

Role of Cooperative Societies in Promoting Technopreneurship among Rural Women in Anambra State

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ABSTRACT

The study investigated the role of cooperative societies in promoting technopreneurship among rural women in Anambra State. Two research questions guided the study. The descriptive research design was adopted for the study. The population of the study comprised all managers of cooperative societies in Anambra State. Through purposive sampling, the researcher selected 150 managers of cooperative societies in Anambra State. The instrument for data collection was a structured questionnaire developed by the researcher. The instrument was validated by experts in the field. The application of Cronbach Alpha reliability method on the obtained data yielded coefficient value of 0.88 for internal consistency. Data collected from the respondents were analyzed with mean. The findings of the study revealed that the roles of cooperative societies in promoting technopreneurship among rural women in Anambra State are that it empowers women to leverage technology effectively in their entrepreneurial endeavors, creates a conducive environment for women to develop and implement their innovative ideas and provides access to affordable credit facilities among others. The findings also revealed that the strategies that could be applied by cooperative societies in promoting technopreneurship among rural women in Anambra State include organizing training sessions and workshops specifically tailored to empower rural women with technopreneurship skills, offering financial support to rural women entrepreneurs by providing microloans or access to credit facilities and advocating for policies that support and empower rural women in technopreneurship among others. Based on these findings the researcher recommended among others that cooperative societies should organise training sessions and workshops aimed primarily at equipping rural women with entrepreneurial skills.

Keywords: Role, Cooperative Societies, Technopreneurship, Rural, Women

INTRODUCTION

The integration of Information and Communication Technology (ICT) has permeated every facet of existence in societies worldwide. This phenomenon results from the expeditiousness with which its innovations enhance task performance productivity. Yila and Azeez (2018) posited that ICTs offer vast opportunities by providing alternative, ubiquitous, and occasionally more cost-effective means of accessing and disseminating information, leading to transformative behavioral patterns in both societies and individuals. In alignment with this perspective, Fowosire, Idris, and Opoola (2017) asserted that information technology fosters and enables organizational operations within a globally competitive network. This stance stems from the fact that information and communication technology has expanded horizons for small business proprietors, granting them a broader network and a global outreach. The era of information has significantly paved the way for entrepreneurship development and venture creation through technology adaptation. The utilization of ICT has profoundly enhanced production capacity and service delivery efficiency for public and private entities alike (Fang in Fowosire, Idris & Opoola, 2017). Thus, the infusion of ICT into entrepreneurial activities, known as technopreneurship, emerges as an innovative practice that fosters profitability, wealth creation, job generation, and national progress.

Technopreneurship is viewed as the conversion of theoretical technological concepts into viable business ventures. According to Fowosire, Idris, and Opoola (2017), technopreneurship encompasses technologically driven enterprises providing tech solutions and services. Therefore, technopreneurs are entrepreneurs and business owners who utilize technology to create novel innovative products for commercialization. Technopreneurship functions as a business leadership style that encompasses identifying highly technical economic prospects with substantial growth potential, acquiring resources such as skilled labor and financial capital, achieving accelerated growth, and demonstrating exceptional risk management through decision-making acumen. According to Adeoti in Akingboye (2019), technopreneurship stands at the epicenter of the

digital revolution, and Nigeria should confidently and extensively invest in information technology (IT) infrastructure to bolster broadband internet connectivity and establish state-of-the-art IT training facilities for its youth. Regrettably, the advantages presented by technopreneurship have yet to be fully realized in Nigeria due to certain challenges. Resources such as human capital, social capital, business-specific expertise, and the ability to accumulate financial capital are indispensable for the development and sustainability of these technologically driven enterprises, but the gender disparity has given rise to a one-sided entrepreneurship industry where women entrepreneurs struggle to compete successfully in the market (Motilewa, Onokayo & Oke, 2015). According to the ITU World Telecommunication/ICT Metrics database, males use the internet more than women: globally, 37% of all women use the internet, compared to 41% of all men. This equates to about 1.3 billion girls and 1.5 billion males. There are around 826 million female internet users and 980 million male internet users in the developing countries, including Nigeria. Furthermore, the developed world has 475 million female internet users and 483 million male internet users. (Danjuma, Onimode & Onche, 2015). Despite the Nigerian government's claims to address the gender disparity in the technologically driven business sector, data from a survey conducted by ONE Campaign and the Centre for Global Development reveal that only 30 percent of tech-businesses (e-commerce and business solutions) in Nigeria are owned by women. Furthermore, among these women-owned businesses, the median share of ownership is 20 percent (Ramachandran & Omakwu, 2019). Moreover, the study uncovered that female employment in tech-businesses is rare, as evidenced by 31 surveyed firms lacking any female employees (Ramachandran & Omakwu, 2019). The report also indicates a disparity in top management positions, with only six out of 93 sampled firms having women in such roles. This situation reflects a sector primarily dominated by men and is inherently unfavorable to women. This is saddening and demands a solution, given the array of benefits that can be accrued from increased women involvement in technologically driven businesses. Addressing persistent inequality allows us to fix the causes of poverty and prejudice and to have ample social security for the most marginalized persons (Faheem, 2016). Some authors have suggested that cooperative societies could help in promote the number of female technopreneurs in rural areas.

Cooperative societies are critical in encouraging rural women's technopreneurship. These societies serve as catalysts, sparking the spirit of invention and business while also creating a supportive and empowering environment for women in rural communities. For starters, cooperative societies act as knowledge-sharing centres, teaching rural women crucial technology skills and know-how (Okechukwu & Agbodike, 2016). They provide women with the knowledge and skills needed to effectively use information and communication technology (ICT) through training programmes and workshops. This information enables rural women to seek chances for technopreneurship and turn their ideas into practical commercial initiatives (Ufoaroh, 2017). Second, cooperative organisations serve as facilitators, fostering a collaborative ecosystem that promotes networking and resource sharing among rural women technopreneurs. Women can overcome hurdles and access financing possibilities by uniting their abilities and resources. Furthermore, these communities provide access to modern infrastructure and technology, bridging the digital divide in remote areas. Rural women can explore and exploit numerous paths in the digital arena with reliable internet connectivity and modern technological tools, leading to the growth of tech-driven companies. Furthermore, cooperative societies offer financial support and credit facilities to budding technopreneurs, ensuring that lack of capital does not hinder their ambitions. Through the provision affordable loans and financial guidance, these societies enable rural women to initiate and sustain technologically-driven enterprises (Okeke, 2005). Ufoaroh, 2017) opined that cooperative organisations serve as catalysts, fostering a collaborative ecosystem that promotes networking and resource sharing among rural women technopreneurs. Women can overcome hurdles and access financial opportunities by uniting their abilities and resources, so improving their entrepreneurship prospects. Furthermore, these societies make modern infrastructure and technology available, bridging the digital divide in rural areas. Rural women can explore and exploit many paths in the digital arena with reliable internet connectivity and modern technological tools, resulting in the growth of tech-driven companies. These views however have not been proven to be empirically proven to be true. It is against this backdrop that study determined the role of cooperative societies in promoting technopreneurship among rural women in Anambra State.

Statement of the Problem

There is a considerable gender difference in the field of technopreneurship in Anambra State, Nigeria, particularly among rural women. Despite developments in information and communication technology (ICT), rural women continue to encounter a number of hurdles in accessing and capitalising on the full potential of these digital opportunities to launch and sustain technologically-driven companies. One of the key difficulties is that rural women lack proper ICT expertise and training. The lack of sufficient direction and technical know-how prevents them from properly utilising technology to build creative business concepts and turn them into viable companies. Furthermore, the lack of adequate internet connectivity in some rural locations limits their access to online tools and markets, restricting their entrepreneurial growth even further.

Financial constraints are also a big hurdle for rural women interested in becoming technopreneurs. Access to cheap financing and capital is limited, limiting their ability to invest in technology, acquire critical resources, and develop their firms. Furthermore, in certain rural communities, traditional gender norms and cultural biases prevent women from actively participating in economic operations. This generates a socio-cultural atmosphere that undermines women's confidence and limits their decision-making autonomy, impeding their ability to flourish in the entrepreneurial landscape. Furthermore, the lack of collaborative platforms and networking possibilities makes it difficult for rural women to develop relationships and get mentorship. Cooperative societies, which could act as catalysts for networking and resource sharing, are either non-existent or under-equipped to deal with these difficulties successfully. It is against this backdrop that this research is conducted.

Purpose of the Study

The main purpose of the study was to determine the role of cooperative societies in promoting technopreneurship among rural women in Anambra State. Specifically, the study:

1. ascertained the role of cooperative societies in promoting technopreneurship among rural women in Anambra State.
2. investigated the strategies that could be applied by cooperative societies in promoting technopreneurship among rural women in Anambra State.

Research Questions

The following research questions guided the study:

1. What are the roles of cooperative societies in promoting technopreneurship among rural women in Anambra State?
2. What are the strategies that could be applied by cooperative societies in promoting technopreneurship among rural women in Anambra State?

LITERATURE REVIEW

Conceptual Review

Technopreneurship

Technopreneurship, as defined by Mashingaidze (2016), is the amalgamation of technology and entrepreneurship from different disciplines. It involves the fusion of innovative technology with business practices. Albert (2018) further describes technopreneurship as the consistent transformation of promising ideas into profitable commercial ventures. Harsono (2013) characterizes entrepreneurship as the delivery of hi-tech products or the adept utilization of advanced technology to cater to end users or clients. Technopreneurship, as highlighted by Okorie, Kwa, Olusunle, Akinyanmi, and Momoh (2014), encompasses identifying potential entrepreneurship opportunities arising from technological advancements and effectively capitalizing on these opportunities by successfully commercializing new products. According to Abdulgani, Mamangkiang, and Islam (2016), technopreneurship is a process of establishing new businesses that revolve around technology. Technopreneurs leverage technological innovations and translate them into successful products or services. The World Bank classifies technopreneurship businesses as ICT-Based Enterprises, encompassing enterprises involved in the production of hardware, software, and telecommunications products. It also includes ICT-based enterprises that utilize ICTs to offer services such as data entry, business services, software applications, and e-learning. Additionally, ICT-related support services like computer training and consulting fall under the ambit of technopreneurship according to the World Bank's categorization. Wood (2011) defined technopreneurship as a

systematic and rational process that unfolds in four distinct phases: disclosing inventions and protecting intellectual property, fostering industry collaborations and knowledge security, selecting marketing mechanisms, and ultimately achieving commercialization. Motilewa, Onokayo, and Oke (2015) emphasized that technopreneurship is crucial for optimizing the utilization of existing science and technology expertise in response to business demands, thus enhancing the efficiency and global competitiveness of the economy. Motilewa, Onokayo, and Oke (2015) also outlined six indicators for successful female technopreneurship, including achieving work-life balance, attaining independence and the ability to earn income without relying on family support, easy access to funding for business expansion, increased literacy and education skills facilitated by networking and business education, seamless access to customers, suppliers, and partners, and gaining international recognition for their businesses. A technopreneur is an individual who disrupts the existing business environment by creating novel goods and services through the utilization of innovative raw materials. Dutse, Ningi, and Abubakar (2013) described technopreneurs as entrepreneurs who combine resources such as property, labor, and capital to develop unique products, make non-routine decisions, compete fiercely, exhibit technological creativity, and take on risks. Abdulgani, Mamangkiang, and Islam (2016) highlighted that technopreneurs are individuals who break away from traditional thinking, incorporating principles from diverse disciplines. Selladurai (2016) defined technopreneurs as individuals who challenge the current economic order, perceive opportunities, and establish organizations to explore them.

Technopreneurs are naturally gifted, intellectually imaginative, and competitive young men and women driven by a passion for success (Irene, 2019). They possess expertise in mastering technologies to identify market prospects in the realm of technology. Technopreneurs exhibit the capacity to gather and handle information effectively, organize capital, and pursue specific market or social objectives. They are bold and creative deviators from established business norms, actively exploring the potential of selling new goods, technology, processes, and business arrangements. Machmud, Suwatno, Nurhayati, Aprilianti, and Fathonah(2020) underscored two critical factors for technopreneurs' success: ensuring that the technology they focus on as a business object aligns with market needs and target customers can be sold for profit, and delivers economic, social, and environmental benefits or impacts.

Role of Cooperative Societies in Promoting Technopreneurship among Women in Anambra State

Cooperative societies play critical roles in encouraging rural women's technopreneurship by creating a supportive and empowering environment for them to pursue technology-driven business. These jobs involve a variety of characteristics that help women gain access to the information, resources, and networks required for successful technopreneurship (Okechukwu & Agbodike, 2016). Cooperative societies serve as knowledge-sharing centres, providing training programmes and workshops to empower rural women with important technology skills. Cooperative societies enable women to exploit technology effectively in their entrepreneurial endeavours by giving access to information on developing technologies, digital tools, and ICT applications (Sanap in Mishra, Malik & Shubbham, 2023).

One of the major challenges that rural women encounter is a lack of financial resources. Cooperative societies can help to address this issue by providing inexpensive credit, funding possibilities, and microloans customised to women technopreneurs. Cooperative societies help rural women to invest in technology, obtain required resources, and develop their companies through encouraging financial inclusion (Mishra et al., 2023).

Cooperative societies foster a collaborative ecosystem in which rural women can share their experiences, ideas, and resources with other technopreneurs. Cooperative societies empower women to create crucial business connections and collaborations while also fostering a supportive community through networking events, mentoring programmes, and knowledge-sharing platforms (Chikaire, Anaeto, Ogueri & Osuagwu, 2016). Cooperative societies can help rural women gain market access for their goods and services. Cooperative societies aid women technopreneurs in reaching a larger client base, both locally and globally, by giving marketing assistance, branding assistance, and access to e-commerce platforms.

Technopreneurs must have access to dependable infrastructure and technical support. Cooperative societies can make technology, such as computers, internet connectivity, and software applications, more accessible to women, fostering an environment in which women can create and implement new ideas.

Cooperative societies can lobby for policies and programmes that encourage women to enter the field of technology entrepreneurship. Cooperative societies can influence policies that address gender inequities, empower women, and create an enabling environment for technological activities through partnering with government and other stakeholders (Irene, 2019). Cooperative societies provide capacity-building programmes and entrepreneurial training to help women improve their business acumen, leadership abilities, and strategic thinking. These programmes enable women to make informed decisions, efficiently manage their enterprises, and handle the hurdles of the technological landscape. Cooperative societies can help to challenge established gender stereotypes and promote gender equality in rural communities. Cooperative societies help to women's economic empowerment through empowering them through technopreneurship (Mishra et al., 2023).

Strategies that Could Be Applied by Cooperative Societies in Promoting Women Involvement in Technopreneurship

Technopreneurship is considered to boost women's capacity to care for their families and improve their ability to take up leadership roles. However, the level to which women are involved in tech-businesses is not impressive. It is against this backdrop that certain measures are suggested for improving women's involvement in technopreneurship. Some of these measures will be discussed as follows:

1. **Increase Access to Finance and Credit Available for Women:** Finance is very important in tech-businesses. Finance is one of the most critical and mentioned topics in women's entrepreneurship (Faheem, 2016). This is because finance is crucial for startups and sustenance of technologically driven business. Availing women access to credit facilities like their male counterparts would go a long way to inspire more women into technopreneurship venture.
2. **Institutionalization of policy frameworks that is gender friendly and creating an enabling environment that provides opportunities for female technopreneurs:** Policy formulation is imperative for increased empowerment of women for technopreneurship. This is because government policies direct spending patterns. In order to formulate appropriate policy agendas for women's entrepreneurship, policy makers need to examine the country's national policies on entrepreneurship, the role of women, the growth of ICT infrastructure and the mechanism of market liberalization. Women's entrepreneurship needs to be integrated into the strategic growth and planning phase of the region. The success of women's entrepreneurial plans depends on the degree of coordination and compatibility of the planned policies and activities, in particular with the strategic policy goals and the related growth sectors. It is important to ensure that structural and synergistic processes are in place to execute the strategies and measures suggested. Martinez and Nguyen (2014) opined that government can assist in creating an enabling environment where women technopreneurs can effectively carry on their business devoid of exploitation and discrimination through setting up women-friendly, culturally sensitive public access points for ICT and entrepreneurship; and implementing women-targeted ICT programmes to build skills using computers and mobile phones for business. The contents could go from basic training on how to use the internet, email, or information search to more sophisticated contents to support online presence and develop online stores, or IT professional skills to explore opportunities in ICT-based businesses. According OECD (2014) can empower female technopreneurs by establishing a pro-business legal and policy framework for businesses, reducing administrative latencies to avoid regulatory restrictions, ensuring equal access to finance for both women and men entrepreneurs and offering support network of capacity development on financial literacy, training, monitoring, and mentoring services for both women and men. Furthermore, the *Economic and Social Commission for Asia and the Pacific in Faheem (2016)* suggested the following steps to be taken to ensure a gender-friendly, equitable, pro business policy and regulatory framework:
 - Establish action plans, with targets, for gender-responsive budgeting that ensures equal access to government-sponsored finance programmes.
 - Assess and adjust prevalence, funding levels and accessibility of credit support schemes that target women entrepreneurs in accordance with gender-responsive budget planning.
 - Ensure available funding for reinvestment at all stages of business development, including funds for working capital, modernization and technology upgrades, business acquisition and expansion.

- Establish “one stop” loan centres that provide integrated information and support access for all available loans.
 - Engage with financial institutions to develop standards for fair and equal treatment of women credit applicants.
 - Develop mechanisms for systematic promotion of available financial products and support opportunities, with consistent and balanced geographic coverage, mobilizing various forms of media through multiple channels accessed by women such as post offices, radio, online portals and social media.
 - Develop tax incentives for financial institutions that reward increased funding for women’s entrepreneurship.
 - Repeal co-signature requirements and other regulations that require women to assume debt collectively rather than independently.
 - Facilitate collective guarantee schemes, promote zero-collateral lending, and expand categories for recognized collateral to include assets such as jewellery and other personal valuables.
3. **Utilizing ICT to alleviate problems faced in accessing Finance:** Through the provision of ICT grants and other subsidies women entrepreneurs would be empowered in setting up tech-businesses. According to Martinez and Nguyen (2014), government can leverage ICT to reduce barriers to accessing finance by providing support and incentives to financial service providers by pilot testing the use of ICT in giving information about products; easing access to financial services, by facilitating loan applications, disbursement, and repayment using ICT; processing new sources of data, from telecommunications providers, utilities, or government, to designing products better tailored to their risk profile and financial needs.
4. **Providing Formal Education and Capacity Building Programmes:** There is need to improve the capacity of women in technopreneurship venture creation. It has been suggested that female technopreneurs lack the requisite educational experiences and skills needed for successful entrepreneurship. Allowing women access to education will help women succeed in their personal lives, and definitely as technoepreneurs. However, lack of funding, inadequate planning and disconnection between academia and industry are some of the main challenges for any poor education system, especially in developing countries. In order to ensure that the overall education mechanism is fair, gender-friendly, technological and entrepreneurial-oriented, priority should be given to ensuring greater access to quality education for the most disadvantaged and oppressed population, including women. The government and relevant stakeholders in particular ought to maintain a gender-responsive learning atmosphere. Technology and entrepreneurship has to be part of the standard curriculum, with resources for realistic experience for learners. Industry-academia-community collaboration is expected to make such an initiative a success. Furthermore, government or private experts neglect gender-specific needs in the teaching phase. This programme should concentrate on improving women’s entrepreneurship capabilities and skills at an early point of their lives (e.g. in schools and technical institutions). Around the same time, a consistent attempt should be made to address institutionalized gender stereotypes, especially in capacity-building activities in science, technology, engineering and mathematics disciplines and in business education (Faheem, 2016).

Review of Empirical Studies

In a study conducted by Ufoaroh (2017), the empowerment of cooperative societies was examined to assess its impact on rural women. The data for this research was collected from both primary and secondary sources. A total of one thousand three hundred and eighty-six (1386) indigenous women from Nimo community, Anambra state, Nigeria, were provided with questionnaires to fill out. Among the population, nine hundred and eighty-eight (988) women answered, completed, and returned the questionnaires. The data was analyzed using the descriptive method, supported by tables displaying the questions, responses (Yes or No), and percentages. The hypothesis was tested using goodness-of-fit, descriptive statistics, and a histogram of the normal curve. The findings of the study led the researcher to conclude that cooperative societies significantly impact the living standards of their beneficiaries through various empowerment programs. It was observed that cooperative societies play a crucial role in community development and poverty alleviation in rural communities. The positive impact of cooperative societies on the lives of rural women highlights their potential to uplift and empower women in these communities, leading to improved socio-economic conditions and overall development.

In their study, Okechukwu and Agbodike (2016) focused on examining various socio-economic factors influencing women in co-operatives. The research also investigated the benefits of co-operatives for women's development, the reasons behind low women's participation in co-operatives, and any cultural inhibitors affecting their involvement. To collect data, the researchers used well-structured and pre-tested questionnaires, scheduled interviews, and panel discussions. Descriptive statistics, such as frequency counts, means, and percentages, were employed to analyze the data. Additionally, the hypothesis was tested using the chi-square (χ^2) for 1 degree of freedom at a 5% level of significance. The study findings revealed several opportunities that co-operatives offer to women, including income enhancement, increased propensity to save, access to credit and farm land, improved personal relationships and team spirit, and enhanced self-esteem and exposure. However, certain constraints hinder women's ascendance to leadership positions in co-operatives. These constraints include emotionalism, limited access to resources, legislative limitations, inadequate education, and male chauvinism. These factors were ranked in a descending order of seriousness. To address these challenges, the study recommended the implementation of intensive co-operative education to enhance the educational level and managerial skills of female co-operators. This could be achieved through various strategies like workshops, seminars, symposia, and conferences.

Chikaire et al. (2016) conducted a study to explore the significant role of Information and Communication Technology (ICT) in empowering rural women farmers in the Ethiopia East Local Government Area of Delta State. The research aimed to achieve specific objectives, including examining the demographic characteristics of the respondents, identifying the ICT devices used by the respondents, understanding the information needs of the women farmers, assessing the roles of ICTs in empowering rural women, and identifying constraints to the use of ICT devices by the respondents. To gather data, the researchers used a structured questionnaire and conducted oral interviews where necessary. The study involved 120 rural women farmers who were purposively selected from the farmers' list obtained from the Agricultural Development Project (ADP) Office in the area. The findings revealed various demographic characteristics of the respondents, with 54.2% being married, 57.5% having a secondary education, and 52.5% holding a farm size of 0.25 – 1 hectare of land. The women farmers utilized a range of ICT devices, including mobile phones, television, radio, and other devices. Their information needs encompassed inputs, prices, markets, demand for produce, and information on new agricultural practices and technologies. ICTs played a crucial role in empowering rural women farmers by providing them with various opportunities. These opportunities included offering entrepreneurial prospects, breaking social isolation, providing linkages to inputs and markets, assisting small and medium-sized businesses, reducing poverty and illiteracy, and improving the income and savings of rural women. However, the study also identified challenges affecting the use of ICT devices by the respondents. These challenges included the absence and erratic supply of electricity, lack of ICT skills, and low levels of awareness among the rural women farmers.

Okeke, Nwoye, and Kadiri (2020) conducted a study to assess the utilization of Information Communication Technology (ICT) among rural women rice farmers in Ayamelum Local Government Area of Anambra State, Nigeria. The researchers employed a multi-stage sampling technique to select 51 respondents for the study, and data was collected using a structured questionnaire. Descriptive statistics, including mean, percentages, and frequency, were used to analyze the study's objectives. The findings of the study revealed several characteristics of the rural women rice farmers. The majority of the respondents (66.7%) were between the ages of 31 and 40 years, 68.8% were married, and 82.4% had some form of education. Additionally, 74.5% of the respondents had household sizes ranging from 6 to 10 persons, and 74.6% had farming experience of between 1 and 10 years. Most of the women (52.9%) financed their farming activities through personal savings. Regarding the availability and utilization of ICT tools among the women rice farmers, the study found that the majority (98.0%, 96.0%, and 94.1%) identified mobile phones, radio, and television, respectively, as the primary ICT tools available to them. These tools, including mobile phones, radio, television, camera, and newspaper, were frequently utilized by the women farmers. However, the study also identified various challenges hindering the utilization of ICT tools among the respondents. These challenges included the high cost of ICT tools, inadequate capital, complexity in using ICT tools, lack of knowledge on ICT tools, inadequate power supply, poor network reception, high cost of internet subscription, high charges on calls, and limited educational background. In light of the findings, the study recommended that service providers should make efforts to improve network coverage in the study area

through Information Communication Technologies.

METHODOLOGY

The study adopted the descriptive research design. The study was carried out in Anambra State. The population of the study comprised Managers of cooperative societies in Anambra State. The researcher purposively sample 150 managers of cooperative societies in Anambra State. The instrument for data collection was a structured questionnaire developed by the researcher. The instrument has two clusters; 1 and 2. Cluster 1 contains 10 items on the role of cooperative societies in promoting technopreneurship among rural women while cluster 2 contains 10 items on the strategies that could be applied by cooperative societies in promoting technopreneurship among rural women. The instrument was structured on a four point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The instrument was validated by three experts in the Department of Cooperative Economics and Management, Faculty of Management Sciences, Nnamdi Azikiwe University, Awka. The instrument was further subjected to reliability testing through a pilot test on 20 managers of cooperative societies in Enugu State who were not included in the population of the study. The application of Cronbach Alpha reliability method on the obtained data yielded coefficient value of 0.88 for internal consistency. Data collected from the respondents were analyzed with mean. Out of the 150 copies of questionnaire administered, 132 copies were returned and used for data analysis. The mean value was used to answer the research questions. Any item with the mean rating between 2.50 and above is regarded as agree. Conversely, any item with mean rating below 2.50 was regarded as disagree.

RESULTS

Research Question 1

What are the roles of cooperative societies in promoting technopreneurship among rural women in Anambra State?

Table 1: Respondents' Mean Ratings on the Role of Cooperative Societies in Promoting Technopreneurship among Rural Women in Anambra State (N=132)

S/No.	Item Statement	X	Remarks
1.	Offers training programmes to equip rural women with essential technological skills	3.23	Agree
2.	Enables women to build valuable business connections and partnerships	3.33	Agree
3.	Assists rural women in accessing markets for their products and services	3.18	Agree
4.	Facilitate access to technology, such as computers, internet connectivity, and software applications	3.09	Agree
5.	Creates a conducive environment for women to develop and implement their innovative ideas.	3.41	Agree
6.	Advocate for policies and initiatives that promote women's participation in technopreneurship.	3.28	Agree
7.	Offer capacity-building programmes and entrepreneurial training to enhance women's business acumen, leadership skills, and strategic thinking.	3.13	Agree
8.	Provides access to affordable credit facilities	3.37	Agree
9.	Enables rural women to invest in technology, acquire necessary resources, and scale their businesses.	3.28	Agree
10.	Empowers women to leverage technology effectively in their entrepreneurial endeavors	3.46	Agree
	Cluster Mean	3.27	Agree

Data in Table 1 reveal that managers of cooperative societies agree on items 1 to 10 as the role of cooperative societies in promoting technopreneurship among rural women in Anambra State. The mean ratings of 3.27 which is above the threshold of 2.50 indicated that the roles of cooperative societies in promoting technopreneurship among rural women in Anambra State are that it empowers women to leverage technology effectively in their entrepreneurial endeavors, creates a conducive environment for women to develop and implement their innovative ideas, provides access to affordable credit facilities, enables women to build valuable business connections and partnerships, advocate for policies and initiatives that promote women's participation in technopreneurship and enables rural women to invest in technology, acquire necessary resources, and scale their businesses among others.

Research Question 2

What are the strategies that could be applied by cooperative societies in promoting technopreneurship among rural women in Anambra State?

Table 2: Respondents' Mean Ratings on the Strategies that could be Applied by Cooperative Societies in Promoting Technopreneurship among Rural Women in Anambra State (N=132)

S/No.	Item Statement	X	Remarks
11.	Organizing training sessions and workshops specifically tailored to empower rural women with technopreneurship skills	3.40	Agree
12.	Providing rural women with access to relevant information and resources related to technology and entrepreneurship	3.21	Agree
13.	Offering financial support to rural women entrepreneurs by providing microloans or access to credit facilities	3.28	Agree
14.	Creating mentorship programs and networking opportunities within the cooperative can enable rural women to learn from experienced technopreneurs	3.16	Agree
15.	Organizing training sessions to enhance their digital literacy, enabling them to utilize technology effectively in their entrepreneurial ventures..	3.18	Agree
16.	Establishing partnerships with government agencies, non-governmental organizations, and private sector firms to access additional resources and support for promoting technopreneurship among rural women.	3.19	Agree
17.	Recognizing and celebrate successful rural women technopreneurs by organizing award ceremonies and highlighting their achievements.	3.22	Agree
18.	Advocating for policies that support and empower rural women in technopreneurship	3.30	Agree
19.	Establishing incubation centers within the cooperative can provide a conducive environment for rural women to develop and test their innovative business ideas with the necessary support and resources	3.15	Agree
20.	Assisting rural women in marketing their technopreneurial products and services, helping them reach a broader audience and increase their business visibility	3.24	Agree
	Cluster Mean	3.23	Agree

Data in Table 2 reveal that managers of cooperative societies agree on items 11 to 20 as strategies that could be applied by cooperative societies in promoting technopreneurship among rural women in Anambra State. The mean ratings of 3.23 which is above the threshold of 2.50 indicated that strategies that could be applied by cooperative societies in promoting technopreneurship among rural women in Anambra State include organizing training sessions and workshops specifically tailored to empower rural women with technopreneurship skills, offering financial support to rural women entrepreneurs by providing microloans or access to credit facilities, advocating for policies that support and empower rural women in technopreneurship, providing rural women with access to relevant information and resources related to technology and entrepreneurship and assisting rural women in marketing their technopreneurial products and services, helping them reach a broader audience and increase their business visibility among others.

DISCUSSION

The findings of the study revealed that the roles of cooperative societies in promoting technopreneurship among rural women in Anambra State are that it empowers women to leverage technology effectively in their entrepreneurial endeavors, creates a conducive environment for women to develop and implement their innovative ideas, provides access to affordable credit facilities, enables women to build valuable business connections and partnerships, advocate for policies and initiatives that promote women's participation in technopreneurship and enables rural women to invest in technology, acquire necessary resources, and scale their businesses among others. This finding is in agreement with Ufoaroh (2017) who reported that cooperative societies play an important role in driving rural women's success as technopreneurs by creating an inclusive and supportive environment, providing access to resources and financial assistance, and advocating for gender-responsive policies. This, in turn, contributes to community development and economic growth. In consonance, Okechukwu and Agbodike (2016) stated that women involved in co-operatives experienced income enhancement, which implies that participation in co-operatives positively impacts their financial status. This economic empowerment can lead to increased financial independence and improved livelihoods. Okechukwu and Agbodike averred that co-operatives provide women with increased propensity to save, fostering a culture of financial prudence and long-term planning. The study by Chikaire et al. (2016) emphasised the transformative effect of ICTs in empowering rural women farmers. The options given by ICTs, such as entrepreneurial opportunities, social networking, market linkages, and enhanced company performance, boost rural women's socioeconomic standing. However, solving infrastructure, ICT literacy, and awareness barriers is critical to ensuring fair access to technology and maximising its influence on rural women's empowerment.

Furthermore, the findings of the study revealed that the strategies that could be applied by cooperative societies in promoting technopreneurship among rural women in Anambra State include organizing training sessions and workshops specifically tailored to empower rural women with technopreneurship skills, offering financial support to rural women entrepreneurs by providing microloans or access to credit facilities, advocating for policies that support and empower rural women in technopreneurship, providing rural women with access to relevant information and resources related to technology and entrepreneurship and assisting rural women in marketing their technopreneurial products and services, helping them reach a broader audience and increase their business visibility among others. This finding is in agreement with Okechukwu and Agbodike (2016) who advocated for the implementation of intensive co-operative education to enhance the educational level and managerial skills of female co-operators. This could be achieved through various strategies like workshops, seminars, symposia, and conferences. Ufoaroh (2017) opined that the organization of empowerment programmes would help improve the capacity of rural women in entrepreneurship.

CONCLUSION

Based on the findings of the study, the researcher concludes that cooperative societies play vital roles in promoting technopreneurship among rural women in Anambra State. These roles include empowering women to effectively use technology in their entrepreneurial pursuits, creating a supportive environment for women to develop and implement innovative ideas, and providing access to affordable credit facilities. Cooperative societies also enable women to establish valuable business connections and partnerships, advocate for policies that encourage women's participation in technopreneurship, and facilitate investments in technology and necessary resources for scaling their businesses. To further promote technopreneurship among rural women, the study suggested several strategies for cooperative societies. These strategies involve organizing training sessions and workshops tailored to empower rural women with technopreneurship skills. Providing financial support through microloans or credit facilities is also crucial to help rural women entrepreneurs. Advocating for policies that support and empower rural women in technopreneurship is essential to create a conducive environment for their success among others. Cooperative societies can play a critical role in empowering rural women and encouraging technopreneurship, resulting in socioeconomic growth and women's empowerment in Anambra State by following these strategies.

RECOMMENDATIONS

Based on the findings of the study, the researcher recommended that:

1. Cooperative societies should organise training sessions and workshops aimed primarily at equipping rural women with entrepreneurial skills. These programmes should concentrate on improving their knowledge and talents in using technology for entrepreneurial initiatives.
2. Cooperative societies can play an important role by providing financial assistance to rural women entrepreneurs. Providing microloans or credit facilities will help women to invest in their technological innovations and efficiently scale their businesses.
3. It is critical to encourage rural women to establish vital economic ties and collaborations. Cooperative societies can enhance networking opportunities, allowing women to collaborate and access new markets and opportunities.

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