

Aligning HRM practices with generation Y motivational factors in SMEs: A PRISMA systematic review

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Abstract – This study examines how small and medium-sized enterprises (SMEs) can align their human resource management (HRM) practices with the motivational factors of Generation Y, a demographic known for its distinct work expectations, including flexibility, career development, and digital engagement. The research employs a systematic review methodology guided by the PRISMA protocol, focusing on studies conducted within Europe over the past five years. An initial search yielded 580 articles, of which 52 were assessed, and ultimately 7 met the inclusion criteria for analysis. The findings indicate that Generation Y employees are driven by a desire for work-life balance, career development, and roles that align with their personal values. SMEs that offer flexible working conditions, structured career paths, and digital tools for engagement and feedback are more likely to retain this cohort. However, resource constraints in SMEs pose challenges, necessitating scalable and adaptable HRM strategies. The study provides practical recommendations, including the adoption of flexible work policies, digital engagement tools, and recognition programs, to enhance employee satisfaction and retention. The research highlights a gap in the literature regarding long term strategies for integrating these practices in SMEs. Future research should focus on developing cost-effective HRM solutions tailored to the specific needs of SMEs while addressing the unique motivations of Generation Y employees.

Purpose – This paper explores how small and medium-sized enterprises (SMEs) can align their human resource management (HRM) practices with the motivational needs of Generation Y employees. It addresses the growing challenge SMEs face in adapting to generational shifts in workplace expectations, particularly around flexibility, purpose, and psychological safety. The goal is to synthesize existing research and highlight HRM approaches that support employee engagement, satisfaction, and retention within the constraints typical of SME environments.

Design/methodology/approach – This study employs a systematic literature review following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) methodology. The review process included comprehensive searches in databases such as Google Scholar, Scopus, and Web of Science, focusing on articles published between 2019 and 2024. After applying predefined inclusion and exclusion criteria, 580 studies were initially identified, of which 52 were reviewed in detail. Ultimately, 7 peer-reviewed articles met all criteria and were analyzed to identify recurring HRM practices aligned with Generation Y's motivational factors in SME settings.

Findings – The review identified flexibility, career development, purpose-driven work, and digital engagement as core motivational drivers for Generation Y employees in SMEs. HRM practices that promote autonomy, clear growth pathways, and meaningful feedback were consistently associated with higher engagement and retention. Despite resource limitations, SMEs can adopt scalable solutions such as flexible work policies, low-cost digital tools, and supportive leadership structures. The findings also highlight the need for balance in feedback practices and the importance of aligning organizational values with personal values to foster long-term loyalty among Generation Y employees.

Originality – This paper offers one of the few systematic reviews focused specifically on aligning HRM practices with Generation Y motivational factors in the SME context. By applying the PRISMA methodology, it consolidates fragmented academic findings into a structured overview of effective HR strategies for smaller enterprises. The study highlights a notable gap in existing literature and provides a foundation for future empirical research. Its value lies in offering practical, adaptable recommendations that SMEs can apply despite resource limitations, bridging the divide between generational expectations and operational realities.

Keywords: Generation Y, HRM Practices, Motivation, SMEs, Strategies

1. Introduction

As the workforce continues to evolve, small and medium-sized enterprises (SMEs) face increasing pressure to attract and retain talent from Generation Y, a demographic known for its unique work expectations and values. Unlike larger firms, SMEs often lack the financial and structural resources to implement sophisticated HRM systems, making alignment with Generation Y's expectations particularly challenging (Hidegh et al., 2019; Csutorás, 2022; Baksi, 2016). The scholarly significance of this research is underscored by the convergence of demographic shifts in the workforce, resource constraints specific to SMEs, and the evolving nature of employment relationships. As Rašticová and Hinzmann (2024) note, systematic research examining Generation Y's integration into SME environments remains limited and theoretically underdeveloped. This knowledge gap is particularly problematic given the substantial role SMEs play in European economies and their unique operational constraints compared to larger enterprises (Demirkan et al., 2022; Irwin et al., 2018).

The distinct motivational factors of Generation Y, ranging from a desire for meaningful work to the expectation of flexibility and career advancement pose a significant challenge for SMEs, which often operate with limited resources and strategic capabilities.

Given these constraints, the need for tailored HRM practices that align with Generation Y's motivations has become more pressing than ever. This study seeks to address this challenge by systematically exploring existing literature to identify HRM strategies that are not only effective but also feasible for SMEs. By focusing on the intersection of generational expectations and the operational realities of SMEs, this research aims to provide actionable insights that can help smaller enterprises build a competitive edge in today's dynamic labor market.

Through a comprehensive review and synthesis of recent studies, this paper contributes to the ongoing discourse on how SMEs can optimize their HRM practices to better meet the needs of Generation Y. The findings presented here offer practical recommendations that are designed to enhance both employee satisfaction and organizational performance, ensuring that SMEs can thrive in an increasingly competitive business environment.

2. Literature review

In today's dynamic work environment, integrating Generation Y (also known as Millennials) into the workforce presents both challenges and opportunities, particularly for small and medium-sized enterprises (SMEs). Generation Y, born between the early 1980s and mid-1990s, is characterized by distinct motivational factors that differ from previous generations (Cennamo et al., 2008; Klein, 2020; Pandey, 2019). These preferences are shaped by a generational differences theory, which suggests that cultural and technological shifts, such as the rise of the internet and economic prosperity in the 1990s, influence Millennials' work values, emphasizing work-life balance, intrinsic rewards like meaningful work, and extrinsic rewards like career advancement (Twenge, 2010).

Generation Y tends to prioritize job security, a sense of prestige, competitive compensation, career development opportunities, and a desire for roles that provide challenges and personal growth (Baum, 2019; Cennamo et al., 2008; Niati et al., 2021; Szondi et al., 2019; Terera & Ngrande, 2014). These unique preferences have a significant impact on how SMEs approach Human Resource Management (HRM) practices. Unlike larger organizations, SMEs typically operate with more limited resources, both in terms of finances and workforce capabilities, making it difficult to tailor HRM practices to meet the specific needs of Generation Y (Demirkan et al., 2022; Irwin et al., 2018). In SMEs, where resources are often limited, leadership style plays a pivotal role in ensuring successful change management and organizational performance. According to Filep (2022), leadership style and a resilient attitude toward changes are key to enhancing SMEs' ability to adapt, which is critical for maintaining competitive performance in rapidly evolving markets.

The importance of understanding these generational preferences is amplified by the growing presence of different generations in the workforce and SMEs must adapt to attract, retain, and engage these employees. This study integrates generational differences theory with SME-specific challenges to explore how HRM practices can align with Generation Y's motivations, addressing a critical gap in the literature by providing a contemporary framework for understanding their workplace expectations.

Theoretical foundation for understanding Generation Y motivations:

- a. Research on generational differences suggests that shared experiences during formative years create distinct workplace expectations. For Generation Y, technological advancement and economic prosperity shaped their expectations for flexibility and career development (Cennamo et al., 2008; Klein, 2020).
- b. Intrinsic vs. extrinsic motivation: Generation Y places higher emphasis on intrinsic motivators like meaningful work and autonomy compared to previous generations (Cennamo et al., 2008).
- c. Career stage development: Most Generation Y employees are currently in their career-building phase, explaining their focus on development opportunities (Klein, 2020).

- d. Digital native characteristics: Generation Y's comfort with technology creates distinct expectations for workplace digital tools and communication (Klein, 2020).

Our further review synthesizes the findings from the 7 studies that examine the alignment of HRM practices with the motivational factors of Generation Y within SMEs. Through the synthesis of the reviewed articles, key connections were identified across several recurring themes, such as work-life balance, career development opportunities, and digital engagement. Additionally, divergences in leadership approaches and the impact of resource constraints in SMEs were highlighted, offering a comprehensive understanding of how these studies align with the research objectives. These connections and divergences are illustrated in Table 1.

Table 1: Synthesis of Key Themes and Divergences Across Selected Articles

Author(s) and Title of Article	Key Themes and Agreements			Divergences and Unique Perspectives	
	Work-Life Balance and Flexibility	Career Development Opportunities	Digital Engagement	Leadership and Feedback Mechanisms	Resource Constraints in SMEs
Caprano, J. (2019). Recruiting generation Y for the backbone of economy: Organizational attractiveness of small, family-owned, and rural firms					X
Happonen, A., Manninen, L., Santti, U., & Mariappan, M. (2021). Online brand, opportunities, realities and challenges for SMEs			X		
Klein, P. (2020). New generations: Changing values of Generation Y & Z: Impact on today's organisations, human resource management and leadership	X			X	X
Mura, L. (2021). Innovative start-ups and family enterprises in terms of age structure of the entrepreneurs	X	X			X
Nieźurawska-Zajęc, J., Kycia, R. A., & Niemczynowicz, A. (2023). Managing Generation Z: Motivation, engagement and loyalty		X			
Rašticová, M., & Hinzmann, R.-A. (2024). Age-considerate employee engagement strategies in SMEs: Analysis of practices and research opportunities		X		X	
Vladimirovic, P. F. (2020). Generation diversity and its implementation to talent management and firm performance		X			

Source: Own editing based on the synthesis

Key themes and agreements

Work-life balance and flexibility

Several studies, including Klein (2020) and Mura (2021), emphasize the importance of work-life balance for Generation Y. They argue that this cohort values flexibility in their work schedules, which contributes to their job satisfaction and overall engagement. Both studies highlight that SMEs need to implement flexible work arrangements, such as telecommuting or flexible hours, to meet the expectations of Generation Y.

Career development opportunities

Career development is another critical factor highlighted across multiple studies. Rašticová and Hinzmann (2024) and Mura (2021) agree that Generation Y employees are driven by opportunities for professional growth. SMEs that provide structured career paths and continuous learning opportunities are more likely to retain these employees. Additionally, Nieźurawska-Zajęc et al. (2023) note that Generation Z, though younger, shares similar values related to continuous development and loyalty but may require different engagement strategies. These findings suggest that SMEs should invest in

training programs and clear promotion paths to align with the career aspirations of Generation Y.

Digital engagement

Digital tools and technology play a significant role in engaging Generation Y, as noted by Klein (2020) and Rašticová and Hinzmann (2024). Both studies suggest that SMEs must leverage digital platforms not only for communication but also for providing feedback and recognition, which are highly valued by Generation Y. The adoption of digital tools is seen as a critical strategy for enhancing employee engagement and satisfaction in this demographic.

Divergences and unique perspectives

Leadership and feedback mechanisms

While the importance of leadership is universally acknowledged, there is a divergence in how feedback mechanisms should be implemented. Klein (2020) advocates for continuous feedback as a means to engage Generation Y, while Rašticová and Hinzmann (2024) caution that overly frequent feedback can be perceived as micromanagement, potentially leading to disengagement. This suggests that SMEs must strike a balance between providing enough feedback to meet expectations without overwhelming employees.

Resource constraints in SMEs

Mura (2021) and Klein (2020) highlight the challenges SMEs face due to limited resources. While Mura (2021) suggests that SMEs can overcome these challenges by adopting innovative HR practices, Klein (2020) emphasizes the need for scalable solutions that can be adapted to the specific constraints of smaller enterprises. Caprano (2019) adds that smaller, family-owned firms can leverage their close-knit environments and unique company cultures to attract Generation Y employees, despite limited financial resources, by promoting a sense of purpose and belonging. This divergence points to the necessity for SMEs to customize their HR strategies based on their unique circumstances, rather than adopting a one-size-fits-all approach.

3. Research objectives

This study addresses a significant gap in the intersection of generational workforce theory and SME management literature. While research exists on Generation Y workplace preferences (Cennamo et al., 2008; Klein, 2020), the unique constraints and opportunities present in SME environments create a distinct research context requiring specialized investigation. As Mura (2021) and Klein (2020) demonstrate, SMEs face particular challenges in adapting HRM practices to meet generational expectations due to resource limitations. The scientific contribution of this work lies in three areas:

1. Theoretical: by applying generational differences theory specifically to resource-constrained organizational environments
2. Methodological: by employing systematic review protocols to synthesize fragmented empirical evidence
3. Practical: by developing evidence-based recommendations that account for SME operational realities while addressing Generation Y's distinct motivational factors. This study is driven by the need to better understand how SMEs can effectively manage and engage Generation Y employees, a demographic that brings unique challenges to traditional HRM practices. To address these challenges, the following research questions were formulated:

- **What are the key motivational factors for Generation Y in SMEs?** Understanding the specific motivational drivers of Generation Y is crucial for SMEs aiming to attract and retain this cohort. By identifying these key factors, SMEs can better tailor their HRM practices to meet the needs of this important workforce segment.
- **How can HRM practices in SMEs be aligned with these motivational factors?** Once the motivational factors are identified, the next step is to explore how HRM practices can be adapted to align with these preferences. This question is essential because SMEs often operate with limited resources, making it critical to develop HR strategies that are both effective and resource-efficient. Aligning HRM practices with the expectations of Generation Y can lead to higher levels of employee engagement and retention.
- **What practical strategies can SMEs implement to enhance satisfaction and retention of Generation Y em-**

ployees? This question addresses the practical application of the research findings, offering SMEs concrete strategies to improve job satisfaction and retention among Generation Y employees. By focusing on practical solutions, the study aims to bridge the gap between academic research and real-world HRM challenges faced by SMEs. The basic aims of the study seeks to provide actionable recommendations for SMEs.

4. Methodology

This systematic review was designed to meet established standards for scientific rigor in management research. The review protocol was developed to ensure transparency and minimize selection bias throughout the research process. Our approach integrates both theoretical considerations regarding what constitutes valid knowledge about Generation Y motivations and practical considerations about SME implementation capabilities. The choice of PRISMA methodology reflects our commitment to systematic evidence synthesis and reproducible research practices. The PRISMA framework provides standardized procedures for minimizing bias, ensuring comprehensive literature coverage, and maintaining transparency in study selection and data extraction processes, as referenced by Moher et al. (2009) in our methodology.

To address the research questions, a systematic literature review was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol (Moher et al., 2009). This method provides a rigorous and structured approach to identify, evaluate, and synthesize relevant literature on HRM practices in SMEs, specifically related to Generation Y's motivational factors. The search strategy involved querying major databases such as Google Scholar, Web of Science, and Scopus using a combination of search terms: (“Generation Y” OR “Millennials”) AND (“Motivation” OR “Motivational Factors”) AND (“HRM Practices” OR “Human Resource Management”) AND (“SMEs” OR “Small and Medium-Sized Enterprises”) AND (“Strategies”). The initial search yielded 580 articles.

The search was limited to European studies in English (from 2019 to 2024) to maintain regional relevance and manage resource constraints, as SMEs in Europe face unique regulatory and cultural contexts. Expanding to other regions or languages was not feasible due to time and translation limitations, potentially reducing the pool of relevant studies.

The initial search yielded 580 articles. To minimize bias and ensure objectivity throughout the screening process, both authors independently screened all titles and abstracts using the predefined inclusion and exclusion criteria. Differences between reviewers were resolved through discussion until consensus was reached. While the inclusion and exclusion criteria were designed to be as objective as possible, certain aspects required subjective judgment, particularly in determining:

- Whether studies sufficiently addressed motivational factors versus general workplace preferences
- The extent to which findings were applicable to SME contexts when not explicitly stated
- The relevance of studies that mentioned Generation Y but focused primarily on other generational cohorts

For the 52 studies selected for full-text review, both authors independently assessed each study against the inclusion criteria. Reasons for final inclusion or exclusion decisions were documented to ensure transparency in the selection process.

Inclusion criteria were applied to narrow down the search to studies published in the last five years, focusing on HRM practices in SMEs, conducted in Europe, peer-reviewed, written in English, and addressing Generation Y motivational factors. Exclusion criteria removed studies unrelated to HR topics, irrelevant studies, non-English publications and studies focusing on large enterprises. After applying these criteria and removing duplicates, 52 relevant studies were selected for further analysis.

The 52 studies were then assessed in greater detail to determine their eligibility based on pre-defined inclusion and exclusion criteria:

- Inclusion Criteria: Studies published between 2019 and 2024, focusing on HRM practices in SMEs, conducted in Europe, peer-reviewed, written in English, and addressing motivational factors specific to Generation Y;
- Exclusion Criteria: Studies unrelated to HR topics, studies focused on large enterprises, or those not addressing Generation Y's motivational factors were excluded.

After applying the final eligibility criteria, only 7 studies fully matched all the inclusion criteria, focusing on HRM practices for Generation Y within SMEs in Europe. This limited number highlights the scarcity of comprehensive studies in this field, further emphasizing the importance of this research in addressing existing gaps in the literature.

The PRISMA process, as highlighted in Figure 1, ensured that the review was conducted systematically and transparently, allowing for a comprehensive synthesis of the most relevant and high-quality studies. This method not only facilitated the identification of current trends and gaps in the literature but also provided a solid foundation for the subsequent analysis and recommendations.

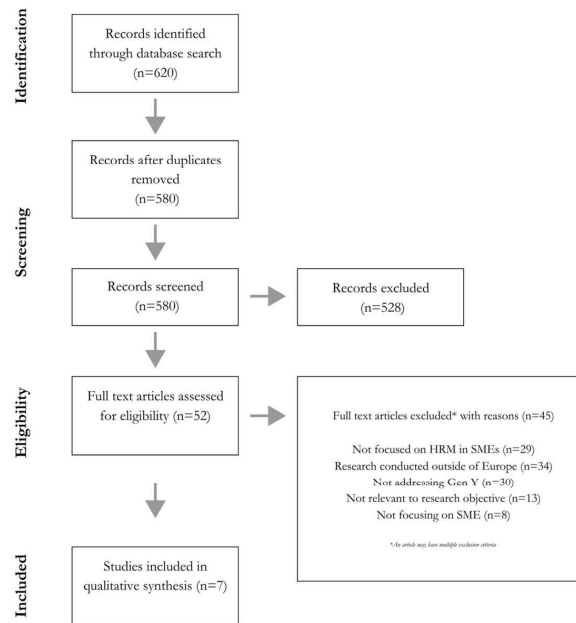


Figure 1: Systematic review: PRISMA
Source: Own editing based on Nagyné et al. (2021)

Appendix 1. highlights the key criteria for each reviewed paper, helping to identify the studies that best align with the research objectives. The majority of the papers were published within the last five years, ensuring relevance to the current HRM practices and generational trends. However, only a subset of these studies focused specifically on SMEs and Generation Y within a European context, reflecting a potential gap in the literature that this research seeks to address.

5. Results

This section presents the findings from the 7 studies that fully met the inclusion criteria out of an initial review of 52 papers. The goal of this research is to synthesize evidence on how HRM practices in SMEs align with Generation Y's motivational factors, with a focus on practical strategies for improving satisfaction and retention. Each study offers specific insights that address the research questions proposed earlier.

Key motivational factors for Generation y in SMEs include work-life balance and flexibility, which emerge as critical drivers of job satisfaction. The studies consistently highlight several key motivational factors for Generation Y employees in SMEs. Both Klein (2020) and Mura (2021) emphasize that Generation Y values the ability to balance their professional and personal lives, seeking employers who offer flexible working arrangements. This flexibility is not merely about working hours but also encompasses the freedom to manage workloads and the option to work remotely when needed. SMEs that provide such flexibility are seen as more attractive to Generation Y, contributing to higher retention rates.

Career development opportunities are equally important. Rašticová and Hinzmann (2024) and Mura (2021) both note that Generation Y employees are highly motivated by opportunities for professional growth. Unlike previous generations, who might prioritize job stability, Generation Y seeks roles that offer continuous learning and development. SMEs that invest in structured career paths, mentorship programs, and regular training are better positioned to engage and retain Generation Y employees. This emphasis on development aligns with the cohort's desire for roles that not only offer immediate rewards but also contribute to long-term career aspirations.

Purpose-driven work is another significant motivator. Klein (2020) and Mura (2021) highlight that Generation Y seeks roles that align with their personal values and contribute to a larger societal good. SMEs that articulate a clear mission and demonstrate a commitment to social responsibility can tap into this desire, making their roles more appealing to Generation Y employees. This connection between personal values and organizational goals is crucial for fostering loyalty and long-term engagement.

Aligning HRM practices with Generation Y's motivational factors is most effective when SMEs focus on flexibility, career development, and digital engagement. The studies suggest that digital tools are particularly important in this alignment. Vladimirovic (2020) highlights that generational diversity significantly affects talent management strategies, suggesting that SMEs must tailor their HRM practices to meet the differing needs and expectations of Generation Y and

other generational cohorts. Klein (2020) argues that the integration of technology into HR practices - such as using digital platforms for continuous feedback, professional development, and communication - can significantly enhance engagement among Generation Y employees. For example, SMEs might implement online learning modules or digital mentorship programs that allow employees to develop their skills at their own pace.

However, while continuous feedback is valued by Generation Y, Rašticová and Hinzmann (2024) caution that feedback must be balanced. Overly frequent or micromanaged feedback can lead to disengagement rather than motivation. SMEs should therefore aim to provide regular, constructive feedback that empowers employees without making them feel overly monitored. This might involve setting up quarterly or bi-annual review sessions that focus on growth opportunities rather than just performance metrics.

In addition, the studies underscore the importance of scalability and adaptability in HRM practices. Mura (2021) highlights that while SMEs often face resource constraints, they can still adopt innovative HR strategies that are scalable. For instance, SMEs can introduce flexible work policies or low-cost digital engagement tools that do not require significant financial investment but still meet the expectations of Generation Y. This adaptability is crucial for SMEs to remain competitive in attracting and retaining talent.

Practical strategies for enhancing satisfaction and retention

The studies reveal actionable strategies that SMEs can implement to enhance Generation Y employee satisfaction and retention. Rašticová and Hinzmann (2024) suggest that recruiting and retaining Generation Y requires a company culture that emphasizes career development and offers clear pathways for growth. Moreover, the study by Klein (2020) highlights the importance of creating internal recognition programs and offering opportunities for mobility within the organization, which build loyalty among Generation Y employees. SMEs should invest in clear career progression paths, mentorship, and continuous learning opportunities. Providing access to professional development resources, even in a digital format, can help retain Generation Y employees by aligning with their growth-oriented mindset.

Another significant finding is the role of digital engagement. Happonen et al. (2021) argue that a strong online presence, coupled with digital initiatives that engage employees, helps create a sense of belonging, which is crucial for Generation Y. These initiatives contribute to higher retention rates by aligning with Generation Y's values of innovation and purpose. Implementing digital tools for communication, feedback, and professional development can meet the technological expectations of Generation Y. SMEs might consider using online platforms for communication, offering online courses for skill development, or setting up digital feedback systems that provide timely and relevant insights.

The importance of mental health and well-being is also a key consideration in these strategies. Mura (2021) discusses the significance of offering wellness programs and flexible working arrangements to support the mental health of Generation Y employees, leading to improved engagement and satisfaction. SMEs that offer such programs see a marked improvement in employee retention. These practices not only meet their desire for work-life balance but also demonstrate trust and autonomy, which are highly valued by this cohort.

Despite the resource limitations often faced by SMEs, the strategies are adaptable and can be scaled according to the organization's specific needs and capacities. For example, a small SME might start with a simple digital feedback tool and gradually build a more comprehensive digital engagement platform as resources allow.

In this study, "scalability" refers to the ability of HRM practices to be adapted across different SME contexts while maintaining effectiveness in engaging Generation Y employees. The 7 reviewed studies provide limited evidence on implementation variations across different SME contexts. However, several considerations emerge:

- Resource constraints: Mura (2021) and Klein (2020) acknowledge that SMEs face resource limitations that require adaptable solutions rather than expensive HR systems. SMEs should prioritize flexible work arrangements and basic digital communication tools, which require minimal investment but significantly enhance Generation Y satisfaction. Rather than expensive HR platforms, SMEs can use accessible tools like messaging apps for communication, free online learning platforms for development, and simple feedback systems.
- Size variations: The reviewed studies do not differentiate between various SME sizes, representing a gap in current research understanding of implementation challenges. Even small SMEs can offer cross training opportunities, external mentorship partnerships, or skill sharing sessions among employees to address Generation Y's growth orientation.
- Geographic and industry context: Limited evidence exists on how recommendations apply across different industries or geographic contexts (rural vs. urban). Limited evidence exists on how recommendations apply across different industries or geographic contexts (rural vs. urban). SMEs should adapt strategies to their specific context: rural SMEs might focus on community connections and work-life integration, while urban SMEs might emphasize digital engagement and networking opportunities.

Research gaps identified: Our analysis reveals significant gaps in understanding how Generation Y HRM strategies can be effectively adapted across different SME contexts. Future research should examine implementation effectiveness

across varying organizational sizes, industries, and resource levels.

6. Conclusion

The primary aim of this paper was to explore how HRM practices in SMEs can be aligned with the motivational factors of Generation Y. Through a systematic review using the PRISMA protocol, we identified only 7 studies that provide valuable insights into the preferences and needs of Generation Y within the SME context. While these studies offer important findings, the limited number highlights a significant gap in the existing literature.

The findings from these studies underscore the importance of work-life balance, career development opportunities, and digital engagement as key drivers of job satisfaction and retention for Generation Y employees. SMEs that offer flexibility, structured career paths, and leverage digital tools are better positioned to attract and retain this cohort. Additionally, the alignment of organizational goals with the personal values of Generation Y - particularly around purpose-driven work - can foster loyalty and long-term engagement.

Despite the resource constraints often faced by SMEs, the studies reviewed suggest that even modest investments in flexible work policies, career development programs, and digital tools can yield significant benefits. However, there remains a gap in the literature regarding the integrated application of these strategies and their long-term impact on SMEs.

7. Limitation and further research direction

Given that only a small number of studies met the inclusion criteria, this study is limited in its scope and findings. The limited number of relevant studies highlights the constraints in current research, suggesting the need for more comprehensive exploration.

Sample size and generalizability issues: The inclusion of only 7 studies significantly limits how broadly our findings can be applied across different SME contexts. This limitation has several important implications:

Geographic and cultural limitations: Our focus on European, English-language studies may not reflect Generation Y motivations in other regions where cultural values, economic conditions, or work expectations differ. For example, Generation Y expectations in Eastern European SMEs may vary from those in Western European countries due to different economic conditions and work cultures.

Sector and size diversity: The limited sample likely does not represent all SME sectors (e.g., manufacturing vs. service industries) or different company sizes within the SME category. This affects how applicable our recommendations are to SMEs in traditional industries or rural areas where digital tools may be harder to implement.

Research implications: With only 7 studies, we cannot identify clear patterns or differences across various contexts. The small sample size makes it difficult to analyze subgroups and reduces confidence in our findings.

Practical implications for SME managers: SME managers should carefully consider our recommendations, especially when their company context differs from the European service sector focus found in the reviewed studies. The strategies we identified may need significant changes for different cultural, economic, or industry contexts.

Research design limitations: Our decision to focus on European, English-language publications, while justified by resource constraints and regional relevance, excluded potentially valuable research from other regions. This is particularly important given that Generation Y workforce trends are global, and innovative HRM practices may exist in non-Western contexts that we could not access due to language barriers.

Future research should focus on developing scalable and cost-effective HRM solutions tailored to the unique needs of SMEs. Additionally, more empirical studies are needed to assess the long-term effects of these HRM practices on the retention and satisfaction of Generation Y employees in smaller enterprises. By addressing these limitations and exploring new research directions, future studies can provide more comprehensive guidance for SMEs looking to optimize their HRM practices for this generation.

8. Conflict of interest:

The authors declare no conflict of interest.

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Appendix

Appendix 1: Summary of Inclusion and Exclusion Criteria for Reviewed Literature

Source: Own editing based on the literature review

Reviewed articles	Inclusion and Exclusion Criteria							
	Published (2019-2024)	Focus on HRM in SMEs	Research conducted in Europe	Peer-reviewed	Address Generation Y	Related to HR topics	Relevant to research objective	Focus on large enterprises
1	Yes	Yes	No	Yes	No	Yes	Yes	No
2	Yes	No	No	Yes	No	Yes	No	No
3	Yes	No	No	Yes	No	Yes	No	No
4	Yes	No	No	Yes	No	Yes	No	No
5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
7	Yes	Yes	No	Yes	No	Yes	Yes	No
8	Yes	Yes	No	Yes	Yes	Yes	Yes	No
9	Yes	Yes	No	Yes	No	Yes	Yes	No
10	Yes	Yes	No	Yes	No	Yes	Yes	No
11	Yes	No	Yes	Yes	No	Yes	No	No
12	Yes	Yes	No	Yes	No	Yes	Yes	No
13	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
14	Yes	No	No	Yes	No	Yes	No	No
15	Yes	No	No	Yes	Yes	Yes	Yes	Yes
16	Yes	No	No	Yes	No	Yes	No	Yes
17	Yes	No	Yes	Yes	No	Yes	No	No
18	Yes	No	No	Yes	No	Yes	No	Yes
19	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
20	Yes	Yes	No	Yes	No	Yes	Yes	No
21	Yes	Yes	No	Yes	No	Yes	Yes	No
22	Yes	Yes	Yes	No	Yes	Yes	Yes	No
23	Yes	No	No	Yes	No	Yes	No	Yes
24	Yes	No	No	Yes	No	Yes	No	No
25	Yes	No	No	Yes	No	Yes	No	No
26	Yes	No	No	Yes	Yes	Yes	Yes	Yes
28	Yes	No	No	Yes	No	Yes	No	No
29	Yes	No	No	Yes	Yes	Yes	Yes	Yes
30	No	No	Yes	Yes	Yes	Yes	Yes	Yes
31	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
32	Yes	Yes	Yes	No	No	Yes	Yes	No
33	Yes	No	No	Yes	No	Yes	Yes	No
34	Yes	No	Yes	Yes	No	No	No	No
35	Yes	Yes	Yes	Yes	No	Yes	Yes	No
36	Yes	No	Yes	No	Yes	Yes	Yes	No
37	Yes	No	No	Yes	Yes	Yes	Yes	No
38	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
39	Yes	Yes	No	Yes	Yes	Yes	Yes	No
40	Yes	Yes	No	No	Yes	Yes	Yes	No
41	Yes	No	No	No	Yes	Yes	Yes	No
42	Yes	No	No	No	No	Yes	Yes	No
43	Yes	No	No	No	No	Yes	Yes	No
44	Yes	Yes	Yes	Yes	No	Yes	Yes	No
45	Yes	No	No	No	Yes	Yes	Yes	No
46	Yes	No	No	Yes	No	Yes	Yes	No
47	Yes	No	No	Yes	No	Yes	Yes	No
48	Yes	Yes	No	Yes	No	Yes	Yes	No
49	Yes	Yes	Yes	Yes	No	Yes	Yes	No
50	Yes	No	No	Yes	Yes	Yes	Yes	No
51	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
52	Yes	No	No	Yes	Yes	Yes	Yes	No

Appendix B – Data extraction form

ID	Reference	Short Content	Method	Type of Paper	Journal Conference/ Proceeding Name	Data Provider	Ranking of the journal	Year
QAS1	Tishk, M., Herfle, C., Cuday, J., Abelt, E., Metternich, J., & Tenberg, R. (2013). A Systematic Approach on Developing Action-oriented, Competency-based Learning Factories	The paper develops a systematic approach for developing action-oriented, competency-based learning factories. The author used a mixed methods approach, including expert interviews and workshops, to develop a competency model for learning factories and identified key competencies necessary for learning factory success.	mixed-methods approach	Conference Proceedings	Procedia CIRP	SciendoDirect		2013
QAS2	Sihahrom, N., Musaj, A. H., Amin, N. F. M., & Johari, N. K. A. (2014). The Development of Competency Model and Instrument for Competency Measurement: The Research Methods	The paper develops a competency model and instrument for measuring competencies. The author used a mixed-methods approach, including expert interviews, focus groups, and a survey, to develop the model and measure competencies related to information technology positions.	mixed-methods approach	Conference Proceedings	Procedia Social and Behavioral Sciences	SciendoDirect		2014
QAS3	Martić-Reić, R., Gavrić-Morčić, V. J., & Bojović-Roman, M. T. (2013). Influence of technological support skills and competencies and learning on corporate entrepreneurship in European technology firms	The paper conducted a survey to investigate the influence of technological support skills and competencies and learning on corporate entrepreneurship in European technology firms. The authors found that technological support and learning had a significant positive effect on corporate entrepreneurship, while skills and competencies had a less significant effect.	survey	Journal Article	Technovation	SciendoDirect	Q1	2013
QAS4	Ishihata, M. (2023) Educational Requirements for Aviation and Automotive Engineering: A Systematic Case Study on Technical Competencies in Aviation and Automotive Engineering During 2014-2021	The paper reviewed the anticipation cases study on competencies in aviation and automotive engineering between 2014-2021, using a qualitative research approach. The study identified the educational requirements for aviation and automotive engineering and the key competencies required in these fields. The key finding is that the integration of practice and theoretical education is essential to develop the required competencies for aviation and automotive engineering.	qualitative study	Journal Article	U. Porto Journal of Engineering	Scopus	Q4	2023
QAS5	Mupfaharow, W., Werner, A. R., Mey, M. (2022). Industry 4.0: Emerging job categories and associated competencies in the automotive industry in South Africa	The paper identified the emerging job categories and associated competencies in the automotive industry in South Africa under Industry 4.0 using a mixed-methods research approach. The study found that new job categories, such as digital maintenance technicians and data analysts, require new competencies related to technology and data analysis. The key finding is that there is a need for continuous upskilling to prepare the workforce for the emerging job categories in the automotive industry.	BEI	Journal Article	S.A. Journal of Human Resources Management	AOSIS	Q3	2022
QAS6	Sarković, M., Komatina, N., Nestić, S., & Grčković, R. (2022). Comparative Analysis of Competencies in Traditional and Agile Project Management Approaches	The paper conducted a comparative analysis of competencies in traditional and agile project management approaches, using a survey-based method. The study found that agile project management requires more competencies related to communication, collaboration, and leadership, while traditional project management requires more technical competencies.	survey	Conference Proceedings	International Scientific Conference	Scopus		2022
QAS7	Majed, M. I., Mahmood, R., Abd. Sam, H., & Mianif, S. (2022). An Empirical Impact of Project Management Competencies on the Project Success	The paper investigated the impact of project management competencies on project success using a survey-based method. The study found that project management competencies significantly influence project success, with communication, leadership, and technical competencies being the most important.	survey	Journal Article	International Journal of Science	DOAJ	Q1	2022
QAS8	Martenshals, A., & Zehleke, M. (2022). Employees' Digital Competency Development in the Construction and Automotive's Industrial Sectors	The paper examined the development of employees' digital competencies in the construction and automotive industrial sectors using a survey method. The study found that both sectors face challenges in developing digital competencies due to the lack of a structured approach and inadequate training programs.	BEI	Journal Article	Central European Business Review	Scopus	Q3	2022
QAS9	Budiman, A., Swambo, W., & Elentri, Y. (2020). Mapping graduate learning competencies of the automotive engineering education	The paper mapped the graduate learning competencies of automotive engineering education using a survey-based study. The study identified five competencies, including knowledge of automotive engineering, communication and interpersonal skills, entrepreneurial skills, and environmental awareness.	survey	Journal Article	Journal of Physics Conference Series	IOP	Q4	2020
QAS10	Mondal, S., Kulkarni, K., Kulkarni, G. J., & Aaltonen, K. (2021). Profile of Project Managers' Competencies for Collaborative Construction Projects	The paper conducted a profile of project managers' competencies for collaborative construction projects, using a mixed-methods approach. The study found that effective project managers require a range of competencies related to communication, leadership, problem-solving, and technical skills, as well as the ability to manage collaboration and coordination among different stakeholders.	mixed-methods approach	Conference Proceedings	Proceedings of the 37th Annual ARCOM Conference	ARCOM		2021
QAS11	Gruken, N., & Stare, A. (2018). The Influence of Behavioral Competencies on Project Performance	The paper conducted a survey-based research to examine the influence of behavioral competencies on project performance. They found that project managers' behavioral competencies, particularly leadership and communication, have a significant positive impact on project performance.	survey	Journal Article	Project Management Journal	Wiley	Q1	2018
QAS12	Johannes, T. (2022). Wheel of competencies: industry demands of competencies for research and innovation	The paper proposed a 'Wheel of Competencies' model to identify industry demands for competencies in research and innovation. The model consists of three dimensions: technical, methodical, and personal competencies, and the findings suggest that technical competencies are essential for research and innovation.	literature review and used case studies	Conference Proceedings	SEI 5th Annual Conference of The European Society for Engineering Education	Scopus		2022
QAS13	Spattini, J., Abdallah, A. G., & Smarits, (2020). The perceptions of automotive industrial managers about the internship students' competencies	The paper investigated the perceptions of automotive industrial managers about the internship students' competencies using a qualitative research approach. The findings showed that communication skills, teamwork, problem-solving, and technical skills were perceived as the most critical competencies for internship students in the automotive industry.	qualitative study	Conference Proceedings	IOP Conference Series: Materials Science and Engineering	IOP		2020
QAS14	Alsharha, O., Alsharha, G., Fata, O. B., & Thawab, W. D. (2022). Core Competencies Required for Construction Project Success: The Project Management Angle	The paper conducted a survey-based study to identify the core competencies required for construction project success from the project management perspective. The results revealed that project management competencies, particularly communication, leadership, and problem-solving skills, are the most critical competencies for project success.	survey	Conference Proceedings	14th International Conference on Applied Human Factors and Ergonomics	SciendoDirect		2022
QAS15	Reesner, M., Kuhn, M., Keuper, A., & Schink, G. (2021). Concept for competency-based resource allocation in multi-project environments	The paper proposed a competency-based resource allocation model for multi-project environments using an exploratory research approach. The model aims to identify the most suitable project team members based on their competencies, project requirements, and available resources, and the results suggest that the model can improve project performance by enhancing the competency match between the team members and the project tasks.	literature review and used case studies	Conference Proceedings	4th International Conference on Management, Economics & Finance	Scopus		2021
QAS16	Dillon, S., & Taylor, H. (2015). Employee grounded theory to uncover behavioral competencies of information technology project managers	The paper employed grounded theory to identify and understand the behavioral competencies of information technology project managers. Key findings revealed that communication, problem-solving, and leadership were among the top competencies required for effective project management in IT.	BEI	Journal Article	Project Management Journal	Wiley	Q1	2015

QAS17	Müller, R., & Turner, R. (2010). Leadership competency profiles of successful project managers	The paper aimed to identify the leadership competency profiles of successful project managers. The research employed a survey to collect data from project managers and identified ten key competencies that are essential for project management success.	Journal Article	International Journal of Project Management	ScienceDirect	1	2010
QAS18	Stankiewicz, J. A., & Stevenson, D. H. (2011). RMPK certification as a core competency: Necessary, but not sufficient	The paper investigated the importance of the Project Management Professional (PMP) certification as a core competency for project managers. The study found that although the PMP certification is an essential aspect of project management competency, it is not sufficient on its own and needs to be complemented by additional skills and competencies.	Journal Article	Project Management Journal	Wiley	Q1	2010
QAS19	Tibben, S. M., & De Carvalho, M. M. (2015). Competency mapping in project management: An action research study in an engineering company	The paper aimed to develop a competency mapping model for project management in an engineering company. The study involved identifying key competencies required for project managers, the required competencies and map them into a competency model, which was validated by stakeholders. The study highlighted the importance of tailoring the competency mapping process to the specific context and needs of the organization.	Journal Article	International Journal of Project Management	ScienceDirect	Q1	2015
	Fernandez, C. S. F. (2006). The behavioural event interview: Avoiding interviewing pitfalls when hiring	The paper discusses the Behavioral Event Interview (BEI) as a tool for identifying competencies in potential candidates. The study explored the effectiveness of BEI interviews and provides guidance on how to conduct effective BEI interviews.	Journal Article	Journal of Public Health Management and Practice			
	Dreyfus, G. B. (2008). Identifying competencies that predict effectiveness of R&D managers	The paper uses a qualitative approach to identify the competencies that are most important for R&D managers. The study found that both technical and non-technical competencies were important predictors of effectiveness, with the ability to manage interpersonal relationships being the most important competency.	Journal of Management Development				
	LouhifanFeddia, S., & Misonner, S. (2015). The project manager cannot be a hero anymore! Understanding critical competencies in project-based organizations from a multilevel approach	The paper uses a multilevel approach to identify the critical competencies required for project managers in project-based organizations. The study identified five key competencies that are important at different levels of the organization: project, team, and organizational.	International Journal of Project Management				
	Ortiz-Marcos, I., Cobo Benito, J. R., Mataix Añelauueva, C., & Urburu Coñea, A. (2013). Competency training for managing international cooperation engineering projects	The paper explores the importance of competencies for managing international engineering projects and proposes a competency training program. The study found that a lack of competencies was a major barrier to success in international cooperation engineering projects and that a competency training program could be an effective solution.	Project Management Journal				
	Hopkins, M. M., & Bilimoria, D. (2008). Social and emotional competencies predicting success for male and female executives	The paper explores the importance of competencies for managing international engineering projects and proposes a competency training program. The study found that a lack of competencies was a major barrier to success in international cooperation engineering projects and that a competency training program could be an effective solution.	Journal of Management Development				
	Koman, E. S., & Wolff, S. B. (2008). Emotional intelligence and team performance: An empirical examination of the impact of emotional intelligence on team performance	The paper examined the impact of emotional intelligence (EI) on team performance. The study found that higher levels of EI in team members were associated with higher team level EI competencies and a significant positive impact on team performance.	Journal of Management Development				
	Dragandis, F., & Wertzias, G. (2006). Competency based management: A review of systems and approaches	The paper reviewed various competency-based management systems and approaches and identified several trends in the field, such as the increasing importance of soft skills and the integration of competencies into various HR processes. The authors concluded that there is no one-size-fits-all solution and that organizations should tailor their competency models to their specific needs and contexts.	Information Management & Computer Security				
	Kozłowski, P., Kozłowski, A., Bączynska, A., & Hascłkin, M. (2021). Bounded leadership: An empirical study of leadership competencies, constraints, and effectiveness	The paper investigated the concept of "bounded leadership". The authors identified several constraints that limit leaders' effectiveness, such as time pressure, resource constraints, and organizational politics, and found that some competencies, such as political skills and adaptability, can help leaders navigate these constraints and be more effective.	European Management Journal				
	Boytzka, R. E. (2013). Developing Emotional Intelligence Competencies	The paper developed a tool for assessing emotional intelligence competencies. The tool, called the Emotional and Social Competency Inventory (ESCI), measures various competencies related to emotional intelligence, such as self-awareness, empathy, and relationship management.	Academy of Management Learning and Education				
	Chung, R.-G., & Wu, C.-Y. (2011). The identification of personnel director's competency profile through the use of the job competence assessment method	The paper used the job competence assessment method to identify the competency profile of personnel directors. The authors found that the most important competencies for personnel directors are strategic thinking, leadership, and communication skills, among others.	African Journal of Business Management				
	Dobrowolski, Z., Drozdowski, G., & Lutzdzianowski, J. (2021). The Competency Niche: An Exploratory Study	The paper explored the concept of competency niche as a source of competitive advantage by conducting a literature review and empirical research, including surveys and interviews. The study found that the competency niche concept could be applied to various organizations and that organizations could benefit from identifying and developing their competency niches.	Risks				
	Ribeiro, A., Amaral, A., & Barros, T. (2021). Project Manager Competencies in the context of the Industry 4.0	The paper investigated the competencies that project managers need to possess to be effective in the context of Industry 4.0. The study employed a literature review and a survey of 112 project managers. The findings showed that the project managers need to have technical, managerial, and behavioral competencies to succeed in Industry 4.0.	Procedia Computer Science				
	Ercot, B., Kock, A., & Gemmelde, H. G. (2016). Retaining project management competence — Antecedents and consequences	The paper used a longitudinal study to examine the factors that contribute to project management competence retention in organizations. The study surveyed 505 project managers over three years and found that competence retention was influenced by various factors such as job satisfaction, organizational commitment, and career opportunities.	International Journal of Project Management				
	Drejer, A., & Riss, J. C. (1999). Competence development and how learning and technology can be meaningfully integrated	The paper proposed a framework for integrating technology and learning in competence development. The authors argued that learning and technology should be integrated through various stages of competence development, including needs analysis, learning, and evaluation.	Technovation				