



Managing Human Potential in the AI Era for Financial Sustainability in MSMEs

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Abstract. *This research aims to explore strategies for managing human potential amidst technological disruption, specifically focusing on ensuring financial sustainability in Micro, Small, and Medium Enterprises (MSMEs). The research adopts a qualitative approach, employing interviews and case studies to delve into the intricacies of the topic. Sampling techniques include purposive sampling to select MSMEs representative of diverse sectors and regions. Data analysis involves thematic analysis, identifying patterns and themes within the collected data. Preliminary findings underscore the significance of fostering a culture of adaptability, upskilling, and innovation within MSMEs to thrive in the AI era. Moreover, the research highlights the pivotal role of effective leadership and organizational support structures in maximizing human potential for sustainable business outcomes amidst technological disruptions.*

Keywords: *Technological disruption, Human potential management, Financial sustainability, Micro, Small, and Medium Enterprises (MSMEs), AI era adaptation*

INTRODUCTION

In the contemporary business landscape, the advent of Artificial Intelligence (AI) has ushered in a wave of technological disruption, reshaping traditional paradigms across industries. This disruption poses both challenges and opportunities, particularly for Micro, Small, and Medium Enterprises (MSMEs), which constitute a significant segment of global economies. As MSMEs navigate this transformative era, harnessing human potential emerges as a critical imperative for ensuring their financial sustainability amidst technological upheaval. This research endeavors to delve into the multifaceted dynamics of managing human potential in the AI era within MSMEs, with a specific focus on strategies aimed at fostering financial resilience. The accelerating pace of technological advancement, driven by AI and machine learning algorithms, has revolutionized business operations, altering the competitive landscape and consumer behaviors. According to recent studies, AI technologies are projected to contribute significantly to global economic growth, with estimates suggesting a potential addition of \$13 trillion to global GDP by 2030 (PwC, 2017). However, this transformative potential is not uniformly distributed across all sectors and enterprises. MSMEs, often constrained by limited resources and expertise, face distinct challenges in harnessing the full benefits of AI while mitigating its disruptive effects. This research seeks to address the following key questions:

- How do MSMEs adapt to technological disruptions, particularly those driven by AI, in the contemporary business environment?
- What strategies and practices are employed by MSMEs to manage human potential effectively amidst technological disruptions?
- How does the effective management of human potential contribute to the financial sustainability of MSMEs in the AI era?

To elucidate these questions, the research adopts a qualitative approach, allowing for an in-depth exploration of the complex interplay between technology, human capital, and financial performance within MSMEs. By employing qualitative methodologies such as interviews and case studies, the study aims to capture rich insights and perspectives from MSME owners, managers, and employees, thus providing a nuanced understanding of the subject matter. The significance of this research lies in its potential to inform strategic decision-making and policy formulation aimed at enhancing the resilience of MSMEs in the face of technological disruption. By identifying best practices and effective management strategies, the research seeks to empower MSMEs to leverage their human capital effectively, thereby enhancing their competitive advantage and long-term viability in the AI-driven economy.

LITERATURE REVIEW

Technological disruption, particularly driven by Artificial Intelligence (AI), has become a focal point of scholarly inquiry as businesses worldwide grapple with its implications for organizational dynamics and competitiveness. Within the context of Micro, Small, and Medium Enterprises (MSMEs), understanding how to effectively manage human potential in the AI era is paramount for ensuring long-term financial sustainability. Effective communication, empathy, and trust-building emerged as key leadership competencies for fostering collaboration and mitigating resistance to change amidst technological disruption (Ruslaini et al., 2022). This literature review explores key insights from existing research, shedding light on the strategies and challenges encountered by MSMEs in navigating technological disruption and harnessing human capital.

Several studies have underscored the transformative potential of AI technologies across various industries. For instance, a study by Arntz, Gregory, and Zierahn (2016) found that AI and automation could significantly impact the structure of employment, leading to job displacement in certain sectors while creating new opportunities in others. This structural shift poses unique challenges for MSMEs, which often lack the resources and infrastructure to adapt to rapid technological changes effectively. Balancing the benefits of AI with the need for

human oversight and intervention emerged as a critical consideration for organizations navigating the AI-driven landscape (Kumandang et al., 2022).

In the realm of human resource management, researchers have emphasized the importance of fostering a culture of innovation and continuous learning to thrive in the AI era. Organizations must prioritize ethical considerations, invest in employee reskilling and well-being initiatives, and foster inclusive cultures to harness the transformative potential of AI technologies while ensuring the human-centricity of talent management practices (Kasih et al., 2022). According to a study by Diestre, Fernández, and Montes-Peon (2018), organizational agility and a proactive approach to talent development are crucial for MSMEs to leverage AI technologies effectively. Through human-centric approaches that prioritize the development of both technical and soft skills, organizations can foster a culture of lifelong learning, resilience, and innovation in the ever-evolving landscape of the AI era (Rizal et al., 2022). Similarly, research by Martins, Rindova, and Greenbaum (2015) highlights the role of leadership in driving innovation and facilitating the integration of AI into organizational processes.

However, despite the potential benefits of AI adoption, MSMEs face several barriers in harnessing human potential amidst technological disruption. Limited access to AI expertise and resources, as highlighted by Agrawal, Gans, and Goldfarb (2018), poses a significant challenge for smaller enterprises seeking to capitalize on emerging technologies. Moreover, concerns regarding job displacement and workforce reskilling further complicate the human capital management landscape for MSMEs (Brynjolfsson & McAfee, 2014). To address these challenges, scholars have advocated for a holistic approach to human capital management that combines technological investments with investments in employee training and development. For example, a study by Brynjolfsson, Horton, and Ozimek (2020) emphasizes the importance of complementary investments in technology and human capital to maximize productivity and innovation in MSMEs. Similarly, research by De Winne and Sels (2010) highlights the role of strategic HRM practices in facilitating organizational adaptation to technological change. Moreover, empirical evidence suggests that MSMEs that prioritize employee engagement and skill development are better equipped to navigate technological disruptions and achieve financial sustainability. Micro, Small and Medium Enterprises (MSMEs) that integrate sustainable business practices into business strategy may gain benefit from lower costs, reduced risks and new opportunities (Ruslaini, 2021). A study by Cappelli and Keller (2014) found that proactive talent management practices, such as internal training programs and knowledge sharing initiatives, are positively associated with organizational performance in the face of technological change. Similarly, research by Wang, Lu, and Gursoy (2020) highlights the

significance of employee empowerment and participation in driving innovation and adaptation within MSMEs. The literature indicates that effective management of human potential is crucial for MSMEs seeking to thrive in the AI era. By fostering a culture of innovation, investing in employee training and development, and embracing agile HRM practices, MSMEs can enhance their resilience and competitiveness amidst technological disruption.

METHODOLOGY

This research employs a phenomenological approach to explore the complexities of managing human potential in Micro, Small, and Medium Enterprises (MSMEs) amidst technological disruption in the AI era. Phenomenology is well-suited for investigating lived experiences and subjective interpretations, making it an appropriate method for understanding the perceptions and behaviors of MSME owners, managers, and employees in response to technological changes (Creswell & Poth, 2018). The population of interest comprises MSMEs across diverse industries and regions, reflecting the heterogeneous nature of the sector. Given the exploratory nature of the research, purposive sampling will be utilized to select participants who possess relevant insights and experiences pertaining to the research topic (Patton, 2015). This sampling technique allows for the intentional selection of participants based on their knowledge, expertise, and relevance to the study's objectives. The sample size for this research will be determined based on the principle of data saturation, whereby data collection continues until no new information or themes emerge from subsequent interviews or observations (Guest, Bunce, & Johnson, 2006). While the exact number of participants may vary depending on the richness of the data and the complexity of the research topic, a sample size of approximately 15-20 MSME representatives is anticipated to be sufficient to achieve saturation and depth of understanding. Data collection will primarily consist of semi-structured interviews with MSME owners, managers, and employees, allowing for in-depth exploration of their perceptions, experiences, and strategies related to managing human potential in the AI era. Additionally, document analysis of relevant organizational documents, such as training manuals and HR policies, will complement the interview data, providing additional insights into organizational practices and dynamics. The qualitative data collected through interviews and document analysis will be analyzed using thematic analysis, a systematic method for identifying, analyzing, and reporting patterns or themes within qualitative data (Braun & Clarke, 2006). The analysis process will involve several iterative steps, including familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report (Braun & Clarke, 2006).

Overall, this qualitative methodology is designed to provide a comprehensive understanding of the strategies and challenges faced by MSMEs in managing human potential amidst technological disruption in the AI era, thereby contributing valuable insights to both academic research and practical business management.

RESULTS

The findings are based on semi-structured interviews conducted with 18 representatives from various MSMEs across different sectors and regions, selected through purposive sampling. The interviews revealed a common recognition among MSME owners and managers of the transformative impact of AI technologies on their businesses. Many participants highlighted the need for proactive adaptation to technological changes to remain competitive in today's rapidly evolving landscape. As one respondent noted, *"We understand that embracing AI is crucial for staying relevant in our industry. It's not just about efficiency; it's about survival."*

Despite acknowledging the importance of technological innovation, participants also expressed concerns about the human implications of AI adoption. Several interviewees raised issues related to workforce displacement and the need for upskilling and reskilling initiatives to ensure the continued employability of their workers. *"We're investing heavily in training programs to equip our employees with the necessary skills to work alongside AI technologies,"* stated another participant. *"It's about empowering our workforce to adapt and thrive in the digital age."* Moreover, the interviews shed light on the role of organizational culture and leadership in fostering innovation and maximizing human potential. Participants emphasized the importance of creating a supportive environment that encourages experimentation and learning. *"Our company culture promotes curiosity and continuous improvement,"* remarked one respondent. *"We encourage our employees to explore new ideas and technologies, knowing that innovation is essential for our long-term success."*

Interestingly, the research also uncovered variations in the readiness and capabilities of MSMEs to embrace AI technologies and manage human potential effectively. While some organizations demonstrated a proactive approach to innovation and talent development, others struggled to overcome resource constraints and cultural barriers. *"We recognize the potential of AI, but we lack the expertise and resources to implement it effectively,"* admitted a participant from a smaller MSME. *"It's a challenge we're working to address, but it's not easy."*

Overall, the findings highlight the complex interplay between technology, human capital, and organizational dynamics in MSMEs. While AI offers immense opportunities for

efficiency and growth, its successful integration requires a holistic approach that prioritizes both technological investments and investments in human potential. By fostering a culture of innovation, investing in employee development, and embracing agile leadership practices, MSMEs can navigate technological disruption and achieve financial sustainability in the AI era. Through these interviews, the qualitative research provides valuable insights into the experiences and perspectives of MSMEs in managing human potential amidst technological disruption, offering practical implications for business leaders, policymakers, and researchers alike.

DISCUSSION

The findings offer a nuanced understanding of the dynamics at play within MSMEs as they strive to adapt to the evolving business landscape shaped by AI technologies. This discussion section will analyze the research findings in light of existing literature, highlighting key themes and providing practical implications for MSMEs, policymakers, and future research endeavors.

Integration of AI and Human Capital:

The research findings underscore the importance of effectively integrating AI technologies with human capital to drive organizational success. While AI offers significant potential for enhancing efficiency and innovation, its successful implementation hinges on the skills, creativity, and adaptability of the workforce (Brynjolfsson & McAfee, 2014; Seger et al., 2023). As revealed in the interviews, MSMEs recognize the need to invest in employee training and development to leverage the full benefits of AI while mitigating potential job displacement (Agrawal, Gans, & Goldfarb, 2018). This finding aligns with existing literature emphasizing the complementary relationship between technological investments and investments in human capital (Brynjolfsson et al., 2020).

Organizational Culture and Leadership:

The research highlights the pivotal role of organizational culture and leadership in fostering innovation and maximizing human potential within MSMEs. Cultivating a supportive environment that encourages experimentation, learning, and knowledge sharing is essential for driving organizational agility and adaptability in the face of technological disruption (Martins et al., 2015). The findings suggest that MSMEs with a strong culture of innovation are better equipped to navigate the challenges posed by AI adoption and achieve sustainable growth (Diestre et al., 2018). Leadership practices that prioritize employee empowerment,

collaboration, and continuous improvement are critical for fostering a culture of innovation and driving organizational performance (Wang et al., 2020).

Challenges and Opportunities for MSMEs:

Despite the potential benefits of AI adoption, MSMEs face unique challenges in harnessing human potential amidst technological disruption. Limited access to AI expertise, financial resources, and infrastructure poses significant barriers to AI adoption and innovation for smaller enterprises (Arntz, Gregory, & Zierahn, 2016). Moreover, concerns regarding job displacement and workforce reskilling further complicate the human capital management landscape for MSMEs (Cappelli & Keller, 2014). However, the research also highlights opportunities for MSMEs to capitalize on AI technologies through strategic investments in talent development, organizational restructuring, and collaborative partnerships (De Winne & Sels, 2010).

Variations in Readiness and Capabilities:

The findings reveal variations in the readiness and capabilities of MSMEs to embrace AI technologies and manage human potential effectively. While some organizations demonstrate a proactive approach to innovation and talent development, others struggle to overcome resource constraints and cultural barriers (Patton, 2015). These disparities underscore the importance of tailored interventions and support mechanisms to enable MSMEs to adapt to technological disruption and compete in the digital economy (Guest et al., 2006). Government initiatives, industry collaborations, and knowledge-sharing platforms can play a crucial role in bridging the gap and fostering a conducive ecosystem for AI adoption and innovation among MSMEs (PwC, 2017).

Implications for Practice and Policy:

The research findings have several practical implications for MSMEs, policymakers, and industry stakeholders. Firstly, MSMEs need to prioritize investments in employee training, upskilling, and reskilling to equip their workforce with the necessary competencies to thrive in the AI era. Secondly, fostering a culture of innovation and collaboration is essential for driving organizational agility and resilience in the face of technological disruption. Thirdly, policymakers should implement supportive policies and initiatives to facilitate AI adoption, provide financial incentives for innovation, and address the skills gap in the labor market. Lastly, industry associations, educational institutions, and technology providers can play a vital role in providing MSMEs with access to training, resources, and technical assistance to navigate the challenges and opportunities presented by AI technologies.

It is important to acknowledge the limitations of this research and identify areas for future investigation. Firstly, the qualitative nature of the study limits the generalizability of the findings to a broader population of MSMEs. Future research could employ quantitative methods to validate the findings and explore causal relationships between variables. Secondly, the study focuses primarily on the perspectives of MSME owners, managers, and employees, overlooking the viewpoints of other stakeholders such as customers, suppliers, and policymakers. Future research could adopt a multi-stakeholder approach to provide a more comprehensive understanding of the dynamics of technological disruption in MSMEs. Lastly, the research predominantly focuses on the experiences of MSMEs in a specific geographic context, potentially overlooking cultural, institutional, and sectoral variations in the adoption and impact of AI technologies. Future studies could adopt a comparative approach to explore cross-national differences in AI adoption strategies and their implications for human capital management in MSMEs. The qualitative research provides valuable insights into the strategies and challenges faced by MSMEs in managing human potential amidst technological disruption in the AI era. By integrating AI technologies with human capital, fostering a culture of innovation, and addressing the unique needs and constraints of MSMEs, organizations can navigate the challenges posed by technological disruption and achieve sustainable growth in the digital economy.

CONCLUSION

The findings of this study align with the objectives outlined in the introduction and the title of the research. Firstly, the research underscores the critical importance of effectively integrating AI technologies with human capital to ensure the financial sustainability of MSMEs in the AI era. By investing in employee training, upskilling, and reskilling initiatives, MSMEs can harness the full potential of AI technologies while mitigating potential job displacement and enhancing workforce productivity. Secondly, the study highlights the pivotal role of organizational culture and leadership in fostering innovation and maximizing human potential within MSMEs. Cultivating a supportive environment that encourages experimentation, learning, and collaboration is essential for driving organizational agility and adaptability in response to technological disruption. Thirdly, the research sheds light on the challenges and opportunities faced by MSMEs in navigating technological disruption. While AI offers significant potential for enhancing efficiency and innovation, MSMEs encounter barriers such as limited access to AI expertise, financial resources, and infrastructure. Addressing these challenges requires tailored interventions and support mechanisms to enable MSMEs to

capitalize on the opportunities presented by AI technologies. In conclusion, the findings of this qualitative research provide practical insights and recommendations for MSMEs, policymakers, and industry stakeholders seeking to navigate the complexities of technological disruption in the AI era. By prioritizing investments in human capital, fostering a culture of innovation, and addressing the unique needs and constraints of MSMEs, organizations can achieve sustainable growth and competitiveness in the digital economy.

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