



# KONFERENCIAKÖTET

## Conference Proceedings

**Nemzetközi tudományos konferencia  
a Magyar Tudomány Ünnepe alkalmából**  
International Scientific Conference  
on the Occasion of the Hungarian Science Festival

**Sopron, 2023. november 23.**  
23 November 2023, Sopron

**FENNTARTHATÓSÁGI ÁTMENET:  
KIHÍVÁSOK ÉS INNOVATÍV MEGOLDÁSOK**  
SUSTAINABILITY TRANSITIONS: CHALLENGES AND INNOVATIVE SOLUTIONS

Szerkesztők / Editors:

OBÁDOVICS Csilla, RESPERGER Richárd, SZÉLES Zsuzsanna, TÓTH Balázs István

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## The Historical Evolution of Employee Idea Management: A Comprehensive Review

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### **Abstract:**

In today's rapidly evolving and highly competitive business environment, effective management of employee-generated ideas is a critical element for organisational innovation and growth. This paper presents a comprehensive literature review that consolidates the historical development and evolutionary trajectory of employee idea management practices. The journey of employee idea management can be traced from basic suggestion boxes to cutting-edge digital platforms and AI-driven systems, encompassing theoretical foundations, technological advancements and organisational implications. Understanding this trajectory enables organisations to adapt to changing trends and develop sustainable strategies that promote innovation and continuous improvement. To secure long-term success, organisations can acquire valuable knowledge for fostering a culture of idea sharing and innovation by combining the narratives of historical development and contemporary innovation.

**Keywords:** innovation and invention, processes and incentives, corporate culture

JEL Codes: O31, M14

### **1. Introduction**

The harnessing of employee-generated ideas for organizational innovation has gained significant attention in academic research in recent decades. The importance of employee suggestions lies in their ability to enhance performance, foster innovation, and increase efficiency (Yan & Zhou, 2019), while also boosting employee motivation, commitment, and involvement in the organization. (Du Plessis & Campus, 2015) This paper explores the evolution of employee idea management practices, examining how they have transformed from basic suggestion boxes to modern digital systems that leverage advanced technologies such as artificial intelligence.

Creativity plays a crucial role in innovation (Baron & Tang, 2011) by driving the development of novel products and processes, influencing team dynamics and competitive advantage, and contributing to economic growth and organizational success. According to Lasrado et al.'s literature review on critical success factors for employee suggestion schemes (Lasrado et al., 2016), employee-driven innovations stem from the creativity of employees. This takes the form of ideas which develop into innovative workplace solutions and practices. Therefore, employees' innovative contributions are rooted in their creative thought processes. Several studies suggest that employee creativity is influenced by individual factors such as personality traits, self-confidence (Tabak, 1997), and cognitive style (Egan, 2005), external factors including leadership (Wajdi, 2018), social support (Madjar, 2005), and innovation climate, and work-related factors like autonomy, job complexity (Le et al., 2022), and resources. To facilitate communication of ideas for enhancing the workplace environment, suggestion systems are introduced as an instrumental mechanism. The primary objective is to effectively harness the collective pool of innovative thoughts and creative insights from the entire workforce, thereby facilitating the enhancement of operational processes and product quality. In his paper Marx (1995) states that: *“Everything mankind has and will have in the future is and will be the result*

*of people's ideas. Ideas are derived not only from people of above average intelligence, but also from those of average intelligence. Some of the more progressive companies in the history of modern management realized the potential value of their employees' ideas for the improvements in the general functioning of their organizations. They have realized that idea power is the most tremendous human force in the world."*

Employee ideas have a wide and varied application in companies, both in terms of their treatment and their purpose. As the authors Ostrowski & Jagodziński demonstrate in their case study (Ostrowski & Jagodziński, 2021), employee suggestion systems (ESS) are tools used in continuous improvement, Kaizen, and lean management philosophies. Furthermore, in their book (Stadler et al., 2021) the authors emphasise the importance of incorporating employee ideas into the strategic planning process. They advocate for a more inclusive approach to strategy development, where employee contributions are not only welcomed but actively sought. This approach is based on the recognition that employees, being closely involved with day-to-day operations, possess unique insights and creative solutions that can significantly enrich the strategic planning process. It is widely recognised that employee ideas are important in creating a comprehensive and effective strategic plan that is aligned across the organisation, improving both the strategic management process and outcomes.

## **2. Evolution of Employee Idea Management**

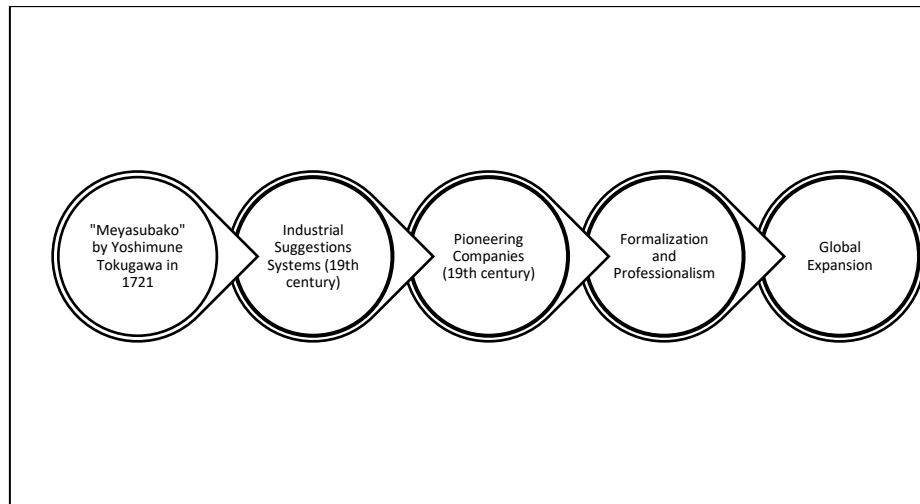
Throughout their history, employee suggestion schemes have evolved and become more sophisticated, moving from simple suggestion boxes<sup>12</sup> to computer-based systems. The development of these schemes has been influenced by various factors, including:

- Employee Participation and Engagement: Organizations that involve employees in decision-making through suggestion programs are more likely to experience effective problem-solving and increased employee engagement. Companies that have active suggestion schemes experience an average of 48% higher employee engagement (Harter, 2017).
- Training and Expertise: Providing training, fostering expertise, and creating a culture of continuous learning can boost employee morale and trigger meaningful participation in suggestion schemes (Lasrado et al., 2016).
- Communication and Publicity: Effective communication and publicity around the suggestion scheme can increase employee awareness and participation (Lasrado et al., 2016).
- Rewards and Recognition: Reward and incentive schemes for employees who contribute valuable suggestions can motivate and encourage active participation in the suggestion programs (Ostrowski, 2017).
- Ownership and Confidentiality: Establishing clear guidelines regarding the ownership and confidentiality of suggestions is vital (Morais Da Costa, 2011) to protect the rights of both the employees and the organization (Rechberg & Syed, 2013).

Following figure gives a visual overview of the key milestones of the evolution of employee suggestions:

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<sup>12</sup> The physical receptacles allowed employees to submit ideas anonymously. While this approach encouraged participation, the lack of structured processes often led to a dearth of actionable ideas and limited engagement from employees.



**Figure 3: Key milestones in the evolution of employee suggestion schemes,**  
 Source: Own editing (2023) based on literature cited in chapter 2.1.

### ***2.1. Early Approaches***

According to available information, the early approaches of suggestion schemes were simple tools like suggestion boxes or public notice boards to encourage employees to submit helpful ideas, identify potential improvements to the workplace, or call attention to any problems or difficulties they may be experiencing. These schemes have been in existence for many years and have been studied from many perspectives (Lasrado et al., 2016). They are described as a formalized mechanism that encourages employees to contribute constructive ideas (Lasrado, 2012). The development of employee suggestion schemes can be traced back to several key milestones like shown in **Hiba! A hivatkozási forrás nem található. 1.**

The earliest recorded suggestion system dates back to 1721 when Yoshimune Tokugawa, the 8th Shogun, introduced a box called "Meyasubako" at the entrance of the Edo Castle for written suggestions from his subjects (Arif et al., 2010). Industrial Suggestion Systems emerged in the 19th century, with the first documented employee suggestion scheme established in 1770 in the British Navy (Ostrowski, 2017). The Scottish shipbuilding firm, William Denny and Brothers, introduced a suggestion scheme in the late 19th century to build ships more efficiently (Baldini, 1969). Pioneering Companies demonstrating the value of integrating employee feedback into organizational processes, setting a precedent for others in various industries to follow:

- The Estman Kodak Co. company was a pioneer in employee suggestion systems, establishing its program in 1896 as the first formal scheme (Carrier, 1998).
- In 1928, Bank of America documented one of the earliest cases of an employee being rewarded for a new product idea: the suggestion of traveller's checks (Trunko, 1993).
- Ford Motor Company was another early adopter of employee suggestion systems in the automotive industry. They implemented their system in 1951 to improve efficiency and productivity on the assembly line. This system, known as the Creative Idea Suggestion System, was based on Ford's suggestion system and was implemented after Managing Director Shoichi Saito underwent training at Ford and subsequently introduced the system upon his return to Japan (*Toyota Motor Corporation Global Website*, n.d.).
- Known for its Toyota Production System, Toyota has been a pioneer in implementing the Kaizen methodology in the 1950s, which includes an employee suggestion system as a core component. (Ono & Miller, 2013) This system encourages continuous improvement and values input from all employees.

- While the exact date of implementation of the employee suggestion system at 3M is not clear (*Timeline of 3M History*, n.d.), it is evident that the company has a longstanding commitment to innovation and employee engagement. The company's policy of allowing employees to spend a portion of their work time on creative projects (Stadler et al., 2021) has led to the development of new products.
- General Electric (GE) has historically embraced employee suggestions to improve processes and foster innovation, contributing to its reputation as a leader in various industrial sectors (Comstock, 2013). The company has been involved in various initiatives and programs that aim to foster innovation and employee engagement. Some of these initiatives include:
  - GE's Innovation Strategy: GE has a clearly defined innovation strategy that aims to foster a culture of innovation within the company. The strategy is designed to create an environment where employees are encouraged to share their ideas and contribute to the company's growth. GE is disrupting itself (Immelt et al., 2009) by transitioning from its traditional approach of developing high-end products at home and adapting them for global markets to a new approach called 'reverse innovation'. This involves developing products in emerging markets such as China and India and then distributing them globally.
  - GE's Sustainability Initiatives: GE has participated in several sustainability initiatives, (George & Regani, 2019) including the Edison Award, which recognizes innovative solutions that address environmental, health, and safety challenges. These initiatives encourage employee participation and contribution to the company's sustainability goals.
  - GE's Global Research and Development (R&D) Centers: GE operates multiple research and development centres globally, which concentrate on developing new technologies and innovations. These centres offer employees the chance to work on pioneering projects and contribute to the company's technological advancements. In recent years, GE has changed its approach to innovation by adopting a strategy of open collaboration (Idelchik & Kogan, 2012) as part of its research and development efforts in markets adjacent to the company's core businesses. The company aims to collaborate with external partners to innovate new technologies and bring resulting products to scaled markets faster.
  - GE's Culture and Values: GE's culture and values prioritise employee engagement, innovation, and collaboration. The company fosters a sense of trust and respect among employees, encouraging them to share their ideas and participate in decision-making processes (Mirvis & Googins, 2018).
- In the airline industry, British Airways (BA) has been notable for its implementation of employee suggestion schemes in the late 20th century to improve operations and customer service. BA's efforts to improve employee engagement and performance through cultural change resulted in significant improvements in the organization's performance, leading to its transformation into one of the world's most profitable airlines. (Grugulis & Wilkinson, 2002)
- Siemens has a long-standing tradition of promoting employee ideas and innovations. The company introduced its formal employee suggestion system, known as the 'Siemens Idea Management,' in 1991. However, fostering employee innovations and suggestions has been a part of Siemens' ethos since its founding in 1847. Siemens has continuously developed its approach to incorporating employee ideas into various aspects of its business operations over the years (Ye, 2022).

- Founded in 1998, Google has always had an innovative working culture that encourages employees to suggest new ideas and has become more structured as the company has grown (Schmitt & Almeida, 2020).

**Formalization and Systematization:** As organizations recognized the potential of employee ideas, more formalized systems were developed. The 1950s saw the implementation of suggestion programs with designated committees responsible for evaluating and rewarding valuable suggestions. This marked the beginning of a structured approach to idea management, although limitations such as slow processing times and potential biases still existed. These associations provide resources, training, and networking opportunities for organizations looking to implement or improve their employee suggestion schemes. The following are examples of globally active organizations that focus on employee suggestions:

- The Employee Involvement Association (EIA) was established to promote the formalization, objectivity, and professionalism of suggestion programs. In order to raise the standards of best practices in encouraging, evaluating, developing, and implementing ideas that benefit organizations the EIA introduced educational, statistical, and professional development programs (Lasrado et al., 2016).
- IdeasUK (About Us - IdeasUK, n.d.) was founded in 1987 and is the leading association in the United Kingdom dedicated to fostering programs that encourage employee involvement. The organization's core mission is to provide support to both public and private sector entities. In contrast, the Kaizen Program epitomizes the Japanese approach to similar programs. The Kaizen model emphasises generating numerous incremental enhancements, while Western suggestion systems, as noted by Ohly et al. (2006), focus more on nurturing the pursuit of innovation.
- International Association for Public Participation (IAP2) is an international association (*International Association for Public Participation Statement on Diversity, Equity & Inclusion*, n.d.) that promotes public participation in decision-making processes. It provides training, certification, and networking opportunities for professionals involved in public participation, which is proven to enhance employee wellbeing as a result (Buech et al., 2010).
- International Association of Facilitators (IAF) is an international association (*About the IAF / IAF World*, 2018) formed in 1994 that promotes the use of facilitation as a tool for effective communication, collaboration, and problem-solving. It provides training, certification, and networking opportunities for facilitators worldwide.

**Global Expansion:** As a logical and foreseeable outcome, suggestion schemes have gained widespread popularity across various regions, including the USA, Europe, Asia, and the Middle East (Cooley et al., 2001).

## **2.2. Technological Advancements**

The evolution of employee suggestion schemes has been significantly influenced by technological advancements, which have shaped their effectiveness and scope. Initially, these schemes were predominantly paper-based, relying on suggestion boxes placed within the workplace. However, this method had limitations in terms of efficiency, accessibility, anonymity and accountability, structure, collaboration features and feedback (Lasrado et al., 2016; Fairbank & Williams, 2001). With the advent of computer technology and the internet, there has been a significant transition in the late 20th and early 21st centuries. Digital platforms have enabled organisations to implement web-based suggestion systems, vastly improving reach and engagement. Employees can now submit suggestions from any location, and the systems provide tools



for tracking and managing these ideas more efficiently. Fairbank et al. (2003) conducted research on computer-based employee suggestion management systems (ESMS) and found that they can significantly enhance employee motivation and creativity in submitting suggestions. These systems, which are based on expectancy theory, provide a communication infrastructure that fosters an interactive and networked environment for suggestion submission and discussion. Integrating transparent, efficient, and rewarding suggestion processes into an organization's operations can motivate employees to provide a higher quantity and quality of suggestions. This can encourage a culture of innovation and collaborative problem-solving. According to the research results of the authors Charron-Latour et al. (2017), STARS, a Computer-Aided Employee Suggestion Management System, reduces cycle time for closing actions and increases employee satisfaction. The implementation of a leadership routine significantly increases the chances of long-term implementation.

Another pivotal point was marked with the emergence of enterprise social networks (ESNs). ESNs facilitate a collaborative and transparent approach, allowing employees to submit and collectively develop suggestions (Viol & Durst, 2014). This shift towards a communal and interactive process enhances the quality of suggestions and fosters a culture of innovation and inclusion. Recent advancements in data analytics and machine learning have been integrated into these systems. These technologies provide effective tools for analysing suggestion patterns, predicting trends, and identifying areas for improvement, thereby enhancing decision-making processes. Additionally, artificial intelligence (AI) is now starting to automate certain aspects of these schemes, such as initial screening of suggestions and providing preliminary feedback, which can significantly expedite the review process while maintaining a high level of engagement and interaction (Fairbank & Williams, 2001).

The employee suggestion scheme has adapted to technological changes over time, providing better mechanisms for idea generation and implementation. This highlights the importance of embracing technological advancements to enhance organizational innovation and allows for greater participation, transparency, and collaboration across organizational hierarchies.

### **2.3. Integration of AI and Advanced Analytics**

It is worth taking a closer look at the effects and possibilities of Artificial Intelligence (AI) for employee suggestion schemes. The integration of AI and advanced analytics into employee idea management has been witnessed in the 21st century. AI algorithms can now categorise, prioritise, and even provide initial evaluations of submitted ideas. Natural language processing (NLP) techniques enable the extraction of valuable insights from large volumes of textual input. This integration speeds up the evaluation process and improves the identification of promising ideas. The integration of AI and advanced analytics into employee suggestion schemes represents a significant advancement in how organizations manage and leverage employee feedback for innovation and improvement (Wijayati et al., 2022). This integration primarily aims to enhance efficiency, predictive capabilities, and the quality of insights derived from employee suggestions (Luhana et al., 2023). Further, AI algorithms can automatically review and categorize incoming suggestions based on their content, relevance, and potential impact. AI streamlines this traditionally manual process, allowing actionable suggestions to be quickly identified and routed to the appropriate department or team for further evaluation (Jarrahi et al., 2023). Advanced analytics and AI can analyse historical data from suggestion schemes to identify trends and patterns. This information can predict which types of suggestions are likely to be successful or have the most significant impact on the organisation. For instance, IBM's Watson Analytics uses natural language processing and machine learning to analyse and predict trends from data, which could be applied to employee suggestions to forecast their potential success (Hoyt et al., 2016). Furthermore, AI can offer automated and immediate feedback to employees who submit

suggestions. This feedback can range from acknowledging receipt to providing an initial assessment of the suggestion's viability based on historical data and predefined criteria. Such prompt engagement can significantly enhance employee morale and participation in the suggestion scheme (Shaikh et al., 2023). Advanced analytics can be utilised to conduct sentiment analysis on employee suggestions, aiding in the evaluation of overall morale and engagement within the organisation. Tools such as SAS Sentiment Analysis (SAS Institute Inc., 2013) and Lexalytics (Lexalytics, 2022) are capable of extracting sentiment from text data, which could be invaluable in assessing the tone and context of employee suggestions. Moreover, AI can enhance collaboration by optimizing decision-making (Wang et al., 2022) and resource management, improving communication and learning processes, and facilitating human-robot interactions (Crowder et al., 2020). In fields such as education, product design, and virtual meetings, AI-powered tools can suggest potential collaborators based on the content of a suggestion. This can help to develop the suggestion further by recommending individuals who have the necessary expertise or interest.

Following examples demonstrate the practical application of AI and Advanced Analytics in enhancing the efficiency and effectiveness of employee suggestion schemes, transforming them into dynamic tools for organizational innovation and improvement.

- Siemens has implemented an AI-based idea management system "3i – Ideas, Innovations, Initiatives" that uses natural language processing to analyse employee suggestions, automatically categorizing them and routing them to the appropriate department (Siemens, 2018).
- Accenture has developed a platform named 'MyWizard' that utilises AI to automate several project management tasks, such as processing employee ideas and suggestions (Accenture, 2016).
- Google's famous '20% time' policy, which encourages employees to spend 20% of their time on side projects, is supported by internal tools that leverage AI to track, manage, and evaluate these projects, many of which start as simple suggestions (Savoia & Copeland, 2011).

## **2.4. Crowd Ideation and Open Innovation**

Modern idea management practices have developed to include crowd ideation and open innovation, which has significantly broadened the sources and diversity of ideas available to organisations. This change acknowledges that valuable insights can come from various external stakeholders, such as customers, partners, and even the general public. By tapping into this wider pool of knowledge and experience, organisations can promote innovation, solve complex problems, and stay ahead in competitive markets. The process of crowd ideation and open innovation entails gathering ideas and solutions from a large group of individuals, usually through digital platforms (Marjanovic et al., 2012). It is grounded in the belief that the collective intelligence of a diverse crowd can lead to more innovative and effective solutions than relying solely on internal resources. These practices are often facilitated by online platforms where challenges are posed, and participants can submit their ideas, collaborate, and give feedback. Complementary, online innovation challenges and hackathons are structured events where individuals or teams compete to develop solutions to specific problems within a set timeframe. These events can be open to participants worldwide, leveraging the power of the internet to gather diverse perspectives and skills (Kollwitz & Dinter, 2019).

Following examples across diverse businesses highlight how modern idea management practices, particularly those involving crowd ideation and open innovation, are successfully harnessed by organizations to drive innovation and solve complex challenges. By engaging a

broader community, organizations can access a wealth of untapped creativity and expertise, leading to more diverse and innovative solutions.

- NASA's Open Innovation Initiatives: NASA frequently employs open innovation methods to solve complex scientific and engineering problems (Crusan et al., 2018). For instance, through the NASA Tournament Lab (*NASA Tournament Lab*, 2015), they have conducted numerous challenges on platforms like Topcoder<sup>13</sup> and Wazoku/InnoCentive<sup>14</sup>, where the public can propose solutions to various space-related challenges. This approach has led to groundbreaking solutions in areas such as algorithm development, materials science, and data analysis.
- Procter & Gamble (P&G) initiated the Connect + Develop programme (Huston & Sakkab, 2006), which embodies open innovation by collaborating with external innovators to develop new products. Through this programme, P&G has successfully launched several products by leveraging ideas and technologies from entrepreneurs, researchers and other companies.
- Starbucks has implemented an online platform called 'My Starbucks Idea' (Hossain & Islam, 2015), which allows customers to submit, discuss, and vote on ideas for new products, customer experience enhancements, and corporate social responsibility initiatives. This platform has led to the implementation of several customer-suggested ideas, such as the introduction of new beverages and reusable cup initiatives.
- Tech companies such as Facebook, Google, and Microsoft frequently organise hackathons to promote innovation. These events often result in the creation of new products or features. For instance, Facebook's 'Like' button and 'Chat' feature were both conceived during internal hackathons (Carr & Lassiter, 2017).
- LEGO Ideas is an online community where LEGO enthusiasts can submit their own designs for new sets. The submitted ideas are voted on by other community members, and the most popular ones are reviewed by LEGO. If selected, these ideas may be turned into official LEGO sets. This approach enables LEGO to harness the creativity of its passionate fan base (Qi et al., 2021).

### 3. Organizational Implications

The evolution of employee idea management has a profound impact on organizational culture and structure, necessitating significant shifts in how companies operate and engage with their employees. At its core, effective idea management fosters a culture of innovation, inclusivity, and transparency, leading to numerous organizational benefits. Flatter hierarchies and decentralized decision-making become crucial for accommodating the influx of diverse ideas. Fostering a culture of innovation and inclusivity is a modern approach to idea management. It encourages contributions from all levels of the organization and promotes a culture that values diverse perspectives and creative problem-solving. When employees feel that their ideas are valued and have a tangible impact on the organization, it leads to greater job satisfaction and engagement (Leonard, 2011). As already mentioned above, Google's famous "20% time" policy (Savoia & Copeland, 2011), where employees are encouraged to spend 20% of their time working on projects that interest them, has been a key cultural aspect. This policy led to the creation of some of Google's most successful products, like Gmail and AdSense, showcasing how valuing employee ideas can drive innovation.

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<sup>13</sup> It is a platform service connecting clients with a community of tech freelancers to work together on digital and development challenges (Souza, n.d.).

<sup>14</sup> InnoCentive is an open innovation and crowdsourcing company enabling organizations to address the crowd with their unsolved problems in form of challenges. In 2020 acquired by Wazoku merging crowdsourcing platform to a platform of idea management and innovation (Story of Innocentive, n.d.).

The adoption of ideas from different levels of the organization facilitates a move towards flatter hierarchies and decentralized decision-making, which is crucial for effectively processing and implementing ideas. Conventional top-down approaches can be excessively slow and inflexible. Decentralized decision-making promotes employee involvement and elevates the level of responsibility of front-line employees (Rangus & Slavec, 2017). This eliminates unnecessary layers of management and ensures that comments and feedback reach all personnel involved in decision-making more quickly. Flat hierarchical structures have fewer levels of management and a more decentralized decision-making process, which encourages a collaborative and inclusive approach. Flat structures promote open and transparent communication flow, providing employees with direct access to decision-makers. This enables faster decision-making and a greater sense of empowerment (Liu & Moskvina, 2015).

Decentralizing decision-making through organizational structure flattening allows decisions to be made closer to the source of the problem, promoting flexibility, efficiency, and agility. Maintaining consistent processes and standards in flat organizations can be challenging (Seppälä, 2004). Variations in how tasks are performed can result in inconsistencies in quality, efficiency, and adherence to company standards. W. L. Gore & Associates, known for its innovative products like Gore-Tex, operates with a famously flat organizational structure (Grønning, 2016). The company's "lattice" structure, where there are no traditional managers and employees are free to take initiative, has been key to its continuous innovation and success. (Hamel & Breen, 2007) Effective idea management often requires cross-departmental collaboration to break down silos within organizations (Blanchard et al., 2015). This not only aids in the development and implementation of ideas but also fosters a sense of unity and shared purpose among employees. For example, IBM's InnovationJam event gathered ideas from employees, business partners, and clients, leading to the development of several new business ventures. This event exemplified the potential of collaborative platforms to unite diverse groups in innovation (Helander et al., 2007).

A culture that regularly solicits and implements employee ideas is inherently geared towards continuous learning and adaptation (Dombrowski et al., 2007). This is crucial in today's fast-paced business environment, where organizations need to be agile to stay competitive. 3M, known for its culture of innovation, encourages its employees to spend 15% of their time on projects of their choice. This approach has led to a steady stream of innovative products and a culture that is always learning and adapting (Rahn, 2014).

Organizations that are known for valuing employee ideas and fostering an innovative culture are more attractive to prospective employees and are more likely to retain their current employees (Berthon et al., 2005). Salesforce<sup>15</sup> uses a platform called IdeaExchange to gather feedback and ideas from its community. This not only drives product innovation but also contributes to the company's reputation as an innovative and employee-friendly workplace.

In conclusion, the evolution of employee idea management has significant implications for organizational culture and structure. By fostering a culture that values inclusivity, transparency, and collaboration, and by adapting organizational structures to be more flexible and less hierarchical, companies can not only drive innovation but also enhance employee engagement, adaptability, and overall competitiveness.

#### **4. Challenges and Future Directions**

The reviewed literature has discussed the antecedents, enablers, and critical success factors for employee suggestion schemes, aiming to enhance organizational performance and foster creativity and innovation (Mehrajunnisa & Jabeen, 2020; Lasrado et al., 2016). However, some

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<sup>15</sup> Salesforce is a cloud-based customer relationship management (CRM) platform that assists businesses in managing their customer relationships (Salesforce Platform, n.d.).

studies have also highlighted the failures of employee suggestion programs and the specific elements necessary for their success (Clearwater et al., 2015).

While the evolution of employee idea management has brought numerous benefits, challenges remain (Leible & Ludzay, 2022). Filtering and prioritizing ideas, ensuring fair recognition, and preventing idea fatigue are ongoing concerns. Additionally, the ethical use of AI in idea evaluation requires careful consideration (Hagendorff, 2020).

## 5. Conclusion

The development of employee idea management has led to a significant change in organizational dynamics, promoting a more inclusive, transparent, and innovation-oriented culture. This evolution, marked by the transition from traditional suggestion boxes to advanced AI-enabled platforms, highlights the need for organizations to adopt flatter hierarchies and decentralized decision-making. Structural adaptations are crucial for effectively harnessing and actualizing the diverse array of ideas generated within a more open and collaborative environment. This transformation fosters a culture of continuous learning and adaptability, positioning organizations to better navigate the complexities of the modern business landscape and ultimately drive sustained growth and competitiveness. However, this evolution presents challenges. Integrating a variety of ideas into cohesive strategies often requires sophisticated management tools and approaches. To achieve this, organizations can leverage technology such as AI for idea evaluation and implementation, and foster an adaptable organizational mindset to continually embrace dynamic changes. These steps are crucial for organizations aiming to maintain competitiveness and foster a culture of continuous innovation and employee engagement. Despite the rise of Industry 5.0 (Kolozsár et al., 2023), the human factor remains crucial for manufacturing efficiency (Kolozsár & Pankotay, 2017) and the potential for improvement in their insights is significant (Alkhlaifat & Kolozsár, 2023), yet it cannot be generated by AI algorithms. By embracing the lessons of this evolution, organizations can foster a culture of continuous improvement and adaptability in an ever-changing business landscape.

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