility, meaningful work, leadership, recognition, and organizational culture. Research on technology-intensive organizations indicates that salary alone does not explain why highly skilled professionals remain with an organization. Factors such as psychological safety, work-life balance, positive work environments, challenging projects, flexibility, and opportunities for professional development can also influence retention (Costa et al., 2024).

The concept of a people-centric strategy responds to this changing environment. Rather than treating employees mainly as labour inputs, a people-centric organization considers employees as strategic participants in organizational value creation. This approach emphasizes employee experience, development, participation, autonomy, well-being, and meaningful contribution. The underlying assumption is that when skilled employees have appropriate resources and opportunities, organizations can strengthen engagement and organizational capabilities.

This perspective is consistent with the Resource-Based View of the firm. Barney (1991) argued that valuable, rare, difficult-to-imitate, and non-substitutable resources can contribute to sustained competitive advantage. In design engineering, specialized knowledge and accumulated experience can possess these characteristics because technical expertise is often developed over long periods and is not easily transferred through formal documentation alone. Human capital therefore becomes a strategic organizational resource.

The importance of employee resources is also highlighted by the Job Demands-Resources model. According to this perspective, employees experience demanding aspects of work alongside resources such as autonomy, feedback, support, learning opportunities, and effective leadership. Research has found that job resources are positively associated with engagement, while excessive demands and insufficient resources can contribute to burnout (Crawford et al., 2010). More recent meta-analytic evidence similarly demonstrates the importance of development, personal, social, and job resources for work engagement (Mazzetti et al., 2023).

Against this background, the present article examines how OTTO can strengthen its design-engineering capabilities through a people-centric strategy. The article does not claim to measure the actual level of employee satisfaction or turnover at OTTO. Instead, it uses available organizational information and scholarly literature to develop a strategic framework for understanding how people management can support engineering innovation and sustainable growth.

1.1 Problem Statement

Design engineering organizations operate in an environment characterized by technological change, increasing product complexity, changing customer expectations, and competition for specialized technical talent. These conditions create a dual challenge. Organizations must continuously develop innovative products and engineering solutions while simultaneously retaining the people who possess the knowledge required to produce those innovations.

The loss of experienced engineers can create several organizational difficulties. These may include knowledge loss, delays in product development, increased recruitment and training costs, disruption of project continuity, and reduced organizational learning. The problem becomes more significant when technical knowledge is tacit and has developed through years of experience.



For OTTO, the challenge is particularly relevant because the company combines design engineering with manufacturing, testing, software, and product development. Its engineering activities therefore interact with multiple organizational functions. A people-centric strategy can help connect these capabilities by creating conditions in which engineers are motivated not only to perform their current roles but also to develop long-term careers within the organization.

The central problem addressed in this study is therefore how OTTO can use people-oriented organizational practices to retain engineering talent while strengthening innovation, productivity, knowledge sharing, and sustainable growth.

1.2 Research Objectives

The study has the following objectives:

1. To examine the importance of talent retention for OTTO's design-engineering capabilities.
2. To analyse the relationship between people-centric HR practices and employee engagement.
3. To examine how career development and continuous learning can contribute to engineering talent retention.

1.3 Research Questions

The study addresses the following research questions:

RQ1: Why is talent retention strategically important for OTTO's design-engineering capabilities?

RQ2: How can people-centric HR practices strengthen employee engagement and retention among engineering professionals?

RQ3: What role do career development and continuous learning play in retaining engineering talent?

RQ4: How can leadership, autonomy, recognition, and organizational culture support engineering innovation?

RQ5: How can OTTO integrate people-centric practices into a broader strategy for sustainable organizational growth?

2. Literature Review

2.1 Talent Management and Organizational Growth

Talent management refers broadly to organizational processes for attracting, developing, deploying, and retaining individuals whose knowledge and capabilities are important for organizational objectives. In knowledge-intensive organizations, talent management is particularly important because competitive advantage increasingly depends on specialized human capabilities.

The Resource-Based View provides a useful theoretical foundation for understanding this relationship. Barney (1991) proposed that organizational resources can become sources of sustained competitive advantage when they are valuable, rare, difficult to imitate, and difficult to substitute. Skilled design engineers can potentially represent such a resource because their capabilities are developed through formal education, professional experience, organizational learning, and exposure to specific products and processes.

This argument is especially relevant to OTTO because its engineering capabilities extend across mechanical, electrical, RF, software, testing, and manufacturing activities. The integration of these capabilities means that engineering employees can contribute knowledge that is closely connected to the organization's particular technologies and production processes.

Contemporary research reinforces the strategic importance of talent management. Research published in 2024 argues that organizations facing technological change need HR systems that actively develop and retain employees rather than treating human resources as a purely administrative function (Salvadorinho et al., 2024). Similarly, research on engineering retention emphasizes that talent management needs to address both professional and organizational factors rather than focusing exclusively on financial rewards.

2.2 Employee Engagement and Retention

Employee engagement refers to the extent to which employees experience energy, dedication, involvement, and psychological connection with their work. Engagement is important because employees who feel connected to their work may demonstrate stronger motivation and organizational commitment.



A meta-analysis by Mazzetti et al. (2023), based on 113 independent samples and more than 119,000 participants, found meaningful relationships between work engagement and different categories of resources, including development, personal, social, and job resources. This evidence supports the argument that employee engagement is not created simply through compensation but through a broader system of organizational support.

The relationship is particularly important in engineering. Engineers often work on complex projects requiring sustained concentration and problem-solving. When employees receive autonomy, feedback, support, learning opportunities, and meaningful challenges, demanding work can become a source of motivation rather than merely a source of stress.

For OTTO, this means that retention strategies should focus on the quality of the engineering experience. Engineers need to understand how their technical contribution affects products, customers, manufacturing processes, and organizational objectives. Connecting individual work with organizational purpose can strengthen the meaning employees attach to their roles.

3. People-Centric Strategy in Design Engineering

A people-centric strategy places employees at the centre of organizational capability development while maintaining clear business objectives. For an engineering organization, this does not mean reducing performance expectations. Rather, it means creating the conditions under which employees can perform at a high level sustainably.

The strategy can be built around six major dimensions.

3.1 Career Development

Career development should become a central component of engineering talent retention. Engineers are more likely to perceive an organization as a long-term career environment when they can see opportunities to acquire new skills, move into advanced technical positions, participate in major projects, and develop leadership capabilities.

OTTO Group's broader organizational practices provide an interesting example of this philosophy. The Group reports talent-management mechanisms and internal mobility initiatives designed to help employees find development opportunities within the organization. Although OTTO Engineering and the Otto Group are separate organizational contexts, the principle of internal career mobility is relevant to the broader question of how organizations can retain knowledge by providing employees with alternative career opportunities rather than losing them externally.

For OTTO Engineering, a similar principle could involve clearly structured technical and managerial career pathways. An engineer should not have to become a manager to achieve professional advancement. Technical-expert pathways can allow highly skilled engineers to progress while continuing to contribute directly to design and innovation.

3.2 Continuous Learning and Upskilling

Engineering knowledge changes rapidly. Digital design tools, automation, simulation, artificial intelligence, advanced manufacturing, software development, and data-based engineering are continuously changing professional requirements.

Consequently, organizations should view training as an investment rather than a cost. Continuous learning can improve employee capabilities while also communicating that the organization values employees' long-term professional development. Recent research on HR 4.0 emphasizes the importance of developing human capabilities alongside technological innovation. Salvadorinho et al. (2024) argue that technology-enabled talent-management systems can support engagement and organizational commitment when they are designed around employee development. For OTTO, continuous learning could include technical workshops, cross-functional engineering projects, mentoring, professional certification support, software training, AI-assisted engineering education, and opportunities to attend industry conferences.

3.3 Employee Autonomy

Engineering work requires problem-solving and professional judgment. Excessive managerial control can limit creativity, slow decision-making, and reduce employees' sense of ownership.



Autonomy does not mean the absence of management. Instead, it means giving skilled employees appropriate authority to determine how they accomplish clearly defined objectives.

OTTO's broader technology culture illustrates the relevance of this principle. OTTO's technology documentation describes product teams with clear business responsibilities and considerable independence in technical decision-making. This organizational principle is consistent with a people-centric approach because employees are given space to use their expertise.

In design engineering, autonomy can therefore be connected with innovation. Engineers who are trusted to investigate technical alternatives and solve problems may be more willing to experiment and contribute ideas.

3.4 Supportive Leadership

Leadership is another central component of employee retention. Leaders influence how employees interpret organizational goals, deal with challenges, receive feedback, and perceive their future within the organization.

A recent meta-analysis by Pletzer et al. (2024) found that constructive leadership was positively associated with employee engagement and negatively associated with burnout. This evidence suggests that leadership behavior can influence the motivational and well-being experiences of employees.

A people-centric leadership model for OTTO should therefore emphasize coaching, communication, feedback, recognition, fairness, and professional development. Managers should act not only as supervisors but also as facilitators of engineering capability.

3.5 Recognition and Reward

Recognition is another important part of talent retention. Engineers may be motivated by salary, but professional recognition can also communicate that their expertise and contribution are valued.

Recognition should not be limited to successful commercial outcomes. Organizations can also recognize problem-solving, process improvement, mentoring, knowledge sharing, technical innovation, quality improvement, and collaboration. A balanced reward system could therefore combine financial incentives with non-financial recognition. Examples include technical achievement awards, opportunities to lead innovation projects, conference participation, professional development funding, public recognition, and expanded responsibilities.

3.6 Psychological Safety and Collaboration

Design engineering involves experimentation and problem-solving, which means that failure and uncertainty are unavoidable. Employees need to feel able to raise technical concerns, question assumptions, report mistakes, and propose alternatives without unreasonable fear of blame.

Psychological safety is therefore relevant to both retention and innovation. A workplace where employees can communicate openly can facilitate knowledge sharing and problem identification.

Research on engineering and technology professionals also suggests that positive work environments and psychological safety can be important elements of talent retention (Costa et al., 2024).

For OTTO, this means that managers should create an environment where engineers can challenge technical assumptions constructively and where learning from mistakes is distinguished from negligence.

4. The Role of Technology and Artificial Intelligence

Technology is changing the nature of engineering work. Artificial intelligence can increasingly assist with coding, documentation, design analysis, testing, information retrieval, and other engineering tasks. However, technological development does not necessarily eliminate the importance of human expertise.

OTTO's recent technology material provides an example of this transformation. In 2026, OTTO described the use of AI agents and AI-assisted software engineering, with development processes increasingly emphasizing system design, specifications, architecture, and AI-supported review.

This development illustrates an important strategic principle: technology should augment engineering talent rather than simply be presented as a substitute for it.

A people-centric AI strategy should therefore focus on three areas:

First, AI literacy. Engineers need opportunities to understand how AI tools can support their work.



Second, human oversight. Technical decisions should continue to involve professional judgment, particularly where product quality, safety, reliability, or customer requirements are concerned.

Third, role redesign. As AI handles more routine activities, engineers can devote more time to system architecture, creative problem-solving, testing, customer requirements, and innovation.

The objective should therefore be to make engineers more capable through technology rather than making employees feel threatened by technological transformation.

5. OTTO's Organizational Culture and People-Centric Management

Organizational culture plays an important role in translating HR policies into employee experiences. A company can offer training and benefits, but if everyday management is characterized by excessive control, poor communication, or limited recognition, formal HR policies may have limited effects.

OTTO's organizational information emphasizes engineering capability, innovation, and vertically integrated manufacturing. The company's broader culture materials also emphasize people, technology, flexibility, fairness, trust, openness, and responsibility.

These principles provide a useful foundation for a people-centric strategy. However, organizational culture must be experienced in everyday work rather than simply communicated through corporate statements.

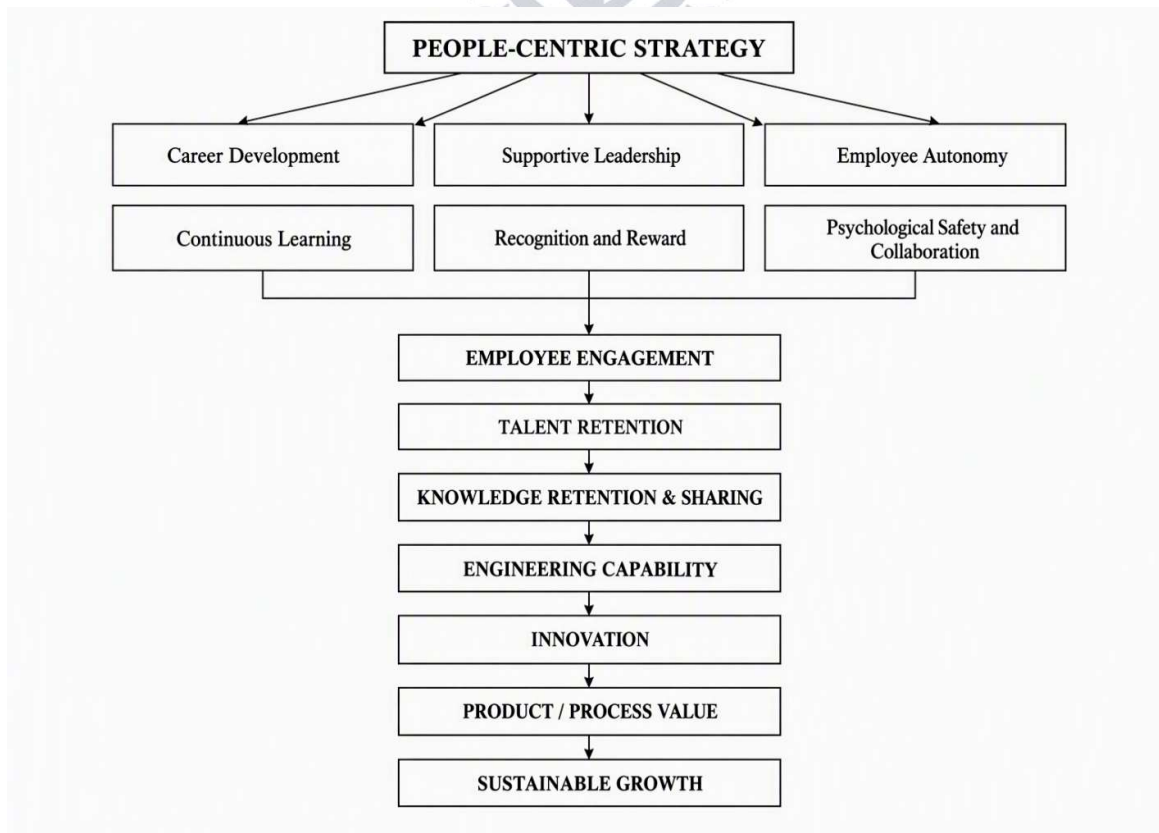
The practical question for OTTO is therefore how organizational values can be converted into daily engineering practices. For example, trust should be reflected in appropriate autonomy; development should be reflected in learning opportunities; fairness should be reflected in promotion and reward decisions; and innovation should be reflected in employees' ability to experiment and propose improvements.

6. Proposed Conceptual Framework

The proposed framework connects people-centric practices with engineering and organizational outcomes.

Figure 1

Proposed Conceptual Framework for People-Centric Strategy and Sustainable Growth





This figure illustrates the proposed conceptual framework linking people-centric practices with employee engagement, talent retention, knowledge retention, engineering capability, innovation, product/process value, and sustainable growth.

The framework proposes that people-centric practices first influence employee experiences, particularly engagement and professional commitment. Stronger engagement and retention can then help protect organizational knowledge. Retained knowledge supports engineering capability, which can contribute to innovation and organizational performance.

The framework should be understood as a conceptual model rather than an empirically tested causal model. Future research could test these relationships through surveys, interviews, longitudinal employee data, or mixed methods at OTTO.

7. Strategic Recommendations

7.1 Create Dual Engineering Career Paths

OTTO should develop both technical-expert and managerial career pathways. This would allow engineers to progress professionally without being required to leave technical work for management.

7.2 Introduce Individual Development Plans

Each engineer could have an annual development plan identifying technical skills, professional goals, training requirements, project experience, and possible future roles.

7.3 Establish Engineering Mentorship

Experienced engineers should mentor early-career employees. This would help transfer tacit knowledge and reduce dependence on individual employees' undocumented expertise.

7.4 Strengthen Cross-Functional Projects

Mechanical, electrical, RF, software, testing, and manufacturing teams should have opportunities to collaborate on selected innovation projects. OTTO's vertically integrated structure creates a natural basis for this approach.

7.5 Build an AI-Enabled Learning System

Rather than treating AI primarily as a cost-reduction mechanism, OTTO could use AI as a learning and productivity tool. Employees could receive training on AI-assisted engineering, automated testing, documentation, simulation, and software development.

7.6 Strengthen Recognition

Recognition systems should identify not only commercial achievements but also engineering improvements, technical problem-solving, mentoring, knowledge sharing, and innovation.

7.7 Develop Knowledge-Retention Mechanisms

Important engineering knowledge should be documented through design repositories, technical reviews, lessons-learned databases, mentoring systems, and structured handover processes. This reduces organizational vulnerability when experienced employees retire or leave.

7.8 Use Continuous Employee Feedback

Employee feedback should not be collected only through occasional annual surveys. OTTO could use shorter and more frequent feedback mechanisms to identify workload problems, training needs, leadership concerns, and barriers to innovation.

Recent research examining OTTO's own organizational change experience describes a "Digital Heartbeat" approach based on frequent employee feedback cycles and emphasizes the value of combining quantitative indicators with employee comments to understand both what is happening and why (Giffen et al., 2026).

8. Discussion

The central argument of this article is that talent retention and organizational growth should not be treated as separate organizational objectives. In a design-engineering organization, they are closely connected. Growth requires innovation, innovation requires engineering capability, and engineering capability depends substantially on skilled people.



The Resource-Based View explains why this relationship matters. When technical knowledge is specialized and difficult to imitate, retaining employees can help preserve an important organizational resource (Barney, 1991). However, the RBV alone does not explain employee motivation. The JD-R framework adds this dimension by showing how organizational resources such as autonomy, development opportunities, leadership, and support can influence employee engagement and well-being (Crawford et al., 2010).

The combined perspective suggests that OTTO should not approach retention simply by increasing financial rewards. Compensation remains relevant, but a sustainable strategy needs to address the broader employee experience. Engineers need opportunities to learn, solve meaningful problems, work with modern technologies, receive recognition, and develop professionally.

This is especially important as artificial intelligence changes engineering work. OTTO's current movement toward AI-assisted engineering indicates that technical roles are evolving rather than remaining static. The organization therefore needs an approach in which technological transformation and human development occur together.

A people-centric strategy also requires a balance between organizational performance and employee well-being. High performance cannot be sustained indefinitely through increasing workloads. Research on job demands and resources indicates that excessive demands combined with inadequate resources can contribute to burnout, while appropriate resources can support engagement (Crawford et al., 2010). Therefore, OTTO should monitor workload alongside productivity.

9. Conclusion

This article examined how a people-centric strategy can help OTTO strengthen talent retention and sustainable growth in design engineering. The analysis shows that skilled engineers represent more than labor capacity. They carry technical knowledge, organizational memory, problem-solving ability, customer understanding, and innovation potential.

For an engineering-intensive organization such as OTTO, retaining this human capital can therefore support continuity and innovation. The proposed strategy emphasizes career development, continuous learning, employee autonomy, supportive leadership, recognition, psychological safety, knowledge sharing, and responsible use of technology.

OTTO's engineering and manufacturing structure provides a strong basis for this approach because design, testing, software, and manufacturing capabilities are interconnected. The company's broader emphasis on technology and people also provides relevant organizational foundations.

The main implication is that people-centric management should not be viewed as separate from business strategy. In design engineering, people capability is part of business capability. When organizations invest in the development, engagement, and retention of engineers, they can strengthen the knowledge base required for innovation and long-term organizational growth.

Future empirical research should test the proposed framework using OTTO employee data. Quantitative research could examine relationships among career development, leadership, engagement, retention intention, and engineering performance. Qualitative interviews could further explore how engineers experience organizational culture, technological change, career opportunities, and leadership. A longitudinal study would be particularly valuable for examining whether people-centric interventions produce sustained improvements in retention and innovation.

Author's Contributions

All authors participated in ideation, development, and writing the manuscript. All authors read and approved the final manuscript.

Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this article.

Funding Statement

The authors did not receive financial support from any funding agency or external organization for the research, authorship, or publication of this article.



Informed Consent

Informed consent was obtained from all participants prior to data collection. Participants were informed about the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any time without any consequences. The confidentiality and anonymity of respondents were guaranteed throughout the research process.

Data Availability

The datasets generated and analysed during the current study are available from the corresponding author upon reasonable request. The authors are committed to transparency and will provide detailed methodological information and analysis protocols upon request.

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