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Abstract

AI (Artificial Intelligence) is rapidly changing the world and AI technologies continue to advance and permeate various sectors including among small businesses in Nigeria. AI has emerged as a disruptive force, revolutionizing sectors, and transforming the way businesses operate. There has been a growing discourse surrounding the potential negative impact of AI and since AI is an inevitable part of our future, it is crucial to understand its positive impact on entrepreneurial endeavours, especially amongst SMEs (Small and Medium Enterprises), and the potential they hold in driving innovation. This research aims to provide valuable insights into the transformative power of AI in promoting innovation and inspiring creative thinking among small business owners in Nigeria, ultimately offering recommendations for small business owners on harnessing AI's potential for driving sustainable entrepreneurial growth. Through a comprehensive analysis of existing literature and semi-structured virtual interviews with ten (10) business owners across industries, five (5) prominent themes emerged – (i) idea generation; (ii) alternate and efficient ways to carry out tasks; (iii) improved business operations; (iv) positive impact on decision-making and problem-solving; (v) optimism for the future.

These themes encompass AI's pivotal role in content creation, idea generation, problem-solving, decision-making, and enhancing productivity among small businesses. These findings are particularly significant in today's competitive landscape, where small businesses strive to maintain their competitive edge and grow.

Introduction

In recent years, AI has continued to gain popularity. It has emerged as a game-changing technology with the capacity to significantly reshape multiple sectors and dramatically alter how we work and live. AI has introduced new possibilities and opened doors to unprecedented levels of innovation (Obschonka and Audretsch, 2020), and this can be seen from its application in the creation of new drugs, self-driving cars, automation of tasks and the emergence of accessible tools like ChatGPT, Canva, Notion, etc that enable individuals to streamline business operations and processes efficiently and affordably. Small businesses are also experiencing this transformative shift (Egere et al 2022), as AI is progressively incorporated into entrepreneurial activities to promote innovation and foster creativity (Chalmers et al. 2021).

Entrepreneurship involves the creation of something valuable through dedicated time and effort while embracing the associated financial, social, and psychological risks for monetary rewards and personal satisfaction (Kuratko et al 2019). Entrepreneurs are responsible for coming up with new ideas (Adeosun et al 2022; Omotosho, 2023) developing products or services and building businesses, often with limited resources and uncertainty. It requires individuals to identify opportunities, develop innovative solutions and navigate the challenges and risks associated with bringing those ideas to fruition (Kuratko et al 2019; Juliana et al 2021). In this dynamic landscape, AI emerges as a powerful ally for entrepreneurs, including Small Business Owners, augmenting their abilities, and expanding their possibilities (Obschonka & Audretsch, 2020).

Since the onset of the pandemic, the business landscape has undergone profound changes, mirroring shifts seen in various facets of our world (Dane et al, 2021; Oyewale et al, 202; Sajuyigbe et al, 2021). COVID-19 prompted an unprecedented surge in online commerce (e-commerce), compelling many businesses to operate exclusively through digital storefronts (Enesi et al, 2021; Aladejebi, 2020) foregoing traditional brick-and-mortar establishments altogether (Aladejebi, 2020). Against this backdrop, the market has

witnessed a proliferation of enterprise, with new ventures emerging daily (Oyewale et al, 2020). In this fiercely competitive environment, particularly for SMEs, the imperative to innovate and strategize has never been greater (Akpan et al, 2022; Dane et al, 2021).

SME owners find themselves tirelessly seeking efficient and cost-effective methods to enhance their business operations (Chege & Wang, 2020), refine strategies and strengthen branding efforts (Dane et al 2021; Aliu, 2020). This pursuit often entails leveraging diverse tools and techniques (Akpan et al, 2022). From content creation to harnessing the power of AI tools like Notion for seamless team collaboration or employing ChatGPT to streamline ideation processes and offer timely solutions to pressing challenges, businesses are exploring a spectrum of solutions to navigate these unprecedented times (Akpan et al, 2022; Akpan & Ibidunni, 2023).

AI involves the use of digital computers and algorithms to execute tasks and resolve intricate problems that typically necessitate or surpass human intelligence, reasoning, and predictive capabilities to adapt to dynamic situations (Giuggioli et al 2023; Hassani et al 2020; Miller 2019). AI technologies encompass a range of powerful tools such as machine learning, natural language processing, and computer vision, which enable machines to analyse a vast amount of data, learn and understand patterns and make data-driven decisions (Hashimoto et al 2018). Embracing AI technologies enables Entrepreneurs to leverage efficiency gains and automation of processes, enhance decision-making (Kraus et al. 2020; Akpan et al, 2022; Akpan & Ibidunni, 2023), foster innovation and creativity, personalisation of experiences ad customisation (Giuggioli et al 2023; Akpan & Ibidunni, 2023).

The potential drawbacks of AI have sparked significant discussions across multiple sectors (Venkatesh 2022; Sun & Medaglia 2019; Aisheibani et al 2019, Chege & Wang, 2020; Chaudhuri et al 2022). Townsend and Hunt (2018) stated that while it is crucial to recognise and tackle the challenges and ethical concerns related to AI implementation, it is equally vital to emphasize the positive effects AI can have on society. Through a comprehensive

review of existing literature and interviews, this research proposes to examine the positive implication of AI as it is an inevitable component of our future and embracing its potential can yield numerous advantages (Agrawal et al 2019) and, explore its role in the fostering of innovation and creativity in small businesses in Nigeria (Arakpogun et al, 2021;Akpan et al 2022; Akpan & Ibidunni 2023). By examining the favourable aspects of AI, individuals and organisations can actively leverage its capabilities to foster innovation, productivity, creativity, and societal advancement (Nwankwo et al 2021; Chaudhuri et al 2022). Also, the insight generated from this research will contribute to the growing body of knowledge on AI-enabled entrepreneurship.

Literature Review

Introduction

Despite AI emerging as a powerful tool with the potential to revolutionize various sectors including SMEs (specifically small businesses), Chalmers et al (2021) have noted that there is limited literature on the impact of AI on different aspects of Entrepreneurship. The authors highlighted that most of the literature is economically focused and predominantly investigated the implications of AI on employment, income, and policy on a broader scale (Goldfarb et al 2019). This study aims to contribute to the growing body of knowledge on AI-enabled entrepreneurship by delving into the positive effects of AI, with a particular focus on its implications for innovation and creativity within the entrepreneurial context among small businesses in Nigeria.

AI and Small Businesses in Nigeria

According to the Companies and Allied Matters Act, (CAMA 2020) "a small business in Nigeria is defined as a private company with an annual turnover and net asset value not exceeding 120 million and 60 million naira, respectively, has no foreign members and if the company has share capital, the directors hold at least 51% of the share capital". Small businesses are characterised by their relatively low turnover, limited workforce, and localised

operations playing a vital role in the economy by contributing to job creation, innovation, and economic development (Akpan et al 2022). These enterprises operate across a plethoral of sectors, including retail, services, manufacturing, and oil and gas, among others. Despite their importance, these enterprises are often faced with a constant battle for efficiency and growth because of limited resources and fierce competition among other factors (Ebuka et al 2023; Elikwu & Ndubusi 2020; Akpan & Ibidunni 2023).

According to Ebuka (2023), the emergence of Artificial Intelligence (AI) has offered small businesses innovative solutions to address these challenges and drive efficiency and growth. While the concept of AI may evoke images of self-driving cars, cancer detection devices, or robotics, there is an array of accessible AI tools that cater specifically to the needs of small businesses (Ebuka 2023). These tools are designed to optimize operations, enhance decision-making processes, and boost productivity while simultaneously saving costs, time, and resources (Obschonka and Audretsch, 2020). Contrary to common misconception, AI is not solely reserved for large corporations. Instead, it offers a diverse range of applications tailored to the unique requirements and constraints of small businesses. The incorporation of AI can serve as a competitive advantage for small businesses (Agrawal et al 2019; Elikwu & Ndubusi 2020). AI presents a tremendous opportunity for small businesses in Nigeria to overcome their inherent challenges and enable them to adapt quickly to changing circumstances and stay ahead of the competition.

Opportunity Recognition Theory

Entrepreneurial journey hinges on their ability to identify and seize opportunities. The opportunity recognition theory pioneered by Shane (2003) sheds light on how entrepreneurs navigate the complex landscape of potential ventures. The theory posits that opportunity recognition is a dynamic process driven by three key elements - attention, cognitive processes, and decision-making (Shane 2003). For small businesses in Nigeria, opportunity recognition is particularly important given the challenging and competitive business environment (Sarma et al 2024). Small businesses need to constantly identify and

seize new opportunities to innovate, differentiate themselves from competitors (Levesque et al 2022), and drive business growth and sustainability (Nicalaou et al 2009). The adoption and integration of AI technologies present significant opportunities for small businesses to enhance innovation (Mary et al 2016), foster creativity (Bergner et al 2023) and improve business operations (Chen et al 2020) and decision-making process (Amako et al 2021).

AI tools can potentially assist small businesses in Nigeria with opportunity recognition by using AI-powered market analysis tools, for instance, to help identify unmet customer needs or emerging market trends, which could represent potential business opportunities (Amako et al 2021). Also, AI technologies can augment the cognitive processes involved in opportunity evaluation, by analyzing a vast amount of data to assess the feasibility and potential of an opportunity, providing valuable insights to small business owners (Akpan et al 2022). Harrison et al (2023) stated that it is not enough to identify good opportunities but being able to evaluate their potential and make sound decisions about whether to pursue them or not, is what makes a successful entrepreneur. AI-powered tools streamline these processes and guide small business owners towards data-driven decisions for business success and growth (Wasdani & Mathew 2014).

AI and Innovation

Schumpeter (1934) stated that entrepreneurs play a pivotal role in bringing about innovation by challenging existing market structures, introducing products and services, and creating new business models. The emergence of AI has sprung new opportunities and ways for the generation of novel ideas in entrepreneurship (Akpan & Ibidunni, 2023; Salah et al 2024; Okoye et al 2024). Cockburn et al (2018) stated that AI technologies introduced a paradigm shift in how entrepreneurs approach and enhance innovation processes. Enterprises are actively seeking ways to streamline their operations, refine their strategies, and enhance their branding efforts. AI-driven tools offer small businesses unprecedented insights into customer behaviour and operational efficiency. From predictive analytics to personalized recommendations, AI empower businesses, both big and small, to make

informed decisions and adapt quickly to changing circumstances. The implementation of AI-powered tools has emerged as a transformative shift, igniting a new wave of innovation and transforming the creative mindset of small business Owners. Through machine learning algorithms, AI can analyze vast amounts of data from diverse sources to identify patterns, and emerging needs and generate innovative ideas (Hassani et al 2020). This fosters a culture of innovation and empowers entrepreneurs to explore new avenues for product development (Okoye et al 2024). AI systems offer personalized suggestions, stimulate creative thinking and uncover unique opportunities (Shepherd & Majchozak 2022; Okoye et al, 2024; Akpan & Ibidunni 2023 Agrawal et al 2018).

The incorporation of AI technologies into content creation, idea generation, problem-solving and personalized recommendations without breaking the bank presents a wealth of opportunities to bolster innovation and support small businesses' entrepreneurial pursuits (Ebuka et al 2020; Egere et al 2022). AI holds the potential to revolutionize these processes, facilitating rapid idea generation (Omotosho, 2023; Adeosun et al 2022), creative content generation tailored towards target audiences (Akpan & Ibidunni, 2023), and targeted problem-solving (Ufua et al 2020).

The integration of AI-powered technologies in the product development process holds immense potential to drive innovation, enhance creativity and support entrepreneurial endeavours (Okoye et al 2024). AI can significantly streamline the design and prototyping phases of product development (Omotosho, 2023; Adekunle, 2024; Akpan et al 2022) which are generative designs capabilities entrepreneurs can rapidly iterate through numerous design possibilities, optimizing products for performance, efficiency, and aesthetically pleasing to target audience,

AI and Creativity

Within the scholarly community, there are differing viewpoints regarding the role of AI in relation to human creativity. While some scholars hold the belief that AI might eventually

replace human creativity others like Anantrasirichal et al (2020) argue that AI has the capability to enhance and augment human creative probabilities. This perspective highlights the notion that AI and human creativity can be synergistic rather than adversarial (Ebuka et al 2023). Small businesses face the challenge of standing out and possessing the ability to generate original ideas and solutions is crucial for business survival and continuous growth (Zhuo et al 2021; Kuratko 2019). Several AI tools offers a plethora of ideas that can be utilised by small businesses however, since Artificial intelligence is yet to integrate human emotions, the natural human creativity comes in play to tailor AI generated ideas to suit specific needs. This study emphasizes the view that AI can serve as a fuel for human creativity, giving individuals the opportunity to reach new heights of innovation and imagination. Instead of diminishing human creative endeavors, AI technologies offer opportunities for collaboration and co-creation within small businesses by providing tools for brainstorming, idea generation, and problem solving (Adekunle 2024). It is worthy to note that AI can assist in overcoming certain limitations and challenges associated with human creativity for instance, AI algorithms can generate alternative solutions, offer suggestions and facilitate idea generation by drawing upon vast repositories of information (Ebuka et al 2023; Elikjwu & Ndubusi 2020; Omotosho 2023). Nwachukwu & Affen (2023) stated that AI's analytical prowess can augment human cognitive abilities, enabling small business owners to explore uncharted territories and push the boundaries of innovation. AI empowers small businesses to focus on what matters most – delivering value to their customers and driving sustainable growths (Adeosun & Shittu 2021)

It is important to note that while AI can contribute to human creativity, it does not replace the unique qualities of human imagination, intuition and emotional intelligence (Henderson 2023). The human element remains essential in synthesizing diverse perspective, making subjective judgments, and infusing artistic expression into the creative process. AI is merely a tool that complements and supports human creativity offering new possibilities and expanding the creative landscape (Akpan et al 2022). By examining the potential synergies

between AI and human creativity this research aims to further shed light on how AI can foster innovation and empower small businesses to unleash their creative potential in unprecedented ways.

AI and Decision Making

Every facet of the entrepreneurship process involves decision-making and entrepreneurs frequently encounter "modal uncertainties" (Agrawal 2019) that influence their decision-making process. These uncertainties pose challenges as Small business owners navigate ambiguous and complex situations. However, the advent of AI, equipped with advanced techniques such as deep learning and machine learning has revolutionized the ability to analyze vast amounts of data. Agrawal (2019) opined that by leveraging these AI capabilities Small business owners can gain access to valuable insights and predictions that can mitigate uncertainties and enhance decision-making. The author further stated that by integrating AI-driven predictions into their decision-making frameworks, Small business owners can better access risks, identify opportunities and allocate resources effectively. AI's predictive analytics capabilities can assist SMEs in making informed decisions about digital marketing, content creation, product pricing, market acceptance, and demand forecasting. By analyzing historical data and market trends, AI algorithms can provide insights into potential customer preferences, allowing SMEs to tailor their products and contents to meet market demands effectively (Davidson et al 2023).

Additionally, AI contributes to post-launch optimization by continuously analyzing customer feedback and usage data. SMEs can leverage AI-driven sentiment analysis and recommendation systems to gather insights for product improvements, identify upgrade opportunities, and enhance the overall customer experience.

The reduction in uncertainty provided by AI-generated predictions enables small businesses to steer the intricacies of the entrepreneurial world with greater confidence and agility (Agrawal 2019). Chalmers et al (2021) stated that the utilization of AI in the decision-making process empowers entrepreneurs to fully utilise the transformative power of data and

computational analysis to enhance their understanding of market dynamics customer behavior and industry trends.

AI and Automation

Mikalef & Gupta (2021) stated that the combination of AI and automation holds great potential for improving efficiency, productivity, and innovation across sectors including Small Businesses. AI plays a crucial role in enabling automation by providing the intelligence and decision-making capabilities required to automate tasks. Through algorithms, machines can analyze large data sets, recognize patterns, and make informed decisions leading to improved efficiency (Haenlein & Kaplan 2019). Autor (2015) highlighted that AI-powered automation systems shifts the focus from repetitive and time-consuming tasks to strategic thinking, allowing human resources to leaverage their creativity and expertise for more impactful contributions.

Conclusion

This review has provided an analysis of the role of AI in promoting innovation and creativity amongst Small Businesses. Throughout the review, various perspective has been explored, shedding light on the potential positive impacts of AI adoption in entrepreneurial processes. This review has emphasized the significance of discussing the positive implications of AI, considering that it is an inevitable part of our future, acknowledging the positive role of AI can lead to numerous benefits from idea generation to design and prototyping, predictive analytics, personalized customer experiences, etc. AI tools presents Small Businesses with new avenues for creativity and innovation. It is however important for Small Business owners to find the right balance between leveraging AI technologies and maintaining the human element in the creative process to give their ideas and contents the human touch.

Research Question

Despite the growing adoption of AI technologies in various sectors, there is a need to understand the specific role of AI in promoting innovation and fostering creativity within

small businesses. Existing literature provides limited insights into the impacts of AI on the innovation process and its influence on creative outcomes. AI is an inevitable component of the future therefore, addressing these gaps is crucial for SMEs seeking to leverage AI effectively to enhance their innovation capabilities and foster creativity.

This research aims to answer the question thus; ***what role does AI play in promoting innovation and creativity in Small Businesses in Nigeria?***

Research Aims and Objectives

This research aims to analyse the role of AI in promoting innovation and fostering creativity within organisations by exploring the following objectives;

1. Analyse the impact of AI technologies on the innovation process of small businesses including idea generation, problem-solving, and decision-making.
2. Analyse how AI influences the level of creativity and novelty in the outputs of the innovation process.
3. Provide insights and recommendations for small business owners on effectively leveraging AI to enhance innovation and foster creativity.
4. Contribute to the existing literature on AI-based Entrepreneurship.

Research Methodology

Introduction

The research methodology section of this proposal provides an overview of the approach and methods that would be employed to analyze the research question. This section provides an overview of the research design, data collection techniques and analysis procedures utilized to address the research objectives. The selected research methodology is guided by the renowned research onion model proposed by Saunders et al (2019) (see Fig 1 below) Which offers a systematic framework for conducting research.
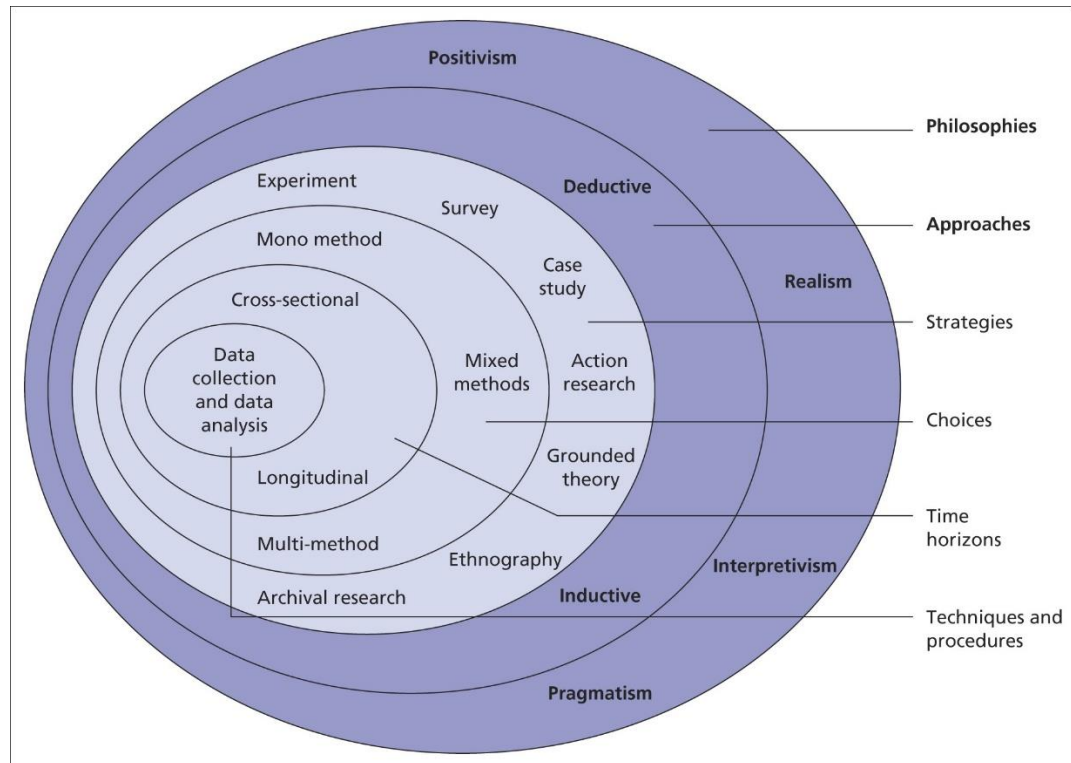
Fig 1 – Saunders Research Onions

Research Philosophy

The chosen research philosophy of this study is **interpretivism** (Saunders et al 2019) which recognizes the importance of understanding subjective experiences contextual factors and social interactions in exploring the intricate dynamics between AI innovation and creativity amongst small business owners in Nigeria. This research philosophy aligns with the objective of capturing the diverse subjective perspectives and interpretations (Saunders et al 2019) to AI technologies within the organizational context. By exploring qualitative methods such as interviews of small business owners in Nigeria involved in innovation processes, this philosophy is deemed highly appropriate because it enables researchers to explore the processes nuances and complexities of individual perspectives, providing a comprehensive understanding of their interactions with AI tools in the pursuit of innovation and creativity.

Research Approach and Design

The research aims to adopt the **inductive approach** to explore and gain valuable insights into the intricate dynamics between AI innovation and creativity in small businesses in Nigeria. This approach is chosen based on its ability to facilitate a data-driven exploration of the research topic, unconstrained by pre-existing theories or assumptions (Adams 2007). The inductive approach have been widely utilized in similar research endeavors (for instance, Chalmer et al (2021); Obschonka & Audretsch (2020); Townsend & Hunt (2019) as they offer a robust foundation for generating new theories, frameworks, and conceptual understandings.

In line with the chosen research approach, this research will employ the qualitative research method (Saunders et al 2019) to delve into the multifaceted aspect of AI integration within small businesses and its subsequent impact on innovation and creativity. By conducting semi-structured interviews, the research seeks to capture the subjective experiences, perspectives and interpretations of key stakeholders including small business owners and employees involved in innovation processes. These individuals possess valuable insights and play a pivotal role in shaping the integration and impact of AI tools in small businesses in Nigeria. Semi-structured will be conducted to gain insights and answer research questions and objectives through thematic analysis (Braun & Clarke 2006; 2016).

The inductive approach aligns with the overreaching objective of this research which is to contribute to the existing body of knowledge of AI-enabled entrepreneurship. By exploring the research topic without rigid theoretical assumptions, the research aims to develop novel theories, framework and conceptual understanding that contributes to the existing body of knowledge in the field.

Sample Size and Ethical Consideration

Participants were recruited using social media (Instagram, Facebook) through flyers (see Appendix iv) posted on researcher's personal social media profiles. Interested participants

were selected based on their availability, knowledge in the field of AI and innovation and the adaption of AI in the running of their small businesses. Another key inclusion criteria were the participants being 18 years and over and owner or employee of a small business in Nigeria.

The sample size for this research is ten (10) small business owners and/or employees in Nigeria, knowledgeable about AI and integrate AI tools in the day-to-day running of their business. This selection of participants was based on random sampling from various sectors, ensuring a diverse representation. The participants were interviewed remotely using Microsoft Teams and the sessions were recorded with the consent of the participants for accuracy and reference. The session was automatically transcribed by the platform Microsoft Teams and the researcher did some cleaning to correct some errors and remove all identifiable information of participants before analysis. Before the commencement of each interview, participants were provided with an information sheet (see Appendix ii) and a consent form (see Appendix i), outlining the purpose of this study, the confidentiality of their responses, and their rights to withdraw at any time within 2 weeks after the interview without consequences. Participants' anonymity and privacy were strictly upheld throughout the research process. All identifiable information of Participants was deleted to protect the anonymity and privacy of participants. Upon the conclusion of the interview, participants were provided with a debriefing form (see Appendix iii) via email.

Pilot study

Before the commencement of the first interview, a pilot interview was conducted with one participant to allow the researcher practice the questions, gain insights from the participant, and modify the interview schedule if needed (Lowe 2019). This is important to ensure that time and resources are not wasted venturing into the study only to discover the interviews will not provide answers to the research objective (Polit and Beck 2017). No changes were required and the data collected during the pilot study were used in the study.

Data Analysis

The data collected from the interviews were transcribed using the in-built transcription feature provided by Microsoft Teams. The researcher further cleaned the transcription ensuring accuracy and fidelity to the participants' responses. These transcripts will serve as the primary data source for analysis. Thematic analysis was applied to identify and organize recurring themes and patterns within the data (Braun & Clarke 2006; 2016). This analytical approach allows for the extraction of meaningful insights and a deeper understanding of the role of AI tools in promoting innovation and creativity in small businesses in Nigeria.

The researcher adopted the 6 iterative steps delineated by Braun and Clarke (2006). The process commenced with a thorough familiarization with the interview transcripts, wherein the researcher immersed themselves in the content to gain a nuanced understanding. This step facilitated the identification of recurring patterns and themes inherent within the data. Subsequently, the researcher engaged in the process of generating initial codes, systematically labelling segments of data that encapsulated key concepts. These codes were then organized into potential themes, highlighting significant patterns that emerged across the data. Each theme was reviewed and put side by side with research objective to ensure research objective was achieved. Following this, five (5) themes were identified – (i) idea generation; (ii) alternate and efficient ways to carry out tasks; (iii) improved business operations; (iv) positive impact on decision-making and problem-solving; (v) optimism for the future.
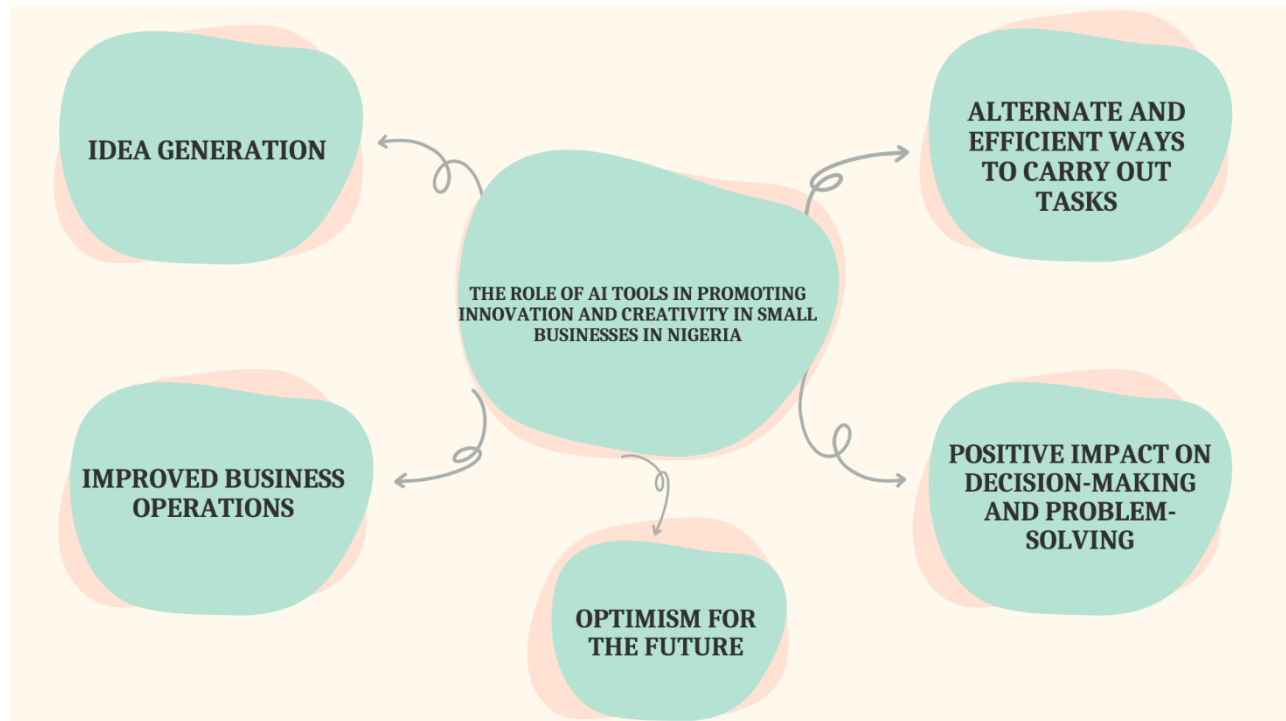
Results

Fig 2 – identified themes

Five themes were identified from the thematic analysis of the interviews with small business owners in Nigeria. The first 4 themes (*Idea generation, Alternate and efficient ways to carry out tasks, improved business operations and Positive impact on decision-making and problem-solving*) delved into the positive impacts of AI implementation on their businesses, highlighting its transformative potential in fostering creativity and innovation, enhancing operational efficiency through fast novel idea generation and streamlining business operations. The last theme (*Optimism for the future*) focused on the perspectives of the participants regarding the future role and potential of AI in the Nigerian business landscape.

These themes collectively provide a comprehensive understanding of the current state of AI adoption among small businesses in Nigeria, shedding light on both the opportunities and expectations associated with the integration of AI tools in fostering innovation and driving business success.

The identified themes will now be explored individually;

Idea Generation

A prevalent theme that emerged across the interview was 'Idea generation'. Most participants credited the use of AI tools for significantly enhancing their ability to generate and refine ideas. They likened AI to an inexhaustible source of inspiration and solutions. P1 aptly described AI as a "brain bug that never gets out of options", emphasizing its ability to continually offer creative solutions and ideas.

"AI has enhanced my creativity" – P3

Participants highlighted how AI has played a significant role in expanding their creative horizons. It has become a great tool in brainstorming and generating novel ideas, transforming the way businesses approach creativity and innovation.

P2 noted that "it leads me to what I want if I have many options. It streamlines my options and gives me pros and cons for each option." Like P2, most participants also highlighted AI's capability to streamline options and offer a clear breakdown of pros and cons for each choice, thereby facilitating decision-making. P8 stated that "... they ensure that your ideas are well reasons and thought-out". Mirroring this, P9 emphasized the cognitive support AI offers in "... streamlining my thoughts, allowing me to tap into their creative potential more efficiently and consistently".

The time-saving aspect of AI was another prominent point of discussion. P4 observed, "because of the time it saves, you have enough time to play around with new ideas". This sentiment echoed by P8 who shared how AI allows the to "create multiple graphics, sleep on it, look at it with a different eye and get fresh perspective", facilitating a more iterative and refined approach to idea development.

Several participants also highlighted AI's role as a reliable tool for overcoming creative obstacles and fostering a continuous flow of ideas. P10 shared thus "... there are times I go

through this mental block and cannot come up with captions or short write up or articles about my new design and Bard seamlessly gives me multiple suggestions". Throughout this study, participants highlighted the seamless and well-tailored nature of AI tools. Canva, a popular AI-powered graphic design tool, was frequently cited for its role in sparking creativity and facilitating the design process. P8 noted that "Canva's intuitive design features inspires me to experiment with different visual styles and layouts for my marketing materials".

Participants collectively support the notion that AI plays a pivotal role in augmenting the idea generation process, making it more efficient, diverse, well thought out and adaptable to the dynamic needs of small business owners.

Alternate and Efficient Ways to Carry out Tasks.

Most Participants highlighted how the implementation of AI tools in their business offers them alternate and more efficient ways to carry out tasks that were once time-consuming, labour-intensive and most times, expensive.

AI tools not only aid in the creative process but also offers innovative marketing strategies. As P3 explains below, AI enables the fine-tuning of storytelling for increased engagement and conversion, highlighting its role in modern marketing approaches. This integration of AI into marketing strategies exemplifies how technology is reshaping traditional methods, making them more effective and tailored to target audiences.

> *"I learned about a new way of marketing called 'storytelling', thanks to AI. So, I draft the story and AI helps me fine-tune it and make it more relatable to my audience. This leads to more visibility, engagement and it ultimately converts to some extra coins" – P3*

Most participants highlighted the role of AI in ensuring that compromise due to time constraints are minimised, allowing for better quality outcomes. P9 stated that *"before AI,*

you find yourself thinking about a certain thing and just end up settling for what you do not like, to save time". AI has introduced a new frontier in product development. According to P5," I *am able to test my products on bots as opposed to using humans and this was not possible before now"*. This does not only enhance the innovation process but also introduces efficiencies that were previously unattainable. Participants noted that AI offers businesses an "*alternate and efficient means to carry out tasks" – P4,* reducing costs and offering more time to be put in other areas of the business.

> *"...before now, I will spend weeks and sometimes months in search of a particular font but now, I use an AI tool called 'FontFinder' and in a matter of seconds I have the accurate font" – P2.*

The transformative power of AI is evident in how it *"... brings peoples dreams to life..."* *– P6.* Participants emphasizes the ability of AI to realise visions, underscoring its importance in turning concepts into tangible outcomes. It acts as a facilitator in materialising the aspirations of businesses, ultimately leading to the realisation of innovative and impactful ideas.

Improved Business Operations

This theme illuminated the transformative and multifaceted impact of AI on various areas of business operations. Across the interview, participants consistently highlighted how the implementation of various AI tools in their businesses significantly optimised and streamlined their day-to-day business functions, from branding and visibility to recruitment and content creation, offering new avenues for growth and efficiency.

P9 emphasized the role of AI in enhancing brand visibility and packaging. Traditionally, limited funds and resources constrained the participant's ability to create a strong brand presence. However, with the emergence of AI tools, the business underwent a significant transformation. "It has increased my visibility... but with AI, my business has a certain kind of packaging. AI is like a polish for my brand" P9 elaborated. The emergence of various AI

tools levelled the field for businesses to an extent, allowing even those with limited resources to present a polished and professional brand image.

Similarly, P2 talked about the efficiency and time-saving benefits AI brings to tasks that would be backbreaking and resource-intensive. "I needed to transcribe an audio and had limited time and resources, searched online and found a tool that did it in seconds. Before now, I would either have to do it manually or outsource it" P2 shared. This is one of the many instances that displayed AI's capability to automate and expedite tasks, allowing businesses, especially small businesses to operate more efficiently and focus on core activities that drive growth and profitability.

Recruitment is another area where AI has proved to be invaluable. P7 described how AI facilitates the review of resumes and matches candidates who align with the business' requirements, not only accelerating the hiring process but also ensures that the business recruits candidates who are a good fit, thereby enhancing the overall quality of the workforce. P7 affirmed, "AI helps me with my recruitment process by reviewing resumes quickly and matching me with candidates that actually meet the value of my business, and with that, I have time to put in other parts of the business."

Furthermore, P8 emphasized the versatile role of AI in business operation, describing it as a "... content creator, content writer, and graphic designer", enabling businesses to produce high-quality content and visuals without the need for specialised skills or additional manpower. It empowers businesses to maintain a consistent and engaging online presence, which is crucial in today's digital world.

Notion, a comprehensive workspace tool, was also highlighted for its role in streamlining workflow and improving productivity. Participants noted how its versatile features and functionalities enable them to manage tasks, organise information, and collaborate more efficiently. P10 stated that "...we are able to effectively keep track of important tasks and deadlines".

Positive Impact On Decision-Making And Problem-Solving

AI tools play a significant role in enhancing the decision-making process, facilitating problem-solving, and providing data-driven insights that empower small businesses in Nigeria to make informed and strategic choices. Participants consistently emphasized how AI implementation has significantly influenced their decision-making processes and empowered them to devise solutions to impending problems. P7 shared that "my decision-making process has really improved. AI provides data-driven insights to make informed decisions regarding marketing strategies and customer engagement initiatives". The implementation of AI empowers businesses to make more strategic and informed decisions.

AI tools enable businesses to identify and target their ideal customers more effectively, thereby enhancing the efficiency and effectiveness of their marketing efforts and ultimately leading to improved engagement and conversion rates. P5 noted "it helped with customer targeting for marketing campaigns. Other participants highlighted the ability of AI to identify market patterns and emerging trends and proffering recommendations on how to adjust branding and business models accordingly.

In the face of challenging economic conditions, AI tools have proven to be invaluable assets for businesses striving to maintain a competitive edge and *keep their head above water*. P1 explained that "in this economic hard times, AI gives me suggestions on how to stay on top of my game". P1 continued by calling AI a "brain bug that never gets out of options". Most participants enlisted how AI has continuously and seamlessly offered solutions to problem, help in the identification of opportunities and aid data-driven decisions.

Furthermore, the role of AI in expediting the design and development process stood out prominently. P3 shared that "...creates a demo of the user interface of a website and this gives an idea of what the prototype will look like and it creates this really quicky and you do not need a web developer skill". P3 highlighted how the AI tool impacts their decision making on the website interface that best represents their "...branding, values and mission".

Participants highlighted how several AI tools offer them plethora of options to choose from alongside the pros and cons of each option, giving them a fresh perspective on different business areas.

Optimism For The Future

The future of AI in the small business landscape in Nigeria is viewed through an overwhelming optimistic lens by participants. There is a palpable excitement and confidence about the transformative potential of AI and its increasing adoption across various sectors. This optimism is not only rooted in the current benefits and applications of AI but also extends to a forward-looking perspective on its potential impact on business operation, innovation, and competitiveness.

P1 envisioned a future where the quality of content produced by small businesses would significantly improve with the adoption of AI. They suggest that AI plays a great role in elevating the quality of content and services offered by small businesses, giving them a "…polished brand" thereby enhancing their competitiveness and market presence. They stated thus "I see more businesses embracing AI and there will be a drastic drop in low standards contents among small businesses".

Participants suggest that there will be inevitable growth of AI awareness and adoption among Nigerian small business owners. P6 stated "in the coming years, it will not be a matter of 'are businesses implementing AI in their business operations' but a matter of 'which tools offer the closest to a perfect solution'. P9 mirrored this sentiment, expressing confidence in the growing realisation of AI's potential and its limitless possibilities. P9 affirmed "I know AI is going to gain ground soon, people will realise what AI can do for them and that they can do more with AI. There is a perceived untapped potential of AI and the increasing awareness and understanding of its capabilities among business owners, leading to a "..more efficient and innovative business environment"-P5.

P3 envisioned a transformative future for AI, stating "I see AI becoming more integral and enabling small businesses in Nigeria to actually thrive". Similarly, P7 and P10 anticipated a broader embrace of AI-powered solutions among entrepreneurs to drive business growth and improve operational efficiency. P7 highlighted "more entrepreneurs will embrace AI-powered solutions to drive business growth and enhance competitiveness", while P10 believed "more entrepreneurs will be able to leverage AI for more efficiency".

Participants expressed optimism in AI tools levelling the field for businesses. They believed that small businesses will no longer be "… limited by resources or lack of access to cutting edge technology"-P8, they will have the tools to compete with large companies, disrupt entire industries with innovative ideas, and thrive rapidly.

Discussion

The objective of this study was to explore the role of AI in fostering innovation and creativity among small business owners in Nigeria. Through thematic analysis of the interviews, five (5) key themes emerged thus; *1. Idea generation; 2. Alternate and efficient ways to carry out business tasks; 3. Improved business operations; 4. Positive impact on decision-making and problem-solving; 5. Optimism for the future.* These themes not only demonstrate the transformative potential of AI but also highlight the nuanced ways in which AI is reshaping the business landscape for small business owners in Nigeria.

The first theme underscores the role of AI as an inexhaustible wellspring of creative inspiration, generating innovative solutions and ideas that can be further refined and tailored to address specific business needs. Traditionally, the process of idea generation has been heavily reliant on human intuition and experience. However, the advent of AI has revolutionised this approach for small business owners, providing a powerful platform to amplify and enhance the creative process. This theme aligns with and extends the findings of previous studies (Chalmers et al 2021; Egere et al 2021), demonstrating AI's capacity not only to generate a plethora of novel ideas but also to enhance and optimise existing ones. This capacity provides small businesses with a valuable asset, particularly considering their

limited resources and the constrained space for trial and error in their operations (Ebuka et al 2023).

Moreover, this study affirms that AI-powered tools play a role in facilitating brainstorming sessions by suggesting unexpected connections and possibilities, thereby stimulating creative problem-solving approaches. This finding is consistent with previous research that highlights the capacity of AI tools to augment creative processes and foster innovative thinking (Akpan et al 2022; Chalmers et al 2021).

This theme partially fulfils the first and second objectives of this study, which is to analyse the impact of AI tools on the innovation process of small businesses, including idea generation, problem-solving, and decision-making and to analyse how AI influences the level of creativity and novelty in the outputs of the innovation process. The insights garnered from this theme suggest that AI has a significant and positive impact on small businesses' creative and innovative capacities, offering them a powerful tool to navigate the complexities of the modern business environment.

Researchers have highlighted the importance of efficient operational processes and technological adoption in enhancing business performance and productivity (Park,2022; Akpan & Ibidunni 2023; Egere et al 2022). Similarly, the second theme, "alternate and efficient way to carry out business tasks" reveals how small businesses utilise several AI tools including ChatGPT, Notion, Canva, Capcut, etc to streamline workflows and enhance productivity. These tools have become essential for tasks ranging from transcription, and content creation, to graphic design. The implementation of these tools has allowed small businesses to tackle previously time-consuming, and expensive tasks with ease and efficiency, freeing up valuable time to focus on other critical areas of their business (Akpan et al 2022; Amoako et al 2021).

Wamba et al 2020 stated that AI has the capacity to optimize existing processes, enhance automation, and improve organizational and process level performance. The integration of

AI redefines and enhances business operations across various domains from banding recruitment, marketing to administrative functions. The findings of this study resonate with previous studies (Wamba et al 2020; Nwachukwu & Affen 2023; Akpan et al 2022) that highlight the importance of leveraging AI's capabilities to reconfigure organizational processes and enhance business value. AI's ability to optimize existing processes and improve automation and transformation effects has been instrumental in improving performance at both organizational and process levels. Most participants highlighting how implementing AI tools in recruitment, branding, transcription, customer services, and customer preference among others have tremendously improved their business operations resonating with previous studies. Reinforcing the experiences of participants in this study, research by Nwachukwu & Affen (2023) highlight the power of AI powered marketing tools. These tools can analyze customer data to identify target audiences and personalized marketing campaigns. This allows businesses to reach the right customers with the right message at the right time, ultimately leading to increased marketing effectiveness and a significant return on investments. Similarly, participants in this study emphasize their ability to tailor marketing campaigns based on diverse customer preferences and conduct in-depth analysis of customer data mirroring the benefits outlined in the aforementioned research.

The fourth theme delves into the impact of AI tools in decision making and problem solving. Before now decision making often relies on intuition and gut feeling which can be prone to biases and inconsistencies. AI, however changes the game by analyzing vast amount of data from various sources, including customer feedback, sales figures and market trends brackets (Amoako et al 2021; Kaggwa et al 2024, Albloshi et al 2023), empowering small business owners to extract valuable insights and make data-informed decision on marketing campaigns, resource allocation, product development, etc. According to Ebuka et al (2023), data-driven approach leads to informed decision-making, minimizing risk and maximizing the chances of success, especially for small businesses.

AI also facilitates problem solving as this study has shown. AI-powered tools can analyze complex problems and identify potential solutions (Lateef et al 2023). Zhuo et al (2021) stated that these solutions proferred by AI might be based on several situations encountered in the past or gleaned from vast data sets of industry-based practices. By considering a range of possibilities, AI-powered tools can assist small business owners in identifying creative and effective solutions to challenges they might have overlooked. Building on a growing body of research (Amoako et al 2021; Kaggwa et al 2024; Ebuka et al 2023; Zhuo et al 2021), this study aligns with the positive impacts of AI ttols on decision-making. These findings contribute to fulfilling the second aspect of this study's first objective which aims to analyse the role of AI in impacting problem solving and decision making capabilities within small businesses.

Finally, the theme of optimism for the future emerged as a powerful undercurrent throughout the participants experiences. These optimism is rooted in the belief that AI is poised to revolutionize the landscape of small businesses innovation. With AI tools taking over repetitive tasks, small business owners foresee a future where they can devote their time and resources to more strategic endeavours. This shift of focus is expected to lead to the development of higher-quality content and more innovative marketing strategies (Nwachukwu & Affen 2023). The participants expressed a consensus that AI will gain significant traction within the small business landscape in the coming years. This widespread adoption is anticipated to empower a larger pool of small businesses to leverage AI for increased efficiency and competitiveness. Studies have shown that businesses that embrace new technologies are more likely to experience increased efficiency (Akpan et al 2022; Oyewobi et al, 2023), improved product and service offerings (Hansen & Bogin, 2021; Wynn & Olayinka 2021), and ultimately greater profitability (Igboeli & Bisallah, 2020; Akpan & Ibidunni 2023).

This optimism of participants is not without merit. As AI technologies continue to evolve and become more sophisticated, its potential to empower small businesses become

increasingly clear. As this research and previous researches (Obschonka & Audretsch, 2020; Akpan et al 2022; Ebuka et al, 2023; Amoako et al 2021;) has shown, AI tools are clearly demonstrating their ability to automate task improve decision making provide valuable insights. With further advancements, we can expect her to become even more integrated into the daily operations of small businesses acting as a powerful catalyst for innovation and progress.

Strengths, Limitation, Implication, and Future Research

The current study offers valuable insights into the role of AI in enhancing innovation and fostering creativity among small business owners in Nigeria. The study successfully captured a diverse range of perspectives from small business owners across various industries. The qualitative approach allowed for an in-depth exploration of participants experiences perception and attitude towards AI, providing rich and detailed data on the impact of AI on their businesses.

One of the main limitations of this study is the lack of awareness and misconception among small business owners that AI is unattainable and only available to big players in the industry these limited awareness and perception could potentially impact the generalizability of the findings I may not fully represent the broader small business community in Nigeria. Additionally, the recruitment of this study was conducted over a short period of time and although the researcher was able to recruit small business owners from different industries including fashion, manufacturing, oil and gas etc. The recruitment was primarily based on availability and willingness to participate in the research. This convenience sampling approach may have introduced selection bias and could limit the generalizability of the findings.

The findings of this study have several important implications for small business owners, policymakers, and researchers in Nigeria. Firstly, the study highlights the need for increased

awareness and education about AI among small business owners to dispel misconceptions and foster a more positive and informed attitude towards AI adoption. Secondly, this study underscores the potential of AI to enhance innovation foster creativity, and improve business operations and decision making processes in small businesses. Lastly this study emphasizes the importance of providing support, resources, training to small business owners to enable them to effectively leverage AI technologies to drive business growth and competitiveness.

Future research in this area can build on the findings of this study and address some of its limitations. Firstly, future research could employ a more systematic and targeted recruitment strategy to ensure a more representative sample of small business owners across various industries in Nigeria. This could involve a longer recruitment, and a more comprehensive sampling approach to capture a broader range of perspectives and experiences. Secondly, future research could focus on developing and implementing AI education and training programs tailored specifically for small business owners to enhance their knowledge, skills, and confidence in adopting and utilizing AI technologies in their businesses. Lastly, future studies could explore the long term impacts of AI adoption on small business Innovation, growth, and competitiveness in Nigeria and identify the key success factors and challenges faced by small business owners in integrating AI into their business operations.

In conclusion, despite the limitations, this study provides valuable insights into the role of AI in enhancing innovation and fostering creativity among small business owners in Nigeria. The study highlights the transformative potential of AI in driving business innovation, improving business operations, and enhancing competitiveness, and underscores the importance of increasing awareness, providing support, and fostering a positive and informed attitude towards AI adoption among small business owners in Nigeria. Future research in this area is essential to further explore and understand the impact of AI on small business innovation and growth in Nigeria and to identify strategies and interventions to

support and facilitate the effective adoption and utilization of AI technologies by small business owners.

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Appendices

Appendix i – Consent Form

- I ………………… voluntarily agree to participate in this research study.

- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.

- I understand that I can withdraw permission to use data from my interview within one (1) week after the interview, in which case the material will be deleted.

- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.

- I understand that participation involves attending a Microsoft Teams meeting and answering interview questions prepared by the researcher for the research.

- I understand that I will not benefit directly from participating in this research.

- I agree with my interview being recorded.

- I understand that all information I provide for this study will be treated confidentially.

- I understand that in any report on the results of this research, my identity will remain confidential.

- I understand that de-identified extracts from my interview may be quoted in the researcher's dissertation

- I understand that if I inform the researcher that myself or someone else is at risk of harm they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.

- I understand that signed consent forms and original audio recordings will be retained by the researcher until the transcription of the interview is complete, after which, it will be deleted permanently.

- I understand that a transcript of my interview in which all identifying information has been removed will be retained for five (5) years from the date of the exam board confirmation of the researcher's dissertation results.

- I understand that under freedom of information legalization, I am entitled to access the information I have provided at any time while it is in storage as specified above.

- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

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Signature of participant   **Date**

Signature of researcher

I believe the participant is giving informed consent to participate in this study.

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Signature of researcher   **Date**

Appendix ii – Research Information sheet

Research Title: Analysing The Role of Artificial Intelligence Tools in Promoting Innovation and Fostering Creativity in Small Businesses in Nigeria by Blessing Oghenerukevwe Enakpodia

I would like to invite you to take part in a research study. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. Take time to decide whether or not to take part.

WHO I AM AND WHAT THIS STUDY IS ABOUT

Hello! I am Blessing Oghenerukevwe Enakpodia, an MSc. Entrepreneurship student at the National College of Ireland (NCI). The primary objective of this study is to fulfil the requirement for my MSc. Degree in Entrepreneurship, which involves completing a thesis. Additionally, the study aims to explore the role of Artificial Intelligence tools in fostering innovation and creativity within small businesses in Nigeria. Given the rapid popularity and integration of new AI tools, the research aims to analyse the various AI tools utilized by small businesses in Nigeria and how its integration has improved business operations.

WHAT WILL TAKING PART INVOLVE?

Your participation in the research will involve attending a Microsoft Teams meeting lasting approximately 30 minutes – 1 hour. The meeting will be conducted via Microsoft Teams and will be recorded for analysis purposes. During the meeting, we will discuss your knowledge of AI tools, including specific tools you utilize in your business. Additionally, we will explore the impact of AI integration on the small business landscape in Nigeria and delve into how you navigate ethical issues that may arise due to the use of AI. This discussion aims to gather insights into various aspects of AI adoption within small businesses.

WHY HAVE YOU BEEN INVITED TO TAKE PART?

You have been invited to participate in this research because of your unique position as an over 18 years of age small business owner or an employee in a small business in Nigeria who actively incorporates AI into the day-to-day operations of your business. Your firsthand experience and insights are invaluable for addressing the specific business questions this research aims to explore.

DO YOU HAVE TO TAKE PART?

Participation in this study is entirely voluntary, and you have the right to refuse to answer any question that you are not comfortable with. Furthermore, you can choose to withdraw from participation at any point without facing any consequence whatsoever.

WHAT ARE THE POSSIBLE RISKS AND BENEFITS OF TAKING PART?

While this research is designed with the utmost consideration for your safety and well-being, it is important to note that there are no anticipated physical or mental risks associated with participation. The primary purpose of this study is for the completion of the Researcher's dissertation as part of the requirements for an MSc. Entrepreneurship degree and may be used in presentations at conferences or published. It is important to note that there are no direct benefits to you as a participant as the focus is on gathering data to contribute to academic research.

WILL TAKING PART BE CONFIDENTIAL?

The privacy and confidentiality of participants are of utmost importance in this research and the researcher is committed to adhering to the principles outlined in the General Data Protection Regulation (GDPR). It is important to note that non-anonymised data, such as signed consent forms and audio recordings will be collected and retained as part of the research process. These materials are securely stored and only accessible to the researcher.

Any use of quotes from the interviews in the final dissertation will be done in a way that maintains the confidentiality and anonymity of the participants.

Your participation is voluntary, and you have the right to discuss any concerns about confidentiality before deciding to participate. If you have any questions or need further clarification, please do not hesitate to contact the researcher directly.

HOW WILL INFORMATION YOU PROVIDE BE RECORDED, STORED AND PROTECTED?

Signed consent forms and original audio recordings will be retained by the researcher until the transcription of the interview is complete, after which, it will be deleted permanently. A transcript of interviews in which all identifying information has been removed will be retained for a further five (5) years after this.

Under freedom of information legalisation, you are entitled to access the information you have provided the researcher at any time**.**

WHAT WILL HAPPEN TO THE RESULTS OF THE STUDY?

The research is primarily for dissertation submission but may be used in presentations at conferences and publications.

WHO SHOULD YOU CONTACT FOR FURTHER INFORMATION?

If you have any questions or need further clarification, please do not hesitate to contact the researcher directly via email below.

THANK YOU!

Blessing Oghenerukevwe Enakpodia

X22122699@student.ncirl.ie

Supervisor:

Dr. Amanda Kracen

amanda.kracen@ncirl.ie

Appendix iii – Debriefing email sample

Dear Participant,

First, I would like to thank you for taking part in this study. The interview you just took part in was recorded; data will be analysed to examine the role of AI tools in promoting innovation and fostering creativity in small businesses in Nigeria.

The results of this study will be presented in my dissertation, which will be submitted to the National College of Ireland as part of my MSc. degree and may be used in presentations at conferences or in publications. Any information that could potentially identify you or anyone you mentioned in the interview will be removed.

If you wish to withdraw your data, you can do so before your data has been transcribed (in the next week) by contacting me via email (x22122699@student.ncirl.ie), after that, withdrawal will not be possible as all identifiable information will be removed.

If you have any questions, please email me. If you feel distressed in any way by the interview, please contact the helpline below.

08091116264, 08111680686 (Mentally Aware Nigeria)

Once again, thank you for volunteering in this study.

Blessing Oghenerukevwe Enakpodia

x22122699@student.ncirl.ie

Supervisor: Dr. Amanda Kracen

amanda.Kracen@ncirl.ie

Appendix iv – Recruitment flyer and Participant Receruitment Post

Recruitment flyer

Participant Recruitment Post

Calling on small business owners or employees in a small business in Nigeria!

Your business journey is unique and your experience matters! Your insights can shape the future!

I am embarking on a qualitative research journey to explore "the role of AI tools in fostering innovation and creativity in small businesses in Nigeria".

If you are a small business owner or employee in a small business in Nigeria and are interested in sharing your experiences, challenges, and successes with AI tools, I invite you to participate in an interview.

Let us explore together how AI is influencing the creative landscape of small businesses.

Interested in being part of this exploration, drop a comment or send a DM! Let us uncover the potential of AI in Nigerian small businesses.

Thank you!

Blessing Oghenerukevwe Enakpodia.

Appendix v – Interview Questions

1. Can you tell me about yourself and your business?

2. Can you describe your overall experience with using AI tools in your business?

3. What specific AI tools do you use in your business, and for what purposes?

4. How has the implementation of AI tools impacted the decision-making process in your business?

5. Can you please share specific examples of how AI tools have helped you in problem-solving?

6. How has the emergence of AI tools impacted your business operations?

7. Can you please share specific examples of how AI tools have helped you to innovate or become more creative?

8. What are the biggest challenges you have faced in implementing AI tools in your business?

9. Has the use of AI tools helped you to experiment with new products, services, or business models?

10. From your perspective, how does the integration of AI tools influence the speed and efficiency of the innovation process?

11. Can you identify any unique cultural or contextual factors in Nigeria that influence the adoption and effectiveness of AI tools in fostering innovation within small businesses?

12. What do you think are the potential future trends and opportunities for the role of AI tools in fostering innovation within small businesses in Nigeria?