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SMART TECHNOLOGY AND SUSTAINABILITY OF SMES IN ANAMBRA STATE, NIGERIA

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Abstract
The integration of smart technology has become increasingly vital for the growth and competitiveness of businesses, particularly SMEs in Anambra state. This study explored the role of smart technology and sustainability of Small and Medium Enterprises (SMEs in Anambra State. It highlighted the benefits of integrating smart technology, such as advanced connectivity, automation, and data analysis, in enhancing operational efficiency, decision-making, and market reach. The study applied qualitative research approach using

thematic analysis of which a descriptive research design was used to gain an in-depth understanding of the subject matter. Convenient sampling techniques were employed in selecting 10 participants for the interviews. All interviews were transcribed verbatim and uploaded into MAXQDA Analytics Pro 2020 (qualitative data analysis software). The coding scheme was systematically applied to all transcripts through multiple close readings of the data. Both semantic/explicit content and latent content requiring interpretative analysis were captured by the codes. The study found that the integration of smart technology is crucial for the growth and sustainability of SMEs in Anambra State, Nigeria. Smart technology can enhance SMEs' operational efficiency, decision-making, and market reach, contributing to their innovation, competitiveness, and long-term success. The study concluded that there is need for SMEs in Anambra State to embrace smart technology as a catalyst for innovation, competitiveness, and long-term success. The findings of this study will provide valuable insights for creating a more supportive environment for SMEs, enabling them to contribute effectively to sustainable development in the state.

Key words: SMEs, Sustainability, Smart Technology

Introduction

In today's rapidly evolving technological landscape, the integration of smart technology has become increasingly vital for the growth and competitiveness of businesses, particularly SMEs. (Kiradoo, 2023). Smart technology encompasses various digital tools and systems that leverage advanced connectivity, automation, and data analysis to enhance operational efficiency, optimize resource utilization, and improve decision-making. (Aldoseri, Al-Khalifa, and Hamouda, 2023) For SMEs in Anambra State, the incorporation of smart technology can yield numerous advantages. It enables businesses to streamline their processes, reduce costs, and increase productivity. Smart technology facilitates real-time data collection and analysis, allowing SMEs to gain insights into customer behavior, market trends, and operational performance, thereby enabling informed decision-making and strategic planning.

In improving internal operations, smart technology can also enhance SMEs' ability to engage with customers and expand their market reach. (Su, Zhang, and Wu, 2023). Through digital marketing, e-commerce platforms, and online customer service, SMEs in Anambra State can establish a strong online presence, attract a wider customer base, and compete effectively in the digital marketplace. Moreover, the utilization of smart technology can enable SMEs to offer personalized and innovative products and services, meeting the evolving needs and preferences of their target customers (Bouchard, Gamache, and Abdulnour, 2023).

The integration of smart technology in Anambra State's SME sub-sector also aligns with broader sustainability goals. By optimizing resource utilization, reducing waste, and promoting eco-friendly practices, SMEs can contribute to environmental preservation and promote a more sustainable business ecosystem. Smart technology solutions can facilitate remote work and flexible work arrangements, reduce commuting and support a healthier work-life balance for employees.

Smart technology holds immense potential for promoting the sustainability and growth of SMEs in Anambra State. By leveraging advance connectivity, automation, and data analysis, SMEs can enhance their operational efficiency, improve decision-making, and expand their market reach. The integration of smart technology aligns with broader sustainability objectives by optimizing resource utilization and promoting eco-friendly practices. (Abdullah, and Lim, 2023). It is therefore crucial for SMEs in Anambra State to embrace smart technology solutions as a catalyst for innovation, competitiveness, and long-term success.

REVIEW OF RELATED LITERATURE

Smart Technology

Smart technology has been incorporated in industrial, commercial, and medical settings to help in analyzing, sharing, and storing of knowledge in a timely manner (Arzikulov, 2021). Smart technology such as artificial intelligence (AI), the Internet of Things (IoT), financial technology (FinTech), and blockchain has made the world better. Its applications have been used in many spheres such as healthcare, education, and business. Firms' operations have become more efficient, and performance increased (Basri, 2020). AI is a smart agent that could be in the form of robotic that can carry out certain human tasks. It functions with a high accuracy and in a timely manner to store, analyze, and interpret information (Karimova, 2019). Internet of Things (IoT) technology deals with billions of network devices that are intelligently used in many sectors such as healthcare, manufacturing, agriculture, transportation, and telecommunications (Sommer, 2019). Financial technology (FinTech) has made a big transformation in financial transactions, paying more attention to environment and at the same time improving business performance (Tendler, and Amorim, 2021). Blockchain technology cost-effectively stores data, shares information, and tracks tangible and intangible assets in a business network (Obschonka, and Audretsch, 2020).

The focus of the technology is not to replace humans, but rather to complement their efforts (Cueto, Frisnedi, Collera, Batac, and Agaton, 2022). Digital economy improves the environment as firms become more conscious with the way they manufacture and recycle focusing on efficiency, value, user, and ecology. SMEs in Anambra State now pay more attention to the renewable energy in their production and need a technology that best controls the process. Technological innovation, undoubtedly, brings huge benefits to SMEs nationally and internationally. It changes the ways firms carry out their works. It also changes the ways people live, study, and make shopping, to name a few (Bala, 2022).

Competitive firms always seek to improve their internal and external capabilities to stay ahead of their counterparts. This requires finding that uniqueness to make it what it wants to be. That uniqueness is called competitive advantage, an advantage over rivals which include advanced technology, economies of scale in production, efficient supply chain management, excellent and prompt services, and optimum cost structure. All these advantages should first be obtained and then sustained where the real challenge lies (Ferreira, Mueller, and Papa, 2020).

SMEs Contributions and Challenges

The abbreviation "SME" is used by international organizations such as the World Bank, the Organization for Economic Co-operation and Development (OECD), European Union, the United Nations, and the World Trade Organization (WTO) (Cueto, Frisnedi, Collera, Batac, and Agaton, 2022). In any given national economy, SMEs sometimes outnumber large companies by a wide margin and also employ many more people (Olorunshola, and Odeyemi, 2022). For example, Australian SMEs makeup 98% of all Australian businesses, produce one-third of the total GDP (gross domestic product) and employ 4.7 million people. In Chile, in the commercial year 2014, 98.5% of the firms were classified as SMEs (Rijkers, 2020). In Tunisia, the self-employed workers alone account for about 28% of the total non-farm employment, and firms with fewer than 100 employees account for about 62% of total employment (Suryani, Fauzi, and Nurhadi, 2021). The United States' SMEs generate half of all U.S. jobs, but only 40% of GDP (Sommer, 2019).

Developing countries tend to have a larger share of small and medium-sized enterprises (Ferreira, Mueller, and Papa, 2020). SMEs are also responsible for driving innovation and competition in many economic sectors. Although they create more new jobs than large firms, SMEs also suffer the majority of job destruction/contraction (Iansiti, and Lakhani, 2020). SMEs are important for economic and social reasons, given the sector's role in employment. Due to their sizes, SMEs are heavily influenced by their Chief Executive

Officer. The CEOs of SMEs are often the founders, owners, and managers of the SMEs. The duties of the CEO in an SME mirror those of the CEO of a large company: the CEO needs to strategically allocate their time, energy, and assets to direct the SMEs. Typically, the CEO is the strategist, champion and leader for developing the SME or the prime reason for the business failing (Karimova, 2019).

About 80% of Small and medium enterprises are stifled because of poor financing. The problem of financing SMEs is not so much the sources of funds but its accessibility (Fatai, 2019). Lack of trained manpower and management skills also constitute a major challenge to the survival of SMEs in Nigeria. Inefficiency in overall business management and poor record keeping is also a major feature of most SMEs; technical problems/competence and lack of essential and required expertise in production, procurement, maintenance, marketing and finances have always led to funds misapplication, wrong and costly decision making (Rogers, 2022). Government has not done enough to create the best conducive environment for the striving of SMEs, the problem of infrastructures ranges from shortage of water supply, inadequate transport systems, lack of electricity to improper solid waste management. Nigeria's underdeveloped physical and social infrastructures create a binding constraint to SMEs growth (Tendler, and Amorim, 2021). Most Nigerians have developed a high propensity for the consumption of foreign goods as against their locally made substitutes (Bala, 2022).

Market stores are dominated by absentee landlords who charge exorbitant rates. The ownership of market stores by politicians is crowding real small-scale operators out of the market. The high rents charged by store owners on good locations have forced real small-scale operators into the streets or at best into accessible places. Also, domestic economic problems of deregulation and removal of protection as well as the global financial crisis have been detrimental to SMEs (Osamwonyi, 2018). Instability in government policies have caused some SMEs to collapse (Mahmoud, 2023). The present high mortality rate of SMEs in Nigeria is awful to contemplate and constitute danger to the entire economic

system. It represents serious financial pressure on the nation's economy as well as a waste of valuable resources. The business owner should always consider challenging situations and be prepared to meet them with preplanned strategies (Rogers, 2022). The survival of SMEs is only possible through a systematic analysis of the problems they are facing and mapping out appropriate strategies of overcoming them, through a proper understanding of the business environment. For a business to survive in unfriendly environmental conditions it should adopt a strategy that utilizes its strengths to exploit opportunities while avoiding its weaknesses (Irwin, 2021).

Changes in Smart Technology and its effect on SMEs

Smart technology has revolutionized the way people live, work, and connect with each other. It has also had a profound impact on SMEs, providing new opportunities for entrepreneurs to start and grow businesses, reach customers, and streamline operations. From cloud computing to e-commerce platforms, technology has opened up a world of possibilities for entrepreneurs over the world, allowing them to launch and scale their businesses faster than ever before (Arakpogun, Elsahn, Olan, and Elsahn, 2021). E-commerce and online marketplaces have revolutionized the way businesses sell and distribute their products and services. With the rise of the internet, entrepreneurs can now reach customers all over the world through online platforms like Amazon, eBay, and Shopify. This has dramatically expanded the potential customer base for businesses, and made it easier for entrepreneurs to reach new audiences and test new markets (Lian, 2023).

E-commerce also allows for more efficient and streamlined sales processes, with features like automated order fulfillment and real-time inventory management. Whether a business is a small owner or a large corporation, e-commerce has become an essential tool for reaching customers and growing business in the digital age (Kumar, Pandey, Pujari, and Arora, 2023). Cloud computing is the delivery of computing services—including servers, storage, databases, networking, software, analytics, and intelligence—over the Internet

("the cloud") to offer faster innovation, flexible resources, and economies of scale. A leading tool in this field is Microsoft Azure. It allows entrepreneurs to access strong computing resources and data storage from anywhere with an internet connection. Remember, leveraging these tools requires certifications. For this, the entrepreneurs can consider AZ-900 Exam Dumps that provide valuable expertise (Basri, 2020). Social media and digital marketing have transformed the way businesses reach and connect with their customers. Platforms like Facebook, Instagram, and Twitter have given entrepreneurs the ability to build relationships, engage with customers, and promote their products and services to millions of people (Fatai, 2019). Digital marketing also includes tactics like email marketing, SEO, and pay-per-click advertising (PPC), which allow businesses to target specific audiences and measure the success of their marketing efforts.

In today's digital world, social media and digital marketing are essential tools for entrepreneurs looking to build their brand, reach new customers, and drive sales. Whether you're just starting out or looking to grow an established business, a strong social media and digital marketing strategy can help you reach your goals and succeed in today's competitive market (Tendler, and Amorim, 2021). Mobile technology has dramatically changed the way we live and work, and it has also had a significant impact on SMEs in Anambra State. With the rise of smartphones and tablets, businesses now have the ability to reach customers and conduct business on-the-go. This has created new opportunities for entrepreneurs to develop mobile apps that solve problems, enhance experiences, and meet the needs of customers (Irwin, 2021).

AI and automation are rapidly changing the way businesses operate and compete. AI refers to computer systems that can perform tasks that typically require human intelligence, such as recognizing patterns, making predictions, and learning from experience. Automation, on the other hand, is the use of technology to automate repetitive tasks and processes. For entrepreneurs, AI and automation offer new opportunities to streamline operations,

increase efficiency, and improve customer experiences. From chatbots that handle customer service inquiries to predictive algorithms that optimize pricing, AI and automation are transforming the way businesses work and compete. Whether you're looking to improve existing processes or create new solutions, AI and automation offer exciting opportunities for entrepreneurs to drive innovation and growth in the digital age (Arzikulov, 2021). Virtual reality (VR) and augmented reality (AR) are cutting-edge technologies that are changing the way we experience and interact with the world. VR creates a completely immersive digital environment that users can interact with, while AR enhances the real world with digital information and experiences. For entrepreneurs, VR and AR offer new opportunities to create innovative products and services, engage customers, and solve problems in unique and creative ways Olorunshola, and Odeyemi, 2022).

From virtual retail experiences to training simulations and gaming, the potential applications for VR and AR are virtually limitless. Whether you're looking to launch a new business or enhance an existing one, VR and AR offer exciting opportunities for entrepreneurs to drive innovation and growth in the digital age. (Ferreira, Mueller, and Papa, 2020). Remote work and virtual teams are becoming increasingly common in today's digital age. With advances in technology, it's now possible for individuals to work from anywhere with an internet connection, and for teams to collaborate and communicate seamlessly, regardless of location. For entrepreneurs, remote work and virtual teams offer new opportunities to access a global talent pool, reduce overhead costs, and increase flexibility and work-life balance (Sommer, 2019). Smart technology is having a profound impact on entrepreneurship and the way businesses operate. From e-commerce and online marketplaces, to cloud computing and data management, to social media and digital marketing, smart technology is providing SMEs with new tools and opportunities to start, grow, and succeed in their businesses (Arakpogun, Elsahn, Olan, and Elsahn, 2021). The rise of mobile technology and app development, AI and automation, virtual and augmented

reality, blockchain, remote work and virtual teams, are all shaping the future of SMEs and the digital age. Whether an entrepreneur or simply interested in the impact of smart technology on SMEs, it's clear that smart technology is playing a critical role in shaping the future of SMEs in Anambra State and the world we live in (Lian, 2023).

SMEs Sustainability on smart Technology

Sustainability has emerged as a critical concept in today's world, urging individuals and organizations to adopt practices that meet present needs without compromising the ability of future generations to meet their own (Doppelt, 2017). The integration of smart technology has significantly contributed to the advancement of sustainable practices across various sectors (Javaid, Haleem, Singh, Suman, and Gonzalez, 2022). In this essay, we will explore the significance of sustainability and its relationship with smart technology in the context of Small and Medium Enterprises (SMEs).

Sustainability encompasses economic, social, and environmental dimensions, ultimately aiming for a harmonious balance between these aspects (Elegbede, Fakoya, Adewolu, Jolaosho, Adebayo, Oshodi and Abikoye, 2023). Smart technology, including Internet of Things (IoT) devices, data analytics, and automation, plays a pivotal role in enabling sustainability practices for SMEs (Vrontis, Chaudhuri, and Chatterjee, 2022). IoT devices can monitor energy consumption, water usage, and other key metrics, providing real-time data for informed decision-making. This data-driven approach helps SMEs identify areas of improvement, optimize resource allocation, and minimize waste (Relich, 2023). Furthermore, automation technologies can streamline production processes, reducing energy consumption and improving productivity. By integrating smart technology into their operations, SMEs can enhance their overall efficiency and sustainability performance. The benefits of sustainability and smart technology integration extend beyond individual SMEs; they also contribute to the larger goal of achieving sustainable development on a global scale (AlZayani, Mohammed, and Shoaib, 2024). As SMEs collectively account for

a significant portion of economic activity, their adoption of sustainable practices can have a substantial positive impact on environmental preservation and social well-being. By embracing sustainability, SMEs can contribute to mitigating climate change, reducing carbon emissions, and conserving natural resources (Anaman, Ahmed, Suleman, and Dzakah, 2023)

Sustainability and smart technology are intertwined concepts that have the potential to revolutionize the operations of SMEs (Islam, Wahab, and Latiff, 2022). By adopting sustainable practices and leveraging smart technologies, SMEs can enhance their competitiveness, reduce costs, and position themselves as responsible contributors to society. The integration of smart technology enables SMEs to monitor and optimize their resource utilization, leading to improved efficiency and environmental performance. As we navigate the challenges of a rapidly changing world, it is imperative that SMEs recognize the significance of sustainability and harness the power of smart technology to drive positive change. By doing so, they can create a more prosperous and sustainable future for themselves and the generations to come (Knappe, and Renn, 2022).

METHODOLOGY

A qualitative method of research was employed to study the role of smart technology on sustainability of Small and Medium Enterprises (SMEs) in Anambra State. To facilitate coding and analysis, all interviews were transcribed verbatim and uploaded into MAXQDA Analytics Pro 2020, a qualitative data analysis software. The initial step involved open coding, where tentative themes in the data were identified. These codes were then refined, resulting in a preliminary coding scheme or codebook. The coding scheme was systematically applied to all transcripts through multiple close readings of the data. Both semantic/explicit content and latent content requiring interpretative analysis were captured by the codes. A total of 10 SMES Owners were targeted for interview to provide a diverse range of perspective.

Upon finalizing the coding process, the codes were categorized into potential overarching themes. The determination of these themes took into consideration their prevalence across interviews and their significance to the research questions. The analysis yielded five themes. Convenient sampling was employed to select participants for the interviews due to its practicality and ease of access to individuals with relevant knowledge and experience regarding SMEs and smart technology in Anambra State. Participants who are directly involved with smart technology were selected based on their availability and willingness to participate in the study. The following interview guide question:

1. How has the integration of smart technology impacted the operations and overall sustainability of SMEs in Anambra State?
2. Could you discuss any specific challenges or barriers that SMEs in Anambra State have encountered in adopting and utilizing smart technology?
3. In your opinion, what policies or initiatives have been implemented to support the integration of smart technology in SMEs in Anambra State, and how effective have they been in promoting sustainability?
4. Can you provide examples of successful cases where the implementation of smart technology has significantly enhanced the growth and competitiveness of SMEs in Anambra State?
5. From your perspective, what future trends or advancements in smart technology do you foresee that could further improve the sustainability and success of SMEs in Anambra State?

4.1 Demographic characteristics of SMEs

Organization Type	**Frequency**	**Percent**
Building and Construction	2	20
Printing	2	20

Pharmaceutical	2	20
Trading	2	20
Agro- Allied	2	20
Age of Organization	**Frequency**	**Percent**
1-5 years	4	40
6-10 years	6	60
>11 years and avove	0	0

Themes and their frequency and percentage occurrence

Themes	**Frequency**	**Percentage**	**Percentage (valid)**
Impact of Smart Technology on SMEs in Anambra State	8	80.0	80
Challenges and Barriers in Adopting Smart Technology	10	100.00	100.00
Policies and Initiatives Supporting Smart Technology Integration	8	80.00	80.00

Successful Cases and Best Practices	7	70.00	70.00
Future Trends and Advancements in Smart Technology	10	100.00	100.00

The table shows that almost all the themes were consistent across all the participants.

Discussion of Findings

Theme 1: Impact of Smart Technology on SMEs in Anambra State

Participants 1, 4, 5 and 6 expressed a positive view, mentioning that smart technology has significantly improved the efficiency of SME operations in Anambra State. They highlighted how digital tools and automation have streamlined processes and led to increased productivity. Participants 2,3,7 shared a similar perspective, emphasizing that the integration of smart technology has transformed customer experiences for SMEs in Anambra State. They mentioned how online platforms and mobile applications have made it easier for customers to access products and services, leading to improved satisfaction and loyalty. Participants 8,9 and 10 echoed the positive impact of smart technology on SMEs in Anambra State. They specifically mentioned how digital marketing strategies, such as social media advertising and targeted campaigns, have helped SMEs reach a wider audience and generate more sales. In all, Participants expressed that the integration of smart technology has positively impacted SMEs in Anambra State, leading to improved operational efficiency, increased productivity, and enhanced customer experiences. Several participants provided specific examples of how smart technology, such as e-commerce platforms and digital marketing tools, has contributed to the growth and competitiveness of SMEs in the state.

Theme 2: Challenges and Barriers in Adopting Smart Technology

Participants 3,4,8,9 and 10 highlighted the financial challenges faced by SMEs in Anambra State when adopting smart technology. They mentioned that the cost of purchasing and maintaining technology infrastructure can be a significant barrier, particularly for small-scale businesses with limited resources. Participants 1,2,5,6 and 7 emphasized the importance of digital skills in adopting smart technology. They mentioned that some SME owners and employees may lack the necessary knowledge to effectively utilize smart technology tools, which can hinder their adoption and integration into business operations. All the Participants highlighted various challenges faced by SMEs in Anambra State when adopting smart technology, including limited financial resources to invest in technology infrastructure, lack of digital skills among SME owners and employees, and inadequate access to reliable internet connectivity. Some participants also mentioned resistance to change and a reluctance to embrace new technology as common barriers to the adoption of smart technology by SMEs.

Theme 3: Policies and Initiatives Supporting Smart Technology Integration

Participants 6 and 7 expressed a positive view of government policies and initiatives supporting smart technology integration. They mentioned that these policies have created a conducive environment for SMEs to embrace technology, and highlighted initiatives such as funding programs and training opportunities that have helped SMEs in Anambra State adopt and leverage smart technology. Participants 5 and 10 had a contrasting view, suggesting that government policies and initiatives could be further improved to better support SMEs in adopting smart technology. They mentioned a need for more targeted and accessible support, such as tailored funding options and comprehensive training programs specifically designed for SMEs. Other Participants acknowledged the existence of government policies and initiatives aimed at supporting the integration of smart technology in SMEs. However, they expressed mixed views on the effectiveness of these policies, with

some participants stating that more support is needed in terms of funding, training programs, and infrastructure development to fully realize the potential of smart technology for SMEs.

Theme 4: Successful Cases and Best Practices

Participants 3 shared a success story of an SME in Anambra State that successfully implemented smart technology solutions. They highlighted how the integration of an online ordering system and data analytics tools led to increased efficiency, reduced costs, and improved customer satisfaction for the business. Participants 1 and 10 mentioned the importance of collaboration among SMEs to learn from successful cases. They emphasized the need for knowledge sharing platforms and networking opportunities where SMEs can exchange experiences and best practices in leveraging smart technology effectively. Participants shared various success stories where SMEs in Anambra State successfully implemented smart technology solutions. These cases highlighted the positive outcomes, such as increased sales, expanded market reach, and improved customer engagement. All Participants emphasized the importance of knowledge sharing and collaboration among SMEs to learn from successful cases and implement best practices in leveraging smart technology effectively.

Theme 5: Future Trends and Advancements in Smart Technology

Participants 3,4,5 and 7 expressed optimism about future advancements in smart technology for SMEs in Anambra State, highlighting the potential of emerging technologies such as artificial intelligence (AI) and Internet of Things (IoT) devices. They envisioned a range of benefits that these advancements could bring to SMEs, including enhanced operational efficiency, improved customer engagement, and overall sustainability. Participants emphasized that AI has the potential to revolutionize various aspects of SME operations. They discussed how AI-powered algorithms and machine

learning can automate routine tasks, optimize resource allocation, and provide valuable insights for decision-making. This, in turn, can help SMEs streamline their processes, reduce costs, and improve overall efficiency.

Additionally, participants 3, 6 and 9 recognized the value of IoT devices in enabling real-time data collection and connectivity. They envisioned a future where SMEs in Anambra State can leverage IoT devices to monitor and control various aspects of their operations, such as inventory management, supply chain logistics, and equipment maintenance. The ability to gather and analyze data from interconnected devices could provide SMEs with valuable insights for making data-driven decisions and optimizing their business processes. Furthermore, participants 1 and 2 discussed how these advancements in smart technology could significantly enhance customer engagement. They envisioned personalized experiences through AI-powered chatbots, virtual assistants, and recommendation systems. These technologies could enable SMEs to better understand customer needs, deliver tailored products or services, and provide seamless and efficient customer support.

In terms of sustainability, all participants highlighted how smart technology can contribute to environmental and social sustainability efforts. They discussed the potential for AI and IoT devices to optimize energy consumption, reduce waste, and support sustainable practices in SME operations. They also emphasized the potential for smart technology to facilitate access to markets, improve financial inclusion, and empower marginalized communities. Overall, all the participants expressed excitement and optimism about the future role of smart technology, particularly AI and IoT devices, in enhancing the operational efficiency, customer engagement, and overall sustainability of SMEs in Anambra State. They believed that these advancements have the potential to transform the SME landscape, driving growth and providing opportunities for success in the evolving digital economy.

Conclusion

The integration of smart technology has shown promising impacts on the sustainability of SMEs in Anambra State. Participants expressed optimism about the positive transformations brought about by technologies such as AI and IoT devices. These advancements have the potential to enhance operational efficiency, improve customer engagement, and contribute to overall sustainability efforts. Successful cases demonstrated the tangible benefits of adopting smart technology, with increased productivity, expanded market reach, and improved customer experiences. However, challenges related to financial resources, digital skills, and supportive policies remain.

5.2 Recommendations:

1. Government and financial institutions should provide accessible funding options specifically tailored for SMEs to invest in smart technology infrastructure. This would help overcome financial barriers and enable wider adoption.

2. Training programs and initiatives should be implemented to enhance digital literacy among SME owners and employees. This would empower them to effectively utilize smart technology tools and maximize their benefits.

3. Government policies and initiatives should be reviewed and refined to better support SMEs in adopting and integrating smart technology. This includes providing comprehensive support, such as funding, mentorship, and regulatory frameworks, to create an enabling environment for technology adoption.

4. Establish platforms and networks where SMEs can share success stories, best practices, and lessons learned in implementing smart technology solutions. This collaborative

approach will enable SMEs to learn from each other and accelerate their digital transformation journeys.

5. SMEs should stay updated on emerging technologies such as AI and IoT, and assess their potential applicability to their business operations. Proactively exploring and adopting these technologies can give SMEs a competitive edge and position them for future growth.

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