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Livelihood Information Endowment as a Correlate of Material Quality of Life among Rural Women in Southwest, Nigeria

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Abstract

This study examined the livelihood information endowment as a correlate of material quality of life among rural women in Southwest Nigeria. A multistage sampling procedure was used to select 384 respondents using an interview schedule. Data collected on socioeconomic characteristics, livelihood information endowment (livelihood information sought and sources of information); constraints to livelihood information endowment and material quality of life were analysed with percentages, mean, standard deviation, the Pearson Product Moment Correlation and Chi-square at α0.05. The results showed that most of the respondents were cooperative society members (51.6%) with a mean year of former education being 8.0±4.62 years. The most accessible information sources were mobile phones (3.73±0.90) and husband (3.72±0.82) with livelihood information endowment being high at 55.7%. However, respondents' prominent constraints to livelihood information endowment were network problem (0.40) and poor rural infrastructure (0.39). The respondents' material quality of life status was low 52.1%, as most did not possess landed properties (58.1%). A significant relationship existed between respondents' material quality of life and livelihood information endowment (r=0.134), social group belonged (r=0.153) and constraint to livelihood information endowment (r=-0.017). Constraints to livelihood information endowment inform the respondents' Material Quality of Life status. Network providers should offer efficient services.

Introduction

Information, according to scholars is regarded as an asset, raw material and resource that can enrich an individual or organisation to achieve a desired goal and purpose (Ogar, et al, 2018 Eroglu and Cakmak,2018). This assertion could be attributed to the power of liberation that comes from information, especially to the vulnerable sect like women in the society of developing countries. Timely access to needed information has transformed ways in which different activities including farming operations (sourcing for the farm input, farming skills, greater agricultural knowledge, transportation and marketing of agricultural produce) are being carried out (UN WOMEN, UNFPA and UNDRR, 2021a FAO, 2022). Access to the right information as resources is presently being engineered by information and communication technologies (ICTs) as fundamental instruments of economic and human growth (Isaya et al, 2018). Currently, ICTs have become catalysts for the global sustainable development of nations: Most importantly the dissemination of reliable, fast, accurate, clear, timely and concise information that is directed to the right audience, such as rural women at a given period.

Rural women possess one percent of the world's property, even though they mostly work round the clock (Afrobarometer, 2022). This could be attributed to the level at which rural women have access to the right resources like land, labour, and capital, including the right information for immediate use in their surrounding environment. However, rural women need ample information on their livelihood (agricultural), household health and security among others. Adequate accessibility to information resources in those areas makes them to be fulfilled, and in return will enhance their livelihood productivity and the status of their material well-being and vice versa. Information as a key factor among the productive resources is needed for the proper functioning of all other production factors at the rural women's disposal. Hence information could be regarded as power through its ability to create wealth, including material resources when it has in its totality.

However, efficient information and communication procedures are preconditions for achieving economic growth by rural women, especially via the use of ICTs like Mobile phone, Radio and Television, that has been affirmed to be the most available, accessible and used ICTs by rural women (Adeniyi, 2020 and Isaya et al, (2018). However, other interpersonal sources through which rural women seek information aside from using ICTs include husbands, children, friends, neighbours, cooperative society, health workers, associations, community leaders, religious leaders and extension agents. Hence, sourcing for the right information in a given period of rural women might be a function of their scope of production, years of farming experience, social group belonging and their cosmopolites, among others. Information sourcing by rural women is a worthwhile exercise if such information at a given period will be the one that will enhance the material well-being and the sustainable development of rural women in its entirety (Isaya et al, 2018).

In the rural communities of developing nations, women have a need of developmental-oriented information in religion, health, agriculture, education, environment, economic, social, safety and sport (Namara, 2018). These women diversify their livelihoods with the motive of fulfilling the need of their households. However, their agricultural involvement has been across the value chain and hence might need information resources based on the activities involved in their agricultural

endeavours, especially on maize and cassava production which has been the crop that is mostly grown by this group of women (Adeniyi, 2020). The crops (Cassava and Maize) are commonly grown intercropped (mixed cropping) with each other by women to give a better return on the fixed resources accessed for the subsistence agriculture they often practised. However, rural women have not fared well in their agricultural engagements due to limited access to relevant assets like education, capital, land and importantly information resource which has become one of the essential basic needs of human (Ogar et al, 2018) Also, they encountered some constraints in accessing the information, especially the ICTs sources; these include household commitment, inadequate technical knowledge, network problem, inadequate finance, inadequate incentives, inadequate exposure, language problem, poor rural infrastructure, lack of technical know-how, low literacy level among others (Awhareno and Nndail, 2017; Akintunde, 2019; Ogar et al, 2018). Studies have shown that rural woman's legal rights were being denied because of the rate at which they have access to information resources that affect their livelihood (Namara, 2018); and this has been a factor in the current status of the rural women's material quality of life (MQoL) in Southwest Nigeria. Hence, the need to probe into the livelihood information resources as a correlate of material quality of life among women farmers in Southwest Nigeria.

Furthermore, the study examined the livelihood information endowment profile, identify the constraints to livelihood information resources and assess the material quality of life status of the respondents. It was hypothesized that there is no significant influence of the selected independent variables on the material quality of life of rural women's status in the study area.

Methodology

Southwest Nigeria (latitude of 6^0 30'N to 9^0N degrees and longitude of 3^0 0'E to 5^0 30E degrees) was the study area, where 384 respondents were selected with a multistage sampling procedure. In the first stage, half (50%) of the six states in the region (Lagos, Ekiti and Oyo states) were selected. The second stage involved the stratification of the local government areas (LGAs) in the selected states into rural and urban giving four, 28 and 12 rural LGAs in Lagos, Oyo and Ekiti States respectively (Oyo State Agricultural Development Programme (OYSADEP), 2017). Thereafter, a simple random selection of 20% of the rural LGAs in the selected States was made at the third stage to have one, six and two LGAs in Lagos (Badagry), Oyo (Ibarapa east, Atiba, Ido, Saki-west, Iwajowa and Surulere local government areas) and Ekiti (Irepo/Ifelodun and Moba) States respectively with 1,206,374 women (Nigeria Population Commission (NPC), 2016). In the fourth stage, proportionate random sampling of 0.0318% households of the estimated rural women population (1,206,374) was done using krjecie and Morgan sample size approach; giving 384 functional available women as the unit of analysis.

The livelihood information endowment of the respondents was measured using the livelihood information sought and the livelihood information sources used as follows; livelihood information sought was captured with 12 information items, with response options of always (about 25 days in a month) (3), occasionally (about 10 days in a month) (2), to the least extent (one or two days in four weeks) (1) or never (0); with a maximum score of 36 and minimum score of zero while the livelihood information sources was captured with 14 information sources with the response options of; daily

(4), weekly (3), monthly (2), yearly (1) or never (0). The highest score drivable was 44 and the least was zero. Thereafter, an index of livelihood information endowment was calculated and was used to categorise the respondents into high and low categories using the 'greater than and lower than with the mean' (7.09±2.10) criterion. Twenty (20) constraints faced in pursuit of livelihood information endowment were captured with the response options of serious constraint (2), slight constraint (1) and not a constraint (0) with the minimum and maximum scores obtained being zero and 40. The weighted mean score was calculated and was employed to assign positions to the limitations in order of severity. The material QoL domain of the respondents was measured with material well-being (quantitative) and ranking of material possessed in comparison with contemporaries and mates (qualitative). Material well-being (quantitative) was captured with a set of nine questions which include the type of house lived (captured at ordinal level); while ownership of the apartment lived, the type of material used to build the house lived, the type of roofing used for the house they lived, the sources of safe water for drinking, source of household energy, type of toilet facilities in the house lived were captured nominally. The presence of a fence in the house lived and personal land ownership was measured with yes or no response options.

Material wealth possession compared with age mates and contemporaries was captured with eight possible material wealth items possessed compared with their age mates using the response options; more than almost anyone (5), more than most people (4), about average (3), less than most people (2) and less than almost anyone (1) with maximum and minimum scores obtained being 40.00 and 8.00 respectively. The weighted mean score was used to rank the material possessed in order of acquisition. Thereafter, an index of material QoL domain was generated and was used to categorise the respondents into high and low categories using the 'greater than and lower than the mean' (5.00±1.99) criterion. The minimum and maximum material domain index score obtained were 0.18 and 16.67 respectively. Socioeconomic characteristics such as social group belonged, cosmopoliteness, years of formal education and years of experience in non-agricultural activities of the respondents were measured accordingly.

Result and Discussion.

Livelihood Information Endowment (Livelihood information sought and Sources of livelihood information)

Livelihood Information Sought

Table 1 shows that the most frequently sought information was religious information (2.38±0.98), health information (2.35±0.78), and agricultural (2.34±0.80) with the least being sports information (1.56±1.05). This shows that various kinds of livelihood information were available to the respondents. However, the study further implies that rural women cherished seeking religious information and health information above agricultural information while they do not frequently seek political, legal and sports information. The reasons for the above might be due to the fact that women are generally more devout to their religious beliefs and more spiritual than their male counterparts, in the same vein, rural women's second top choice of health information may be due to the women's reproductive roles as the first nurse and the

health personnel in their various home, while the less interest in sport issues was as a result of the economic and personal issues as asserted by (Somayeh et al, 2021). However, the result of Isaya et al*, (*2018) is not in tandem with the finding of this study as religious information was found to be the information sought by rural women. Nevertheless, rural women needed to be encouraged to seek sports information since this can enhance their health and well-being as well as enable them to be active in carrying out their livelihood activities (Somayeh et al, 2021).

Table 1: Livelihood information sought

Livelihood information variables	**Mean n=384**
Religious	2.38±0.98
Health	2.35±0.78
Agricultural	2.34±0.80
Education	2.28±0.83
Environmental	2.16±0.90
Economic	2.15±0.95
Entertainment	2.10±0.88
Safety	2.07±1.07
Social	2.04±0.90
Political	1.97±0.87
Legal rights	1.90±0.91
Sport	1.56±1.05

Source: Field data (2017)

Sources of Livelihood Information

Table 2 shows that ICT-based livelihood information was mostly sourced with the mobile phone (3.73±0.90), radio (3.65±0.87) and television (3.00±1.19) while the most prominent interpersonal linkages were husband (3.72±0.82), friends (3.52±0.92) and children (3.47±1.09). This implies that available livelihood information is accessible to the respondents via ICTs tools and interpersonal sources. The outcome of this study is in tandem with the study report of Isaya et al (2018) in which the most accessible source of ICTs was a mobile phone but at variance with the outcome of the National Population Commission (NPC) [Nigeria] and ICF, 2019 survey in which the most accessible ICTs source in Southwestern Nigeria is the radio. However, the information source (husbands) available to the respondents is in tune with the assertion of Isaya et al*.,* (2018) in which all the respondents chose their husbands as the most important information source. This implies that the respondents' spouses do not hoard information from them, suggesting that, women's developmental information could as well be channelled to them using the male group in the rural communities as conduits.

Table 2 shows the overall level of livelihood information endowment of the respondents with an overall mean of 7.09±2.10 which was high for 55.7% of the respondents. This implies that the respondents have ample access to information sufficient to enhance their livelihood for better material possession (FAO, 2022).

Table 2: Sources of livelihood information

Livelihood Information channels	Mean n=384
ICTs sources	
Mobile phone	3.73±0.90
Mobile phone Radio	3.65±0.87
Television	3.00±1.19
Interpersonal sources	
Husband	3.72±0.82
Friends	3.52±0.92
Children	3.47±1.09
Neighbours	3.41±0.97
Religious leader	3.01±0.89
Marketing association	2.46±1.48
Health workers	2.45±1.12
Community leader	2.11±1.18
Extension agents	1.79±1.28
Traditional leaders	1.78±1.20
Cooperative society	1.42±1.46
Level of Livelihood Information Endowment	%
Low	44.3
High	53.7

Source: Field data (2017)

Constraints to use of Livelihood Information Endowment

The result in Table 3 shows that the most prominent constraints to the use of livelihood information were network problems (0.40); poor rural infrastructure (0.39) and inadequate technical knowledge (0.37). The result implies that the limitations to the utilisation of livelihood information may reduce the technical capacity and could discourage rural women as well as create a nonchalant or unfavourable attitude to seeking livelihood information. Hence, digital literacy that will enhance the respondent's skills for better access to livelihood information is needed as suggested by FAO, (2022).

It is of great notice that rural women have the same disposition to inadequate finance (0.32) and inappropriate programme schedule/timing (0.32) which was ranked fifth meaning that both constraints constituted hindrances to rural women's livelihood information generation at the same rate. However, it is worth noting that neither culture (0.20) nor religion (0.17) has been a serious barrier to the livelihood information gathering being the least constraint identified by the respondents. This upholds the earlier finding of this study in which religious information ranked first (0.61) among the livelihood information gathered (Table 1). However, the constraints faced by rural women are issues that were brought about by insufficient, ineffective and inefficient services rendered by ICTs stakeholders coupled with insufficient digital literacy of the respondents. These findings are in line with that of Awhareno and Nndail (2017) and Akintunde (2019) that network problem hinders the optimum utilisation of livelihood information in rural communities.

Table 3: Ranking of Constraints to livelihood information endowment

Constraints	WMS n=384
Network problems	0.40
Poor infrastructure such as electricity	0.39
Inadequate technical knowledge	0.37
Insufficient ICTs technicians in rural communities	0.35
Inappropriate programme schedule/timing	0.35
Inadequate finance	0.35
Inadequate incentives	0.34
Remoteness of location	0.33
Non-existence of ICT policy to improve ICT development in rural areas	0.32
Household commitment and hindrances	0.32
Illiteracy	0.31
The dearth of local content	0.31
Ignorance of information sources	0.31
Lack of interest/unfavourable disposition to ICT tools	0.31
Problem of affordability	0.28
Language problem	0.28
Believe that ICT is not safe	0.24
ICT is not user friendly	0.23
Cultural barrier	0.20
Religious barrier	0.17

Source: Field data, 2017.

Material Quality of Life (Material well-being domain and Comparison of material possessions with mates and contemporary's domain)

Material Well-being domain

The result in Table 4 shows, that rural women live mostly in rooms and parlours (37.0%) and apartments mostly built and owned by their spouses (35.2%) as most of them did not possess landed properties (58.1%). The respondents mostly dwelt in a house built with cement bricks (80.2%), roofed with zinc sheets (75.5%), with cemented floors (84.6%) but without fence (84.4%). This suggests that many women have an appreciable comfortable habitat though with poor house ownership status due to a global disparity in accessibility and allocation of resources like land among women and men in rural communities. This is in tandem with the study outcome of Adeleke and Alani (2020) in which the least well-being of rural women was on housing facilities and in consonance with the finding or report of FAO (2022) that houses were not personally owned by most of the female-headed households in rural settlements. The result reflects the poor status of rural women in terms of house ownership.

Furthermore, the result shows that most of the respondents have a clean source of drinking water (91.9%), backyards refuse dump (62.5%), defecated openly (bush) (35.4%) and depended on forest products (firewood; 32.2% and charcoal; 29.9%) as a source of cooking energy. Rural women have access to a clean source of water and might not be likely affected by the water-borne disease. The clean water source was in tandem with the assertion of FAO (2022) and the National Population Commission (NPC) [Nigeria] and ICF, 2019 that there is good drinking water in a rural community unlike it was in the past centuries. The outcome of the study on environmental sanitation suggests that respondents were more compliant with

sanitation rules on defecation, considering the proportion that does not defecate openly (64.6%) which is in tandem with the assertions of Florin-Constantin and Mohammad, 2017 and FAO, 2022.

On the basis of the respondents' residential power source, Table 4 further shows that electricity (80.7%) was the main power source in the house they live while 0.5% depended on solar inverters. The finding of this study was in line with the research outcome of FAO, 2022 in which electricity was the most common power supply in the rural communities. This points towards the fact that the livelihood that is electricity-inclined (frozen food stores, grinding and hairdressers machines) could thrive well in the study area; also, the respondents would be able to use labour and time-saving appliances that could relieve women of domestic chores burden (National Population Commission (NPC) [Nigeria] and ICF, 2019 and FAO, 2022). Hence, this suggests that solar energy is not yet common in the non-urban area as it is being used by less than 1% of women. However, the most (74.0%) common source of illumination to the respondents in the house they dwell was an electric bulb (74.0%), 10.7% of them used local lamps with two or three small dry cells popularly called *ojuti Nepa* or *Buhari lamps* while 0.8% of them were still adherent to local lanterns with globe that uses kerosene. This implies that a greater percentage (90.6%) of the respondents used clean illumination sources, which was in tandem with the research report of the National Bureau of Statistics of Moldova, (2020) that rural dwellers no longer depend on unclean sources of illumination in their abode.

Table 4: Material well-being

Material well-being variables	Percentages
The type of house lives in	
A duplex	1.8
A flat	23.7
A wing/Self–contain	24.0
A room and parlour	37.0
A room	13.5
ownership of the apartment lived in	
Personally owned	11.4
Husband's own	35.2
Family house	19.0
Rented	34.1
Missionary	0.6
The type of material used to build the house live in	
Cement block	80.2
Mould brick	19.8
The type of roofing used for the house live in	
Long-span aluminium sheet	14.6
Asbestos sheet	8.9
Zinc sheet	75.5
Palm frond	1.0
Type of floor in the house live in	
Marble	0.5
Tiles	7.3
Cement	84.6
Mud	7.6
Source of water safe for drinking	
Borehole	30.2
Pure water	0.8
Tap	12.8
Well	41.2
Stored rain water	7.0
Stream	8.1
Method of refuse disposal	
Refuse vehicle	8.9
Public refuse dump	28.6
Back yard	62.5
Source of power in the house live in	
Electricity	80.7
Generator	16.9
Electricity inverter	0.3
solar source	2.1
Source of illumination in the house live in	
Electric Bulb	74.0
Chargeable lamp/searchlight	3.4
Local lamp with dry cell	10.7
Searchlight with dry cell	2.6
Kerosene lantern	8.6
Local lantern	0.8
Source of household cooking energy	
Gas	13.8
Charcoal	29.9
Kerosene	22.1
Firewood	32.2
Type of toilet in the house live in	
Water closet	25.8
Semi water closet	8.3
Residential pit toilet	24.2
Public pit toilet	6.3
In the bush (Backyard)	35.4
Fence in the house live in	
Yes	15.4
Personal land ownership	
Yes	41.9

Source: Field data (2017)

Comparison of material possessions with mates and contemporaries' domain

The result in Table 5 shows the qualitative aspect of the material domain in which the material appreciably possessed in comparison with their age mates and contemporaries in their community includes kitchen utensils (0.90), mobile phones (0.80), and radios (0.79) with the least being arable land (0.44). This means that the respondents count it dignified to possess kitchen utensils in abundance which might be due to the link of such artefacts to the cultural expression in Africa. This connotes that the number of kitchen utensils possessed by rural women may be seen as a measure of their social status. However, it is worth noting that the least material wealth (arable land), means that, fewer of the respondents have access to land ownership as found by Adeleke and Alani (2020); whereas, possession of productive resources like land is so significant for social status in rural communities.

However, the mean (5.00±1.99) material quality of life of the respondents revealed that more (52.1%) of the women surveyed had a low status of material possession which could be as a result of the limited access they have to critical resources that can boost their livelihood for enhanced material wellbeing. The outcome of this study is in line with the report of Adeleke and Alani (2020) who affirmed that the rural women's well-being is generally low in the developing nations.

Table 5: Ranking of material possessed in comparison with contemporaries and mate.

Material wealth	**WMS n=384**
Kitchen utensils	0.90
Mobile phone	0.80
Radio	0.79
Television	0.75
Fancy wears	0.72
Processing equipment	0.70
Farm tools/equipment	0.69
Livestock	0.63
Arable land	0.44
Level of material quality of life	%
Low	52.1
High	47.9

Source: Field data (2017)

Relationship between some socioeconomic variables and material quality of life

The result in Table 6 shows that a significant relationship existed between respondents' material QoL domain and years of experience in non-agricultural activities (r=0.137), livelihood information endowment (r=0.134), social group belonged (r=0.153), cosmopoliteness ($\chi 2$=2229.870) and constraint to ICTs use (r=-0.121). This implies that livelihood information endowment, constraints to livelihood information, belonging to a social group, cosmopoliteness and year of non-agricultural experience are the correlates of the material quality of life of rural women

as those factors are directly proportional to the material QoL of rural women. The result of this study is in tandem with the findings of Amoah (2018) that social group influences the well-being of rural women and contradicts the assertion of Adeleke and Alani (2020).

Table 6: Relationship between some socioeconomic variables and material quality of life

Variables	r-value	
Livelihood information endowment index	0.134	
Constraints to livelihood information index	-0.121	
Social group index	0.153	
Years of Non-agricultural experience	0.137	
Years of formal education	-0.038	
Years of husbands' formal education	0.053	
Variables	**χ2-value**	**Df**
Cosmopoliteness	2229.870	6

Source: Field data, 2017.

Conclusions and Recommendations.

The study concludes that there was a high endowment of livelihood information which was sought through ICTs and interpersonal sources among rural women in their community. However, the livelihood information endowment was constrained by poor networks and poor infrastructure. The study further found out that rural women dwell comfortably with access to clean water, clean energy and good environmental sanitation practices. The possession of productive resources among women's mates was significant for social status in their community. However, the material quality of life status of the respondents was low; while the years of experience in non-agricultural activities, livelihood information endowment, social group belonging and cosmopoliteness are the correlates of material quality of life.

The study recommends that internet service providers should endeavour to improve the network condition in rural communities so as to enhance the respondent's dividend of the livelihood information endeavours. Also, the social bond within the women's social groups should be strengthened by pulling their financial resources together for possession of productive resources like land for enhanced material Quality of life status and a better way of life. Hence, developmental information could be diffused to the rural women using the most prominent source of the ICTs and interpersonal channels of information (radio and men group respectively).

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