



UTILIZATION OF DIGITAL PLATFORMS FOR YOUTH ENGAGEMENT IN FISHERIES SUPPLY CHAINS IN OGUN STATE, NIGERIA

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Abstract: The utilization of digital platforms for youth engagement in fisheries supply chains represents a significant advancement in addressing the complexities of this sector thus, the engagement of youth in fisheries supply chains is critical for the sustainability of and innovation of the fish farming sector. The study elucidates the various dimensions through which digital platforms are employed to empower young individuals, enhance their participation in fisheries and promote sustainable practices within the supply chain. A multistage sampling technique was used in selecting 166 respondents for the study. Primary data were collected with the aid of a well-structured questionnaire. Descriptive statistics such as frequency counts, percentage, mean and weighted mean score (WMS) were used to describe the socioeconomic characteristics of the respondents while Pearson product moment correlation (PPMC) was used to test the study hypothesis. The findings revealed that various types of digital platforms such as social media platforms (WMS=2.45), mobile applications (WMS=2.36), blogging and content creation platforms (WMS=2.33) and e-Learning platforms (WMS=2.27) were employed to facilitate communication, collaboration and participation among youth in fisheries. The types of engagement observed include fish farming (WMS=2.57), skill development (WMS=2.55), distribution and trading (WMS=2.52) and networking (WMS=2.47) within the fisheries supply chains while the effects of digital platforms such as increased access to information (WMS=2.08), opportunities for training and skill development (WMS=2.06), enhanced market access (WMS=2.01), stronger networks and collaboration (WMS=1.96) were significant, resulting in increased participation, enhanced knowledge transfer and improved access to market opportunities. There is a moderate level of digital platform utilization (59%) among the youth, indicating that while many youth are engaged, there is potential for broader outreach and impact. The benefits of utilizing of digital platforms for youth engagement in fisheries supply chains include enhanced communication and connectivity with stakeholders (WMS=2.15), greater visibility for youth initiatives (WMS=2.13), promotion of sustainable and innovative practices (WMS=2.12) and cost-effectiveness (WMS=2.10) within the sector. However, constraints such as digital literacy (WMS=1.99), cost barriers (WMS=1.98), fragmentation of information (WMS=1.95) and access to technology (WMS=1.92) hinder effective utilization of digital platforms for youth engagement in fisheries supply chains. A significant relationship exists between the types of youth engagement in fisheries supply chains ($r=0.549$; $p=0.000$) and the utilization of digital platforms for youth engagement in fisheries supply chains. In conclusion, the strategic utilization of digital platforms for youth engagement in fisheries supply chains offers a pathway to enhance participation, promote sustainability, economic viability, foster innovation and social cohesion within the sector thereby fostering a new generation of informed and empowered participants in the fisheries, ultimately contributing to the resilience and sustainability of global food systems.

Keywords: Utilization, Digital platforms, Youth engagement, Fisheries, Fisheries supply chains

Introduction

The fisheries sector is a crucial component of the global economy contributing significantly to food security,

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employment and livelihoods for millions of people, particularly in developing countries. Fisheries and aquaculture provide a vital source of protein and essential nutrients for over 3 billion people worldwide (FAO, 2020). Fisheries supply chains encompass all the processes involved in bringing fish and seafood products from capture to consumer. This includes various stages such as fishing, processing, distributing and selling products. Fisheries supply chains refer to the comprehensive network of activities, entities and processes involved in the production, processing, distribution and sale of fish and fishery products. These chains encompass various stages from catching or farming seafood through processing and transportation to final retail or consumption. The supply chain explains the overall activities which are required to bring a product or service from conception, through the various stages of production and delivery to end consumers. (Monczka et al.2011). Youth represent a crucial demographic of the sustainable development of fisheries. Young people represent a significant portion of the global workforce, yet they often face barriers to entry in traditional sectors (ILO, 2019). Youth are increasingly adopting digital technologies making them a vital demographic for driving change in fisheries and engaging young people in fisheries supply chains can lead to improved innovation, increased labour participation, and the implementation of sustainable practices. Studies show that youth in rural areas have the potential to contribute significantly to economic development given the right support and tools (Vasavada and Khandekar, 2019). The advent of digital platforms has revolutionized various industries including fisheries. In recent years, digital platforms have emerged as innovative tools for enhancing youth engagement in various sectors including fisheries. Digital platforms can be defined as intermediary spaces or systems that bring together multiple users allowing them to share information, resources, exchange goods and services (Katz and Halpern, 2015; Bharadwaj et al., 2013). In the context of fisheries supply chains, digital platforms refer to online systems that facilitate the exchange of information, goods, services and transactions among various stakeholders in the fisheries sector. Digital platforms encompass a wide range of online tools and

applications such as social media, mobile apps, and e-commerce websites which facilitate better communication, information and data sharing, transaction processes and transparency throughout complex supply chains. Fishers can use mobile applications to access market information, sell their products directly to consumers and receive training on sustainable practices (Dey et al., 2020). Digital platforms promote community engagement through social media, web forums and educational resources, potentially empowering youth to participate more actively in fisheries management and decision-making. Digital tools provide fishers especially youth with valuable information about regulations, market prices and best practices, allowing fishers connect directly with consumers thereby enhancing economic returns and offer e-learning opportunities to upskill young people in various aspects of fisheries, promoting sustainable practices and entrepreneurship (FAO, 2021). The integration of digital platforms in fisheries supply chains has the potential to empower youth, improve access to markets and enhance sustainable practices. Despite the advantages, several barriers hinder effective youth engagement in fisheries supply chains through digital platforms. Not all young people have access to technology due to socioeconomic disparities which can lead to exclusion. Many youths lack the necessary digital literacy skills to utilize online platforms effectively (Fletcher et al., 2022). Moreover, traditional fisheries practices often exclude young people from decision-making processes, perpetuating a cycle of disengagement and limiting the potential for innovation (Bene and Williams, 2015), traditional practices may hinder openness to adopting new digital technologies. Complex regulations surrounding fisheries can create barriers to entry for youth wanting to leverage digital tools to engage in the industry (Worm et al., 2006). Existing literature reveals a gap in research focused specifically on how digital platforms can facilitate meaningful youth engagement in fisheries. Many studies address the role of technology in agriculture or general youth employment but fall short of exploring the unique context of fisheries. This lack of targeted research impedes the ability of policymakers and practitioners to develop effective strategies for harnessing the power of digital platforms to



engage youth in sustainable fisheries management (Bianchi, 2019). Significant disparities exist in access to digital technologies among different socioeconomic groups. This inequality poses a barrier for many youths who cannot take advantage of the opportunities these platforms provide (World Bank, 2020). A considerable percentage of young fishers lack the essential digital skills required to utilize digital platforms for fisheries engagement effectively. This gap not only limits their participation but also undermines the potential for innovation and sustainable practices in fisheries supply chains (Kumar et al., 2021). In many traditional fishing communities, there is a considerable resistance to adopting digital solutions due to cultural norms and established practices. The lack of acceptance can significantly hinder youth engagement in fisheries supply chains, leading to missed opportunities for innovation and sustainable fisheries management. Complex regulations surrounding fisheries can disproportionately affect young people looking to utilize digital platforms for engagement. Ambiguous or overly stringent regulations can deter youth participation in sustainable practices and market access thereby limiting their economic opportunities and engagement in fisheries supply chains. This research assesses the utilization of digital platforms for youth engagement in fisheries supply chains in Ogun State, Nigeria. Specifically, the study identifies the types of digital platforms utilized for youth engagement in fisheries supply chains, types of youth engagement in fisheries supply chains, effects of digital platforms utilized on youth fisheries supply chains engagement, level of utilization of digital platforms for youth engagement in fisheries supply chains, benefits of utilizing digital platforms for youth engagement in fisheries supply chains and constraints to effective utilization of digital platforms for youth engagement in fisheries supply chains. It was hypothesized that there is no significant relationship between the types of youth engagement in fisheries supply chains and utilization of digital platforms for youth engagement in fisheries supply chains.

Methodology

The study was conducted in Ogun State in south-western Nigeria. The state has a total population of 3,728,098

according to National Population Commission (N.P.C, 2006). The state is located in the rainforest vegetation belt of Nigeria within longitude 2 45' and 3° 55' E and latitudes 7 01 N and 7° 8' N in the tropics. It is bounded in the west by Benin Republic, in the south by Lagos state and Atlantic Ocean, in the east by Ondo State, and in the north by Oyo State. It covers a land area of 16,409.28km², less than two percent (2%) of the country's landmass. The rainy season starts around the middle of March and continues until late October. The dry season starts in November and lasts until February in most locations in the state. It experiences rainfall pattern similar to others in the southern parts of the country, characterized by two peaks. The vegetation is typical of the rainforest. Rainfall ranges between 1600 and 900 mm annually. The state is warm throughout the year with a temperature of between 28 and 35°C. Humidity is between 85 and 95%. The state has marine and riverine biotopes estimated at 173.8 square kilometres covering 12,482,640Ha, lacustrine biotopes totalling 4,404.35Ha and estuarine biotopes covering a total of 767.3km² and is well endowed with natural water bodies such as springs, perennial flowing rivers, lakes and brackish waters. There are twenty local government areas in the state. The capital of the state is Abeokuta. The main occupations of the people in the state are: agriculture, fishing, clothing, textiles and civil service. Agriculture is the major occupation of the people of Ogun State, which is favoured by the climatic condition. Commonly cultivated crops are maize, yam, plantain, beans, cocoa, rubber, palm tree, sugar cane, kola nut, citrus and cassava. The commonly reared livestock in the State include sheep, goat, poultry, cattle, and local chickens. The state was divided into four agricultural extension zones namely: Abeokuta, Ilaro, Ijebu-Ode and Ikenne. The daily temperature of Ilaro agricultural zone ranges between an average minimum of 23°C to a maximum of 34.2°C. The zone is situated between the latitudes of 6 53' N and longitude 3 0 1'E. The climate of the area is classified as tropical while precipitation is 1257mm. According to Ogun State Agricultural Development Programme (OGADEP) structure, Ilaro agricultural zone is divided into four extension blocks namely Imeko, Sawonjo, Ado-odo and Oke-odan. This agricultural zone is well known as best



ecological suitable areas for fish production and hence the state is referred to as “the basket of fish for the nation” because of abundance of wetland with annual growth rate of 3% per annum. The population of study consist of all registered fish farmers in Ogun State, Nigeria. A multistage sampling technique was used in selecting samples for the study. The state was divided into four agricultural extension zones namely: Abeokuta, Ilaro, Ijebu-Ode and Ikenne. In the first stage, two zones were randomly chosen out of the four zones in the State namely; Abeokuta (6blocks) and Ijebu-Ode (6blocks). In the second stage, five blocks were randomly selected from the two zones viz; Abeokuta (5blocks) and Ijebu-Ode (5blocks) making a total of ten (10) blocks. Lastly, thirty percent of the total numbers of registered youth fisher folk were selected from each of the selected block amounting to one hundred and sixty-six (166) respondents that constituted the sample size for the study. Primary data was collected using a well-structured questionnaire and interview schedule. Data was analysed using descriptive and inferential statistical tools to test the stated hypothesis.

Results and Discussion

Types of digital platforms utilized for youth engagement in fisheries supply chains

Result presented in Table 1 shows that social media platforms ranked 1st with a weighted mean score of 2.45, mobile applications ranked 2nd with a weighted mean score of 2.36, blogging and content creation platforms ranked 3rd with a weighted mean score of 2.33 and e-Learning platforms ranked 4th with a weighted mean score of 2.27 were the types of digital platforms utilized for youth engagement in fisheries supply chains. This indicates that these platforms foster community engagement and a sense of belonging among the youth, which is critical for collective actions in fisheries

management. This implies that social media platforms serves as an effective medium for disseminating information about sustainable fishing practices and market trends as it facilitate real-time communication, enabling youth to share information on best practices and innovative techniques. This finding is in tandem with the report of Vennett (2019) that social media platform can enhance knowledge sharing among fishery stakeholders, promoting sustainable practices that are particularly attractive to younger generations. Similarly, mobile applications can provide youth with easy access to essential resources and this accessibility can empower young individuals to make informed decisions. This finding is in line with the report of Hossain et al. (2021) that mobile technology can enhance access to real-time data, enabling more efficient decision-making in fisheries management and marketing. Blogging enable youth to share their personal stories related to fishing, sustainability and their experiences within the supply chain which can raise awareness about local fishery practices and marketing their products while content creation foster creativity among young fishers and entrepreneurs, allowing them develop unique branding and marketing strategies that can enhance their fishery businesses. This finding is supported by the report of King and Daitch (2020) that blogging can serve as a powerful tool for youth to build their brand and connect with consumers who may appreciate the narratives behind their products. Also, e-learning platforms create opportunities for youth to engage in formal training and certification on fisheries management, fish farming and sustainable practices, thereby enhancing their skills and employability. This finding is in line with the report of Lekamwasam and Rameez (2020) that online education plays a crucial role in bridging the skill gap in the fisheries sector, particularly in developing regions.

Table 1: Distribution of the respondents by types of digital platforms utilized for youth engagement in fisheries supply chains (n=166)

Types of digital platforms utilized	WMS	Rank
Social media platforms	2.45	1 st
E-Learning platforms	2.27	4 th



Mobile applications	2.36	2 nd
Online marketplaces	2.26	5 th
Crowd-funding platforms	2.11	10 th
Forums and community platforms	2.20	6 th
Webinars and virtual conferences	2.18	7 th
Data and research platforms	2.16	8 th
Gaming platforms	2.13	9 th
Blogging and content creation platforms	2.33	3 rd

WMS-Weighted mean score

Source: Field Survey, 2025

Types of youth engagement in fisheries supply chains

Table 2 reveals that the types of youth engagement in fisheries supply chains were fish farming ranked 1st with a weighted mean score of 2.57, skill development ranked 2nd with a weighted mean score of 2.55, distribution and trading ranked 3rd with a weighted mean score of 2.52

and networking ranked 4th with a weighted mean score of 2.47. This indicates that fish farming has become an essential element of the fisheries sector and offers numerous opportunities for youth engagement. This implies that fish farming can provide a sustainable source of income for young people in coastal and rural areas, improving their financial independence and enhancing local economies (Belton and Haque, 2011). Fish farming create jobs not only in farming but also in processing, marketing and distribution. Young people can be involved in various roles from on-site farm management to sales and logistics (Beveridge et al. 2013). Fish is a vital source of protein; increasing production through fish farming can help meet the growing food security challenges in many regions, especially in developing countries (FAO, 2020). Likewise, skill training in fish farming techniques, fisheries management and business development enhances youths' employability and entrepreneurial capabilities (Keshavan, 2017). Training in modern fish farming practices can foster innovation among youth, promoting

the adoption of sustainable practices that can lead to increased productivity and reduced environmental impact (Dey et al., 2018). As young individuals gain skills in fish farming and related fields, they are empowered to participate meaningfully in their communities and advocate for sustainable practices in fisheries management. Furthermore, by engaging youth in distribution and trading, fisheries supply chains can become more efficient, with young people leveraging technology to access markets (Pomeroy et al., 2016). Youth involvement in processing and marketing can lead to added value for fish products, which may enhance profitability for local producers and stimulate economic growth (Harrison et al., 2019). Youth engagement in trading fosters networks and relationships within communities, which can strengthen local economies and enhance social cohesion (Pomeroy et al., 2016). Networks facilitate the sharing of information regarding best practices, market trends and technological advancement, enabling youth to make informed decisions in their business ventures (Maguire, 2020). Building networks among youth, local businesses and governmental organizations can lead to collaborations that enhance resource sharing and improve the overall efficiency of fish supply chains (Bene et al., 2016). Also, through networking, youth can assert their rights and representation



in decision-making processes related to fisheries management and policy, ensuring that their needs and perspectives are included (Kaunda et al., 2016).

Table 2: Distribution of the respondents by types of engagement in fisheries supply chains (n=166)

Types of engagement in fisheries supply chains	WMS	Rank
Artisanal fisheries	2.32	6 th
Processing and value addition	2.30	8 th
Distribution and trading	2.52	3 rd
Entrepreneurial ventures	2.31	7 th
Sustainability fisheries initiatives	2.26	10 th
Fish farming	2.57	1 st
Research and advocacy	2.19	12 th
Networking	2.47	4 th
Tourism and recreational fishing	2.17	13 th
Technology and innovation	2.27	9 th
Cooperative models	2.38	5 th
Education and training programmes	2.24	11 th
Skill development	2.55	2 nd

WMS-Weighted mean score

Source: Field Survey, 2025

Effects of digital platforms utilized on youth fisheries supply chains engagement

Result presented in Table 3 shows that the effects of digital platforms utilized on youth fisheries supply chains engagement were increased access to information ranked 1st with a weighted mean score of 2.08, opportunities for training and skill development ranked 2nd with a weighted mean score of 2.06, enhanced market access ranked 3rd with a weighted mean score of 2.01 and stronger networks and collaboration ranked 4th with a weighted mean score of 1.96. This implies that digital platforms facilitate real-time access to a wealth of information related to sustainable fish farming practices thus the democratization of information empowers young fishers and entrepreneurs to make informed decisions. This finding corroborates the report of Sulaiman et al., (2018) that access to timely information through digital platforms channels allows

fishers to adapt quickly to market demands and environmental changes, thus improving their economic viability. Digital platforms equip youth with essential skills. According to FAO (2020), digital literacy initiatives in fisheries lead to improved skill sets among young fishers, enhancing their ability to compete in global market. The concept of e-learning in fisheries has been shown to increase the adaptive capacity of participants (Murray et al., 2018). Digital platforms can lower barriers to market entry for small-scale fish farmers as direct connection with consumers translates to fairer pricing and better profit margins which is crucial for youth engagement in fisheries (Wiggins and Keats, 2014). Collaborative networks facilitated by digital technologies promote knowledge sharing and innovation among young fishers, leading to more resilient livelihoods and sustainable fisheries practices (Bene et al., 2015).

Table 3: Distribution of the respondents by effects of digital platforms utilized on fisheries supply chains engagement (n=166)

Effects of digital platforms utilized on fisheries supply chains engagement	WMS	Rank
Increased access to information	2.08	1 st



Improved financial inclusion	1.94	5th
Opportunities for training and skill development	2.06	2 nd
Enhanced market access	2.01	3 rd
Stronger networks and collaboration	1.96	4 th
Greater transparency and traceability	1.89	7th
Youth-led innovation	1.92	6th

WMS-Weighted mean score

Source: Field Survey, 2025

Level of utilization of digital platforms for youth engagement in fisheries supply chains

As shown in Table 4, more than half (59%) of the youth moderately utilized digital platforms for engaging in fisheries supply chains. This indicates that the utilization of digital platforms in fisheries supply chains has gained traction in recent years, particularly among youth, who are increasingly tech-savvy and adept at using digital tools. This implies that moderate use of digital platforms can empower youth by enhancing their skills and providing access to information. Moderate utilization of digital platforms can promote sustainable fishing practices by raising awareness about environmental issues. This finding is in line with the report of Cano (2021) that digital platforms can facilitate online training and knowledge sharing, helping young individuals acquire skills related to sustainable fishing practices and supply chain management. Also, Mandeville et al., (2020) reported that

youth who are engaged in digital platforms benefit from real-time data about market prices, fish availability and environmental conditions. This access can improve their decision-making and optimize their participation in fisheries supply chains leading to better economic outcomes. FAO (2019) reported that the use of digital platforms and online forums can foster collaboration and networking, allowing young fishers to share best practices, experiences and innovations. This collaborative approach can lead to collective actions towards sustainability and resilience in fisheries. McCauley et al., (2015) reported that online tools can be utilized to disseminate crucial information leading to more sustainable fisheries practices. Young fishers using digital marketing strategies can reach consumers directly, thereby increasing their profit margin and economic resilience which can be particularly important in the face of climate change and fluctuating fish stocks (Kauffman et al., 2020)

Table 4: Distribution of the respondents by level of utilization of digital platforms for youth engagement in fisheries supply chains

Level of utilization of digital platforms	Frequency	Percentage
High	45	27.1
Moderate	98	59
Low	23	13.9
Total	166	100

Source: Field Survey, 2025

Benefits of utilizing digital platforms for youth engagement in fisheries supply chains

Result presented in Table 5 show that the benefits derived by the youth in engaging fisheries supply chains include enhanced communication and connectivity with stakeholders ranked 1st with a weighted mean score of 2.15, greater visibility for youth initiatives ranked 2nd with a weighted mean score of 2.13, promotion of sustainable

and innovative practices ranked 3rd with a weighted mean score of 2.12 and cost-effectiveness ranked 4th with a weighted mean score of 2.10. This indicates that enhanced communication and connectivity with stakeholders, greater visibility for youth initiatives, promotion of sustainable and innovative practices and cost-effectiveness were crucial benefits associated with utilizing digital platforms for youth engagement in fisheries supply chains.



This implies that improved communication allows for stronger collaboration between youth, government, NGOs and the private sector. Thus collective efforts can lead to more comprehensive strategies for sustainable fisheries management. This finding is in tandem with the report of Willett, et al. (2019) that enhanced connectivity facilitates the sharing of knowledge and best practices which can empower youth to take innovative approaches in their initiatives. Digital platforms serve as critical tools for fostering multi-stakeholder dialogue, leading to better-informed decision-making in fisheries management (Hodge, 2020). Visibility allows youth-led projects to attract funding and support from various stakeholders, including governmental and non-governmental organizations (Hassan and Boga, 2020). By showcasing successful youth initiatives through digital media, young leaders can influence policy and advocate for better practices within the fisheries sector. Digital platforms amplify youth voices, enabling them to engage in advocacy

and mobilization efforts effectively. Digital engagement provides platforms for sharing information regarding sustainable fishing practices, fostering an ecosystem where innovative solutions can thrive (Baum et al., 2019). Engaged youth are more likely to develop innovative business models that incorporate sustainability into their fisheries practices (Hassel et al. 2020). Digital platforms minimize the financial burden associated with traditional communication methods, enabling youth with limited resources to operate more efficiently (Bennett, 2020). Utilizing digital communication allows for scaling outreach without proportional increases in costs, making it easier for youth initiatives to engage a larger audience (Khan, et al., 2021). Moffat et al., (2018) also reported that digital tools can significantly decrease costs related to stakeholder engagement, making it feasible for youth initiatives to enhance their visibility and effectiveness in project planning.

Table 5: Distribution of the respondents by benefits of utilizing digital platforms for youth engagement in fisheries supply chains (n=166)

Benefits of utilizing digital platforms for youth engagement in fisheries supply chains	WMS	Rank
Increased access to information	2.05	6 th
Skill development	2.08	5 th
Greater visibility for youth initiatives	2.13	2 nd
Promotion of sustainable and innovative practices	2.12	3 rd
Enhanced communication and connectivity with stakeholders	2.15	1 st
Market access	2.04	7 th
Innovation and technology adoption	2.02	8 th
Empowerment and ownership	1.95	10 th
Real-time data and analytics	1.84	14 th
Flexibility and convenience	1.96	9 th
Cost-effectiveness	2.10	4 th
Global perspectives	1.82	15 th
Entrepreneurial opportunities	1.89	12 th
Community building	1.92	11 th
Data collection and sharing	1.87	13 th

WMS-Weighted mean score

Source: Field Survey, 2025

Constraints to effective utilization of digital platforms for youth engagement in fisheries supply chains

Table 6 show that the constraints to effective utilization of digital platforms for engagement in fisheries supply chains were digital literacy ranked 1st with a weighted mean score

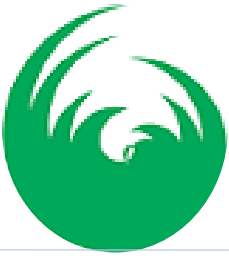


of 1.99, cost barriers ranked 2nd with a weighted mean score of 1.98, fragmentation of information ranked 3rd with a weighted mean score of 1.95 and access to technology ranked 4th with a weighted mean score of 1.92. This indicates that the effective utilization of digital platforms for youth engagement in fisheries supply chains is significantly constrained by several factors, including digital literacy, cost barriers, fragmentation of information and access to technology. Each of these constraints presents unique challenges that can hinder the ability of youth to effectively engage in fisheries-related activities. This implies that a lack of digital literacy can restrict youth from effectively navigating digital platforms, leading to reduced engagement in fisheries activities. Youth with insufficient digital skills may miss out on opportunities for learning and professional development, which are crucial for innovation and sustainability in fisheries. This finding is in tandem with the report of the International Telecommunication Union (ITU) (2016) that digital literacy is essential for individuals to fully participate in the digital economy. The report notes that many young people, particularly in rural areas, lack the necessary skills to leverage digital tools effectively. Also, Dede (2010) reported that digital literacy is critical for accessing information and participating in knowledge-driven economic sectors, including fisheries. High costs associated with acquiring digital devices, internet access and software can prevent youth from accessing essential resources and participating in fisheries supply chains. Cost barriers can exacerbate inequalities, limiting opportunities for those from low-income backgrounds to engage in fisheries-related activities that increasingly rely on digital platforms. This corroborates the report of the World Bank (2020) that

financial barriers limit access to digital technologies, creating cycles of exclusion for disadvantaged youth. Reducing cost barriers is essential for increasing participation and engagement among youth in economic activities. The abundance of fragmented information available online can lead to confusion, making it difficult for youth to discern reliable sources from unreliable ones as this can negatively impact decision-making in fisheries. If young individuals encounter conflicting or misleading information, they may become disillusioned with digital platforms, reducing their willingness to engage further. This is in line with the report of Weller (2019) that the fragmentation of information can overwhelm users, particularly young people, leading to disengagement from digital platforms. Easterling and Green (2020) emphasize the importance of coherent information systems to build trust and facilitate effective engagement among users in sectors like fisheries. Limited access to technology can create disparities in opportunities for youth, particularly in rural or underserved areas, impacting their ability to participate in fisheries supply chains. Without access to the necessary technology, youth may be economically disenfranchised, missing out on potential income-generating activities within the fisheries sector. This finding supports the report of Kauffman et al., (2020) that access to technology is critical for enabling youth to engage in modern fisheries practices and markets. The United Nations (2018) reported that access to information and communication technology indicates that rural youth experience significant barriers to technology access compared to urban counterparts, which can hinder their participation in fisheries supply chains.

Table 6: Distribution of the respondents by constraints to effective utilization of digital platforms for engagement in fisheries supply chains (n=166)

Constraints to effective utilization of digital platforms	WMS	Rank
Cost barriers	1.98	2 nd
Relevance of content	1.94	5 th
Fragmentation of information	1.95	3 rd
Sustainability and funding	1.91	7 th
Digital literacy	1.99	1 st
Data privacy concerns	1.88	10 th
Access to technology	1.92	4 th



Cultural and social factors	1.89	8 th
Lack of support networks	1.93	6 th
Regulatory challenges	1.89	9 th

WMS-Weighted mean score

Source: Field Survey, 2025

Hypothesis testing

There is no significant relationship between types of youth engagement in fisheries supply chains and the utilization of digital platforms for youth engagement in fisheries supply chains.

Relationship between types of youth engagement in fisheries supply chains and the utilization of digital platforms for youth engagement in fisheries supply chains.

The Correlation analysis result presented in Table 7 revealed that there exist a significant relationship between types of youth engagement in fisheries supply chains ($r=0.549$; $p=0.000$) and the utilization of digital platforms for youth engagement in fisheries supply chains. This reflects how effectively the youth can participate in and contribute to the fisheries sector. This implies that the utilization of digital platforms can lead to increased participation among youth in fisheries activities as these platforms facilitate access to information, enabling youth to engage more actively in the supply chain. By utilizing digital platforms, youth can gain knowledge which empowered them to make informed decisions and advocate for their interest. This finding is in tandem with the report of Pomeroy et al., (2016) that digital platforms can enhance youth participation in providing access to critical information and resources, leading to empowered youth who are more likely to engage in sustainable fishing practices. Digital platforms create opportunities for youth to network with peers, industry stakeholders and experts in the field. This networking can lead to collaboration on projects, sharing of best practices and collective problem-

solving in fisheries management. Enhanced connectivity can foster a sense of community among youth, allowing them work together towards common goals. This support the report of Bene et al., (2016) that digital platforms facilitate networking, enabling youth to build connections that can enhance their engagement in fisheries supply chains and contribute to community development. The utilization of digital platforms provides youth with access to resources and information that can inspire innovative approaches in fisheries. Youth can develop new business models, products and services that leverage technology and sustainability. Digital engagement can lead to increased entrepreneurial opportunities for youth, allowing them to explore alternative income sources within the fisheries sector. This finding is in line with the report of Baird et al (2021) that youth engages through digital platforms are more likely to develop innovative solutions and entrepreneurial ventures, contributing to the diversification and sustainability of fisheries. Digital platforms enable youth to mobilize and advocate for policies that support sustainable fisheries management and their rights as stakeholders in the supply chain. This advocacy can influence decision-makers and lead to more inclusive policies. By utilizing digital tools, youth can raise awareness about critical issues affecting their communities and the fisheries sector, amplifying their voices in policy discussions. The ability of youth to engage in advocacy through digital platforms can significantly impact fisheries policies, leading to more equitable and sustainable management practices.

Table 7: Summary of Correlation analysis showing the relationship between types of youth engagement in fisheries supply chains and the utilization of digital platforms for youth engagement in fisheries supply chains

Variable	r-value	p-value	Decision
Types of youth engagement in fisheries supply chains	0.549	0.000	Significant

Significant at 5% level of significance



Source: Field Survey, 2025

Conclusion and Recommendations

In conclusion, the strategic utilization of digital platforms for youth engagement in fisheries supply chains offers a pathway to enhance participation, promote sustainability, economic viability, foster innovation and social cohesion within the sector thereby fostering a new generation of informed and empowered participants in the fisheries, ultimately contributing to the resilience and sustainability of global food systems. Different digital platforms serve unique purposes in facilitating youth engagement in fisheries as they provide avenues for information dissemination, skill development and market access. Continued collaboration and investment in youth engagement strategies will be essential for achieving these goals and ensuring the long-term viability of fisheries. Digital platforms can facilitate greater youth participation in fisheries by providing them with tools and resources to connect, collaborate and share knowledge. Engaging youth through digital platforms can promote awareness and adoption of sustainable fishing practices, contributing to the long-term viability of fisheries resources. The connectivity offered by digital platforms enables youth to network with peers, stakeholders and experts, which can enhance collaboration and collective action in fisheries management. By utilizing digital platforms, the youth can better access markets, reducing transaction costs and enhancing their profitability as this direct access can empower youth to establish their businesses and reach wider audiences. A moderate level of utilization of digital platforms reveals disparities in access to technology, digital literacy, cost-barriers and information fragmentation. Despite the numerous benefits, several constraints hinder the effective utilization of digital platforms for youth engagement in fisheries supply chains thus, addressing the barriers to effective engagement and leveraging the strengths of various digital platforms, stakeholders can create a more inclusive and sustainable fisheries sector. It was recommended that;

1. Stakeholders should invest in educational initiatives aimed at improving digital literacy among youth, particularly in rural and underserved communities.

2. Governments and stakeholders should invest in enhancing digital infrastructure, particularly in rural and underserved communities where fisheries are concentrated.

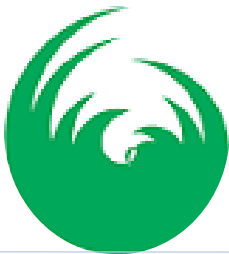
3. Advocacy for inclusive policies that specifically address the needs and challenges faced by youth in the fisheries sector.

4. Encourage collaboration between governments, NGOs, private sector actors and educational institutions to create a supportive ecosystem for youth engagement via digital platforms.

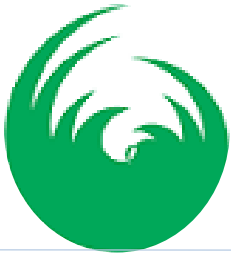
5. To address cost-barriers, programmes should be developed to subsidize access to technology, including affordable devices and internet services for youth engaged in fisheries. Initiatives could include partnerships with telecommunication companies or government subsidies.

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