Marketers' utilisation of fintech banks for marketing of agricultural produce in Bodija market, Ibadan, Oyo state, Nigeria

Taiwo, A. M., Oladeji, J. O. and Makinde, A. I.
Department of Agricultural Extension and Rural Development, University of Ibadan, Nigeria.
Correspondence contact details: abioduntaiwo34@gmail.com, 08038479746

Abstract - The study assessed marketers' utilisation of fintech banks for the marketing of agricultural produce in Bodija market, Ibadan, Oyo state, Nigeria. Multi-stage sampling technique was used to select 150 respondents for the study. Data were collected on the marketers' socioeconomic characteristics, level of awareness, constraints faced, benefits derived and level of utilisation of fintech banks. Results revealed that the mean age was 38 ± 10 years, 61.3% were female, 76% were married, 100% had formal education with about half (44.67%) having up to tertiary level of education. Majority (58%) of the respondents have low awareness of fintech banks. Dependency on cash ($\bar{x} = 0.89$) was the most severe constraint to utilisation of fintech banks for marketing of agricultural produce. Increase in customer base and sales opportunities ($\bar{x} = 2.78$) was the leading benefit derived. Level of utilisation was low among majority (57.3%) of the respondents. A significant relationship existed between respondents' age (r= -0.173 p=0.034) and their level of utilisation of fintech banks for marketing of agricultural produce. The study concluded that respondents have low level of utilisation of fintech banks for marketing of agricultural produce and recommended increasing awareness and promoting cashless policy to enhance utilisation of Fintech banks.

Keywords: Fintech banks, Agricultural produce marketing, Agricultural produce marketers.

INTRODUCTION

In the agricultural space, buyers, sellers and other actors come together to trade in several farm produce and offer diverse services, forming an intricate network of various market systems. The efficiency of these systems has direct impact on the poverty level of a large proportion of the Nigerian population. These systems are however faced with daunting challenges demanding urgent and practical solutions (Ikore, 2024).

The marketing of agricultural produce refers to the various procedures and activities involved in ensuring that agricultural produce reach the end-users. It involves all those activities which are mostly related to the procurement, grading, storing, transporting and selling of the agricultural produce (Jeyaramya, 2022). Marketing of agricultural produce also involves presenting, advertising and selling of agricultural produce in the best possible ways (Nezamova and Olentsova, 2021).

Agricultural production and marketing are two sides of a coin, one cannot do without the other (Nwaizugbo and Abereola, 2021). In Nigeria, agricultural produce is traditionally marketed via: roadside selling, local markets, middlemen, cooperative societies, farmgate sales, community-based marketing, seasonal markets and battering. However, in contemporary times, the marketing of agricultural produce has involved the use of the internet. The digital marketplace provides farmers with a platform to reach a broader customer base, bypassing traditional middlemen and physical market constraints (Li and Zhang, 2024). It offers an efficient, scalable and cost-effective solution for farmers and agribusinesses to market their produce directly to consumers, retailers and other businesses. (Agritechtomorrow, 2024).

The rise of Fintech (Financial Technology) Banking is transforming Agricultural marketing in Nigeria, offering new opportunities for farmers and traders to reach wider markets and improve their livelihoods. At its core, Fintech is about using technology to create innovative financial solutions that cater to the unique needs of farmers, agribusinesses, and other players in the industry. An article by Forbes published in January of 2023 explores "The Next Fintech Revolution: Agricultural Finance", the broader world of Fintech is now looking at the agriculture industry as a potential growth opportunity. The author stated that the two best reasons to bring Fintech to agriculture are: 1. The size of the market: and 2. The limitations of existing service providers.

The business model of farming can also make the business difficult to bank if using traditional financial methods without specialized insight into the sector (Benni, 2023). The government's push to diversify the economy to non-oil sectors with a focus on agriculture, as seen in the Economic Recovery and Growth Plan (ERGP 2017-2020) and Economic Sustainability Plan (ESP 2020), has created opportunities for digital financial solutions. The digitization of the Agricultural sector being driven by the government for increased productivity and contribution to GDP growth, has created certain gaps demanding for more efficient systems in the sector, particularly in the marketing of its produce; a function which according to Nebo *et al* (2017) is core and vital for the sector's productivity. These gaps are such identified by financial technology (Puntilo, 2024), creating a need for its services.

Following the Central Bank of Nigeria's National Financial Inclusion Strategy (NFIS 2021-2024) which was designed to ensure a financial

inclusion rate of 95% by 2024 and the Cashless Policy (CBN, 2019) which has promoted digital payments, more opportunities have been created for Fintech banks. Presently there are over 100 Fintech companies in Nigeria (PricewaterhouseCoopers, 2024). Research also revealed that the COVID-19 pandemic led to increased usage of digital banking services and online payment platforms for financial transactions. This gave leverage to Fintech banks, particularly with the World Health Organization's advice to consumers to utilise contactless payments (WHO, 2020). The proliferation and adoption of cheap smartphones by mobile phone consumers in Nigeria and an internet penetration which stood at 51% as at 2018 (PwC, 2024) are also trends driving the adoption of financial technology in Nigeria.

The rise of e-commerce platforms or online marketplaces which enables farmers and marketers reach wider markets also necessitates more efficient financial solutions in the marketing of agricultural produce (Vavekanand and Kumar, 2024). In Nigeria, farmers and other marketers of agricultural produce are currently faced with high inflation arising from hike in fuel prices and slow growth. Global climate and economic factors are creating profitability challenges for farms, and emerging digital solutions and a new generation of Fintech companies are poised to solve many of these issues (Lumley, 2024). Marketers of agricultural produce can gain several advantages from using fintech banks for their marketing efforts. Leveraging of fintech solutions can lead to increased profitability, efficiency and competitiveness for marketers of agricultural produce. However, as fintech banks continue to revolutionize the financial services sector, information on the utilisation of these digital platforms by marketers of agricultural produce to streamline their operations, expand their market reach, and improve their financial management is yet to be documented. Hence, the study assessed marketers' utilisation of fintech banks for marketing of agricultural produce in Bodija Market, Ibadan, Oyo State. Specifically, the objectives were to:

1. identify the socio-economic characteristics of the respondents in the study area.
2. determine the level of awareness of fintech banks among marketers of agricultural produce in the study area.
3. identify the marketers' constraints in utilising fintech banks for marketing of agricultural produce.
4. examine the marketers' benefits in utilising fintech banks for the marketing of agricultural produce in the study area.
5. assess the marketers' level of utilisation of fintech banks for marketing of agricultural produce in the study area.

The study hypothesized that: There is no significant relationship between selected socioeconomic characteristics of the marketers and their utilisation of Fintech banks for marketing of agricultural produce.

METHODOLOGY

The study was carried out in Bodija market. Bodija market is located in Ibadan North Local Government Area in Oyo state, Nigeria. It was established in 1987 and falls under the jurisdiction of the Ibadan North Local Government Area with its administrative headquarters in Agodi, Ibadan. The market has a Latitude of 7.4359 N and Longitude 3.9157 E. The major occupation of the people in Bodija market is trading, as it is a commercial hub with various goods and services being bought and sold daily. Bodija market is one of the most popular markets in Nigeria representing the most popular food and agro-product market in South Western Nigeria (Ogunlade, 2024). The population of the study comprised of marketers of agricultural produce in Bodija market, Ibadan, Oyo state, Nigeria. A three-stage sampling procedure was used to select respondents for the study. The first stage involved the purposive selection of agricultural produce marketers' association in the study area for ease of access to the marketers. The second stage involved simple random selection of 5 agricultural produce marketers' association out of a total of 21 associations. The third stage involved simple random sampling of a representative 4% of each selected association population to obtain a sample size of 150 respondents for the study. Data were collected from respondents through the use of structured questionnaire containing items based on the objectives of the study. The dependent variable, level of utilisation of fintech banks, was measured by providing a list of fintech banks services and asking the respondents to indicate the rating that portrays their level of utilisation of the services. This was operationalized as Always, Occasionally, Rarely, and Never. Scores of 3, 2, 1, and 0 were assigned respectively. Data were analysed using descriptive (frequency, percentage, mean, standard deviation) and inferential (Pearson Product Moment Correlation) statistical tools.

RESULTS AND DISCUSSION

Results in Table 1 showed that majority (57.3%) of the respondents were between the age range of 20-39 years. This implied that most of the respondents were young adults who were still in their active years. This aligns with the findings of the Huong *et al* (2021) which indicated a higher percentage of significant fintech engagement among individuals aged 35-44 years. Majority (61.3%) of the respondents were female. Majority (76%) of the respondents were married; this aligns with the findings of the study of Rodríguez-González *et al* (2020) which highlighted the impact of marital

status on agricultural innovation and decision making. About half (44.67%) of the respondents received formal education up to the tertiary level aligning with the McKinsey (2021) that utilisation of fintech is higher among individuals with higher educational levels. Majority (56.0%) of the respondents were Muslims. Majority (67.3%) of the respondents had a household size of 5-7 persons. This is in alignment with findings of Isitor, Babalola and Abegunde (2019) which established that majority of the agricultural produce marketers in their study had household size of 6 persons. Majority (64.7%) of the respondents earned ₦ 1 000 000 - ₦ 4 999 999 monthly.

Table 1: Distribution of respondents by their socioeconomic characteristics

Variables	Frequency	Percentage	Mean	SD
Age			38	10
20-29	36	24.0		
30-39	50	33.3		
40-49	42	28.0		
50-59	22	14.7		
Sex				
Male	58	38.7		
Female	92	61.3		
Marital Status				
Single	29	19.3		
Married	114	76.0		
Divorced	01	0.7		
Separated	04	2.7		
Widow(er)	02	1.3		
Educational Attainment				
No formal education	0	0.0		
Primary education	19	12.67		
Secondary education	64	42.67		
Tertiary education	67	44.67		
Religion				
Christianity	66	44.0		
Islam	84	56.0		
Traditional	0	0.0		
Other	0	0.0		
Household size			5.57	1.66
2-4	36	24.0		
5-7	101	67.3		
8-10	12	8.0		
11-15	01	0.7		
Monthly Income			4,596,200.00	4,540,726.47
300,000-499,999	05	3.3		
500,000-999,999	04	2.7		
1,000,000-4,999,999	97	64.7		
5,000,000-9,999,999	31	20.7		
10,000,000-above	13	8.7		
Agricultural produce marketed				
Beans	36	24.0		
Yam	39	26.0		
Groundnut	21	14.0		
Melon	31	20.7		
Palm oil	23	15.3		

Source: Field survey, 2024

Respondents' awareness of financial technology banks

Results as presented in Table 2a showed that all of the respondents (100%) were aware of Opay. This was followed by Moniepoint (98%). In Table 2b, while specific fintech banks like Opay and Moniepoint have near-universal recognition among agricultural marketers in the study area, overall awareness of fintech banking services remains relatively low, with a majority (58%) having limited knowledge. This suggests a gap in financial literacy or outreach efforts, which could hinder the adoption and effective utilisation of fintech solutions in the agricultural sector.

Table 2a: Distribution of respondents based on awareness of financial technology banks

Fintech Banks	Aware	Not Aware
Flutterwave	04(2.7)	146(97.3)
Paystack	05(3.3)	145(96.7)
Interswitch	15(10.0)	135(90.0)
Carbon	02(1.3)	148(98.7)
Piggyvest	08(5.3)	142(94.7)
Cowrywise	07(4.7)	143(95.3)
Opay	150(100.0)	0(0.0)
Kuda	146(97.3)	04(2.7)
Paga	03(2.0)	147(98.0)
Fairmoney	87(58.0)	63(42.0)
Eyowo	0(0.0)	150(100)
Remita	02(1.3)	148(98.7)
Moniepoint	147(98.0)	03(2.0)
Mines	0(0.0)	150(100.0)
Bankly	0(0.0)	150(100.0)
OneFi	0(0.0)	150(100.0)
Thrive Agric	0(0.0)	150(100.0)
Wallets Africa	0(0.0)	150(100.0)
Renmoney	0(0.0)	150(100.0)
Risevest	0(0.0)	150(100.0)
Palmpay	78(52.0)	72(48.0)

Values in parentheses are percentages
Source: Field Survey, 2024

Table 2b: Categorisation of respondents' level of awareness of fintech banks

Awareness level	Frequency	Percentage	Minimum	Maximum	Mean	SD
Low (1-4.3)	87	58.0	1.00	11.00	4.4	1.4
High (4.4-11)	63	42.0				
Total	150	100.0				

Source: Field Survey, 2024

Respondents' constraints in utilising fintech for marketing of agricultural produce

Results of constraints in utilising fintech banks for marketing of agricultural produce in Table 3 showed that dependence on cash ($\bar{x} = 0.89$) was the most severe constraint faced by the respondents in utilising fintech banks for marketing of agricultural produce. This aligns with the findings of Denyes *et al* (2024) in a handbook titled Digital Financial Services for Agriculture inferred from the 2014 Global Findex Survey that a large proportion of payments in agriculture globally, including bulk payments to farmer groups and agribusiness staff, are in cash. According to Denyes *et al* (2024), cash is costly and inefficient to use, yet it is often preferred by farmers over more efficient digital payments.

Benefits of utilising fintech banks for marketing of agricultural produce

Results on benefits of utilising fintech banks for marketing of agricultural produce revealed that increase in customer base and sales opportunities ($\bar{x} = 2.78$), convenient and secure ways to manage my finances ($\bar{x} = 2.64$) and reduction in the risk of fraud and theft ($\bar{x} = 2.39$) were the major benefits the respondents gained from utilising fintech banks for their agricultural produce marketing.

Table 3: Constraints to utilising fintech banks for marketing of agricultural produce

Constraints	Not a constraint	Mild constraint	Severe constraint	Mean	Rank
Cyber attacks	147(98.0)	03(2.0)	0(0.0)	0.02	10th
Fraud	95(63.3)	25(16.7)	30(20.0)	0.57	3rd
High transaction costs	49(32.7)	73(48.7)	28(18.7)	0.86	2nd
Slow payment processing	139(92.7)	06(4.0)	05(3.3)	0.11	5th
Limited access to credit	146(97.3)	0(0.0)	04(2.7)	0.05	9th
Poor Internet connectivity	140(93.3)	07(4.7)	03(2.0)	0.09	6th
Dependence on cash	52(34.7)	62(41.3)	36(24.0)	0.89	1st
Language barriers	143(95.3)	05(3.3)	02(1.3)	0.06	7th
Power supply issues	143(95.3)	05(3.3)	02(1.3)	0.06	7th
Limited agent network	147(98.0)	02(1.3)	01(0.7)	0.03	11th
Difficulty operating the fintech apps	147(98.0)	02(1.3)	01(0.7)	0.03	11th
Low level of acceptance of fintech transactions	149(99.3)	01(0.7)	0(0.0)	0.01	13th
Lack of physical fintech bank offices.	123(82.0)	20(13.3)	07(4.7)	0.23	4th

Values in parentheses are percentages
Source: Field Survey, 2024

The findings implied that fintech banks play a crucial role in expanding market reach, enhancing financial management, and improving security for agricultural marketers.

Table 4: Benefits of utilising fintech banks for marketing of agricultural produce (n=150)

Benefits	Not a benefit	Low benefit	Moderate benefit	High benefit	Mean	Rank
Fintech banks make it easier to access loans for agricultural production.	138(92.0)	05(3.3)	06(4.0)	01(0.7)	0.13	8th
Digital payments through fintech banks reduce transaction costs.	20(13.3)	18(12.0)	79(52.7)	33(22.0)	1.83	6th
Fintech banks connect me directly with buyers, eliminating middlemen.	62(41.3)	04(2.7)	64(42.7)	20(13.3)	1.28	7th
Fintech banks offer convenient and secure ways to manage my finances.	08(5.3)	01(0.7)	28(18.7)	113(75.3)	2.64	2nd
Fintech banks provide real-time market information, helping me make informed decisions.	147(98.0)	01(7.0)	02(1.3)	0(0.0)	0.03	12th
Mobile banking enables me to monitor my accounts and transactions remotely.	12(8.0)	03(2.0)	69(46.0)	66(44.0)	2.26	4th
Fintech banks increase my customer base and sales opportunities.	04(2.7)	02(1.3)	17(11.3)	127(84.7)	2.78	1st
Fintech banks provide personalised financial advice for my agricultural business.	150(100)	0(0.0)	0(0.0)	0(0.0)	0.00	15th
Digital payments reduce the risk of fraud and theft.	21(14.0)	04(2.7)	20(13.3)	105(70.0)	2.39	3rd
Fintech banks enable me to easily manage my inventory and supplies.	139(92.7)	07(4.7)	01(0.7)	03(2.0)	0.12	9th
Fintech banks provide access to market trends and analysis.	148(98.7)	0(0.0)	0(0.0)	02(1.3)	0.04	11th
Fintech banks offer flexible repayment plans for loans.	147(98.0)	0(0.0)	02(1.3)	01(0.7)	0.05	10th
Fintech banks provide access to specialised agricultural products.	149(99.3)	0(0.0)	01(0.7)	0(0.0)	0.01	13th
Fintech banks enable me to sell my produce at competitive prices.	149(99.3)	0(0.0)	01(0.7)	0(0.0)	0.01	13th
Fintech banks offer efficient and transparent transaction processes.	14(9.3)	12(8.0)	63(42)	61(40)	2.14	5th

Values in parentheses are percentages

Source: Field Survey, 2024

This underscores the potential of fintech solutions to drive business growth, improve financial efficiency, and reduce transactional risks in the agricultural sector. This finding is consistent with Rayhan, et al (2024) who reported that convenience, real-time transactions and financial security are prospects of mobile financial solutions.

Respondents' level of utilisation of fintech banks services

Result of utilisation of fintech banks services in Table 5a showed that the fintech services utilised most by the respondents were digital payments and transfers ($\bar{x}$ = 2.55) and savings and investment products ($\bar{x}$ = 2.07). The result in Table 5b further showed that majority (57.33%) of the respondents had low utilisation of fintech banks services in the study area. This implies that while digital payments and savings services are the most used fintech solutions, overall adoption remains low among agricultural marketers. This suggests a need for increased awareness, improved financial literacy, and tailored fintech products to enhance usage and maximize the benefits of digital financial services in the sector. This result agrees with Parlasca (2022) who reported selective use of Fintech services among farmers.

Table 5a: Level of Utilisation of Fintech Banks services

Fintech services	Always	Occasionally	Rarely	Never	Mean
Digital payments and transfers.	139(92.7)	05(3.3)	0(0.0)	06(4.0)	2.55
Credit and lending solutions.	0(0.0)	04(2.7)	07(4.7)	139(92.7)	0.10
Savings and investment products	63(42.0)	56(37.3)	09(6.0)	22(14.7)	2.07
Mobile wallets and contactless payments.	05(3.3)	50(33.3)	30(20.0)	65(43.3)	0.97
Insurance and risk management.	01(0.7)	0(0.0)	02(1.3)	147(98.0)	0.03
Financial planning and management.	0(0.0)	04(2.7)	04(2.7)	142(94.7)	0.08
Foreign exchange and international trade.	01(0.7)	05(3.3)	02(1.3)	142(94.7)	0.10
Peer-to-peer lending and financial solutions.	0(0.0)	0(0.0)	0(0.0)	150(100)	0.00
Customized financial solutions for specific needs.	0(0.0)	02(1.3)	0(0.0)	148(98.7)	0.03

Source: Field Survey, 2024. Values in parentheses are percentages

Table 5b: Categorization of Respondents based on Level of Utilisation of Fintech banks services.

Level of utilisation	Frequency	Percentage	Minimum	Maximum	Mean	SD
Low (0-6.1)	86	57.3	0.00	15.00	6.04	2.30
High (6.2-15)	64	42.7				
Total	112	100.0				

Source: Field Survey, 2024

Relationship between selected socioeconomic characteristics of respondents and level of utilisation of fintech banks

Results in Table 6 showed that there is significant relationship between respondents' age (r= -0.173, p = 0.034) and their level of utilisation of fintech banks for marketing of agricultural produce. This implies that respondents' age significantly influences their level of utilisation of fintech banks for agricultural produce marketing. This relationship could be attributed to generational differences in comfort with technology, financial literacy or exposure to digital payment systems.

Table 6: Relationship between respondents' age, household size, monthly income and level of utilisation of fintech banks

Variable	r value	p value	Decision
Age	-0.173	0.034	Significant
Household size	-0.024	0.768	Not Significant
Monthly income	-0.129	0.117	Not Significant

CONCLUSION AND RECOMMENDATIONS

The study concluded that the respondents have low level of utilisation of fintech banks for the marketing of agricultural produce in the study area. Dependence on cash was the most severe constraint faced by the marketers in utilising fintech banks for agricultural produce marketing. Increase in customer base and sales opportunities were the highest benefit the marketers gained from utilising fintech banks for agricultural produce marketing.

The study therefore recommended that concerted efforts be made by fintech banks, policy makers, and regulatory bodies to develop user-friendly platforms to enhance the utilisation of fintech banks among agricultural produce marketers.

REFERENCES

Agritechtomorrow. (2024). E-commerce of agricultural products market: Pioneering the digital transformation of agriculture. https://www.agritechtomorrow.com

Benni, N. (2023). Fintech innovation for smallholder agriculture: A review of experiences. Rome: FAO. https://doi.org/10.4060/cc9117en

Central Bank of Nigeria (CBN). (2019). An historical overview of the new cashless policy in Nigeria. International Journal of Innovative Research and Development, 6(7).

Denyes, L., Lesher, N., Martinez, M., McNutt, H., and Nakhai, M. (2024). *The digital financial services for agriculture.* Mastercard Foundation, International Finance Corporation, Strategic Impact Advisors, and The Partnership for Financial Inclusion

Forbes (2023). The next fintech revolution: Agriculture finance. https://www.forbes.com

Huong, A., Puah, C. H., and Chong, M. T. (2021). Embrace Fintech in ASEAN: A perception through Fintech adoption index. *Research in World Economy*, *12*(1), 1-10.

Ikore. (2024). Agricultural market systems in Nigeria: Challenges and prospects. https://ikore.org/agricultural-market-systems-in-nigeria-challenges-and-prospects/

Isitor, S. U., Babalola, D. A., and Abegunde, T. E. (2019). Efficiency of garri marketing in Kwara State, Nigeria: Implication for economic empowerment. *Agro-Science*, *18*(2), 1-7.

Jeyaramya. (2022). Barriers and challenges: Agricultural marketing of the produce faced by the farmers in Tamil Nadu. International Journal of Health Sciences, 6 (25), 1055–1061.

Li, G., and Zhang, H. (2024). The Efficiency and Challenges of E-Commerce Logistics in Enhancing Market Access for Agricultural Products in Rural China. *Law and Economy*, *3*(2), 31-43.

Lumley, L. (2024). Agriculture is fast becoming a growth market for fintech. Digital Journeys. https://www.thebanker.com/Agriculture-is-fast-becoming-a-growth-market-for-fintech

McKinsey. (2021). Winning in African agriculture. https://www.mckinsey.com

Nebo, G. N., and Ejionueme, N. (2017). Agricultural marketing and poverty alleviation in rural areas. IOSR Journal of Business and Management (IOSR-IBM). https://www.iosrjournals.org

Nezamova, O. A., and Olentsova, J. A. (2021). Problems of improving the management of marketing channels in retail chains in the sale of agricultural products. In *IOP Conference Series: Earth and Environmental Science* (Vol. 839, No. 2, p. 022060). IOP Publishing.

Nwaizugbo, I. C., and Abereola, S. N. (2021). Use of Social Media in the Marketing of Agricultural Products and Farmers Turnover in South-West Nigeria.

Ogunlade, s. (2024). Geospatial assessment of the expansion of Bodija market Ibadan North Local government area, Ibadan, Oyo state. *International Journal of Environmental Research and Earth Science*.

Parlasca, M. C., Johnen, C., and Qaim, M. (2022). Use of mobile financial services among farmers in Africa: Insights from Kenya. *Global Food Security*, *32*, 100590.

PriceWaterhouseCoopers. (2024). Changing competitive landscape: Fintech and the banking sector in Nigeria. https://www.pwc.com

Puntillo, P. (2024). Fintech vs. digital banking: What is the difference? *LQD Business Finance. https://lqdfinance.com/insights/the-difference-between-digital-banking-and-fintech/

Rayhan, M. J., Rahman, S. M., Mamun, A. A., Saif, A. N. M., Islam, K. A., Alom, M. M., and Hafiz, N. (2024). FinTech solutions for sustainable agricultural value chains: A perspective from smallholder farmers. *Business Strategy and Development*, *7*(2), e358.

Rodríguez-González, M., Schweer-Collins, M., Greenman, P. S., Lafontaine, M. F., Fatás, M. D., and Sandberg, J. G. (2020). Short-term and long-term effects of training in EFT: a multinational study in Spanish-speaking countries. *Journal of marital and family therapy*, *46*(2), 304-320.

Vavekanand, R., and Kumar, S. (2024). Rural Agricultural Development Through E-Commerce Platforms. *Authorea Preprints.*

World Health Organization (WHO). (2020). Digital payments and business resilience: Evidence in the time of COVID-19. World

Bank Group Sustainable Development Global Practice Group.