

Generative AI - Research Report

GIEVA – DCS University of Jos
Dr. Nentawe Gurumdimma

Introduction

The surge of social media has greatly enhanced the business operations of Small and Medium Enterprises (SMEs). This holds particularly true for business owners possessing the necessary capacity and digital literacy. Nonetheless, a significant portion of Nigerian SMEs lacks a presence on social media, even as others are already leveraging Artificial Intelligence to propel their business activities.

This research aims to delve into the perspectives of women engaged in SMEs in Plateau and Kaduna. It focuses on their adoption of digital tools in business, comprehension of Generative AI, concerns related to the use of such technologies, and their openness/willingness to learn and employ Gen AI for business promotion.

This Research throws Light into:

1. The demographics of women actively involved in SMEs in Plateau and Kaduna States.
2. Understanding/awareness of Generative AI among these women in SM businesses
3. The level of acceptance, use and willingness to learn to use Gen AI for promoting business sales among these women.
4. The concerns/worries about the use of Gen AI by low income women in businesses

Some Background

- According to the Global Data Index in 2018, an average of 62.5% of households in Kaduna are poor, with an International Wealth index (IWI) value under 70. This suggest a large percentage of people categorised as Low income earners.
- Almost the same could be said of Plateau State

Low Income Women

This research targeted women who are low-income earners, doing businesses that can be classified as small or medium businesses.

In order to identify low-income women, we identify communities/ locations with the following characteristics:

- ☐ Lacks Social amenities, like good access road, clean water, hospitals/health care services
- ☐ History of crises.
- ☐ Densely populated areas
- ☐ High crime rate: In some locations (Jenta and Kabong areas of Jos), the business women were forced to either pay taxes to cultists or suffer bugling.

- We looked for women who own businesses around the locations where low-income earners live and/or in markets around these disadvantaged areas. Some of the areas include:-
 - Plateau: Kabong, Jenta Adamu, Farin Gada, Building material roadside, Rukuba Road, Basa Market, Angwan Rukuba, and so on.
 - Kaduna: Sabo Market, Barnawa, Narayi, Kawo, Tirkaniya, and Angwan Muaza
- **For our respondents, the staff strength of the businesses established by the women ranged from one to four persons, and they earn less than 10 million Naira annually. In fact, most of these businesses just managed to get some profit to sustain them for that day.**

Some of our Respondents

Some respondents signed a consent form, permitting us to use their photographs for the purpose of our report.



Mrs. Amarachi Eze is a small scale sweet potato trader in Bassa, Plateau state. She has been in the business for over three years. Prior to our interaction with her, she knew nothing about generative AI. After we introduced her to it, she became very interested in learning and using it in the advancement of her business. Her interest only got deterred by the fact that she had no access to an android or smartphone.

Some of our Respondents



Mrs. Patience Edmond owns a small provision shop where she spends most of her work time. Although she owns an android phone, she had never used social media to aid her business in any way. She explained her lack of understanding of Generative AI and her uncertainty about the benefits it can bring to the business. She said she doesn't trust new technologies, but she is eager to engage in training programs that would educate her on how to effectively use Generative AI.

Some of our Respondents



Abigail (left) and Sarena (right) are very interested in learning how generative AI can be used and beneficial to their cloth business in Chikun part of Kaduna state. They have been in this business for over three years, and neither use social media nor smart phones. They complain of having few customers and do not have a physical shop for their business because they cannot afford the shop rent.

Some of our Respondents



Victoria Agbadi and Naomi Agbadi are skilled in hairdressing. They own a hairdressing salon where they work together with two other female friends, in Bukuru part of Plateau state. They both own smartphones which they use to post images and videos of hairstyles and skin care products they sell. They possess basic understanding of generative AI which they wish to use but have never been able to integrate into their business. With great optimism about the impact of generative AI on their business, they are willing to learn how it will be used to improve their business.

Some of our Respondents



Mrs. Esther Davou is one of the women who believe that Generative AI will be beneficial to her business. Although she lacks the required skills, she is confident in her ability to adapt to new technologies. She is prominent for her fresh vegetable sales in Chikun part of Kaduna State, as she has been in this business for an average of 5 years. Her worries for the accuracy and usefulness of AI for her business has not hindered her interest and willingness to learn about it. She hopes for a technology that would improve her sales and help expand her business.

Challenges Encountered in the Field

- First, most of the small business owners were unwilling to welcome our team, however, we decided to produce T-shirts and caps with GIEVA logo for easy identification and we realized that the resistance reduced.
- Even at that, they were more welcoming when the data collectors came in groups of at least two, otherwise, they rarely gave their time/attention.
- Most of them are interested, first in what GIEVA would be able to offer them before giving out their business and personal information. Some are hoping that the organization might give them grants for their businesses. So, most of them would not tell the truth about their average daily income from the business in the hope that incase grants would be provided, they could be considered if their income is low.
- These challenges forces data collectors to:
 - Promise them consideration for training if they would divulge their business and personal information.
 - Use Observation method to gauge the probable business income generated and classify as small or medium business.

Tools and Methods for Data Collection

Questionnaire was developed on:

- KoboToolbox.org
- Google Forms

Interview based questionnaires were administered to women in various markets in Kaduna and Plateau State using **KoboCollect** App.

The image displays three overlapping screenshots of the KoboCollect mobile application interface. The central screenshot shows a survey form titled "GEIVA Survey Form A" with a yellow status icon. The form is titled "Demographic Information" and contains a list of questions: "1. Name", "2. Phone number", "3. Email Address", "4. State", "5. LGA of Business", "6. Age Range", "7. Educational Level", "8. Is your business registered with CAC?", and "8.b. Is your business registered with SMEDAN?". At the bottom of the form are two buttons: "Go To Start" and "Go To End". The leftmost screenshot shows the KoboToolbox.org website interface with a blue "Start new form" button and a list of form management options: "Drafts", "Ready to send", "Sent", "Download form", and "Delete form". The rightmost screenshot shows the end of the survey form with a blue "Finalize" button and a message: "end of GEIVA" and "We are able to make edits... Save as draft...".

Observations

Women above 40 years showed more interest in the incentives, while younger women were more interested in the training.

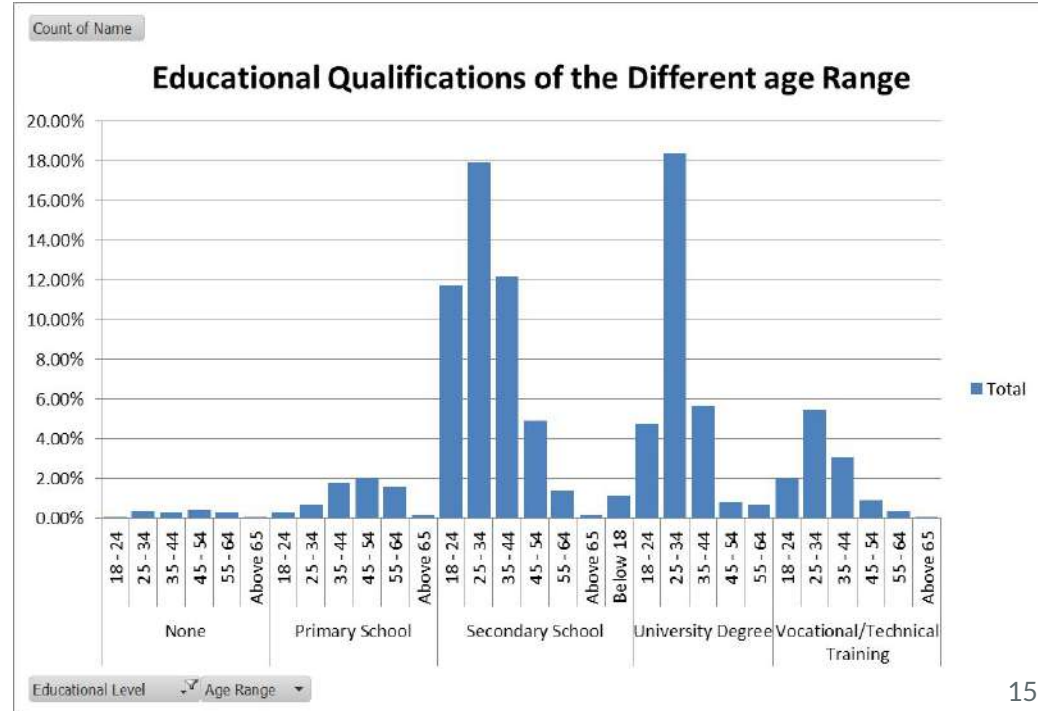
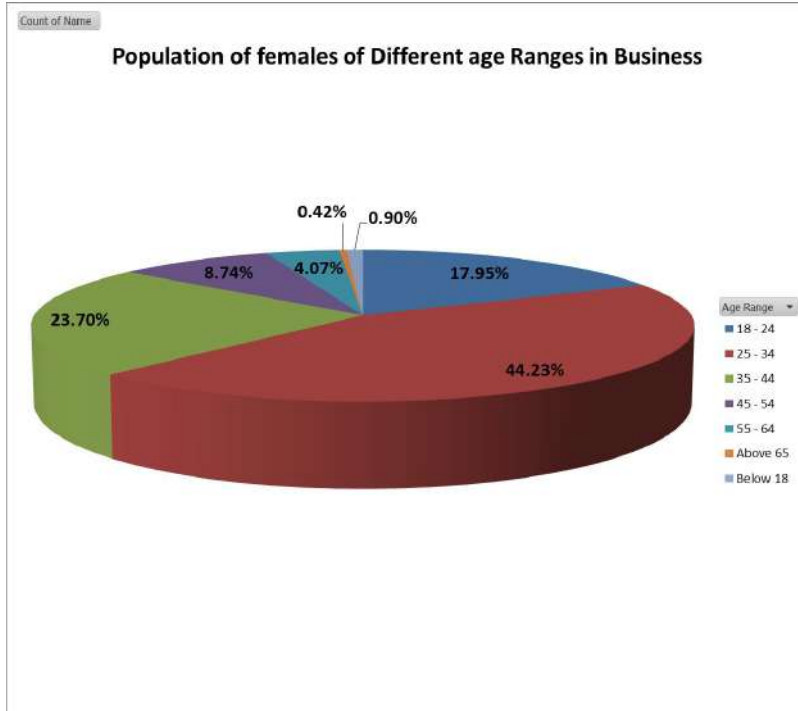
The respondents asked questions about the locations of the training venue and the ease with which they could transport themselves.

Most of the women had uncertainties about the privacy of their data, hence they were less willing to divulge information about their businesses and themselves.

The educated women easily understood the concept of AI and were interested, while others only wanted incentives.

Research Findings – Demographics– age

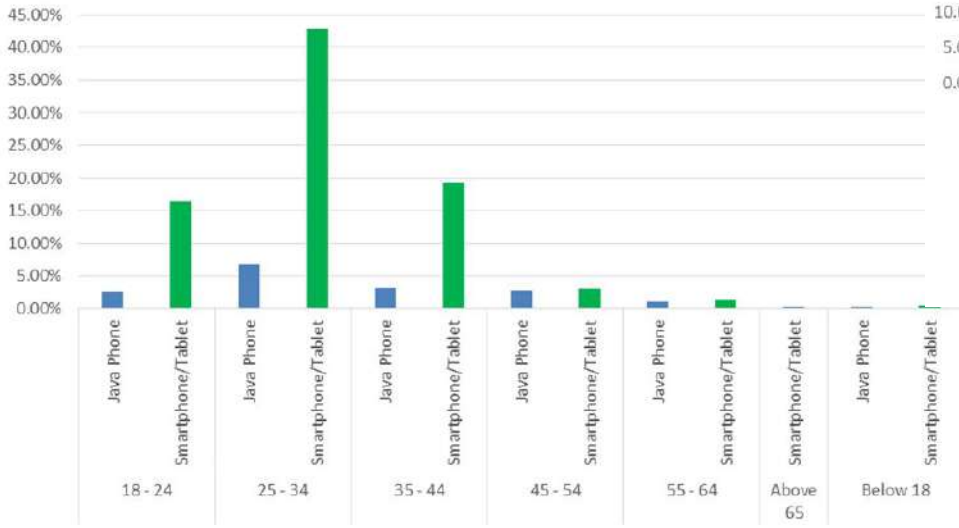
The most active women in business are between the ages of 18 and 44. This age group have also been exposed to at least secondary Education



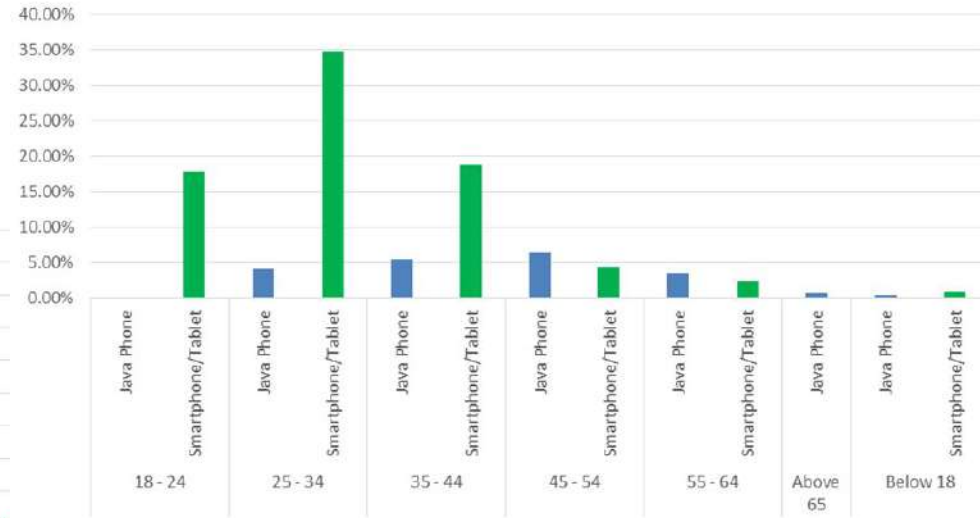
Research Findings – Smart phone access

- Percentage **without** Smartphone Access:
Plateau: 28%
Kaduna: 21%
- Less than 5% of women above 54 years old have access to smart phones in Kaduna and Plateau.

Access to Smart Phones in Plateau



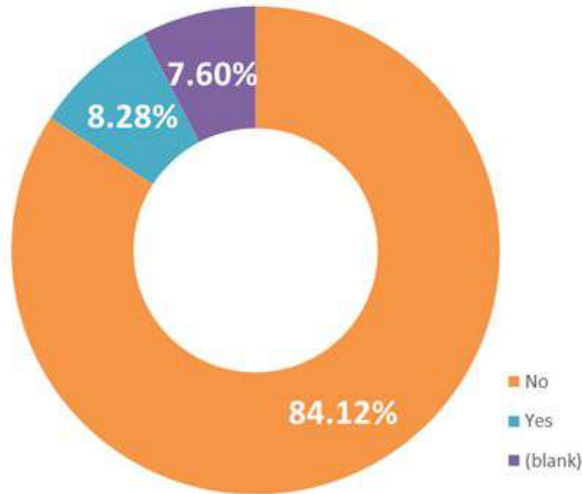
Access to Android Phones in Kaduna



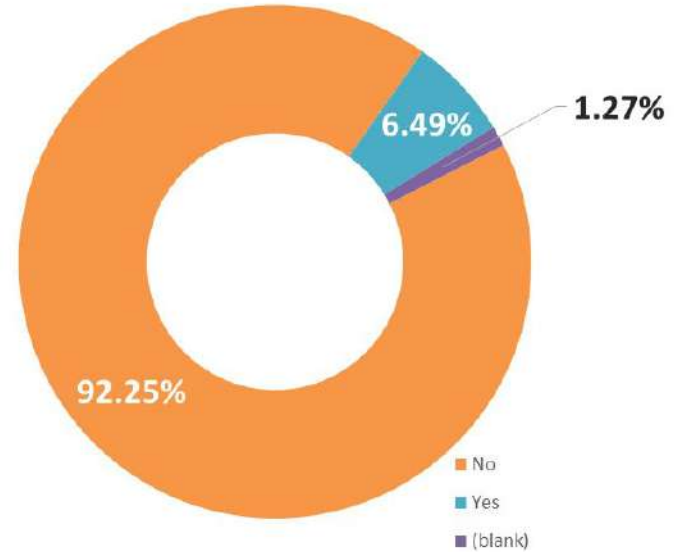
Research Findings – SMEDAN registration

Respondents were scared about answering questions around business registration. Some women in Plateau and Kaduna that indicated their Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) registration status.

SMEDAN Business Registration for Plateau

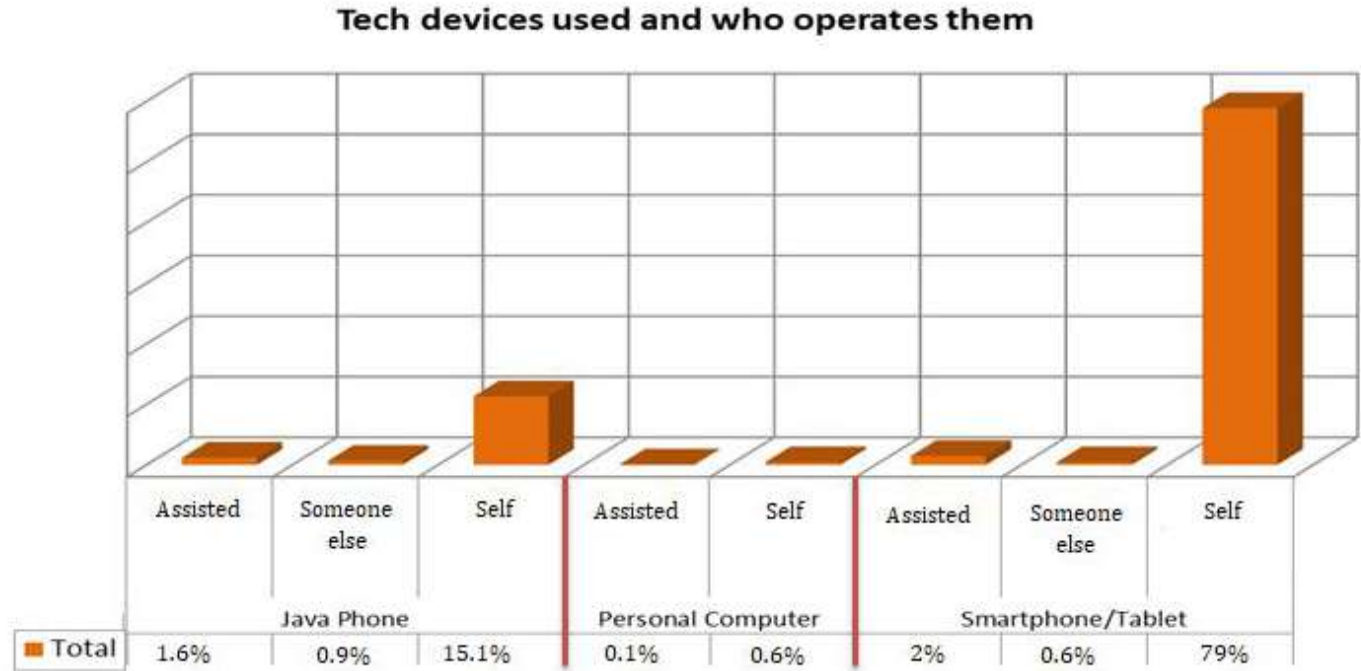


SMEDAN Business Registration for Kaduna



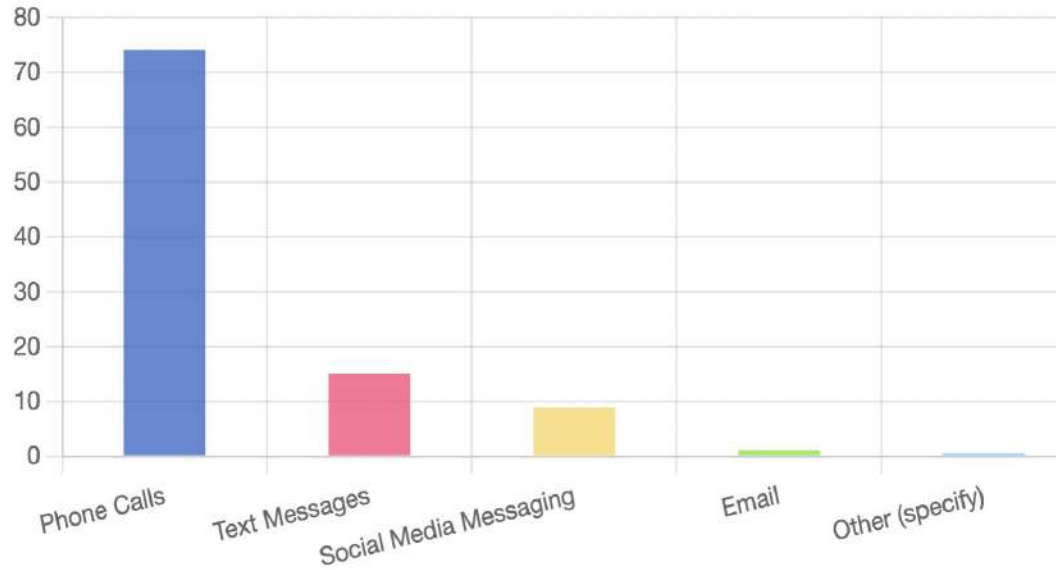
Research Findings- Business tools

From our survey, we discovered that 79% of women who own smartphones and/or tablets are able to operate the device themselves.



Research Findings- Preferred mode of communication

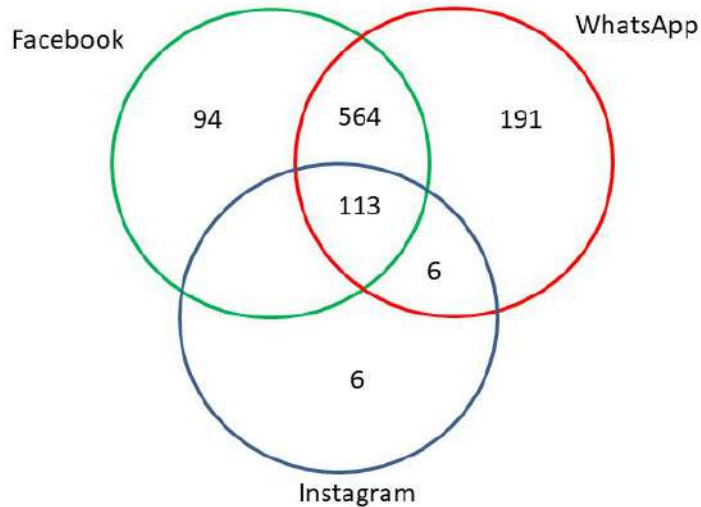
- More than 70% Prefer Phone calls for their business communications
- Most of them do not even check their emails
- More than 94% of the women can read and write
- **87%** prefer **English** with just about **12%** with **HAUSA** preference (Largely from Kaduna North)
- **The Training arm may take note of this and emphasize the importance of other methods**



Research Findings- Social media use

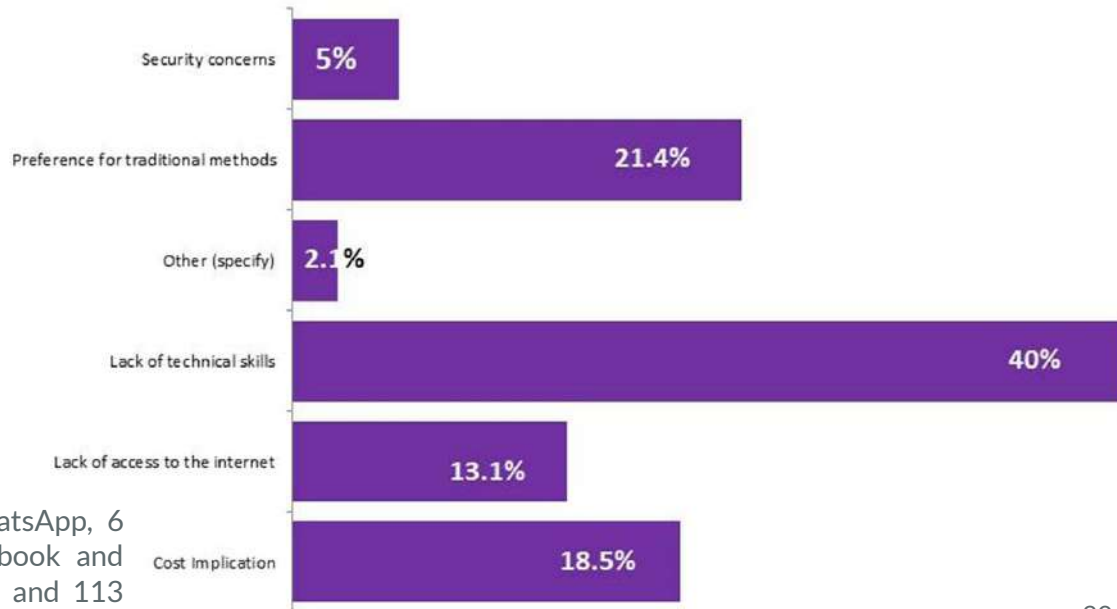
63.5% of the women use a combination of WhatsApp, Facebook and Instagram for their businesses, while 36.5% do not use any social media platform. This is largely caused by their lack of technical skills.

Most used social media platform



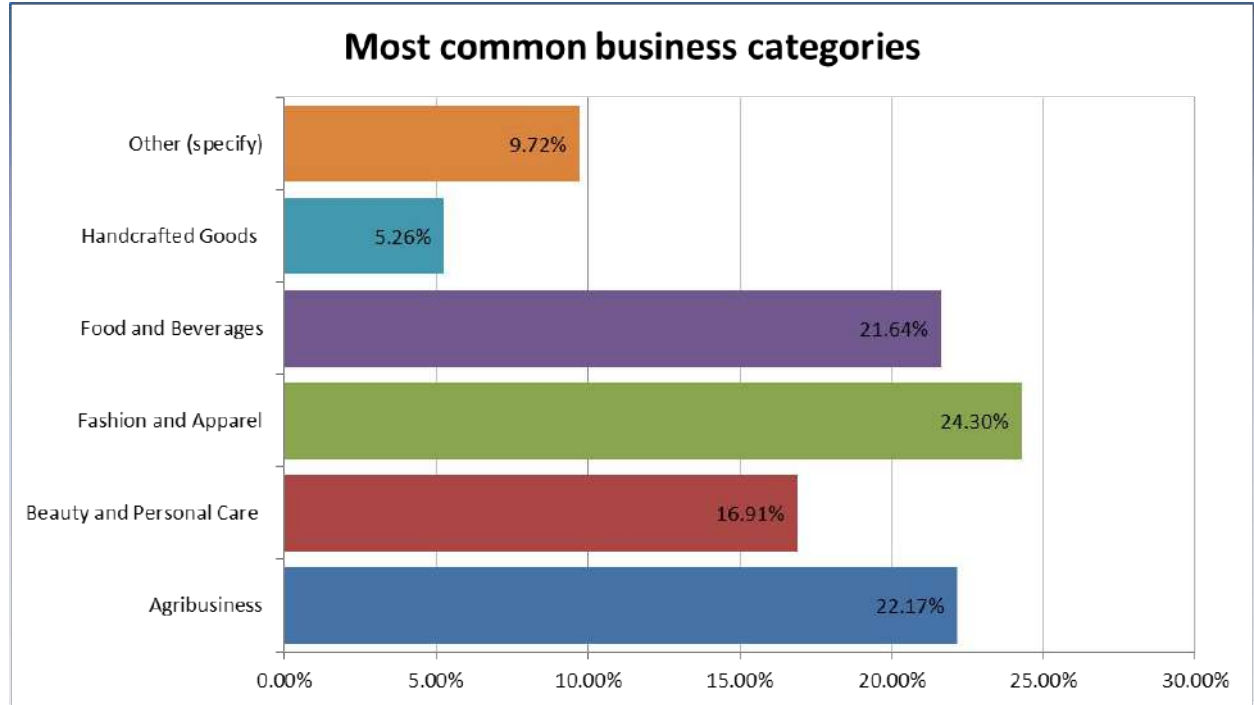
94 women use only Facebook, 191 women use only WhatsApp, 6 women use only Instagram, 564 women use both Facebook and WhatsApp, 6 women use both WhatsApp and Instagram, and 113 women use all three social media platforms

Reason for not using social media



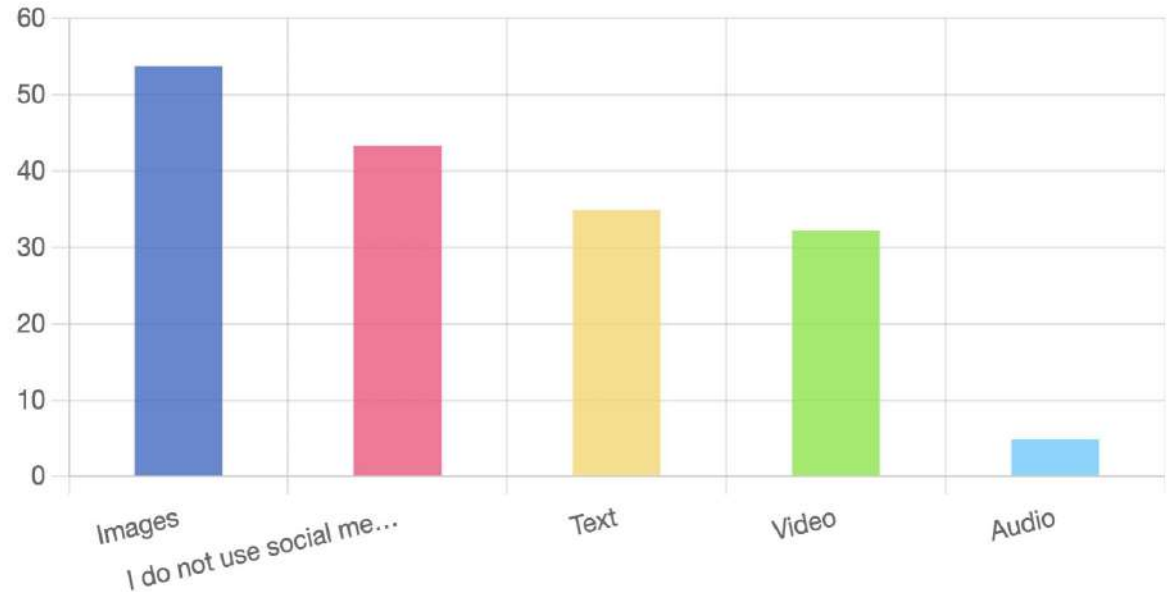
Research Findings- Business categories

- Common Businesses they engaged in:
 - Fashion and Apparel (**24.3%**)
 - Agribusiness (**22.17%**)
 - Food & Beverages (**21.64%**)
 - Beauty & Personal Care (**16.91%**)
 - Handcrafted goods (**5.26%**)

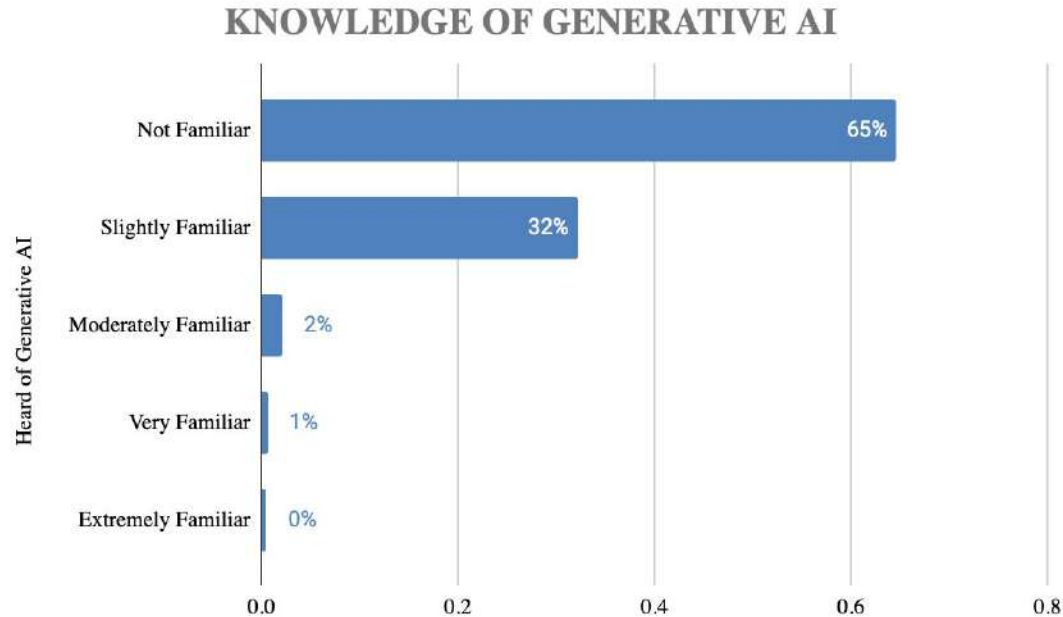


Research Findings– Kind of content they put on social media

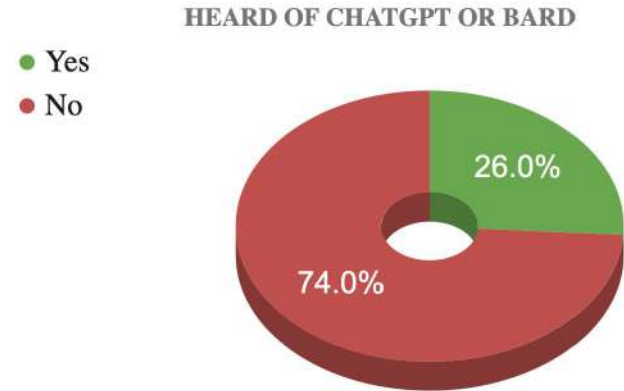
- 54% of respondents who use social media put up IMAGES.
- This follows with Text, Video and audio as the least.
- This can guide in the development of the app for building business promotion/advert component.



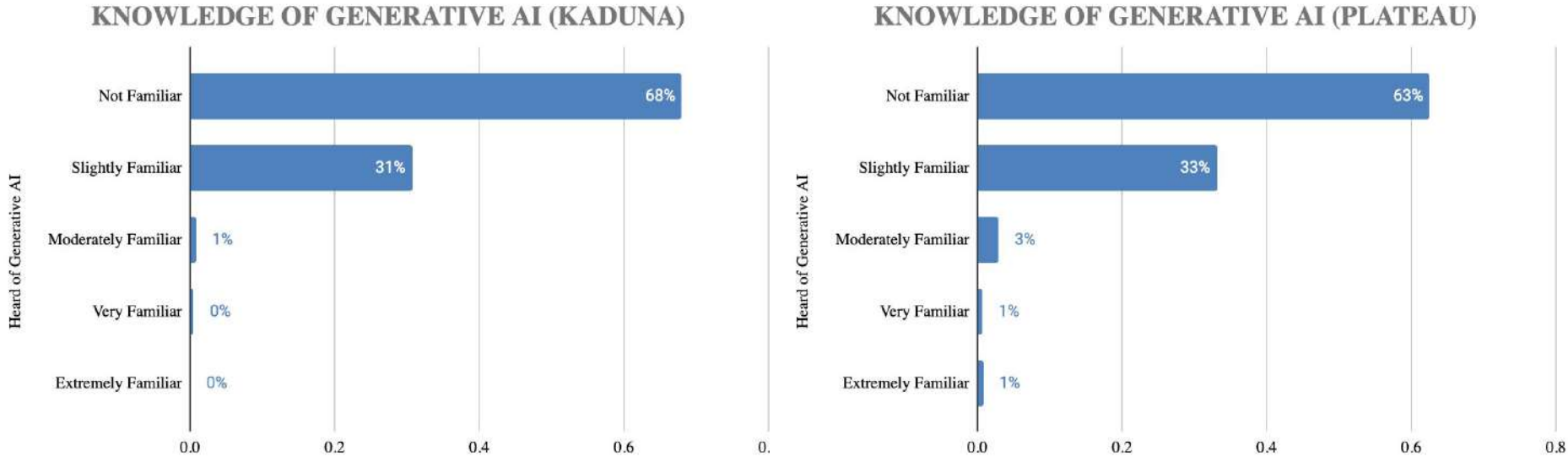
Research Findings- Gen AI knowledge



Most of the respondents are not familiar with generative AI. About a quarter of them have heard of either Bard or ChatGPT



Research Findings- Gen AI knowledge (Cont'd)



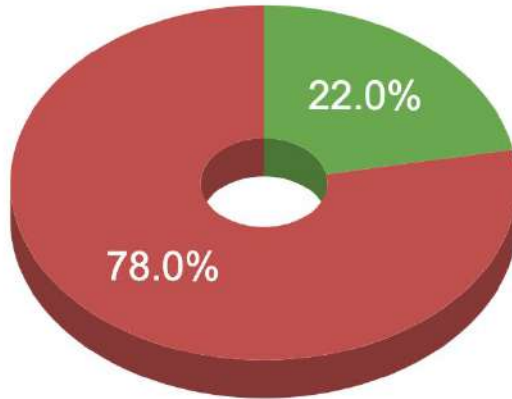
More than 90% of the respondents in both Kaduna and Plateau state have little or no knowledge on generative AI.

Research Findings- Gen AI knowledge (Cont'd)

More than 70% of the respondents had not heard about ChatGPT or Bard before the study.

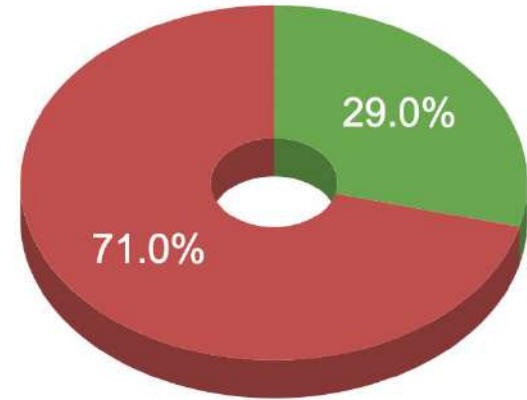
HEARD OF CHATGPT OR BARD (KADUNA)

- Yes
- No



HEARD OF CHATGPT OR BARD (PLATEAU)

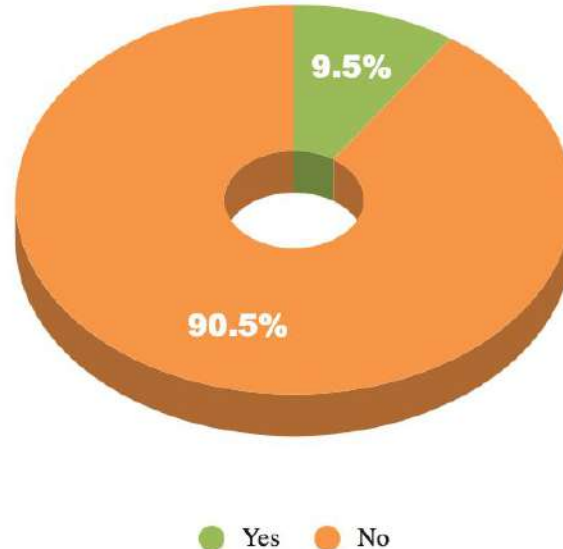
- Yes
- No



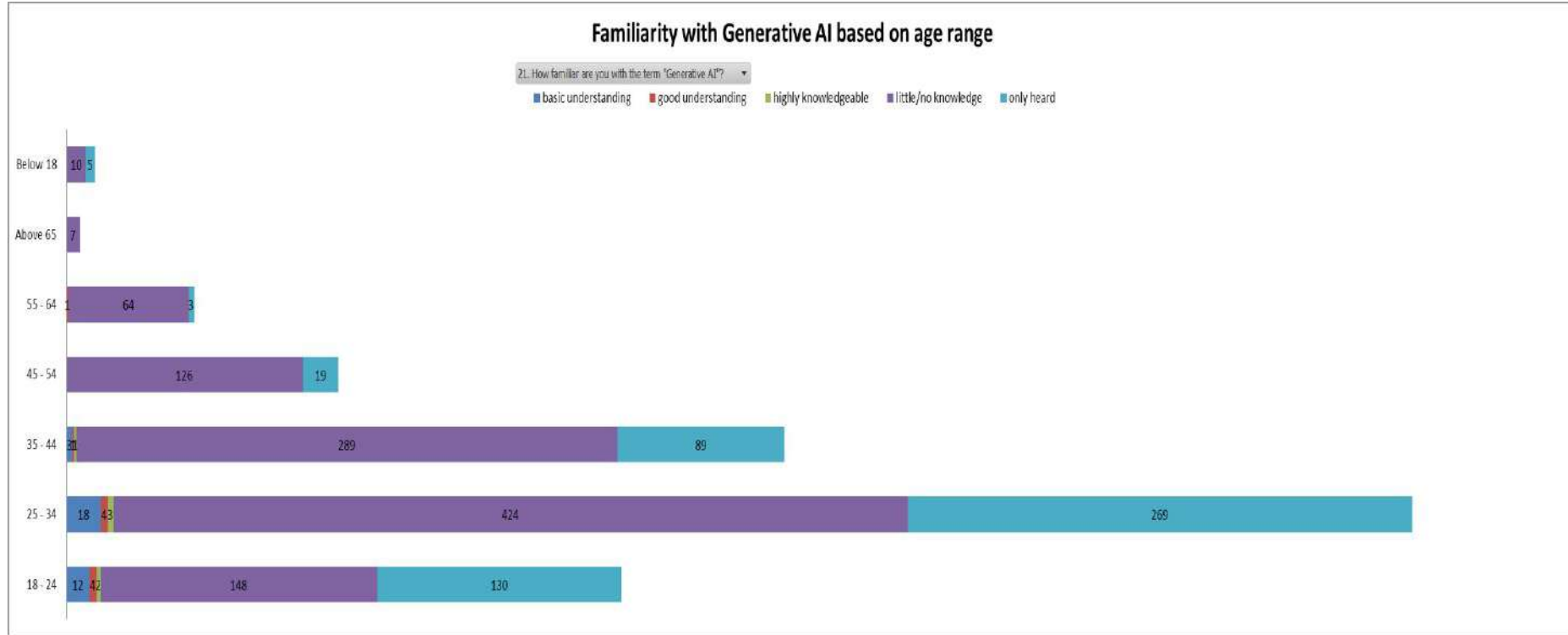
Research Findings

About 90% of the respondents have not encountered generative AI in the course of their Business. **This is expected!**

ENCOUNTERED GENERATIVE AI IN THE CONTEXT OF BUSINESS

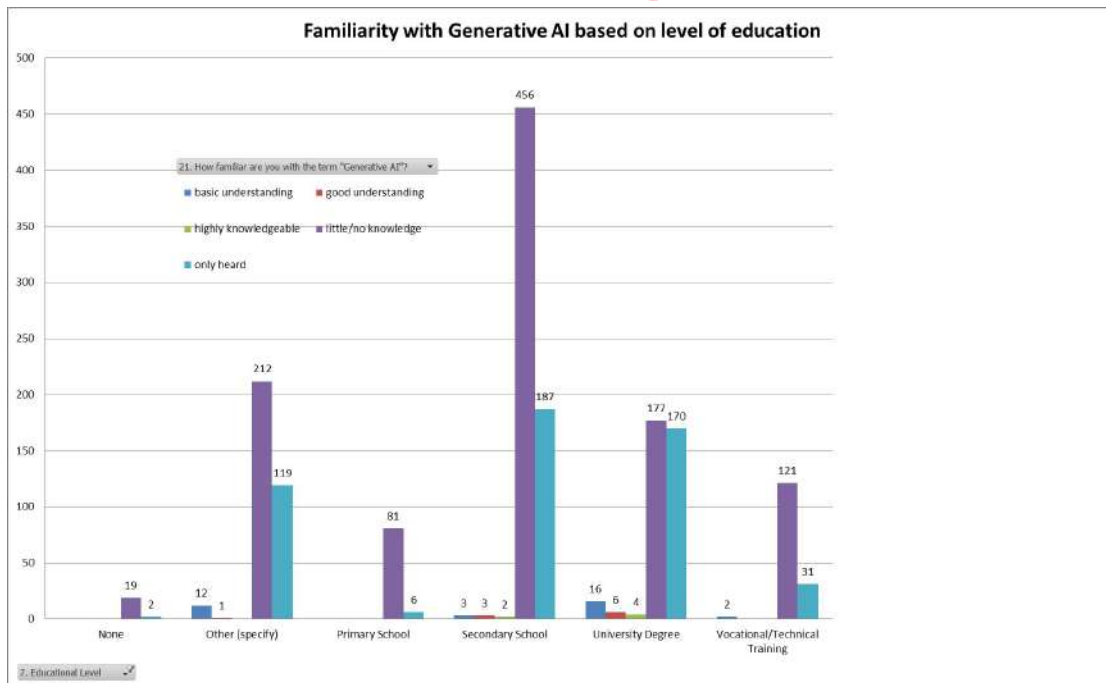


Research Findings



The lack of basic, good and high knowledge of Generative AI cuts across all the age groups

Research Findings

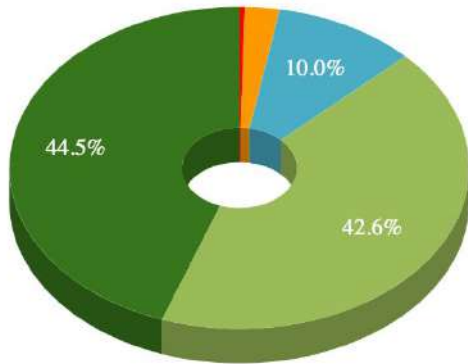


Women with university degree have the highest exposure to generative AI as 16 have basic understanding, 6 good knowledge, and 4 are highly knowledgeable.

Research Findings- Willingness to adopt Gen. AI

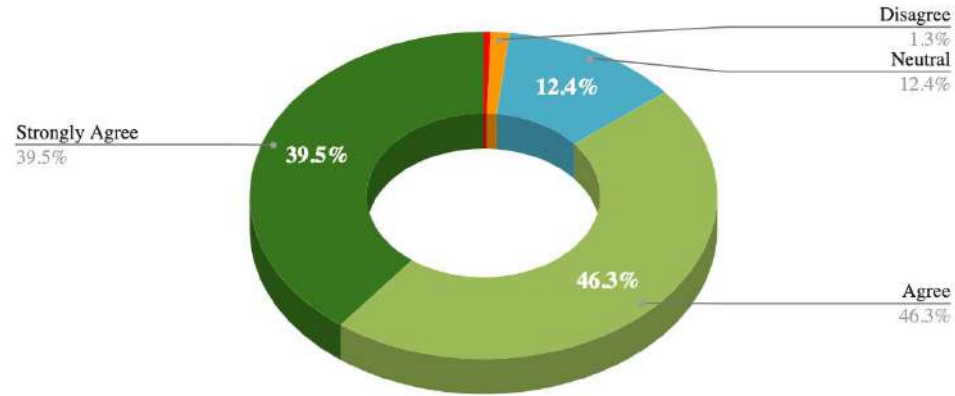
More than 80% of the respondents expressed willingness to use generative AI for their business as they believe it will be beneficial for them.

WILLING TO USE AI TOOL TO IMPROVE BUSINESS



● Strongly Disagree ● Disagree ● Neutral ● Agree ● Strongly Agree

THINK GENERATIVE AI COULD BE BENEFICIAL TO SMALL BUSINESS

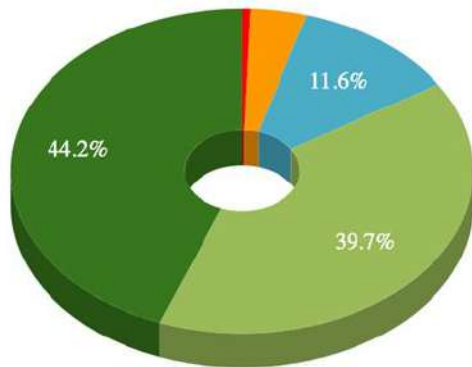


Research Findings –Willingness to adopt Gen. AI (Cont'd)

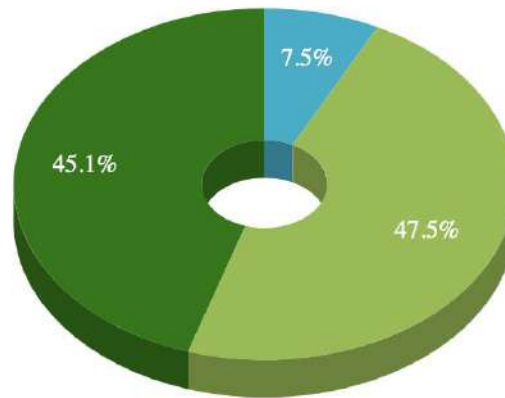
Most women were willing to use AI. Whereas, a few women questioned the need to embrace something new when their traditional method was good enough.

WILLING TO USE AI TOOL TO IMPROVE BUSINESS (KADUNA)

WILLING TO USE AI TOOL TO IMPROVE BUSINESS (PLATEAU)



Strongly Disagree Disagree Neutral Agree Strongly Agree

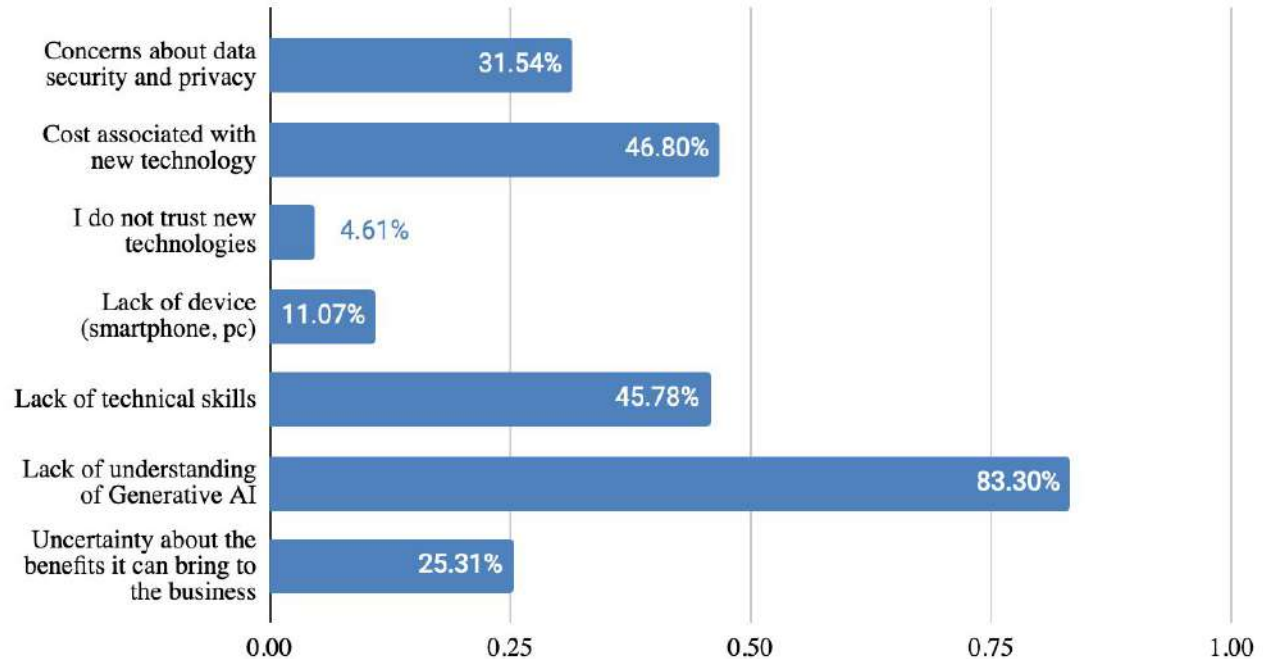


Neutral Agree Strongly Agree

Research Findings – Concerns/Worries about Gen. AI

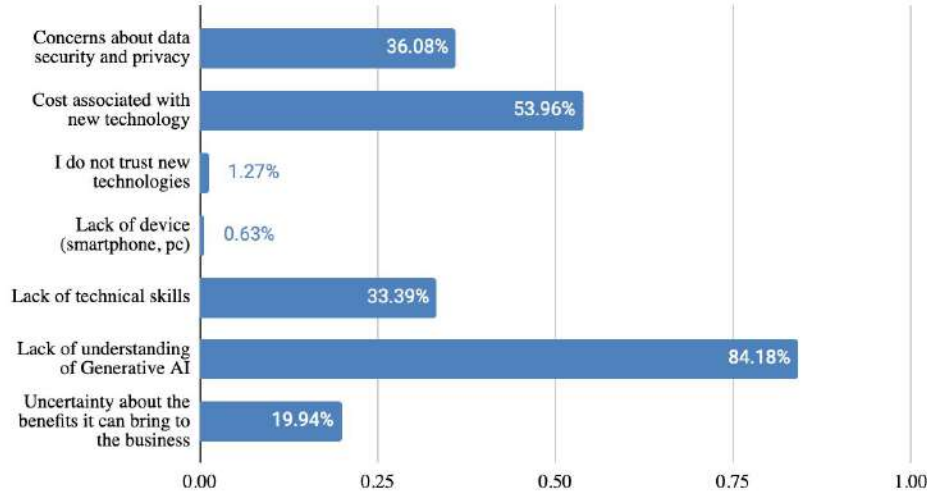
- Over 80% of the respondents expressed **lack of knowledge of generative AI** as their major concern for its use in their business.
- About a third of the respondents have **data security and privacy concerns** with generative AI for business.

CONCERNS WITH GENERATIVE AI FOR BUSINESS

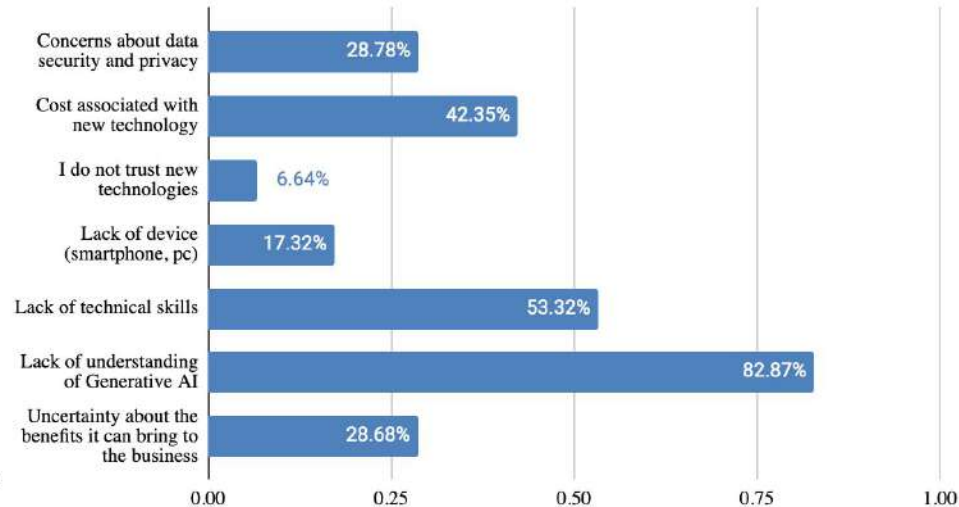


Research Findings- Concerns/Worries about Gen. AI (Cont'd)

CONCERNS WITH GENERATIVE AI FOR BUSINESS (KADUNA)



CONCERNS WITH GENERATIVE AI FOR BUSINESS (PLATEAU)



Some of the respondents do not mind using generative AI tools but are wary of the cost. Over 50% of the respondents in Kaduna and 40% in Plateau expressed cost of the technology as a concern.

Research Findings – How to reduce concerns and Make them open to adopting Generative AI in business

- Respondents did not think addressing *Risks associated with Gen. AI, regulations* would make them adopt the technology in their businesses. Rather, **Trainings on Gen. AI** would.

Value	Frequency	Percentage
Training Programs on how to effectively use Generative AI	1459	89.4
Real-world examples of successful Generative AI implementations	800	49.02
Success stories from businesses similar to yours	664	40.69
Access to experts for personalized advice	663	40.62
Plans to address potential risks and concerns	281	17.22
Clear and transparent documentation on AI systems	277	16.97
Information on how Generative AI aligns with regulatory standards	273	16.73

Conclusion

The research has shown that larger percentage of women involved in SMEs are between the ages of 25 - 34 and the same category are educated up to degree level.

The women's level of understanding of Generative AI and its use in business is low. However, they are willing to learn how to use the technology to improve their business sales. These women are not bothered about risks that comes with such technology so long as they can be trained on how to use it.

Regarding designs, they prefer simplicity; apps that allows them take few steps to achieve their goals.

References

[1] globaldatalab.org/areadata/profiles/NGAr110/

[2].<https://www.cbn.gov.ng/OUT/PUBLICATIONS/GUIDELINES/DFD/2005/SMEEIS%20GUIDELINE.PDF>