An Evaluation on Customers' Adoption of Family Planning Products in Developing Countries – Evidence from Nigeria

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Abstract
Family planning remains a critical public health concern with profound implications for social welfare and maternal well-being. Grounded in the recognition of contraceptive access as a basic human right, this study examines the adoption of family planning products among married women of reproductive age in Nigeria. A survey research design was employed, utilizing structured questionnaires in data collection. A total of 163 copies of the questionnaire were considered usable for data analysis. Data were analyzed using both descriptive and inferential statistical methods. Descriptive analysis involved the use of tables, frequencies, and percentages, while hypotheses were tested using chi-square and t-test statistical tools. Findings revealed that awareness of family planning among women in Enugu State is generally high, largely due to mass media campaigns and health education programs. Although most women expressed a positive disposition toward family planning, the level of engagement varied—many preferred personal learning and adoption over open peer discussions. Socio-demographic factors such as education and occupation were significant determinants of women's intention to purchase or use family planning methods in Nigeria.

Keywords:
Family planning products, customers' adoption, awareness, interest

Introduction

In Nigeria, there is currently a growing awareness about family planning, especially as more women are gaining more exposure to the need to balance work and family life. Anecdotal evidence shows that women who are intentional about childbirth and proper child spacing appear healthier, are able to complete their education, enjoy steady career progression, earn higher stable income, and raise societally balanced children (Osotimehin & Ann, 2015). It was also noted that a woman who is unable to regulate and control her fertility cannot be considered in a state of complete physical, mental, and social well-being. A woman with an unplanned pregnancy cannot be considered to be in good health even if the pregnancy is not going to affect her physical health, or even if she delivers the unwanted child alive and with no physical disability (Mahmoud et al., 2017). Yet, despite the ongoing efforts to ensure that women adopt the use of family planning methods such as contraceptives, statistics show that uptake is still low, with only 12% of women using a modern method of family planning and about 19% of married women having an unmet need for family planning. No doubt, this may lead to high fertility rates and increased population growth in the face of the present economic instability facing Nigeria. However, several factors are attributable to the indifference towards family planning services by Nigerian women, including spousal disapproval, religious beliefs, cultural disapproval, fertility desires, fear of side effects, lack of proximity to family planning centers, poor services of family planning clinics, limited information and skills of providers, workload at the clinic, inconvenience at the family planning clinic, and cost, among others (Apanga & Adam, 2015; Egide, 2024).

It therefore becomes imperative to explore strategies that support a behavioral change in

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women and encourage a positive response towards the adoption of relevant family planning methods. According to Blumenberg (2020) and Tazinya et al. (2022), such behavioral change campaigns should address socio-cultural barriers and promote gender-sensitive messaging to empower women to make informed choices about their reproductive health. It is believed that by addressing certain barriers, the goal of stakeholders would be achieved.

This study is thereby focused on:

(1) Examining the extent of awareness about family planning products in Nigeria

(2) Determining the level of interest towards family planning products in Nigeria

(3) Ascertaining the extent of adoption of family planning products in Nigeria

In order to achieve the study's objectives, the following hypotheses are hereby postulated:

(i) The extent of awareness about family planning products in Nigeria is not significantly high.

(ii) The level of interest towards family planning products in Nigeria is not significantly high.

(iii)The extent of adoption of family planning products in Nigeria is not significantly high.

Review of Related Literature

Women's socio-economic status and decision-making ability towards family planning

Women constitute a primary target in the market for family planning products considering the significant role they play in family decision-making. In the past, women were usually not consulted on numerous family matters on which men make decisions (Bitew et al., 2024; Biwas et al., 2020; Mtae, 2021). In contrast, Tadele, Tesfay, and Kebede (2019) stated that women's decision-making power in regard to Reproductive Health and Rights (RHR) is an integral part of achieving reproductive well-being. In as much as external pressures in the form of spousal relations inequality, gender imbalance, and knowledge about reproductive health and rights were found to influence women's decision-making power, the literature shows that women with higher domestic decision-making power regarding their health care were more intentional towards exhibiting positive responsiveness in health care services. Thus, the inclusion of married women in decision-making in households in all spheres of life, including health care, has attracted the attention of government, scholars, and other stakeholders globally because of the perceived notion over time that women and men are not equal. Yet, empowered women have demonstrated the freedom, equal opportunities, and ability to choose in all areas of life over time (Edmund et al., 2025; Rummery et al., 2025).

According to Pires (2021), the availability of economic resources and social support enhances women's decision-making roles in sub-Saharan Africa. Edmund et al. (2025) attributes this to the resource theory, which is the sociological framework that examines how the control and distribution of resources within households influence power dynamics and decision-making processes. This theory explains the power dynamics and negotiations that determine decision-making roles. This theory also posits that the partner with more control over social, financial, and human resources has greater decision-making power. (Bitew et al. (2024) argued that despite different initiatives, women in Nigeria and other developing or African countries have limited autonomy and control over their household decisions.

For instance, Lassi et al. (2021) found in Pakistan that women's participation in household decision-making is significantly influenced by wealth index, media exposure, women's region of residence, and education. In Zambia, Thankian (2020) reported that married women are more likely to participate in decision-making involving visits to their families or relatives, purchases of daily household items, and decisions about their health care. In Nigeria, Soetan and Obiyan (2019) found that paid employment, the household wealth index, and educational status improved women's participation in household decision-making. In Ethiopia, Bitew et al. (2023) found that women's participation in household decision-making is high (70.55%). Participation is influenced by socio-demographic and economic characteristics of women, such as religion, working status of respondents, husband's working status, women's residence, sex of the household head, age of the household head, education, and wealth index. Bitew et al. (2024) added that in rural areas in Ethiopia,

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women's decision-making autonomy was significantly determined by women's economic participation, the proportion of early marriage in the community, women's literacy, and women's involvement. Edmund et al. (2025) found that married women with primary and secondary education were more likely to participate in all major household decisions than those without. They supported this claim with findings from Ethiopia (Bitew et al., 2024), Nepal (Acharya et al., 2010; Pokharel & Pokharel, 2023), and Bangladesh (Haque et al., 2022; Chowdhury, 2023) that literate married women had increased odds of decision-making autonomy compared to illiterate married women. This is due to the fact that education provides women with the knowledge and skills that enhance their confidence and ability to engage in decision-making processes, thus making them better equipped to understand and analyze household needs and make informed decisions. Education raises awareness about married women's rights and gender equality; as such, educated married women are more likely to assert their rights and demand a say in household matters. Likewise, education often expands social networks and access to information, enabling married women to draw on a broader range of resources and support when making decisions (McCleary-Sillsetal, 2015; Mare et al., 2022; Jaysawal & Saha, 2022).

Challenges of customers' adoption of family planning products

In spite of efforts towards increasing the awareness of customers towards family planning, including contraceptive methods, benefits, and where to access services, adoption of family planning products seems to still be low. In Ghana, for instance, despite significant efforts to increase awareness and access to family planning services, there remain challenges in effectively reaching and engaging women in these initiatives (Egide, 2024). Understanding women's perceptions of family planning campaigns is important for channeling interventions that address their specific needs and preferences (Apanga and Adam 2015). Egide (2024) noted that, even though there is widespread exposure to family planning campaigns, their effectiveness in influencing contraceptive behavior varies. Studies suggest that exposure to mass media campaigns alone may not be adequate to encourage change in behavior, particularly among marginalized populations. Factors such as cultural beliefs, socio-economic status, and access to services also influence women's decision-making regarding contraceptive use (Ahmed et al., 2020). Gupta et al. (2003) stated that, despite efforts to increase awareness and exposure, challenges persist in reaching certain groups of women, including those in remote rural areas and marginalized communities. Moreover, the messaging of family planning campaigns may not always resonate with the cultural norms and beliefs of the target population, leading to skepticism or resistance.

The AIDA model and customer adoption of family planning methods

The AIDA was introduced by Elmo Lewis in 1898 (Javan et al., 2018). Lewis emphasized that advertising plays a crucial role in maximizing company profits, particularly by facilitating interaction between sellers and buyers about the product (Lee et al., 2018). In addition, he further highlighted that a product must first attract the attention of consumers and generate enthusiasm. Furthermore, convincing the consumers to have the product and ultimately leading to a purchase action is the responsibility of the marketer once the benefit of the product is shown (Ullal & Hawaldar, 2018). The AIDA model fosters strong positive and noteworthy relationships by increasing customer interest and satisfaction through effective product promotion. The model demonstrates a customer's gradual movement from attention to interest to desire and finally, to action. Advertising messages on family planning products need to successfully capture the attention of consumers so that they are remembered, recognized, and appreciated by consumers. To stir up customers' interest in family planning products, advertising messages would need to focus on emphasizing the features of the product. The emergence of consumer interest means that the message or information conveyed by marketers has brought about further curiosity towards the product. A great way to lead customers towards desiring family planning products is by creating a strong

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impression of the products and convincing consumers that everything demonstrated is in accordance with the best needs and choices. When a strong desire is created, either because of instinct or persuasive marketing effort, then consumers tend to move towards the final phase of the model, which is to purchase the product.

Methodology

This study was specifically carried out in Enugu State, Nigeria, and employed the descriptive survey design, which involved the collection of data from women of reproductive health within the area. Only primary data was used for this study. The population of the study consists of adult married women of reproductive age (18 years to 49 years). This age range is relevant because it covers the official lower age of adulthood in Nigeria and also incorporates the age range in which women are biologically capable of becoming pregnant and having children. Women in this age group are also likely to be at a stage in life where they are making decisions about their careers, family size, and overall socioeconomic circumstances (World Health Organization, 2025).

The purposive sampling technique was used to select respondents. The choice of purposive sampling technique was based on the fact that respondents meet the criteria of being married women of childbearing age within the study area. The research instrument in the study was the questionnaire, which was validated using the content validity method, while the Cronbach's alpha coefficient was used to test the reliability. Data was collected specifically from married women that visited the general hospital's facilities for either antenatal clinics or for immunization purposes within the study area.

Data Presentation and Analysis

A total of 163 usable copies of the questionnaire were used to analyze the data. The table below shows the socio-economic profile of respondents.

Table 1:Respondents' Socio-economic profile

Age	Frequency	Percentage
18 - 25years	24	15
26 - 35years	73	45
36 - 45years	57	35
Above 45years	9	5
Total	163	100
Number of Children		
1-2	21	13
3-5	83	51
Above 5	59	36
Total	163	100
Educational Level		
Didn't attend school	Nil	Nil
Primary level	15	9
Secondary level	55	34
Graduate & above	93	57
Total	163	100
Occupational Status		
Employed	62	38
Unemployed	34	21
Self-Unemployed	67	41
Total	163	100
Income Level (#'000)		
Less than 100	47	29
100 - 150k	52	32
151 – 200	35	22
201 – 250	15	09
Above 250	14	08
Total	163	100

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Table 1 above reveals that majority of the women (45%) were aged between 26-35 years, respondents, 15% were between ages 18 - 25years, 35% were aged between 36-45years while respondents5% were above 45 years. The age distribution of the respondents show that majority of the respondents were in their middle ages within which many women are actively involved in child bearing. Many of these younger women have the desire to have limited number of children when reached with the right programmes to enhance their knowledge about family planning use.

The table also shows that majority of the respondents (51%) had between 3 - 5 children, 36% had above 5 children whereas a small percentage (13%) had between 1-2 children. It is expected that women with many children may be more willing to use family planning methods than those with few children since they may have attained their expected number of children.

Also, the majority of the respondents (57%) had completed a higher degree, while 34% indicated they had completed secondary education, 9% had primary education and none indicated not going to school at all. More educated women were more likely to be gainfully employed, well informed and as well as less likely to be affected by illusory fears about the negative effects of modern contraceptives.

Furthermore, majority of the respondents (41%) are self-employed, 38% employed in various sectors and 21% unemployed. Most of the respondents (32%) have basic incomes between #101,000 - #150,000, 22% earn between #151,000 - #200,000, 29% earn below #100,000, while little percent (9%) and (8%) of the respondents earned between #201,000 -#250,000 and above #251,000 respectively.

Positive employment status helps women to get enough money to purchase family planning products.

Table 2:Level of awareness of family planning methods

Statement	Frequency		Total
Have you ever heard of family planning products before?	**Yes**	**No**	
	159 (97.5%)	**4 (2.5%)**	**163 (100%)**

Table 2 above shows that majority (97.5%) of the respondents have heard about family planning methods while 2.5% have not heard of it.

Table 3:Level of interest of women in family planning products

Statement	Frequency
Discuss about family planning with friends	10 (6%)
Potential User of family planning	38 (23%)
Pay attention to campaigns on family planning	30 (19%)
Shown interest in learning about family planning	85 (52%)
Total	163 (100%)

Table 3 shows that 52% of respondents expressed interest in learning about family planning, which is the highest degree of response. About 23% identified themselves as potential users, while 19% reported paying attention to campaigns. A smaller proportion (6%) reported discussing family planning with friends. This suggests that while individual interest in learning is fairly strong, interpersonal and campaign-related engagement remains relatively low.

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Table 4:Extent of family planning adoption by women in Nigeria

Statement	SA(5)	A(4)	N(3)	D(2)	SD(1)	Mean
I have personally used (or currently use) family planning methods	55	60	20	18	10	3.8
I have visited a health facility in the past year to obtain family planning services/products	50	55	25	20	13	3.7
I practice family planning consistently as part of my reproductive health routine	58	60	20	15	10	3.9

Table 4 shows that women in Enugu State show a high level of adoption intention and practice of family planning methods. Additionally, a considerable number of respondents practice family planning consistently (Mean = 3.9) and have personally used family planning methods (Mean = 3.8). A reasonable number of respondents have also reported visiting health facilities in the past year (Mean = 3.7) for family planning purpose. Thus, the overall trend suggests a strong readiness to adopt and sustain family planning methods.

Test of Hypotheses

For hypothesis one, the chi-square statistic was used to test the hypothesis.

Using chi-square statistical test (χ^2), we obtained:

Calculated $\chi^2 = 147.3$
Critical value at 0.05 = 3.841.

Decision: Since calculated χ^2 (147.3) is greater than critical value (3.841), we reject the null hypothesis.

Table 2 confirms that almost all women (97.5%) had heard of family planning. Thus, we uphold the alternate hypothesis which states that the extent of awareness about family planning products in Nigeria is significantly high.
For hypotheses two and three, the one-sample T-test statistic is used and the results are shown in the table below:

Table 5:Results of the one-sample T-test

	t-value	Critical value at 0.05	Decision
Hypothesis 2	14.15	1.97	Reject H_0
Hypothesis 3	12.73	2.13	Reject H_0

For hypothesis two, using t-test statistics, we obtained:

Calculated t-value = 14.15
Critical t-value at 0.05 = 1.97
Since the calculated t-value (14.15) is greater than the critical t-value (1.97) at the 0.05 level of significance, the null hypothesis is rejected.

Table 3 indicates that over half of the respondents (52%) showed strong interest in learning about family planning, while 19% paid attention to campaigns and 23% indicated they were potential users. The statistical test confirms that overall interest is significantly above average, suggesting that women in Enugu State are open to learning more and possibly adopting family planning methods. We hereby uphold the alternative hypothesis that states that the level of interest towards family planning products in Nigeria is significantly high.

For hypothesis three, using t-test statistics, we obtained:

Calculated t-value = 12.73
Critical t-value at 0.05 = 2.13
Since calculated t-value (12.73) is greater than the critical t-value (2.13) at the 0.05 level of significance, the null hypothesis is rejected.
Table 4 confirms that women in Enugu State are actively adopting family planning methods, and

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this adoption is strongly influenced by social marketing strategies, consistent health facility patronage, and positive behavioral change**.** We hereby uphold the alternate hypothesis which states that the extent of adoption of family planning products in Nigeria is significantly high.

Conclusion

The study revealed that the awareness of family planning among women in Nigeria is generally high, as more women indicated that they had heard about family planning products. This also demonstrates widespread knowledge of family planning within the study area and also indicates that women in Nigeria are not only aware of family planning but also understand its functional importance, particularly in birth control and child spacing. This is in contrast to what obtains in other developing countries (Ahmed et al., 2020; Egide, 2024).

The study aligns with a study conducted by Ugwu, Ogbuke, and Ofoegbu (2020), which shows that a significant number of women in Nigeria are interested in learning about family planning products. However, while the majority of women demonstrate a positive inclination toward family planning, the modes of engagement differ, with greater emphasis on personal learning and potential adoption rather than open discussions with peers.

The study also shows that the majority of women in Nigeria indicated that they had personally used or were currently using family planning methods. Unlike other developing countries where the inertia towards family planning products is still high (Blumenberg 2020; Tazinya et al., 2022), Nigerian women are demonstrating a positive inclination towards family planning products.

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