

COMMERCIALISATION OF NIGERIA-CANADA INDIGENOUS VEGETABLES PROJECT AND ECONOMIC EMPOWERMENT OF WOMEN IN SOUTHWESTERN NIGERIA

Dr. (Mrs.) A. B. Adeniyi *

Department of Management and Social Science, Kings University, Odeomu, Osun State, Nigeria

Dr. T. O. Siyanbola

Department of Management and Accounting, Obafemi Awolowo University, Ile-Ife, Nigeria

ABSTRACT: *The study investigated the extent of commercialisation of the grown Nigeria-Canada indigenous vegetables among participating women in the study area as well as its impact on women's economic empowerment. These were with a view to providing information on the extent to which commercialisation of the Nigeria-Canada indigenous vegetables could improve women's economic empowerment. The study used primary data. Multistage sampling technique was used to select 300 project women for the study from three out of the four states where the project took place between 2011 and 2014 using a simple random technique. This implied that the participants were selected from 15 Local Government Areas and 30 communities were selected using a simple random sampling technique. Ten participants were selected from each community using a convenience sampling technique. An adapted instrument titled "Questionnaire on NICANVEG Project and Economic Empowerment of Women (QNEEW)" was used to collect data from the participants. Data collected were analysed using percentages, relative significant index, Pearson Product Moment correlation formula and multiple regressions. The results showed that 89.7% of the women highly participated in the NICANVEG project. The result further showed that the extent of commercialisation of the vegetables among women were 78.0%, 13.7% and 8.3% for full, semi and subsistence commercialisation respectively. Moreover, the result showed that the prominent challenges being faced by the women vegetables farmers were expensive farm equipment (\bar{X} 3.57, RSI = 0.719), the untimely fund (\bar{X} = 3.53 RSI = 0.711) and poor market prices of vegetables (\bar{X} = 3.32, RSI = 0.666). Furthermore, the result revealed a significant positive correlation between NICANVEG project and the economic empowerment of women ($r = .490$, $p < .05$). Finally, it showed that there was a significant relationship between the extent of commercialisation and women economic empowerment in the study areas ($R^2 = .48.3$, $Adj R^2 = .478$, $f = 94.666$, $p < .05$). It was concluded that commercialisation of under-utilised indigenous vegetables greatly impacted the economic empowerment of the participating women in Southwestern Nigeria.*

KEY WORDS: Commercialisation, NICANVEG, economic, empowerment and women

INTRODUCTION

Women occupy a strategic position in the family and nation building. The contributions of women to a family and nation's sustenance are well recognised all over the world. The enormous tasks,

roles and responsibilities being undertaken by women in contemporary families, societies and national affairs cannot be undermined. Traditionally, women remain mothers, sisters, daughters and wives, and thus women generally are playing a significant role in both societal phase and home affairs. In Nigeria, women contribute to the household incomes through the money they generate from petty work such as small business crafts, hawking and retail trade. As a result, women have been known to sacrifice a lot for the survival of their families, amidst their reproductive function (Garba, 2011). This means that the neglect of women in any development process constitutes a human waste.

Despite the economic role of women in the families, they still remain disproportionately affected by poverty, discrimination and exploitation. They continue to be overrepresented among the world's most vulnerable groups, as access to resources and power remains highly skewed towards men (Warth & Koparanova, 2012). While buttressing the above, World Development Report 2012 on Gender Equality report stated that discriminatory social norms limit women's access to economic opportunities, productive assets and knowledge. This is because women perform the bulk of household work, which leave them with little time to pursue economic opportunities which ultimately affect their economic growth.

The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) adopted by world leaders in 2015 embodied a roadmap for progress which is inclusive of women. Achieving gender equality and women empowerment is integral to each of the 17 goals. As a result of this, the goal five of the agenda stated that by 2030, there should be full and productive employment and decent work for all women and men, including young people and persons with disabilities, and equal pay for work of equal value. The goal is crucial in fostering economic independence among women who depend on their husbands for their daily bread, subjecting themselves to the possibility of maltreatment.

To this end, women's economic empowerment may be seen as a prerequisite for enhancing gender equality, and through that, sustainable development and growth. It is regarded as the keystone of equality between female and their male counterparts. According to Akugbue (2002), empowerment is a process of strengthening an existing situation, meaning that such a situation already existed but needs additional strengthening. To Alsop, Bertelsen and Holland (2006), empowerment was seen as a group's or individual's capacity to make proper choices, and also being able to transform those choices into desired actions and outcomes. Also, the World Bank (2007) defined empowerment as the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. Malhotra, Schuler and Boender (2002) opined that the economic empowerment of women served as a means of reducing poverty, thereby promoting economic growth and development. Similarly, Acha (2009) opined women empowerment as a measure of sustainable good governance. In her submission, the World Bank's (2012) *World Development Report 2011: Gender Equality and Development* reinforced the word women empowerment in its message and identified the significant effects of women empowerment on the efficiency and welfare outcomes of project or policy interventions.

In the past, between 1986 and 2011, efforts to promote the economic empowerment of women have seen the introduction of a series of empowerment projects by the successive governments in Nigeria. Among the projects on the economic position of women were Better Life for Rural Women (BLRW) in 1987, Family Support Programme (FSP) in 1993, Family Economic Advancement Project (FEAP) in 1997 and Poverty Alleviation Project (PAP) in 2000. Also, in 2011, the National Economic Empowerment Development Strategy (NEEDS) was introduced to address the economic situation of the people. Some of the objectives of the projects were to provide income generating opportunities in agriculture and cottage industries, integrate rural women into national development plans and develop educational training for women, improve food security and reducing rural poverty of small-holder farmers through improving the quality of participation and production of agricultural products. Despite the fact that these empowerment projects were founded with the main aim of eradicating poverty and increase the economic fortune of the rural dwellers (Nwachukwu & Ezech 2007; Umukoro, 2013), it is quite disappointing that most of these projects were executed haphazardly. Hence, they could not achieve their target of eradicating poverty among women (Awojobi, 2013).

Another attempt to eradicate poverty among women saw the introduction of an empowerment programme called Nigeria-Canada Vegetables Project (NICANVEG) between 2011 and 2014. One of the major aims of the project was to promote the economic empowerment of women, especially the rural farmers through their participation in the production and sale of some special species of vegetables known as Under-utilised Indigenous Vegetables (UIVs). The project (NICANVEG) was co-funded by the International Development Research Centre (IDRC) and Canadian International Development Agency (CIDA) under the Canadian International Food Security Research Fund (CIFSRF) and involved researchers from the Osun State University and Obafemi Awolowo University in Nigeria as well as University of Manitoba and Cape Breton University from Canada (Ayanwale, 2018). The project primarily took place in four states (Oyo, Osun, Ondo and Ekiti) in Southwestern Nigeria.

Before the introduction of NICANVEG project, rural women were paying less attention to the production of some indigenous vegetables. This made the vegetables to be under-utilised simply because of those farmers were not aware of the potential in those special species of vegetables. The women were interested in the production of indigenous vegetables basically for household consumption and less for market purposes. However, this practice ensured that just a meager income was generated for the women thereby making the women continue to be at the mercy of their husbands for their sustenance. With the introduction of NICANVEG project, it was believed that it would serve as a vehicle towards women economic empowerment through the reawakening of the rural women to participation in the large-scale cultivation, production and marketing of under-utilised indigenous vegetables which have hitherto been neglected. The assumption was that if the rural women were able to participate in the commercialisation of the under-utilised indigenous vegetables, it would have served as a means of poverty eradication among the women and means of empowering them economically.

Accordingly, under-utilised indigenous vegetables are regarded as local vegetables which may either be found in some geographical areas but scarce in other areas. They are highly nutritious vegetables that have been abandoned either by the local farmers or the consumers. They are the species of vegetables which may be under-utilised in some areas but not so in some areas. Guarino (1997) regarded these species as vegetables of the locality that originated from an area and may not be confined to that particular area. In most cases, the production and marketing of these vegetables are carried out by women (Ayanwale, Oyedele, Adebooye & Adeyemo, 2011). The essence was to encourage women to adopt the practice of cultivating underutilized indigenous vegetables because it has been noticed that the interest of the most farmers to participate in the cultivation, production and sale of UIVs is fast dwindling and this erodes the genetic base and destroys some valuable traits associated with the species (Williams & Haq, 2002, Edeogbon (2016)). This is due to the fact that most farmers did not have adequate knowledge about the nutritional, economical and adaptation values in the indigenous vegetables (Adebooye & Ajayi, 2008; Oladele, 2011). Contrarily, Ele, Omini and Adinya (2013) believed that the extent of commercialisation of vegetables in Southern part of Nigeria was moderately high. This effort has significantly improved the financial power of the women in the region (Ebert, 2014).

In the past, studies have been carried out on the NICANVEG project. For instance, Aju, Labode, Uwalaka and Iwuanyanwa's (2013) study centred on the marketing potential of indigenous vegetables. Adebooye, *et al.* (2014) worked on the benefits of indigenous vegetables to women. Also, Adeyemo (2016) carried out her study on value chain efficiency analysis of selected under-utilised indigenous vegetables. None of these studies so far has been able to investigate the extent of the commercialisation of the under-utilised indigenous vegetables among the women in Southwestern Nigeria. Besides, there is paucity of empirical research on the effect of commercialisation of the indigenous vegetables on women's economic empowerment. To this end, the present study was designed to provide empirical evidence on the extent of commercialisation of the under-utilised indigenous vegetables and the economic empowerment of women in Southwestern Nigeria.

Series of studies that have been carried out on the importance of commercialisation of the indigenous vegetables have revealed several results. For instance, Adebooye and Opabode (2004) conducted a study on indigenous leafy vegetables and income generation and subsistence. The result showed that indigenous leaf vegetables fetched higher prices as compared to exotic crops, especially during dry seasons. Also, Leavy and Poulton (2007) and Mitku (2014) in their studies conducted indicated that commercial transformation of subsistence agriculture was an indispensable pathway towards economic growth and development for many agriculture-dependent farmers in developing countries. Besides, it has also been established that commercialisation of the agricultural products has tendency of reduction of poverty level of the farmers (, Olwande, Smale, Mathenge & Mithöfer, 2015). Moreover, Lerman (2004) provided empirical evidence to show that commercialisation of smallholder farmers had the potential to enhance incomes and welfare outcomes and take them out of poverty if constraining factors such as lack of capital, farming and commercialisation skills, high transaction costs, lack of infrastructure, lack of information and lack of education could be eliminated. While corroborating the above, Vorster (2007) studied the role

and the production of indigenous leafy vegetables in three South African rural communities. The results indicated that the indigenous leafy vegetables production was female-oriented, and these vegetables were mostly produced for home consumption. Marketing of these products was very limited and the income generated supplemented household income.

Likewise, Oladele (2011) carried a study on the contribution of indigenous vegetables and fruits to income and poverty alleviation. The results indicated that the proportion of indigenous vegetables and fruits farmers' income was significant. This was an indication that commercialisation could help to alleviate poverty. It was also established from the study that commercialisation of agriculture products would result in raising the standard of living of those involved in its trading activities, in both the rural and urban centers. It was clear that through the volume of production each season contributed to income through trade and thus helped alleviate poverty by increasing the disposable income available to farmers.

Finally, another study was that of Mwaura, Muluvi and Mathenge (2011). The study was to analyse the contribution of African Leafy Vegetables (ALVs) to household wellbeing by gender. This study was conducted in Kiambu District and multistage sampling technique was employed to select a sample of 166 small-scale farmers using a structured questionnaire. The findings of the study showed that ALVs was an important contributor to household income. Income, primary occupation of the farmer, distance to market, access to extension services, access to technical support and distance to piped water source, were found to be important factors influencing production of ALVs by smallholder farmers. The above results notwithstanding, the present study was designed to investigate the extent to which the commercialisation of the NICANVEG indigenous vegetables project has impacted on the economic empowerment of women in Southwestern Nigeria, hence, this study.

Objectives of the Study

- a. investigate the levels of participation in Nigeria-Canada indigenous vegetables project among women in Southwestern Nigeria;
- b. establish the extent of commercialisation of NICANVEG indigenous vegetables project among the women;
- c. assess the perception of women toward the funding of NICANVEG indigenous vegetables project in the study area; and
- d. examine the influence of the NICANVEG indigenous vegetables project on the economic empowerment of the women.
- e. determine the relationship between extent of commercialisation of NICANVEG indigenous vegetables project and the economic empowerment of the women in the study area.

Research Questions

1. What are the levels of participation in Nigeria-Canada indigenous vegetables project among women in Southwestern Nigeria?
2. What is the extent of commercialisation of NICANVEG indigenous vegetables among the women?

3. What is the perception of women toward the funding of NICANVEG indigenous vegetables project in the study area?

Hypotheses

1. There is no significant influence of the NICANVEG indigenous vegetables project on the economic empowerment of the women.
2. There is no significant relationship between extent of commercialisation of NICANVEG indigenous vegetables project and the economic empowerment of the women in the study area.

METHODOLOGY

The study used primary data. The population for the study consisted of all the 1,200 women in 22 vegetables cooperative groups in the four Southwestern Nigeria states who participated in the project (Osun, Oyo, Ondo and Ekiti). Multistage sampling technique was used to select 300 project women for the study. Three, out of the four states were selected using a simple random technique. From each state, five Local Government Areas (LGAs) were selected using a simple random sampling technique. From each Local Government Area (LGA), two communities were selected using simple random sampling technique. Ten participants were selected from each community using a convenience sampling technique. An adapted instrument titled “Questionnaire on NICANVEG Project and Economic Empowerment of Women (QNEEW)” was used to collect data from the participants. The validation of QNEEW was properly carried out. The review of the instrument showed that the instrument possessed a good content and construct validity. The internal consistency was used to obtain reliability of the instrument. Cronbach’s Alpha and Spearman-Brown Split-half Coefficient were used. The results showed that QNEEW yielded Cronbach’s Alpha and Spearman-Brown Split-half Coefficient values of 0.78 and 0.83 respectively. Also, data collected were analysed using frequency count, percentages, relative significant index, Pearson product moment correlation formular and multiple regressions.

RESULTS

Research Question One: What are the levels of participation in Nigeria-Canada indigenous vegetables project among women in Southwestern Nigeria?

Table 1: Levels of Participation in NICANVEG Indigenous Vegetables Project among Women in Southwestern Nigeria

Parameters	SA (N/%)	A (N/%)	D (N/%)	SD (N/%)	\bar{X}	RSI	RANK
1. I actively participated in NICANVEG project training	81(27.0%)	187(62.3%)	2(0.7%)	30(10.0%)	4.05	0.813	1 st
2. I attended most of the training activities on NICANVEG project	78(26.0%)	190(63.3%)	2(0.7%)	30(10.0%)	4.04	0.811	2 nd
3. I was able to ask series of questions during the training	69(23.0%)	204(68.0%)	2(0.77%)	25(8.3%)	4.03	0.811	3 rd
4. I attended the NICANVEG project training regularly	65(21.7%)	201(67.0%)	4(1.3%)	30(10.0%)	3.99	0.801	4 th
5. I attended the NICANVEG project training punctually	50(16.7%)	220(73.3%)	4(1.3%)	26(8.7%)	3.96	0.796	5 th
6. I enjoyed every aspect of the training	54(18.0)	214(71.3%)	2(0.7%)	30(10.0%)	3.95	0.795	6 th
7. The time spent during NICANVEG project training was not a waste of time	48(16.0%)	222(74.0%)	3(1.0%)	27(9.0%)	3.95	0.794	7 th
8. The training has increased my knowledge and awareness on better production of under-utilised indigenous vegetables	47(15.7%)	222(74.0%)	3(1.0%)	28(9.3%)	3.94	0.792	8 th
9. I think my level of participation in NICANVEG project training was encouraging	46(15.3%)	224(74.4%)	2(.7%)	28(9.3%)	3.94	0.792	9 th
10. Now I enjoying planting under-utilised indigenous vegetables	33(11.0%)	238(79.3%)	6(2.0%)	23(7.7%)	3.91	0.787	10 th
11. I now used to practice the new method of planting vegetables	40(13.3%)	228(76.0%)	3(1.0%)	29(9.7%)	3.91	0.786	11 th
12. I have increased my production of under-utilised indigenous vegetables	38(12.7%)	230(76.7%)	5(1.6%)	27(9.0%)	3.90	0.786	12 th
13. I have embarked on the aggressive sale of under-utilised indigenous vegetables	40(13.3%)	223(74.4%)	4(1.3%)	33(11.0%)	3.89	0.780	13 th

Source: field survey, 2019

The results showed that out of the 13 items in the questionnaires administered to ascertain the level of women participation in NICANVEG project, I actively participated in NICANVEG project ranked first with ($\bar{X} = 4.05$, RSI = 0.813). This was followed by I attended most of the training activities on the NICANVEG project ($\bar{X} = 4.04$, RSI = 0.811) and the third item was I was able to ask series of questions during the training ($\bar{X} = 4.03$, RSI = 0.811). The least three items are: now I am enjoying planting the under-utilised indigenous vegetables ($\bar{X} = 3.91$, RSI = 0.0786), I have increased my production of under-utilised indigenous vegetables ($\bar{X} = 3.90$, RSI = 0.786) and I

have embarked on the aggressive sale of under-utilised indigenous vegetables ($\bar{X} = 3.89$, RSI = 0.780). The implication of these results is that the women who participated in the study seemed to have gained a lot through their participation in the training and that has improved their participation in the production of under-utilised indigenous vegetables. Furthermore, data on the levels of women participation in the Nicanveg project was subjected to frequency count and percentage. The results are presented in Table 1.1. below:

Table 1.1: Levels of Women's Participation in the NICANVEG Project

	Frequency(F)	Percent (%)
Low Participation	20	6.6
Average Participation	11	3.7
High Participation	269	89.7
Total	300	100.0

Source: field survey, 2019

Table 1.1 provided more information on the levels of women participation in the NICANVEG project. The results showed that 269(89.7%) of the women indicated that they highly participated in the training and other capacity building programmes on the project. The results showed that 20(6.6%) of the women had low participation, while the remaining 11(3.7%) of the women indicated average participation. This implied that most of the women enthusiastically took part in the training and other capacity building programmes organised for them on the NICANVEG indigenous vegetables project.

Research Questions Two: What is the extent of commercialisation of NICANVEG indigenous vegetables among the women?

Table 2: Extent of Commercialisation of the Grown Nigeria-Canada Indigenous Vegetables among Participated Women in the Study Area

Parameters	SA (N/%)	A (N/%)	D (N/%)	SD (N/%)	\bar{X}	RSI	Rank
1. I planted more than two species of indigenous vegetables on my farm	70(23.3%)	218(72.7%)	2(0.7%)	10(3.3%)	4.14	0.832	1 st
2. I have more than two plots of land for indigenous vegetables planting	62(20.7%)	223(77.3%)	3(1.0%)	12(4.0%)	4.10	0.823	2 nd
3. I sell the surplus harvested vegetables in the market	50(16.7%)	232(77.3%)	1(0.3%)	17(3.7%)	4.05	0.810	3 rd
4. I sell my harvested vegetables to the retailers	50(16.7%)	235(78.3%)	2(0.7%)	13(4.3%)	4.04	0.815	4 th
5. I have some labourers working for me in my vegetables farm	45(15.0%)	237(79.0%)	4(1.3%)	14(4.7%)	4.04	0.809	5 th
6. I produce indigenous vegetables on a large scale	50(16.7%)	228(76.0%)	5(1.7%)	17(5.7%)	4.02	0.807	6 th
7. I sell my harvested vegetables once a week	14(4.7%)	214(71.3%)	7(2.3%)	65(21.7%)	3.57	0.716	7 th
8. I usually target wholesalers for sale of my harvested vegetables	42(14.0%)	169(56.3%)	4(1.3%)	85(28.4%)	3.55	0.711	8 th
9. I only make use of hoes and cutlasses in my vegetables farm	45(15.0%)	158(52.7%)	2(0.7%)	93(31.7%)	3.51	0.700	9 th
10. I mostly sell my harvested vegetables in bulk	18(6.0%)	210(70.0%)	2(0.7%)	70(23.3%)	3.47	0.713	10 th
11. I usually take my harvested vegetables to the market for sale	49(16.3%)	133(44.3%)	1(0.3%)	117(39.1%)	3.36	0.675	11 th
12. I have a lot of farm equipment that I can use to work in my vegetables farm	27(9.0%)	138(46.0%)	3(1.0%)	132(44.0%)	3.18	0.637	12 th
13. I only sell my harvested vegetables on the road side	30(10.0%)	105(35.0%)	2(0.7%)	164(54.4%)	3.00	0.600	13 th
14. I mostly sell my harvested vegetables in pieces	34(11.3%)	96(32.0%)	0(0.0%)	167(55.7%)	2.97	0.595	14 th
15. I mostly plant indigenous vegetables for family consumption	2(0.7%)	44(14.7%)	0(0.0%)	254(85.1%)	2.30	0.461	15 th
16. I sell my harvested vegetables fortnightly	4(1.3%)	15(5.0%)	6(2.0%)	275(91.6%)	2.13	0.429	16 th
17. I sell my harvested vegetables once a month	3(1.0%)	8(2.7%)	1(0.3%)	286(96.0%)	2.04	0.409	17 th

Source: field survey, 2019

Table 2 showed that the top-ranked parameters of commercialisation as identified by the respondents were: planting more than two species of indigenous vegetables on the farm ($\bar{X} = 4.14$, RSI = 0.832), second, I have more than two plots of land for indigenous vegetables planting ($\bar{X} = 4.10$, RSI = 0.823), third, selling the surplus harvested vegetables in the market ($\bar{X} = 4.05$, RSI = 0.810) while the last ranked was selling the harvested vegetables once in a month ($\bar{X} = 2.05$, RSI = 0.409). The implication of these results was that the women who participated in the study were equipped with all necessary knowledge to go into full commercialisation of their vegetables. A further attempt was made to categorise their responses on the extent of commercialisation of Nicanveg indigenous vegetables. The data were further analysed with frequency count and percentage as shown below:

Table 2.1: Extent of Commercialisation of The Grown Nigeria-Canada Indigenous Vegetables among Participated Women in the Study Area

Level	Frequency(F)	Percent (%)
Subsistence	25	8.3
Semi commercial	41	13.7
Full Commercialisation	234	78.0
Total	300	100.0

Source: field survey, 2019

From the Table 2.1, the extent of involvement of women in the commercialisation of the grown Nigeria-Canada indigenous vegetables showed that 234(78.0%) of the participating women indicated that they have gone into full commercialisation of the under-utilised indigenous vegetables; 41(13.7%) mentioned that they were practicing semi-commercialisation, and 25(8.3%) indicated low level (subsistence) production. Arising from above, the results implied that majority of the women who participated in the NICANVEG project training embraced full commercialisation of the indigenous vegetables.

Research Question Three: What is the perception of women toward the funding of NICANVEG indigenous vegetables project in the study area?

Table 3: Perception of women towards the funding of Nigeria-Canada Vegetables (NICANVEG) project in Southwestern Nigeria

Survey Items	SA (N%)	A (N%)	D (N%)	SD (N%)	\bar{X}	RSI	Rank
1. Made procedures of obtaining loan/credit facility easy	37(12.3%)	168(56.0%)	3(1.0%)	92(30.7%)	3.50	0.700	1 st
2. Provided financial advice to the participant women	26(8.7%)	177(59.0%)	3(1.0%)	94(31.3%)	3.45	0.690	2 nd
3. Helped me with free seedlings to plant	31(10.3%)	110(36.7%)	0(0.0%)	159(53.0%)	3.01	0.604	3 rd
4. Offered special grants to the participant women	22(7.3%)	98(32.7%)	3(1.0%)	177(59.%)	2.88	0.571	4 th
5. Enabled women to obtain low interest credit facilities	14(4.7%)	104(34.7%)	5(1.7%)	181(59.0%)	2.84	0.567	5 th
6. Provided seedlings to the participant women at the subsidized prices	18(6.0%)	96(32.0%)	5(1.7%)	181(60.3%)	2.84	0.565	6 th
7. Provided agricultural equipment and tools to the participant women at the subsidized prices	20(6.7%)	73(24.3%)	3(1.0%)	204(68.0%)	2.71	0.539	7 th
8. Assisted to obtain soft loan through cooperative societies	10(10.0%)	55(18.3%)	7(2.3%)	228(76.0%)	2.48	0.495	8 th
9. Assisted with the needed financial support to embark on vegetables farming	22(7.3%)	43(14.3%)	5(1.7%)	230(76.7%)	2.47	0.495	9 th
10. Assisted with lower interest loans	12(4.0%)	50(16.7%)	5(1.7%)	233(77.7%)	2.44	0.488	10 th
11. Supported with collateral security free loans	18(6.0%)	22(7.3%)	7(2.3%)	253(86.5%)	2.35	0.468	11 th
12. Assisted to get interest free loans	14(4.7%)	26(8.7%)	1(0.3%)	259(86.4%)	2.30	0.458	12 th

Source: field survey, 2019

Table 3 showed mixed perceptions of the women toward the funding of Nigeria-Canada Vegetables project in Southwest, Nigeria. Twelve items were used to answer the research questions. The results showed that the five items that the participants responded to mostly were funding the project made procedures to obtain loan/credit facility ($\bar{X} = 3.50$, RSI = 0.700), provision of financial advice to the participants ($\bar{X} = 3.45$, RSI = 0.690), assistance on free seedlings to plant ($\bar{X} = 3.01$, RSI = 0.604), special grants to the participants ($\bar{X} = 2.88$, RSI = 0.571), and access to low interest credit while the tenth on the rank was assisting women to get interest free loan ($\bar{X} = 2.84$, RSI = 0.567). The items on the questionnaires that attracted negative

perceptions of the respondents were lower interest rate to loans ($\bar{X} = 2.44$, RSI = 0.488), support on collateral security to obtain loans ($\bar{X} = 2.35$, RSI = 0.468), and assistance to get interest free loan ($\bar{X} = 2.30$, RSI = 0.458). The overall mean of 2.8 on the scale of four-point implies a moderate level of funding of the project. The result from the above indicated that even though some participants agreed and some strongly agreed that funding of Nigeria-Canada Vegetables project in Southwestern, Nigeria was encouraging, more still needed to be done by the organisers of the project in the area of funding. Also, Table 3.1 showed the perception of the participants toward the funding of the programme:

Table 3.1: Perception of Women towards the Funding of Nigeria-Canada Vegetables (NICANVEG) Project in Southwestern Nigeria

	Frequency(F)	Percent (%)
Negative	54	18.0
Moderate	133	44.3
Positive	113	37.7
Total	300	100.0

Source: field survey, 2019

From above, the results indicated that 133(44.3%) of the participants had a moderate perception towards the funding of the project, 113(37.7%) had a positive perception while the remaining 54(18.0%) had a negative attitude towards the funding of the NICANVEG project. From the above, it can be concluded that most women who participated in the project believed that the project was not well funded.

Hypothesis One: There is no significant relationship between NICANVEG indigenous vegetables project and the economic empowerment of the women.

Table 4: Correlation between NICANVEG Project and Economic Empowerment of women

	\bar{X}	S.D	N	r	p
NICANVEG Project	51.6169	8.86651	300		
Economic empowerment of women	80.6136	8.35940	300	.490*	.000

Source: field survey, 2019

Table 4 revealed a significant positive correlation between NICANVEG project and economic empowerment of women ($r = .490$, $p < .05$). This implies that there is a strong relationship between NICANVEG project and economic empowerment of the participatory women on the project.

Hypothesis Two: There is no significant relationship between extent of commercialisation of NICANVEG indigenous vegetables project and the economic empowerment of the women in the study area.

Table 5: Regression Analysis of Extent of Commercialisation of the Grown NICANVEG Vegetables and Women Economic Empowerment

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10361.599	3	3453.866	94.666	.000 ^b
	Residual	11091.424	297	36.485		
	Total	21453.023	300			

Source: field survey, 2019

a. Dependent Variable: women economic empowerment

b. Predictors: (Constant), both subsistence and commercialisation, subsistence, full commercialisation

Table 5.1: Model Summary of Extent of Commercialisation of the Grown NICANVEG Vegetables and Women Economic Empowerment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.695 ^a	.483	.478	6.04028

*Source: field survey, 2019***Table 5.2: Multiple Regression Analysis of Extent of Commercialisation of the Grown NICANVEG Vegetables and Women Economic Empowerment**

Model	Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	26.274	3.351		7.840	.000
	Subsistence	.832	.171	.205	4.858	.000
	Full commercialisation	.719	.158	.254	4.551	.000
	Both	1.163	.154	.429	7.553	.000

Source: field survey, 2019

a. Predictors: (Constant), Both subsistence and commercialisation, subsistence, Full commercialisation

b. Dependent Variable: Influence on economic empowerment

The model in Table 5, 5.1 and 5.2 revealed the extent of commercialisation. It explained 48.3% of the variance in the women economic empowerment in the study areas ($R^2 = .48.3$, $\text{Adj } R^2 = .478$, $f = 94.666$, $p < .05$). The result shows that extent of commercialisation had a significant influence on women economic empowerment: subsistence ($t = 4.858$; $\beta = 0.205$, $p < .05$), full commercialisation ($t = 4.551$; $\beta = 0.254$, $p < .05$) and both ($t = 7.553$; $\beta = 0.429$, $p < .05$); ($R^2 = .48.3$, $\text{Adj } R^2 = .478$, $F = 94.666$, $p < .05$). This implied that women extent of commercialisation was a good predictor of women empowerment. Moreover, the result showed that an increase in the extent of commercialisation would lead to an increase in the level of women economic empowerment in the study areas.

DISCUSSION OF FINDINGS

One of the findings of this study was that there was a high level of participation of women in the NICANVEG project. Both the quantitative and qualitative results clearly revealed that more women actively participated in the capacity building programmes of the NICANVEG project. This, therefore, indicated an improvement in the level of production of under-utilised indigenous vegetables. For instance, a study conducted by Chi and Yamada (2002) revealed that new trends in technology could enhance production. While corroborating the above, Uche and Nwanenekezi, (2007) study revealed that the skills gained by the Nigerian women greatly assisted them in participating actively in food production, animal husbandry, food processing and distribution, in addition to childbearing and home management roles. It can, therefore, be inferred that agricultural extension services had an important degree of influence on the level of production of under-utilised indigenous vegetables in Southwestern Nigeria.

Also, it was revealed that the extent to which women participated in the NICANVEG project was at full commercialisation. It was revealed that in spite of the constraints that the participating women were facing, they were still operating at the level of full commercialisation. For instance, findings showed that commercialisation of indigenous vegetables were given full attention among the women in southwestern Nigeria. The finding was supported by Ele, Omini and Adinya (2013) that the extent of commercialisation of vegetables in Southern part of Nigeria was moderately high. However, the finding was at variance with that of Edeoghon (2016) study that commercialisation of indigenous vegetables was given less attention in Nigeria. By and large, the enthusiastic attitude of women involved in the NICANVEG project was as a result of the acquired skills from the NICANVEG project which has compensated for their educational deprivation and equipped them to successfully embark on full-scale production.

Again, the findings on the perception of participant's women revealed that the level of funding of the NICANVEG project was moderate. This finding was supported by Adebooye, *et.al.* (2013) that the project provided credit facilities to the women who participated in the project. Contrarily, Adebisi *et al.* (2011) in their study expressed that inability of the farmers to get financial aids constituted a major problem to vegetable farmers in Oyo State, Nigeria. Even though the findings from both the quantitative and qualitative results showed that the women indicated that the project was funded, some of the participants were of the opinion that NICANVEG project did not do well in providing credit facilities, but provided other materials and equipment for their farming activities.

The finding revealed a strong influence of NICANVEG project on women economic empowerment. In his own view, Oladele (2011) opined that NICANVEG was a women empowerment project. In his support, Mwaura *et al.* (2011) expressed that the project has enable the poorest people (women) to earn a living, as producers and traders without requiring large capital investments. Also, Adebooye, *et. al.* (2013) supported the findings that the project had generated income for the women farmers and this had made it easy for them to meet most of their

household financial needs. From the above, it is pertinent to state that women who actively participated in the project were encouraged to embark on the full production and marketing of the indigenous vegetables. This in turn greatly impacted on the economic fortune of the participants.

Finally, the study revealed a significant influence of the extent of commercialisation on the economic empowerment of women who participated in the project. One of the studies that supported the above finding was that of Adebooye and Opabode (2004) that indicated that commercialisation of the agricultural products including indigenous vegetables greatly impacted on the economic empowerment of the participants. In his own submission, Lerman (2004) established that moving away from subsistence farming to commercialisation had potential of improving economic status and welfare of the rural farmers. While supporting the above findings, Fafchamps (2005) affirmed that when production was increased, there would be improvement in the economic power of the farmers. Also, affirming the findings were Bernard and Spielman (2008) and Jaleta, Berhanu, and Hoekstra (2009) who maintained that the essence of embarking on agricultural commercialisation was that it increased income ability of the farmers. Again, Mwaura, Muluvi and Mathenge (2011) and Oladele (2011) confirmed in their studies, the importance of commercialisation to economic empowerment of women by revealing that commercialisation of the vegetable products could improve household welfare and promote the people standard of living. Also supporting the above was Mitku (2014) who opined that commercial transformation of subsistence vegetable farming was an essential pathway towards economic growth and development of many farmers in developing nations. From the above, it is, therefore, important to note that NICANVEG project had played a key role in income generation for most rural farmers who participated in the commercialisation of under-utilised indigenous vegetables.

CONCLUSION/RECOMMENDATIONS

The study concluded that there was a high level of participation of women in the NICANVEG project and that the level of participation of women had assisted most of the women to adopt full commercialisation of production of NICANVEG vegetables. Despite the above, Also, the study concluded that funding of the project was fair. Nonetheless, the study had also provided information by revealing that the extent to commercialisation of NICANVEG vegetables had positively impacted the economic status of the participant women. As a result of the above, it was concluded that government and other agencies in agricultural sector should endeavour to assist the vegetable farmers with more credit facilities so that women farmers can embark on the full-scale production of indigenous vegetables as well as making their policies on agricultural matters to favour women farmers.

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- supported by the Canadian International Food Security Research Fund (CIFSRF), a program of Canada's International Development Research Centre (IDRC).*
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