

Application of Multiple Regression Analyses on factors responsible for Commercial Sex Work in Taraba State

Nathan Nachandiya

Department of Computer Science, Adamawa State University PMB25 Mubi,
Nigeria

Contact: *nachandiya@yahoo.com*

ABSTRACT

The study analyzed the factors responsible for involvement of young girls into commercial sex work in Taraba State, Nigeria. A total of 130 Female Sex Workers (FSW) were selected through purposive sampling techniques and served with a structured interview schedule. Informed consent was received from the FSW and the data collected were subjected to descriptive and inferential statistics. Results of the analysis showed that 96.16% of the respondents were within the age range of ≤ 20 to 39 years, these girls are young and in their economically active age. Respondents joined the business as early as 21 years and attended to up to 20 customers in a day, they are more vulnerable to sexually transmitted infection (STIs), HIV/AIDS and other diseases. Also, 61.60% attained one form of formal education or the other. More so, the result revealed that most of the girls spent less than a dollar in a day before joining the business. Regression analysis showed 82.88 % of the variations in respondents' involvement as FSW were explained by the variables included in the model. The estimated coefficients for age, knowledge about HIV/AIDS and other STIs, had significant but inverse relationship with involvement as FSW while substance use and abuse was statistically significant at 1% probability level. It is however recommended that increasing awareness on the risk of the business will enhance their production efficiency in other business.

KEYWORDS: Productivity, FSW, HIV/AIDS, multiple regression model, women, Taraba Nigeria, MARPs, PEP model, poverty.

Introduction

Different types of Female Sex Workers (FSWs) are identified amongst are the street-based FSWs who primarily solicited clients on streets (such as cinema, park, bus-stand, railway station, hotel/lodge) and provided services at hotel/lodge or a place of client's choice, home-based FSWs who primarily solicited clients at their own homes either directly or through a mediator and provided services at their own homes, and brothel-based FSWs who primarily solicited clients through an agent (such as pimp, madam) or mediator and provided services at a brothel (a place of sex work with two (2) or more FSWs working under control of an agent (Rakhi *et al.*, 2006). Women who are separated/divorced from their husbands or are widowed have limited rights, and economic independence (Department of Women and Child Development (2005). In addition, if they are illiterate, they are likely to have even fewer labour market opportunities other than sex work. Joint United Nations Programme on HIV/AIDS (2004) suggests that many women enter sex

work due to economic reasons. These economic reasons, in turn, are associated with illiteracy, lower status in the society, limited economic options for women, and separation/divorce from husband or death of husband in case of married women.

Each of the girls join the FSW work due to variety of reasons in which poverty is inclusive, Although the World Bank standard for rating of poverty based on poverty line has been marginally increase to US\$1.25 NBS (2012 Report), emphasizing that those that live with less than that amount are poor. Available statistics reveals that the poverty incidence in Nigeria has been on the increase since the 1980s. As reported by the UNDP (2010), between 1980 and 1996, the percentage of the core poor rose from 6.2 percent to 29.3 percent, and declined to 22.0 percent in 2004. According to Omotola (2008), about 70 percent of the population now lives in abject poverty. There is also the geographical dimension of poverty in Nigeria. According to Aigbokhan (2000), poverty is higher in the rural areas than in urban areas. That could be a reason why there is rural-urban migration for commercial sex work in towns and cities

This study was therefore conducted to analyze the factors influencing young girls’ involvement in commercial sex activities in Taraba State Nigeria. The specific objectives are to describe the socio- economic characteristics of the respondents and to evaluate the influence of selected variables and involvement in commercial sex activities.

Materials and Methods

The study was conducted in selected brothels in Jalingo Taraba State. The relative peace in the state and cordial relationship with the gate keepers made the area suitable for collecting primary data. A sample of 130 Female Sex Workers was purposively selected for the study. Structured interview schedule was administered to the FSWs to collect the desired data.

Data collected were analyzed using descriptive and inferential statistics. The descriptive statistics such as mean, standard deviation, percentages, minimum and maximum values of the variables under investigation were employed to achieve objective one of the study. The inferential statistics (regression analysis) was used to evaluate the influence of factors on involvement of respondents as female sex workers. The regression model is defined by:

$$Y_i = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 \dots \dots \dots (1)$$

Where: Y_1 = Money realized every day(₦) X_1 = (Age); X_2 = Experience; X_3 = Number of customers attended; X_4 = Substance use X_5 = Condom and Lubricant use; X_6 = Knowledge about HIV/AIDS and other STIs.

Results and Discussion

Selected Variables of the Respondents

The summary statistics of selected variables of the respondents is presented in Table1 and indicated that the number of customers’ patronizing the FSWs varied with a mean of 8 with a maximum of 20. The availability of lubricants and condoms makes commercials sex looks safer with a mean 326 and a maximum of

450 yet the business is among Most at Risk Business. Respondents are experienced with a mean of five years with a maximum of 12 years while substance use and abuse one of the predisposing factors also revealed a maximum of 12 substances with a mean usage of 6. The business is not free of harassment and other social vices.

Table 1: Summary statistics of selected variables of Respondents

Variable	Mean	Min.	Max.	Standard deviation
Experience	5	1	12	2.63
Number of customers	8	6	20	2.33
Condom and Lubricant	326	106	450	101
Substance use and abuse	6	4	12	2.65

Source: Field survey, 2015.

Age and educational level of respondents (Table 2) and showed that 96.16% of the respondents were within the range of ≤ 20 to 39 years and were young and in their economically active age while a paltry(3.84%) were those above 40 years of age. Analyses based on educational attainment of respondents also revealed that reasonable number of such thematic group were illiterate (38.40%) while 61.60% attained one form of formal education or the other. The preponderance of lower level of educational attainment as revealed in the study is consistent with the findings of Joint United Nations Programme on HIV/AIDS (2004) which implicated lower literacy status among young girls as one of the reasons for their involvement as FSWs.

Table 2: Distribution based on age and educational levels of Respondents (N= 130)

Variable	Frequency	Percentage
Age range(years)		
≤ 20	2	1.54
20 – 24	60	46.15
25 - 29	28	21.53
30 - 34	20	15.38
35 - 39	15	11.53
> 40	5	3.84
Level of education		
No school	50	38.4
Primary	28	21.5
Junior Secondary	22	16.9
Secondary	27	20.7
Diploma	2	1.5
Degree	1	0.7

Source: Field survey, 2015.

Table 3: Distribution by Income and Expenditure per day before joining the business

Income / Expenditure per day In Naira(N)	Frequency	Standard rating of poverty (living less than 1.25(US) Dollars at 220 Naira per Dollar
0 to 50	35	Poor
51 to 100	38	Poor
101 to 150	27	Poor
151 to 200	5	Poor
201 to 250	10	Poor
Above 250	20	Not poor

Source: Field survey, 2015.

Table 3. Revealed only twenty (20) out of the one hundred and thirty (130) FSWs lived above the poverty line of 1.25 US Dollars per day with the present exchange rate of 220 US Dollars. A total of 110 respondents are poor before joining the commercial Sex work. A simple Correlation Analysis revealed a result of (0.8440) which shows that, there is a strong relationship between Poverty and “Motivation” for the job.

Alternative Business of the Respondents

The data in Table 4 expresses the alternative business aside the commercial sex work which the respondents want to participate in respectively. Agriculture and Event management were the major areas of interest represented by 15.38% each followed by Food/ Restaurant business (13.84%), petty trading with 13.07% and Hair dressing and Entertainment (11.53% each).

Table 4: Distribution by Interest to start another business

Business type	Frequency	Percentage
Agriculture	20	15.38
Hair dressing	15	11.53
Tailoring	10	7.69
Super markets	5	3.84
fairly used cloths	10	7.69
Event Management	20	15.38
Petty Trading	17	13.07
Food/ Restaurants	18	13.84
Entertainment e.g. Music and sports	15	11.53

Source: Field survey, 2015.

Table 5: Multiple regression analysis showing relationship between involvement as Female Sex Workers and selected variables

Variable	Coefficient	Std. Error	t-Statistic
X ₁ (Age)	-22.65320	1.954553	-11.58***
X ₂ (Experience)	1.650734	1.895557	0.87
X ₃ (Number of customers)	0.436612	0.239365	1.82*
X ₄ (Substance use / abuse)	0.596065	0.065778	9.06***
X ₅ (Condom & Lubricant use)	0.018021	0.019520	0.92
X ₆ (Knowledge about HIV/STI)	-3.554986	0.375655	-9.46***
C	0.023429	0.022700	1.032137

Source: Data Analysis 2015.

*, *** indicate significance at 10 & 1 percent probability levels.

$R^2 = 0.864223$ Adjusted $R^2 = 0.828803$ F. value = 24.39***

Relationship between Selected variables and Involvement as FSWs

Relationship between involvement as female sex workers and selected variables was evaluated using the multiple regression analysis and the result is contained in Table 5. The coefficient of multiple determination (R^2 adjusted was 0.8288) which shows that about 83 % of the variation in the involvement of the respondents was explained by the variables investigated. The coefficient for age is statistically significant at 1% and has an inverse relationship with involvement of the respondents. This implies that patronage reduces as the FSW are aging. Several factors such as illness, lack of strength, reduction in libido might have been responsible for that. The implication is that their customers may go for younger and sexually active respondents. Substance use and abuse was statistically significant at 1% probability level implying that increase in substance use results to increase in sexual behaviour of the respondents predisposing them to risky behaviours like having sex without condom. The attendant consequence may include making them prone to HIV/AIDS and other sexually transmitted infections (STIs). Knowledge about HIV/AIDS and other STIs, had a significant but inverse relationship with involvement as FSW. This finding lay credence to earlier studies conducted by Reza-Paul *et al.* (2008) who found out that education in form of peer sessions played a profound role in the reduction of involvement in sexual behaviours of FSWs. It is highly advocated that intervention in education through advocacy, community mobilization, and peer sessions using the peer education plus (PEP) model) will help the respondents understand the risk of the business and pick up alternative business e.g agriculture and event management instead of commercial sex work as contained in Table 4.

Conclusion

In conclusion, the study revealed that the respondents were within their economically active ages; they are poor and could be the reason for joining the business; they are not well educated and had intentions to go for alternative businesses like agriculture and event management. Age and knowledge about HIV/AIDS and other STIs, had significant and inverse relationship with

involvement as FSW. It is thus recommended that policy measures such as increasing access to women education and other productive resources, enlightenment, routine training programme and increased community mobilization and advocacy will lead to engagement in other productive businesses and eventually reduction in Most At Risk Activities (MARPs).

References

- Aigbokhan, B.E. (2000); —Poverty, Growth and Inequality in Nigeria: A Case Study. *African Economic Research Consortium (AERC)*. Nairobi, Kenya.
- Boserup, E. (1970): Women's Role in Economic Development. London, Alex and Unwin Ltd. 361p
- Department of Women and Child Development: Convention of elimination of all forms of discrimination against women: India's First Report. [<http://wcd.nic.in/>] website New Delhi; 2005.
- Joint United Nations Programme on HIV/AIDS: *2004 Report on the global AIDS epidemic*. Geneva; 2004.
- NBS (2012); *The Nigeria Poverty Profile 2010 Report* of the National Bureau of Statistics Harmonized Nigeria Living Standard Survey (HNLSS).
- Nathan N. Giroh Y and Garba Y. (2015), Analysis of Factors Influencing the Involvement of Young Girls as Female Sex Workers in Taraba State: Implication for Agricultural Productivity. *Journal for Gender and Behaviour* 13
- Omotola, J.S. (2008); —Combating Poverty for Sustainable Human Development in Nigeria: The Continuing Struggle. *Journal of Poverty*, 12(4), 496-517.
- UNDP (2010) *Human Development Report Nigeria 2008-2009. Achieving Growth with Equity*. United Nations Development Programme.
- Rakhi, D, Lalit D, G, Anil Kumar, Juan P. G; Sam McPherson, Fiona S., Stefano, M B. and the ASCI FPP Study Team (2006): Demography and sex work characteristics of female sex workers in India.
- Reza-Paul, S; Beattie, T; Syed, H. U. R; Venukumar, K. T; Venugopal, M. S; Fathima, M P^c; Raghavendra, HR^c; Akram, P^c; Manjula, R; Lakshmi, M; I, S; Ramesh, B M; Washington, R; Mahagaonkar, S B; Glynn, J R; Blanchard, J. F and Moses, S (2008) *AIDS*:22:91-100.