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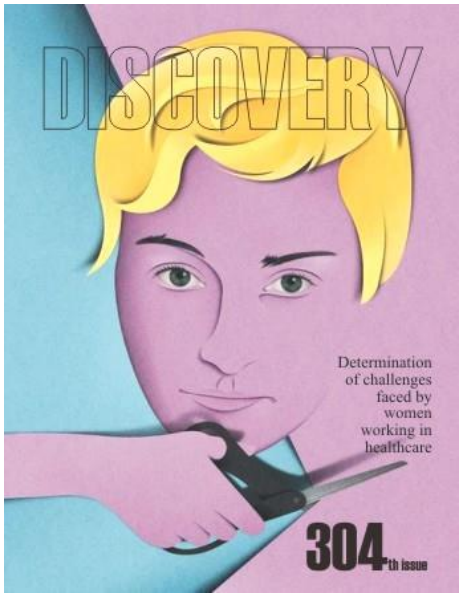
DISCOVERY

About the Cover



In the history of human development, women have been playing a pivotal role. In fact women works and breakthroughs are portends of development. Without the contribution of women in the social, economic, political and other activities, national development will be at standstill. But, ironically, women employees generally are been discriminated by their supervisors, colleagues, and even the society. This is the same similitude in healthcare. Thus, this paper intends to find out the challenges and problems faced by working women in the healthcare system of Sokoto state. A structured questionnaire was used in a survey fashion. The result obtained was analyzed to yield descriptive statistics. The most (83.3%) spotted challenges faced by women working in healthcare were: a. Lack of acceptance by the society b. Long working hours c. Lack of support systems at workplace d. Lack of promotion e. Lack of freedom of speech f. Lack of security during transport to workplace g.Lack of safety at workplace. These are the major challenges admitted by the respondents. 66.7% of the respondents said " lack of role model " is a challenge that women face while working in healthcare in Sokoto state. It is the third most agreed response. Whereas, the fourth set of challenges were : difficult work, lack of support from the family, and being married ". The fifth set of challenges were : "male dominant society, injustice from males, and conflicts with family responsibilities". The last set of stated challenges were : " conflicts with colleagues and night duties ". The sorts of violence faced by women working in healthcare were shown. The most (100%) admitted forms were : " verbal abuse by patient relatives, verbal abuse by patients ". The second (66.7%) agreed violence was sexual abuse. Then (50%), "blaming for anything that goes wrong, verbal abuse from male workers ".33.3% said" dealing with substance abusers " is also a violence. (16.7%) "giving them task not their own " was the least agreed violence they see. Devastali and Rege (n.d) reported these forms of violence in their study. The concerns of women workers were revealed. All the 60 respondents said, they are usually coopted in seminars, workshops and other programmes. Whereas, 83.39% opined that, their seniors support them. Only 4% of them admitted that night duties are "easy ".11.4% said they spent good time with family life. Whereas, 5.7% always face problem with male patients.48% admitted that workplace is safe. The government should rise up to the challenges to cancel the gender-based inequalities faced by women in the state. (Ref: Yusuf Sarkingobir, Safina Abdullahi Yarima, Mustapha Sahabi. Determination of challenges faced by women working in healthcare facilities in Sokoto state, Nigeria. *Discovery*, 2021, 57(304), 390-394).

Sustainable Empowerment Initiatives among Rural Women through Microfinance Activities in Rural District Achham in Nepal

Nischal Risal, Govind Bahadur Shahi

The aim of the research paper is to analyze the sustainable empowerment initiatives taken by microfinance in improving the living standard of rural women. Descriptive and analytical research designs have been adopted in the study. The population has been considered as the women of rural district of Nepal. The convenience sampling technique has been used to collect the primary source of data through self-administered structured questionnaire. The useable questionnaire has been confined to 120 samples. The descriptive statistic, multiple correlations and multiple regression analysis have been used in the study. The research results have established the relation between improving living standard measured as income, education and health status through the microfinance products and services; micro-credit, micro-saving, training and awareness. The study results demonstrate positive relationship between micro-credit, micro-savings, training and awareness on improving income, education and health status. The study has shown the sustainability of microfinance institutions through their products and services simultaneously with increase in the living standard of women in the rural district Achham of Nepal.

Discovery, 2021, 57(304), 319-326

Determination of factors that hinders girl-child Education in Kware local government, Sokoto State, Nigeria

Ahmad Ibrahim, Yusuf Sarkingobir, Mustapha Sahabi, Ibrahim Salihu, Muideen Oladeji Salami

This study aims to find out the factors hindering girl-child Education in Kware local government Sokoto Nigeria and the possible solutions. A total of 150 parents with girls of school-going age were selected from the twenty five thousand (25,000) study population, using a multi-stage cluster sampling method. A self-designed questionnaire was used to obtain data from the selected respondents. A reliability index score of 0.85 was obtained through test retest. Descriptive statistics was employed in analyzing the data. Problems hindering girl-child education as revealed by the study include; the perception of parents that girl-child education was against their religion and culture, poverty, co-education, parents' lack of education, hawking amongst girls, early marriage and demand for girls' labour at home. The study finally recommended that there should be more awareness campaign for improvement in girl-child education that will involve both traditional and religious leaders as they exert great influence upon their people.

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How Residential Mortgage-backed Securities is affecting Financial Performance of Listed Commercial Banks in Kenya

Stephen Ndungu, Paul Gichohi

Mortgage-backed security is a type of marketable security that is issued through notes and collateralized by mortgage receivables. These receivables are sold to investment banks who pack the loans together into securities that investors buy. However, a rise in interest rates in Kenya has caused the cost of borrowing to increase. This has reduced the demand for mortgages hence low returns on mortgage backed securities. The purpose of this study was to investigate the influence of mortgage-backed securities on financial performance of listed commercial banks in Kenya. The study used descriptive survey research design to carry out the investigation. The respondents of the study were 64 credit managers and relationship managers from the eleven listed commercial banks in Kenya. They were sampled using purposive sampling method whereby the participants specifically approached based on their job roles especially in direct interaction with mortgage securities. The collected data was then coded using the SPSS 24.0 computer program. The coded data was analyzed quantitatively using the descriptive statistics where mean, percentage and standard deviation were computed. Inferential statistics was used. Linear regression was used to test hypothesis while multiple regression was used to test the overall model. Results were presented using tables, graphs and detailed explanations. The study indicated that there was a statistically significant positive relationship between mortgage-backed securities and financial performance. This was because of the fact that the respondents agreed majorly that mortgage backed securities lowered cost of credit; had to some extent played a vital role of enhancing gross profit; were cost-effective and had less expenditure attributed to them, hence, improving the net profit some extent; were able to achieve their goal of ensuring that the shareholder's wealth is maximized; and listed commercial banks were to some extent assured of their banks a going concern for years to come by selling mortgage backed securities. The study recommended that there should be development of policies by the government to guide Kenyan banks from going bankrupt due to default by borrowers. Banks should provide more public awareness to enable people understand the intrigues of mortgage backed securities. There should be more investigations on the least expensive sources of fund through securitization so as to pass the advantages to the home loan clients. There ought to be establishment of many securities assessment offices so as to defeat boundaries of performance of home loan upheld securities.

Discovery, 2021, 57(304), 336-344

External Debt and it Impact on Nigerian Economy

Ponjul Bulus Gonji, Kamsen Mordecai Dapim, Isaiah Ogalegwu Obande

This study investigates the impact of external debts on the growth of the Nigerian economy from 1999 to 2019. The variables used for the study are external debts, debt servicing and foreign reserve. Data was obtained from the Debt Management Office, Central Bank of Nigeria and National Bureau of Statistics. STATA 13 was used to run various tests to ascertain the level impact of each independent variable on the Nigerian GDP. The result revealed that foreign reserve and debt servicing significantly affect the

growth of the Nigeria economy. The following recommendations were made: Nigerian Government should reduce the rate at which she borrows fund from external bodies to finance her budget. The government should make effort to increase her foreign reserve in order to forestall economic growth.

Discovery, 2021, 57(304), 345-352

SCIENCE

Potential Human Health and Environmental Risks Index of Organic Pollutants with References to Anthropogenicity Sources

Ikpesu TO, Ariyo AB

The sorption of nonionic compounds in sediments influences by organic matters can be used to ascertain the hygienic condition of an abattoir and the surrounding aquatic habitat. Hence, the microbial loads and heavy metals in smoked cattle hide and *Clarias gariepinus* from a major abattoir in South-South Nigeria was investigated and correlated with their metallic loads in the surrounding water body. This is to establish the health implications of the consumers and the aquatic organisms. Roasted catfish, cattle hide, and sediments from the Tombia River were collected for six months and a total of fifty-four samples were examined. Morphological and biochemical characterization was used in identifying the bacterial isolates, while the microscopic depiction of hyphal mass and spore's morphology was used in fungi identification. The heavy metal was analyzed using Atomic Absorption Spectrophotometer. Microbials characterized by sampled fish and cowhide from the abattoir are *Pseudomonas* spp, *Enterobacter* spp, *E. coli*, *Bacillus subtilis*, *Streptococcus* spp, *Citrobacter* spp, *Micrococcus* spp, and *Acinetobacter* spp. Four heavy metals; Cu, Cd, Zn, and Pb were assessed and observed at different concentrations in all the matrixes. The risk index was 475.05 B grade (high risk). Strong positive and negative correlations were also observed in the fish, hide, and sediments for all the metals. Using these pollution indicators, it was found that the river bed sediment is highly contaminated by toxic metals during the study, hence proper management strategies are required to control the direct dumping of wastewater in the river.

Discovery, 2021, 57(304), 353-360

Forest carbon dynamic according to altitudinal gradient in Nepal

Bijaya Gautam, Ram Asheshwar Mandal, Satish Bhushal, Dipika Badal

The carbon stock is importantly being an issue under the Reducing Emission from Deforestation and Degradation. However, the study related to this is limited in Nepal. Thus, this study aims to assess carbon stock variation according to altitudinal gradient in terai and Chure. Three different sites in Rupandehi District of Nepal, namely Sainamaina, Butwal and Devdaha representing Terai to Chure has taken for the study purpose, Stratified sampling based on altitude was applied and total 135 nested plots for tree/pole, sapling as well as leaf, litter, herbs and grass (LHG) having size 250,100,1 m^2 respectively were established. The height and diameter of plants were measured and weight of LHG estimated. Furthermore, the soil samples had collected from 0-10, 10-20 and 20-30 cm depth. Chave et al. equation was used to calculate biomass and converted into carbon by multiplying with 0.47. Soil carbon was analyzed using Walkley Black method. Statistical analysis was conducted to compare carbon stock among different altitudinal gradient of Terai and Chure. The results showed that total carbon stock was the highest 192.85±19.08 t /ha in altitude <200m and it was the lowest 126.31±15.95 t/ha in 201-400m the difference was around 46.4 t/ha carbon between altitude <200m and 201-400 m. The soil carbon was the highest 83.24±0.99 t/ha in altitude <200m while it was the lowest 46.40±1.12 t/ha in 801-1000m altitude. One-way ANOVA showed that, there were significant differences among carbon stock according to altitude in Terai and Chure at 95% confidence level since p-value < 0.05 and Tukey's b HSD test also showed that the carbon stock of altitude less than 200 m was significantly differed from carbon stock of altitude 201-400m. The research will be useful to develop the baseline to show the carbon according to altitudes.

Discovery, 2021, 57(304), 361-371

Removal of fluoride by using *Passiflora Foetida* fruits as natural coagulant

Gandhi N, Sirisha D

There is increasing interest in developing low cost water and wastewater treatment processes particularly in poor countries. The use of natural coagulants such as the *Passiflora foetida* fruits to replace expensive imported synthetic coagulants is particularly appropriate for agro-based developing countries such as India, because local production of these coagulants will also contribute to the rural and national economy. There is also widespread recognition that the presence of toxic chemicals. This study was conducted to investigate the potential of *Passiflora foetida* fruits for treatment of wastewater contaminated with fluoride. The potential of *Passiflora foetida* whole fruit, in removing fluoride ions from synthetic contaminated water was investigated at initial fluoride ion concentrations of 1 mg to 8 mg/L by means of jar tests. Fluoride ion removal was observed ranging from 80.86 ± 2.22% to 96.40 ± 0.00% at optimum dosage of 1gm/L. Earlier work by the same group has shown that *Citrus limon* peel powder as natural coagulant to reduce wastewater fluoride by over 95% and reduce turbidity at optimum dosage of 1gm/L. The present study also carried out with coagulation parameters such as initial fluoride ion concentration, coagulant dosage and impact of water pH on removal of fluoride by *Passiflora foetida* fruits. The results concluded that removal of fluoride was high at lower fluoride concentration with constant coagulant dosage. The fluoride removal efficiency of *Passiflora foetida* fruits is high at acidic and neutral pH medium and gradually decreased with increase base/alkalinity of medium. The results obtained in present study tested with

coagulation kinetic parameters and observed that removal of fluoride by *Passiflora foetida* fruits is following pseudo second order kinetic model at lower fluoride concentration.

Discovery, 2021, 57(304), 372-389

SOCIAL SCIENCE

Determination of challenges faced by women working in healthcare facilities in Sokoto state, Nigeria

Yusuf Sarkingobir, Safina Abdullahi Yarima, Mustapha Sahabi

In the history of human development, women have been playing a pivotal role. In fact women works and breakthroughs are portends of development. Without the contribution of women in the social, economic, political and other activities, national development will be at standstill. But, ironically, women employees generally are been discriminated by their supervisors, colleagues, and even the society. This is the same similitude in healthcare. Thus, this paper intends to find out the challenges and problems faced by working women in the healthcare system of Sokoto state. A structured questionnaire was used in a survey fashion. The result obtained was analyzed to yield descriptive statistics. The most (83.3%) spotted challenges faced by women working in healthcare were: a. Lack of acceptance by the society b. Long working hours c. Lack of support systems at workplace d. Lack of promotion e. Lack of freedom of speech f. Lack of security during transport to workplace g.Lack of safety at workplace. These are the major challenges admitted by the respondents. 66.7% of the respondents said " lack of role model " is a challenge that women face while working in healthcare in Sokoto state. It is the third most agreed response. Whereas, the fourth set of challenges were : difficult work, lack of support from the family, and being married ". The fifth set of challenges were : "male dominant society, injustice from males, and conflicts with family responsibilities". The last set of stated challenges were : " conflicts with colleagues and night duties ". The sorts of violence faced by women working in healthcare were shown. The most (100%) admitted forms were : " verbal abuse by patient relatives, verbal abuse by patients ". The second (66.7%) agreed violence was sexual abuse. Then (50%), "blaming for anything that goes wrong, verbal abuse from male workers ".33.3% said" dealing with substance abusers " is also a violence. (16.7%) "giving them task not their own " was the least agreed violence they see. Devastali and Rege (n.d) reported these forms of violence in their study. The concerns of women workers were revealed. All the 60 respondents said, they are usually coopted in seminars, workshops and other programmes. Whereas, 83.39% opined that, their seniors support them. Only 4% of them admitted that night duties are "easy ".11.4% said they spent good time with family life. Whereas, 5.7% always face problem with male patients.48% admitted that workplace is safe. The government should rise up to the challenges to cancel the gender-based inequalities faced by women in the state.

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