CHAPTER FOUR

## DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.0 Introduction

This chapter presents the Analysis of the data such as the frequency distribution, chi-square, and cross-tabulation, and interpretation of the various characteristics obtained from current young women in the Northern (North-West) and Southern (South-West), Nigeria who terminate pregnancy as reported in the A2108 National Demographic Health Survey (NDHS).

4.1 Quantitative Analysis

The results of the survey conducted with the respondents regarding current young women in the Northern (North-West) and Southern (South-West), Nigeria who terminate pregnancy as reported in the A2108 National Demographic Health Survey (NDHS) visited were presented in Figures 4.1.1 - 4.1.5 and Table 4.1.6.
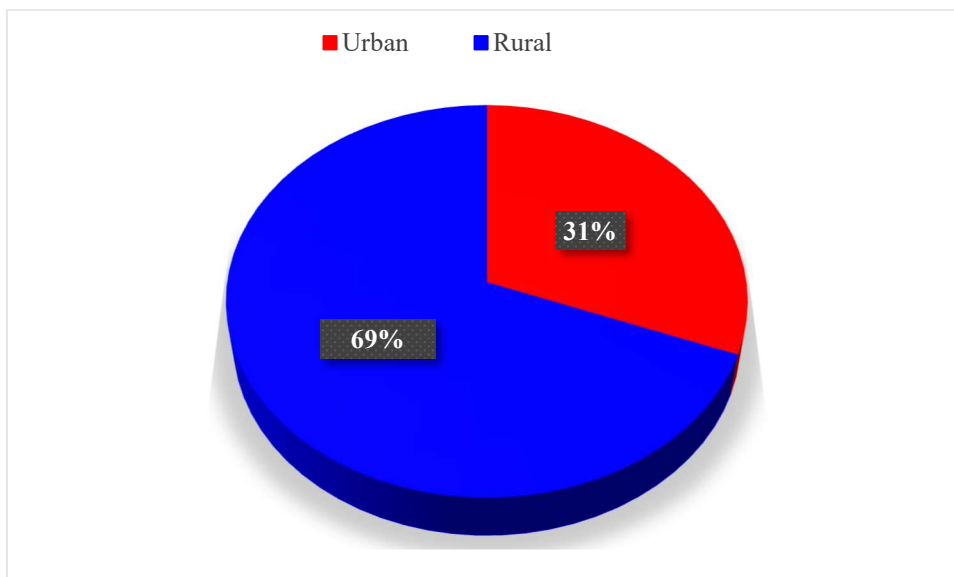
4.1.1 Profile of the respondents

The preliminary section was Analysed using a straightforward percentage method, as illustrated in Figures 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5, and 4.1.6. The marital status of the respondents contained the percentage of Married and unmarried women that participated in the survey. It can be deduced that 41.66% of the women are never married while 58.34% are married.
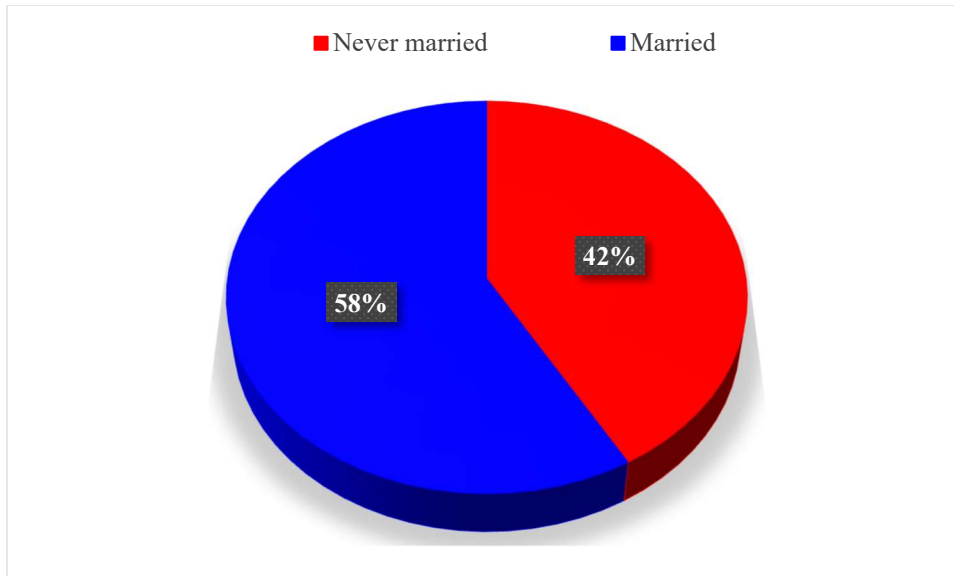
Figure 4.1: Marital status of the respondents

Figure 4.1.2 show that most of the respondents resides in rural area with 69.19% while the rest of them lives in the urban areas with 30.81%


Figure 4.1.2: Residence of the respondents

Figure 4.1.3 shows the Highest Academic qualification of the respondents. 34% of the respondents have secondary academic qualification, 10% have primary academic qualification, 4% possessed higher academic qualification and a larger proportion of the respondents in the Nort-west region have no education.
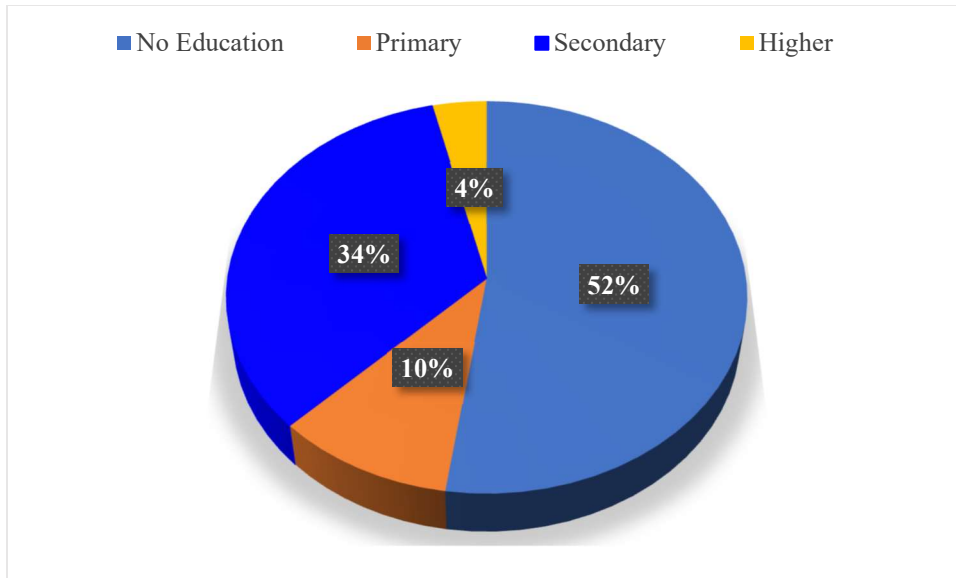
Figure 4.1.3: Highest Education qualification of the respondents

Figure 4.1.4 shows the wealth index of the respondents in the North-west region of Nigeria. 58% of the respondents have low wealth index, 23% of the respondents have high wealth index while the remaining 19% have medium wealth index.
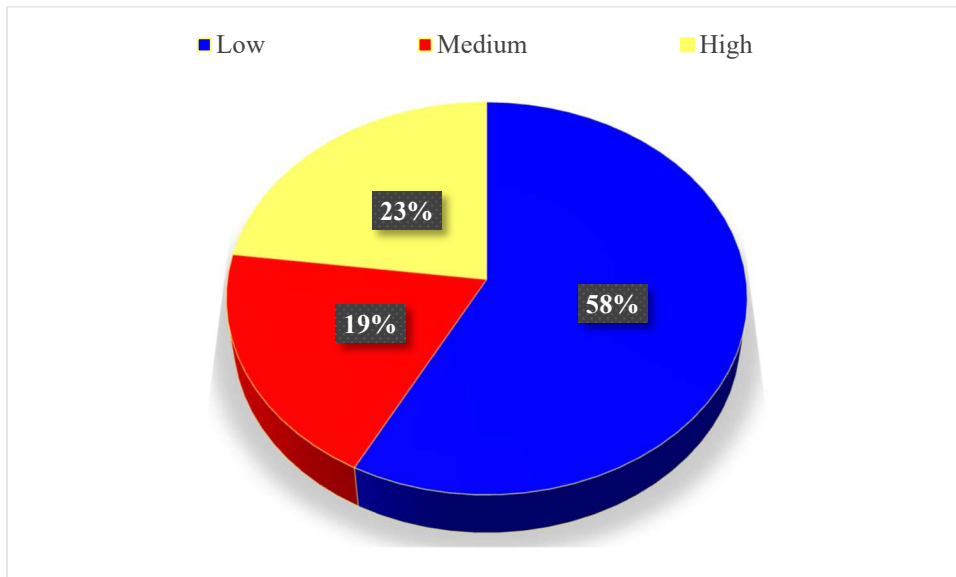
Figure 4.1.4: Wealth index of the respondents

Figure 4.1.5 shows the pregnancy termination of the respondents in the North-west region. 97% of the respondents never had pregnancy termination while the remaining 3% ever had pregnancy termination.
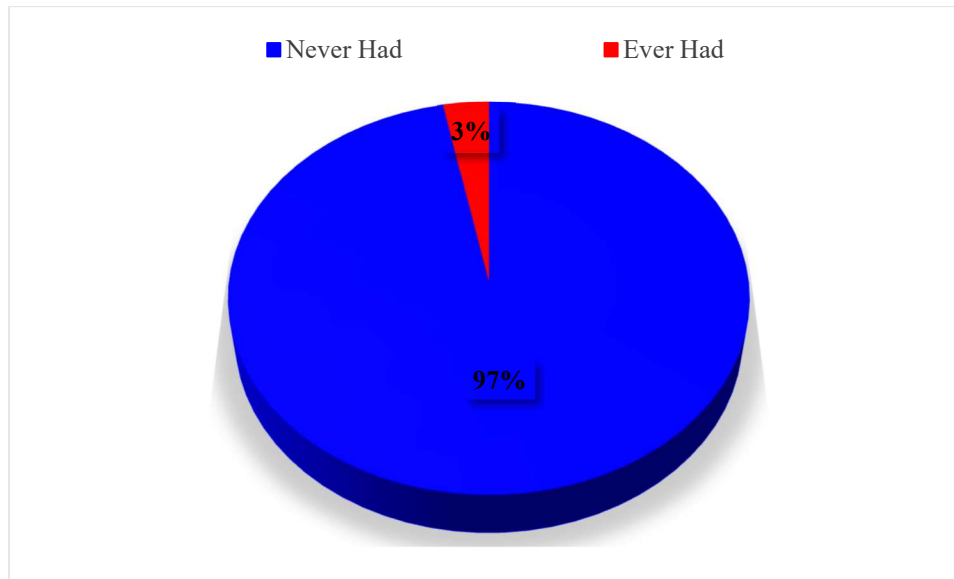
Figure 4.1.5: Pregnancy termination of the respondents

Figure 4.1.6 shows the religion of the respondents in the North-west region. It can be deduced that 94% of the respondents are Islamic religion worshippers, 5% are Christians while only 1% are traditional religion believers.
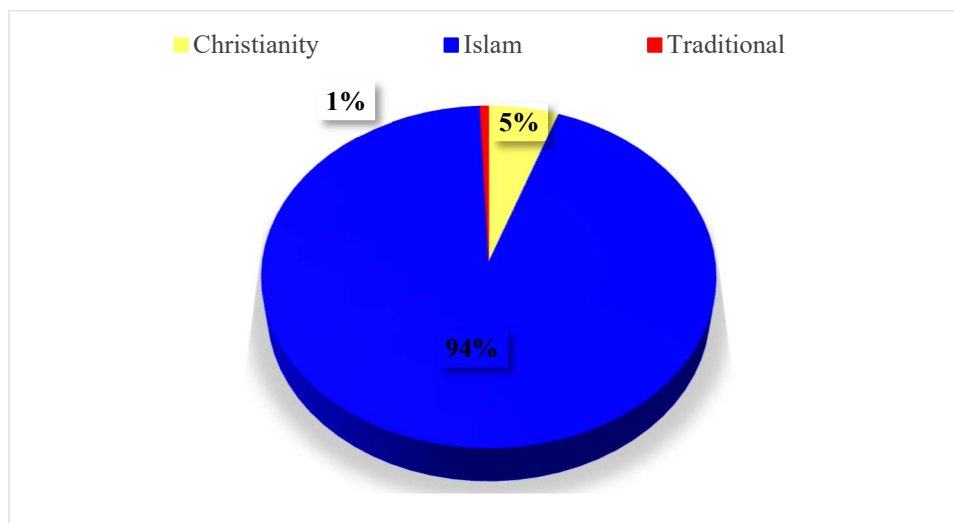
Figure 4.1.6: Religion of the respondents in North-west region
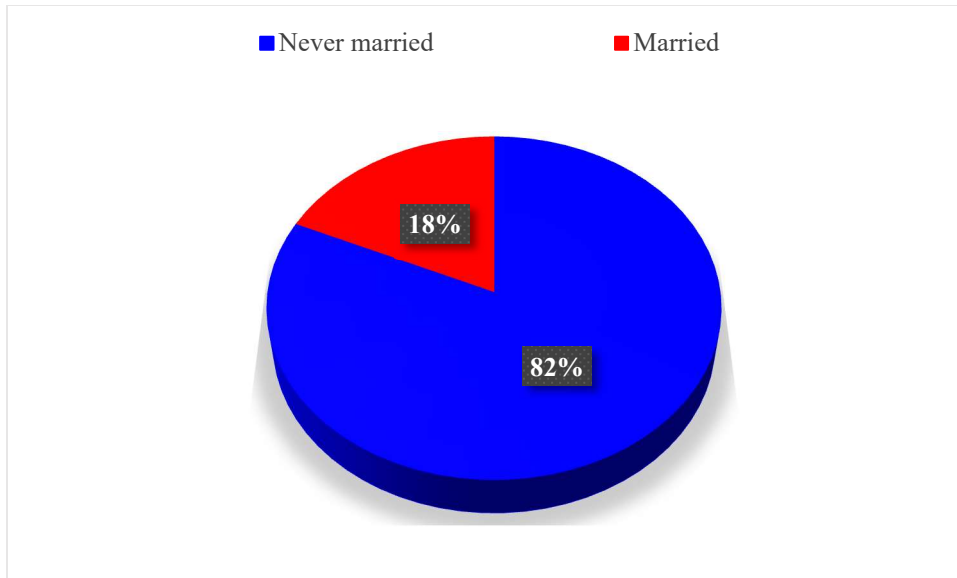
Figure 4.2.1: Marital status of the respondents in the south-west region
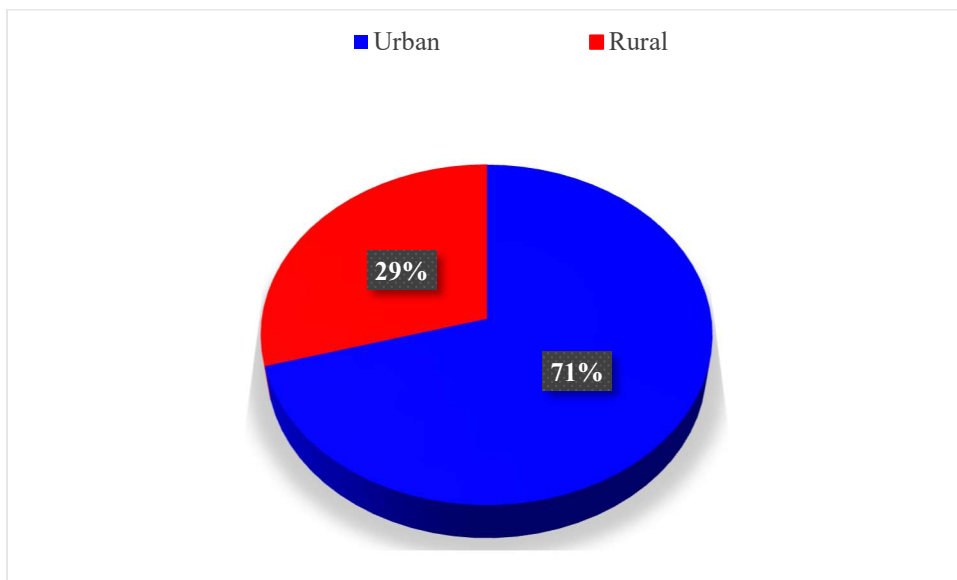
Figure 4.2.2: Place of residence of the respondents in the south-west region
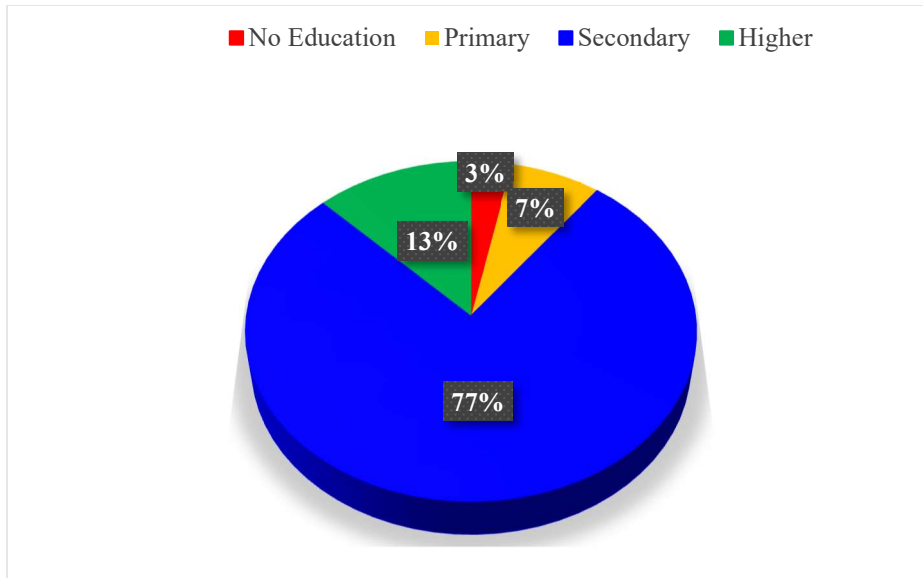
Figure 4.2.3: Education level of the respondents in the south-west region
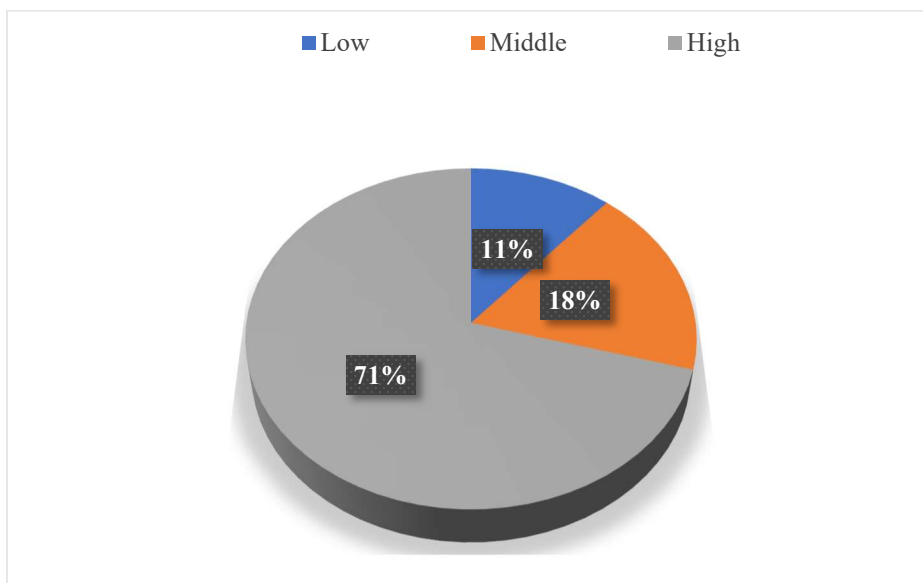
Figure 4.2.4: Education level of the respondents in the south-west region
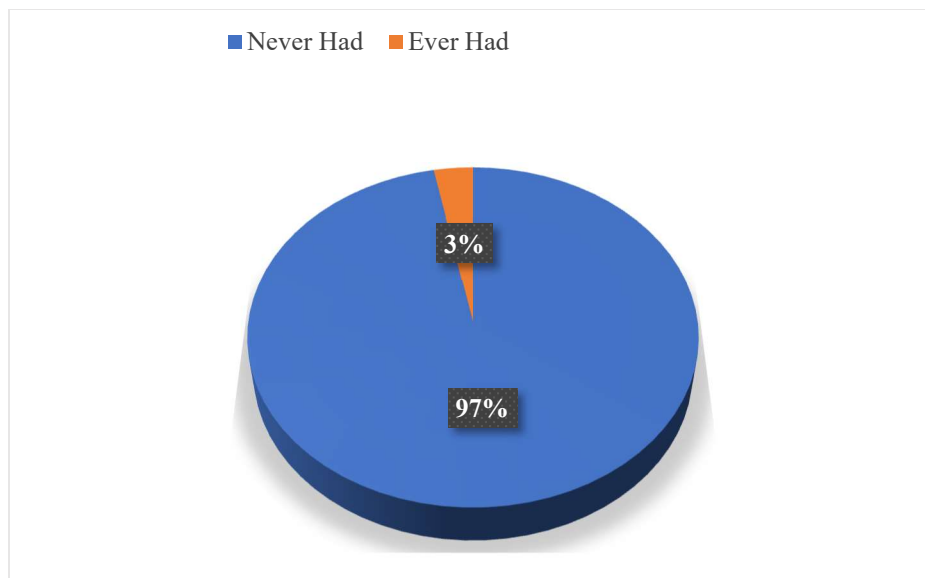
Figure 4.2.5: Pregnancy termination of the respondents in the south-west region
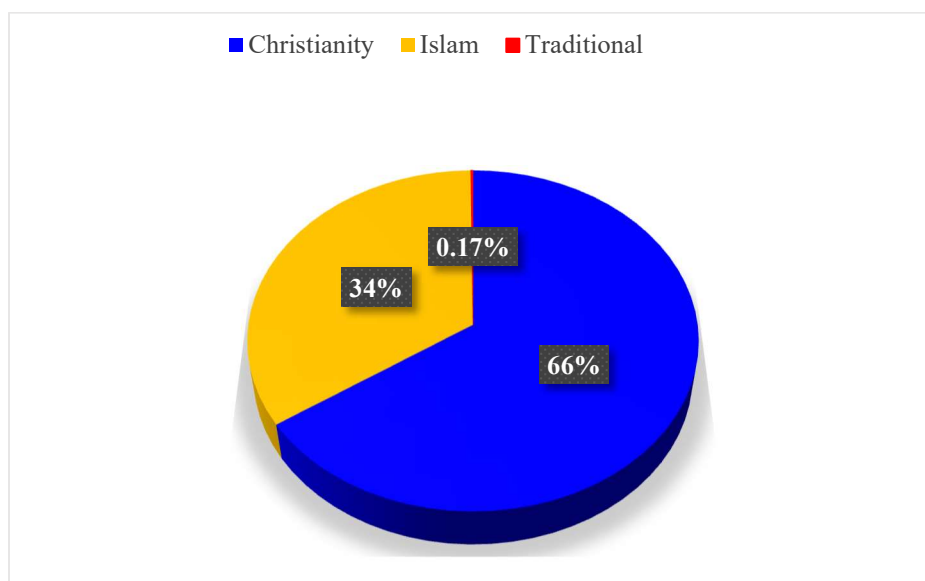
Figure 4.2.5: Religion of the respondents in the south-west region

4.1.3 Socioeconomic characteristics of the respondents

Table 4.1.1 shows the socioeconomic characteristics of the respondents in North west region. The marital status of the respondents contained the percentage of Married and unmarried women that participated in the survey. It can be deduced that 41.66% of the women are never married while 58.34% are married. Most of the respondents resides in rural area with 69.19% while the rest of

them lives in the urban areas with 30.81. The highest qualification of the respondents implies that 52.31% of the respondents have no western education, 33.78% have secondary education, 10.21% have primary education and the remaining 3.69% of the respondents possessed Higher qualification.

Table 4.1.1 also shows some important profile of the respondents like the wealth index, pregnancy termination and the religion of the respondents. It can be deduced that 57.73% of the respondents have low wealth index, 19.34 have medium wealth index and 22.93% have high wealth index. 96.93% of the respondents never had pregnancy termination and only 3.07% of the respondents ever had pregnancy termination. Similarly, 93.83% of the respondents are Muslims, 5.46% are Christians while 0.66% are Traditional worshippers.

Table 4.1.1: Demographic of the respondents in North west region

SN	Variables	Frequency	Percentage
1	**Marital Status**		
	Never married	1693	41.66
	Married	2371	58.34
	Total	4064	100
2	**Residence**		
	Urban	1252	30.81
	Rural	2812	69.19
	Total	4064	100
3	**Highest Education**		
	No Education	2126	52.31
	Primary	415	10.21
	Secondary	1373	33.78
	Higher	150	3.69
	Total	4064	100
4	**Wealth Index**		
	Low	2346	57.73
	Medium	786	19.34
	High	932	22.93
	Total	4064	100
5	**Pregnancy termination**		
	Never Had	1674	96.93
	Ever Had	53	3.07
	Total	1727	100
6	**Religion**		
	Christianity	222	5.46
	Islam	3815	93.87
	Traditional	27	0.66
	Total	4064	100

Researcher's Analysis of Data (2024)

Table 4.1.2 shows the socioeconomic characteristics of the respondents in South-west region of Nigeria. The marital status of the respondents contained the percentage of Married and unmarried women that participated in the survey. It can be deduced that 81.82% of the women have never married while 18.18% are married. 70.58% of the respondents resides in Urban areas while the remaining 29.42% of the respondents lives in the rural areas. The highest academic qualification of the respondents in the south-west region implies that 77.3% of the respondents have secondary education, 12.39% have higher academic education, 7.12% have primary education and the remaining 3.18% of the respondents have no academic education.

Table 4.1.2 also shows some important profile of the respondents like the wealth index, pregnancy termination and the religion of the respondents. It can be deduced that 11.23% of the respondents have low wealth index, 18.12% have medium wealth index and 70.64% have high wealth index. 96.93% of the respondents never had pregnancy termination and only 3.07% of the respondents ever had pregnancy termination. Similarly, 93.83% of the respondents are Muslims, 5.46% are Christians while 0.66% are Traditional worshippers.

Table 4.1.2: Demographic of the respondents in South-west region of Nigeria.

SN	Variables	Frequency	Percentage
1	**Marital Status**		
	Never married	1413	81.82
	Married	314	18.18
	Total	1727	100
2	**Residence**		
	Urban	1219	70.58
	Rural	508	29.42
	Total	1727	100
3	**Highest Academic Education**		
	No Education	55	3.18
	Primary	123	7.12
	Secondary	1335	77.3
	Higher	214	12.39
	Total	1727	100
4	**Wealth Index**		
	Low	194	11.23
	Middle	313	18.12
	High	1220	70.64
	Total	1727	100
5	**Pregnancy termination**		
	Never Had	1674	96.93
	Ever Had	53	3.07
	Total	1727	100
6	**Religion**		
	Christianity	1132	65.55
	Islam	592	34.28
	Traditional	3	0.17
	Total	1727	100

Researcher's Analysis of Data (2024)

4.2 Inferential statistics (Logistic regression)

Logistic regression analysis is a statistical method used to model the relationship between a dependent variable (usually binary) and one or more independent variables. Unlike linear regression, where the outcome is continuous, logistic regression is applied when the dependent variable is categorical, particularly binary (e.g., yes/no, success/failure, Alive/died 1/0).

4.2.1 Model Summary (North west)

Table 4.2.1 shows the estimates of the Binary logistic model for the responses gotten from North west region of Nigeria. It can be seen that the Nagelkerke R Square value which equal 0.57 implies that the model is a very good model as its account for 57% of the total variability in the data under study and thus statistically significant with p-value = 0.001 which is less that the standard value of 0.5.

Therefore, at 5% level of significance we have enough evidence to conclude that the model is a very good model and is statistically significant.

Table 4.2.1: Estimates of the Model

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	1633.664	0.063	0.57
Hosmer and Lemes how Test			
Step	Chi-square	DF	Sig.
1	7.337	8	0.01

Source: Researcher's Analysis of Data (2024)

4.2.2 Testing of Hypothesis

This sub section of the study employed the use of multiple regression analysis to test hypotheses in order to draw inferences from respondent responses on the study. Logistic regression analysis was utilized to objectively test the set of hypotheses of the study relating to factors influencing pregnancy termination in Northern parts of Nigeria.

The hypotheses of the study to be tested include the following;

H_{01}: Wealth index has influence on pregnancy termination in north west region of Nigeria

H_{02}: Place of residence has influence on pregnancy termination in north west region of Nigeria

H_{03}: Religion has influence on pregnancy termination in north west region of Nigeria

H_{04}: Knowledge of contraceptive has influence on pregnancy termination in north west region of Nigeria

H_{05}: Distance to health facility has influence on pregnancy termination in north west region of Nigeria.

H_{06}: Marital Status has influence on pregnancy termination in north west region of Nigeria.

H_{07}: Media Exposure has influence on pregnancy termination in north west region of Nigeria.

H_{08}: Education level has influence on pregnancy termination in north west region of Nigeria.

H_{09}: Contraceptive use has influence on pregnancy termination in north west region of Nigeria.

Table 4.2.2 shows the estimates of the model parameter. It can be deduced that the predictor variable: wealth index with p-value = 0.373 which is greater than 0.05 implies that wealth index is not statistically significant at 5% level of significance thus the null hypothesis(H_{01}) is rejected. We therefore conclude that wealth index differences have no influence on pregnancy termination in north west region of Nigeria. Place of residence with p-value = 0.002 which is less than 0.05 implies that place of residence is statistically significant at 5% level of significance thus the null hypothesis(H_{02}) is supported therefore, Place of residence has influence on pregnancy termination in north west region of Nigeria. Religion with p-value = 0.914 which is greater than 0.05 implies that religion is statistically significant at 5% level of significance thus the null hypothesis(H_{03}) is not supported therefore, religion has no influence on pregnancy termination in north west region of Nigeria. Knowledge of contraceptive with p-value = 0.030 which is less than 0.05 implies that

the predictor variable: Knowledge of contraceptive is statistically significant at 5% level of significance thus the null hypothesis(H_{04}) is supported therefore, Knowledge of contraceptive has influence on pregnancy termination in north west region of Nigeria. Distance to health facility with p-value = 0.071 which is greater than 0.05 implies that the predictor variable: Distance to health facility with p-value = 0.848 is not statistically significant at 5% level of significance thus the null hypothesis(H_{05}) was not supported therefore, Distance to health facility has no influence on pregnancy termination in Nigeria. Marital status with p-value = 0.000 is statistically significant at 5% level of significance thus the null hypothesis(H_{06}) is supported therefore, Marital status has influence on pregnancy termination in north west region of Nigeria.

Table 4.2.2 also shows that the independents variables: media exposure, and education level are statistically significant with p-values equal 0.997, and 0.102 respectively which are greater than 0.05 thus does not support the stated null hypotheses and implies that they have no influence on pregnancy termination in north west region of Nigeria. While the use of contraceptive with p-value = 0.192 which is greater than 0.05 implies that contraceptive use is not also statistically significant and have no impact on pregnancy termination though leading to the rejection of the stated null hypothesis(H_{09}).

Table 4.2.2: Logistic regression analysis of the factors that influence Pregnancy termination

Variables	B	DF	Expected B	Lower bound	Upper bound	P-value
Wealth Index	-0.071	1	0.932	0.797	1.089	0.373
Place Of Residence	0.552	1	1.737	1.223	2.467	0.002
Religion	0.033	1	1.033	0.573	1.862	0.914
Knowledge Of Contraceptive	0.319	1	1.376	1.031	1.837	0.030
Distance To Health Facility	0.032	1	1.033	0.744	1.433	0.848
Marital Status	0.774	1	2.169	1.809	2.601	0.000
Media Exposure	-17.44	1	0.077	0.352	0.421	0.997
Education Level	0.158	1	1.172	0.969	1.417	0.102
Contraceptive Use	0.129	1	1.138	0.937	1.381	0.192

Dependent variable: Pregnancy termination
Researcher Analysis of Data (2024)

4.3.1 Model Summary (South west region)

Table 4.3.1 shows the estimates of the Binary logistic model for the responses gotten from North west region of Nigeria. It can be seen that the Nagelkerke R Square value which equal 0.69 implies that the model is a very good model as its account for 69% of the total variability in the data under study and thus statistically significant with p-value = 0.004 which is less that the standard value of 0.5.

Therefore, at 5% level of significance we have enough evidence to conclude that the model is a very good model and is statistically significant.

Table 4.3.1: Estimates of the Model

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	1633.664	0.63	0.69
Hosmer and Lemes how Test			
Step	Chi-square	DF	Sig.
1	7.337	8	0.04

Source: Researcher's Analysis of Data (2024)

4.3.2 Testing of Hypothesis

This sub section of the study employed the use of multiple regression analysis to test hypotheses in order to draw inferences from respondent responses on the study. Logistic regression analysis was utilized to objectively test the set of hypotheses of the study relating to factors influencing pregnancy termination in Southern parts of Nigeria.

The hypotheses of the study to be tested include the following;

H$_{01}$: Wealth index has influence on pregnancy termination in South west region of Nigeria

H$_{02}$: Place of residence has influence on pregnancy termination in South west region of Nigeria

H$_{03}$: Religion has influence on pregnancy termination in South west region of Nigeria

H$_{04}$*:* Knowledge of contraceptive has influence on pregnancy termination in South west region of Nigeria

H$_{05}$*:* Distance to health facility has influence on pregnancy termination in South west region of Nigeria**.**

H$_{06}$*:* Marital Status has influence on pregnancy termination in South west region of Nigeria**.**

H$_{07}$*:* Media Exposure has influence on pregnancy termination in South west region of Nigeria.

H$_{08}$*:* Education level has influence on pregnancy termination in South west region of Nigeria*.*

H$_{09}$*:* Contraceptive use has influence on pregnancy termination in South west region of Nigeria**.**

Table 4.3.2 shows the estimates of the model parameter. It can be deduced that the predictor variable: wealth index with p-value = 0.373 which is greater than 0.05 implies that wealth index is not statistically significant at 5% level of significance thus the null hypothesis(**H$_{01}$)** was rejected. We therefore conclude that wealth index differences have no influence on pregnancy termination in South west region of Nigeria. Place of residence with p-value = 0.002 which is less than 0.05 implies that place of residence is statistically significant at 5% level of significance thus the null hypothesis(**H$_{02}$)** is supported therefore, Place of residence has influence on pregnancy termination in South west region of Nigeria. Religion with p-value = 0.914 which is greater than 0.05 implies that religion is statistically significant at 5% level of significance thus the null hypothesis(**H$_{03}$)** is not supported therefore, religion has no influence on pregnancy termination in South west region of Nigeria. Knowledge of contraceptive with p-value = 0.030 which is less than 0.05 implies that the predictor variable: Knowledge of contraceptive is statistically significant at 5% level of significance thus the null hypothesis(**H$_{04}$)** is supported therefore, Knowledge of contraceptive has influence on pregnancy termination in South west region of Nigeria. Distance to health facility with p-value = 0.071 which is greater than 0.05 implies that the predictor variable: Distance to

health facility with p-value = 0.848 is not statistically significant at 5% level of significance thus the null hypothesis(H_{05}) was not supported therefore, Distance to health facility has no influence on pregnancy termination in Nigeria. Marital status with p-value = 0.000 is statistically significant at 5% level of significance thus the null hypothesis(H_{06}) is supported therefore, Marital status has influence on pregnancy termination in South west region of Nigeria.

Table 4.3.2 also shows that the independents variables: media exposure, and education level are statistically significant with p-values equal 0.997, and 0.102 respectively which are greater than 0.05 thus does not support the stated null hypotheses and implies that they have no influence on pregnancy termination in South west region of Nigeria. While the use of contraceptive with p-value = 0.192 which is greater than 0.05 implies that contraceptive use is not also statistically significant and have no impact on pregnancy termination though leading to the rejection of the stated null hypothesis(H_{09}).

Table 4.3.2: Logistic regression analysis of the factors that influence Pregnancy termination

Variables	B	DF	Expected B	Lower bound	Upper bound	P-value
Wealth Index	-0.071	1	0.932	0.797	1.089	0.373
Place Of Residence	0.552	1	1.737	1.223	2.467	0.002
Religion	0.033	1	1.033	0.573	1.862	0.914
Knowledge Of Contraceptive	0.319	1	1.376	1.031	1.837	0.030
Distance To Health Facility	0.032	1	1.033	0.744	1.433	0.848
Marital Status	0.774	1	2.169	1.809	2.601	0.000
Media Exposure	-17.442	1	0.211	0.119	0.241	0.997
Education Level	0.158	1	1.172	0.969	1.417	0.102
Contraceptive Use	0.129	1	1.138	0.937	1.381	0.192

Dependent variable: Pregnancy termination
Researcher Analysis of Data (2024)

4.3 Discussion

The results of the Logistic regression analysis reveal several significant predictors of pregnancy termination in Northen and Southern parts of Nigeria.

Among the predictor variables, Marital status (B = 0.774, p < 0.000) emerged as the strongest significant factor, indicating that marital status is strongly associated with higher rates of pregnancy termination. Similarly, Place of Residence with (B = 0.552, p < 0.002) Knowledge of contraceptive (B = 0.030, p < 0.000) also significantly contribute to pregnancy termination in North west and south west of Nigeria, reflecting the critical impact of various characteristics obtained from current young women in the Northern and Southern, Nigeria who terminate pregnancy as reported in the A2108 National Demographic Health Survey (NDHS).

Religion (B = 0.033, p < 0.914), Education level (B = 0.158, p < 0.102), media exposure (B = -17.4, p < 0.997), and Contraceptive use (B = 0.129, p < 0.192) are also non-significant predictors, highlighting the low influence of these characteristics on pregnancy termination in Nigeria.

Overall, the findings underscore the importance of addressing Marital status, Place of residence, and knowledge of contraceptive's influence in interventions aimed at reducing pregnancy termination in Northen and Southern parts of Nigeria. The lack of significance for some predictors points to the need for further research to explore their potential indirect effects or interactions with other variables.