




# “Social marketing efficacy in driving attitudinal changes of female students: Escapade of campus prostitution in Nigerian universities”


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# SOCIAL MARKETING EFFICACY IN DRIVING ATTITUDINAL CHANGES OF FEMALE STUDENTS: ESCAPE OF CAMPUS PROSTITUTION IN NIGERIAN UNIVERSITIES

**Abstract**

Campus prostitution, quite different from traditional prostitution, is commonly known as "hook-up" and it is highly frowned upon as a major social vice in Nigeria. This study examined the potentials of Facebook, Twitter, and WhatsApp in influencing the attitudinal change of female students toward campus prostitution in Nigerian universities. The population comprises female students in select universities in Southeastern Nigeria. However, Cochran's formula was used to determine the sample size. Snowball sampling was used in selecting every identified hook-up girl who subsequently contacted a co-prostitute via referral after being offered monetary incentive. A pilot survey was conducted, and the study obtained Cronbach's Alpha value of 0.890. Furthermore, 384 structured questionnaires were distributed, and 325 were adequately returned. Hence, simple linear regression was used to analyze the data and the findings revealed that Facebook messages significantly and positively influence the attitudinal change of female students toward campus prostitution ( $r = 0.981$ ;  $t = 157.402$ ;  $F = 24775.501$ ;  $p < 0.05$ ). Similarly, Twitter messages significantly and positively influence the attitudinal change of female students toward campus prostitution ( $r = 0.977$ ;  $t = 144.375$ ;  $F = 20844.055$ ;  $p < 0.05$ ). Lastly, WhatsApp messages significantly and positively influence the attitudinal change of female students toward campus prostitution ( $r = 0.984$ ;  $t = 174.458$ ;  $F = 30435.505$ ;  $p < 0.05$ ). Thus, these tools are potentially effective and should be adopted by the university authorities to engender high moral standards.

**Keywords**

marketing, Facebook, Twitter, WhatsApp, attitude, prostitute, theory of reasoned action, Southeastern Nigeria

**JEL Classification**

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**INTRODUCTION**

Marketing possesses all the repertoires that are prerequisites for delivering successful business programs. Interestingly, the business arena has become highly mercurial and dynamic, and most business managers have started adopting social marketing as a strategic approach to encourage a change of behavior among their patrons (Akbar et al., 2022; Eagle et al., 2017). Social marketing is a marketing communication campaign and intervention strategy that has gained global recognition and acceptance in both academia and industry for being highly fundamental in achieving social change through individual and group behavioral transformations. It secures a behavioral turnaround from bad to good and has cut across other disciplines, such as communication, sociology, behavioral psychology, human resources management, behavioral economics, public health, etc. Given this, Cook et al. (2021)

affirmed that its efficacy in attitudinal reformation had been effectively and specifically demonstrated in other domains, such as physical health, global health, and environmental sustainability. It holistically adopts marketing principles and strategies to change people's attitudes and behaviors, making them more relevant to themselves and the entire society. It is a social inclination toward the rejection of socially unacceptable behavior, hence creating a sense of purpose in the individuals by making them to endorse a standard of behavior.

However, the unprecedented upsurge in campus prostitution (hook-up) in Nigerian universities is quite overwhelming. Campus prostitution is a moral decadence, and its devastating effect on the prostitute and the society at large is colossal. In the past, campus prostitution in Nigerian universities was very unpopular but has coincidentally become ubiquitous nowadays. Ukaegbu et al. (2017) remarked that it is an act perpetrated by female students mainly on weekends and sparsely on weekdays to satisfy their hunger for money, sex, and materialism. Accordingly, these campus prostitutes parade themselves in flamboyant cars, luxurious apartments, and rich ornaments, consequently making them subject of jealousy among their colleagues. Incidentally, Nigeria's economic recession and increased rate of poverty are the remote inducements for this behavior.

Furthermore, although there is strewn news in both the traditional and social media on campus prostitution, the use of either traditional or social media as potent social marketing weapons to combat campus prostitution by the university authorities has neither been formally adopted nor studied. No study in Nigeria has been conducted on the potentials of Facebook, Twitter, and WhatsApp as social marketing tools in encouraging the attitudinal transformation of female students toward campus prostitution. Against this backdrop, it is crucial to initiate a debate on the adoption of social marketing tools in achieving behavioral change toward campus prostitution in Nigerian universities.

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## 1. LITERATURE REVIEW AND HYPOTHESES

In truism, social marketing adopts marketing principles and practices to offer its target audience products, services, ideas, values, attitudes, and behaviors (Alakali et al., 2013). Behavioral transformation encourages the understanding and adaptability of a social idea by applying marketing principles and strategies. Therefore, its focus in the real sense is to preach attitudinal change from bad to good. Climent (2015) elucidated that social marketing is fundamentally a social change agent and an enabler that guarantees the encouragement of adopting a positive and profitable lifestyle, while discouraging the adoption of bad behavior. However, the relevance of social marketing in public health is overwhelming (Akbar et al., 2022). It cannot be overemphasized despite having been overlooked by many health experts due to their lack of basic knowledge and technical support (Timotin, 2019). Longfield et al. (2016) noted that many organizations have adopted social marketing practices over the last 50 years as an antidote for numerous marketing and marketing communications problems. Thus, Smith et al. (2018) affirmed that it is an indispensable

modern public health strategy. In reference to that, Olubodun et al. (2022) revealed that Lagos women's attitude toward the uptake of pap smears was significantly positive after their exposure to social marketing messages.

In addition, the adoption of social marketing is still nascent, as it has not been fully employed as an intervention strategy in Nigeria and other African countries (Olubodun et al., 2022). However, Izogo and Anumudu (2013) observed that the social marketing campaign by the late and former Minister of Information – Professor Dora Akunyili – encouraged a behavioral change in corruption-infested Nigeria. In that regard, the social campaign elevated Nigeria's image as a good and great country in its rebranding Nigeria project that was tagged “good people, great nation” as its slogan. Thus, social marketing does not necessarily promote an idea, product, or service but specifically communicates a behavioral change (Andreasen, 2002).

Moreover, the empirical results and benefits of social marketing in many aspects of business and human existence are overwhelming. Social mar-

keting played a substantial role in establishing a family planning program in India (Gordon et al., 2016). It has significantly impacted the marketing programs of many industries (Alakali et al., 2013) by strategically applying marketing principles (Olubodun et al., 2022) in packaging clinical preventive services in the health sector (Akbar et al., 2022). Brisibe et al. (2015) revealed that only social marketing strategies were required to develop a roadmap for attitudinal change toward the acceptance of non-communicable disease preventive services. Brisibe et al. (2015) argued that the uptake of health products and services in Nigeria has improved dramatically because of the application of strategic social marketing tools. Similarly, social media was adopted in the treatment of cancerous patients as a social marketing antidote for stimulating social change in the early treatment of cancer by encouraging regular check-ups (Climent, 2015). Besides, in a highly intractable environment, Gilani nia and Sharif (2011) revealed that it was tough for teenagers to change their attitude toward cigarette smoking. However, social marketing messages that specifically stated that cigarettes were sold to enrich companies instead of meeting the biological and psychological needs of the teens were strategically adopted as a powerful weapon for making the teenagers quit smoking. Clinically, Gilani nia and Sharif (2011) observed that within five months of a tremendous social marketing campaign, 92% of cigarette smokers became aware of the dangers of smoking, as well as the deceit perpetrated by cigarette companies. That campaign effectively changed the attitude (reducing cigarette smoking) of high school teens in Florida from 19.4% to 8%.

Facebook, Twitter, and WhatsApp are effective platforms for communicating with the public, given their several objectives: interactive, wider reach, speed of communication, target audience oriented, and cost-effectiveness (Okolo et al., 2018). They can serve as potent apparatuses for attitudinal change toward campus prostitution. Barrera-Verdugo and Villarroel-Villarroel (2022) found that exposure to Facebook messages strongly correlated with attitude toward entrepreneurship. Greenwood (2013) revealed that Facebook positively influenced people's attitudes toward fame. Similarly, Abitbol (2017) found that Facebook messages that conveyed undesirable public relations strategies influenced students'

attitudes. In contrast, the same study revealed that Facebook messages that conveyed desired public relations strategies did not influence students' attitudes.

In addition, Twitter advertising stimulated an attitudinal change (Chinchanachokchai & de Gregorio, 2020). Greenwood (2013) revealed that people's attitude toward fame was positively influenced by Twitter messages. Ghouse et al. (2022) found that the attitude of Indian millennial consumers was significantly influenced by Twitter advertising. Park (2020) showed that Twitter messages that focused on creating fear appeals resulted in a public change of attitude toward climate change. Subsequently, Twitter posts by a political candidate significantly and positively influenced the attitude of the candidate's followers (Soedarsono et al., 2020). In contrast, Pindado and Barrena (2021) found that the attitude of Malaysian Twitter users toward food trends was positive but insignificant. Further, Gough et al. (2017) revealed that improved attitudes toward ultraviolet exposure and skin cancer were significantly influenced by Twitter messages.

Similarly, Arisani and Wahyuni (2023) found that the exposure of adolescents in Isen Mulang High School, Palangka Raya City, Indonesia to WhatsApp communication changed their attitude toward risky sexual behavior. Moawad (2022) revealed that the change in attitudes of Saudi Arabians toward wearing masks, utilization of hand sanitizer, social distancing, and other precautionary COVID-19 measures were due to WhatsApp communication. Haque and Wok (2020) revealed that a positive attitude toward improved learning was as a result of students' exposure to WhatsApp communication with their classmates. Kartal (2019) found that WhatsApp led to increased language attitudes and motivation among users. Certainly, Facebook, Twitter, and WhatsApp are viable platforms for attitudinal change.

In Nigeria and other societies in the world, the practice of prostitution is abhorrent because it is antithetical to virtuous human behavior. It is an age-long profession (Almaguer et al., 2014), which Nwakanma (2015) defined as the act of offering monetary exchange for sexual gratification. Put differently, Bhunu et al. (2014) defined it as the act of gaining remuneration through sexual satisfaction. Similarly, Aloba and Ndifon (2014) defined it as the act of having sexual intercourse for money or other

valuables with individuals who are not legitimately betrothed to someone. According to Gungul and Audu (2021), the quest for socio-economic survival is the remote and immediate cause of prostitution in Nigeria. Arguably, it is an act perpetrated by female folks and could sometimes be traced to the inability of the government to provide the primordial needs of the citizens. It has brought to nullity every attempt and pressure by the government authority to abolish (Poroma et al., 2015). Surprisingly, Poroma et al. (2015) observed that male prostitution exists, though not as popular as its female counterpart. Nwakanma (2015) parochially suggested that prostitution should be legalized as a legitimate source of income for the poor, given that it is a genuine business that generates over \$100 billion globally. In contrast, Fawole and Dagunduro (2014) underscored that prostitution is an anomy that must be jettisoned by many societies worldwide.

Campus prostitution has regrettably and cancerously defaced the image of Nigerian universities, thus making it generally frowned upon (Owie & Eshemogie, 2023) as a social vice. This significant defiant and immoral behavior exhibited by female students in Nigerian universities (Imaledo et al., 2012) has led to the decline of moral values among female students. It is known as “hook-up;” however, it has been tagged different names, such as “aristo, ndi ogo, runs, parole, flexing, digging, late hour, survival,” etc. Those who engage in it are called hook-up girls; however, they had been called other names, such as “big girls, big chicks, and high chicks.” On the other hand, their clients are called “big boys, Yahoo boys, Malaysian boys, and now - Yahoo Boys+.”

However, unlike the traditional prostitutes, campus prostitutes do not have a specific location where they live and entertain their clients. Rather, they simply use phone contacts to hook up with their clients to engage in sex and other nefarious activities. Consequently, many sad events such as rape and money ritual murders committed by the so-called Yahoo Boys+ in a bid to become millionaires have befallen these prostitutes. Nevertheless, despite these incidents, campus prostitution continues undeterred and unabated in Nigerian universities. Though illegal, those who engage in it are not hidden from the public as fellow students, parents, and lecturers know them, given that their clients openly come with luxurious cars to pick them up at the university premises.

Sadly, lecturers equally engage these prostitutes by offering either money or grades. Underpinning this, Oyeoku et al. (2014) emphasized that lecturers equally get involved in this dastardly act with their female students when they trade marks or grades for sexual satisfaction.

In promoting campus prostitution outside the campuses, Oyeoku et al. (2014) reported that pimps in hotels use photo albums to advertise campus prostitutes so that their clients can easily reach out to them via phone calls. In addition, Oyeoku et al. (2014) asserted that campus prostitutes are contracted to render special services at political events where they are hired by politicians to nudely entertain people and engage in the sex trade with them at the end of such occasions. Consequently, campus prostitution has resulted in an outrageous upsurge in HIV/AIDS cases as well as other sexually transmitted diseases such as gonorrhoea and syphilis in Nigerian universities (Ogunkan et al., 2011; Fawole & Osho, 2017).

Furthermore, the theory of reasoned action (TRA) is highly suitable for this investigation. It holds that people are very rational, given that the choices they make most times affect their ability to expose themselves to the kind of information they choose to acquire (Kubeck, 2007). Kubeck (2007) posited that human behavior is influenced by their beliefs, attitudes, and intentions, having exposed themselves to a particular message (Facebook, Twitter, and WhatsApp). Hagger (2019) affirmed that the TRA revolves around behavioral and normative beliefs, intentions, attitudes, and behavior. Indeed, an individual’s intention will lead to an action or behavior, while belief and attitude will lead to intention.

Coincidentally, TRA has been applied in studies that concern the use of condoms, seat belts, women’s choice to either breastfeed or not, and many other studies (Humphrey et al., 1998). Juxtaposing TRA with this study, a campus prostitute’s intention to quit prostitution is determined by the belief that it is immoral, hence leading to the formation of a negative attitude toward it and the actual behavior to quit prostitution. In other words, the latitude toward forming a negative attitude toward campus prostitution will lead to the intention to avoid indulging in it (Fishbein & Yzer, 2003). Obviously, the tendency to exhibit a particular behavior is an antecedent to an individual’s belief and attitude to act in a particu-

lar manner, as well as the positive or negative influences of those (classmates and friends) around such a person in certain situations (Fishbein & Yzer, 2003). For instance, a campus prostitute will undoubtedly develop an attitude and intention to quit this act the moment she sees her colleagues quitting, having received convincing messages from the university authority's Facebook, Twitter, and WhatsApp platforms.

Furthermore, TRA forms the basis for persuasive research being fashioned as a trajectory for behavioral change through individual and group exposition to relevant information (Yzer, 2013). Yzer (2013) narrated that this information can emanate from personal experience and numerous social marketing sources such as Facebook, Twitter, WhatsApp, TV, radio, etc. However, university authorities in Nigeria have not formally adopted Facebook, Twitter, and WhatsApp as social marketing tools to wage an efficacious war against campus prostitution. Therefore, this study is timely as it focuses its lens on determining the potentials of social marketing in encouraging the transmission of negative messages about campus prostitution, focused toward dissuading female students from indulging in the dastardly act.

Summarily, the spate of campus prostitution has become highly unprecedented, given that it has been ubiquitously reported across many Nigerian media that a lot of campus prostitutes have fallen victim to money ritual murderers, especially the so-called Yahoo Boy+. Fawole and Osho (2017) underpinned this statement. Regrettably, many had lost their lives in scattered incidents. Unspeakably, the parents of these victims never knew that their daughters, whom they had sent to the university to study and tow a successful career path in life, had abandoned their primary responsibility to join bad gangs and engage in all manner of immoral behaviors and criminalities (Owie & Eshemogie, 2023). This study, therefore, seeks to examine the potential of social marketing in influencing the attitudinal transformation of female students toward campus prostitution. Based on thorough scrutiny of extant literature, three independent constructs such as Facebook, Twitter, and WhatsApp were selected to find out whether they possess the potentials to encourage attitudinal change of female students toward campus prostitution (dependent construct). In view of the reviewed literature, these hypotheses were proposed:

*H1: Facebook messages have the potential to influence the attitudinal change of female students toward campus prostitution.*

*H2: Twitter messages have the potential to influence the attitudinal change of female students toward campus prostitution.*

*H3: WhatsApp messages have the potential to influence the attitudinal change of female students toward campus prostitution.*

## 2. METHODOLOGY

Although campus prostitution is illegal in Nigerian universities, the students who engage in it can easily be identified through snowball sampling. In snowballing, respondents are contacted on recommendation, and each identified campus prostitute contacted another co-prostitute after being offered money. This study administered copies of structured questionnaire between January 2021 and July 2023 to gather primary data from campus prostitutes from five federal universities in Southeastern Nigeria. These include the University of Nigeria, Nsukka, located in Enugu State; Nnamdi Azikiwe University, Awka, located in Anambra State; Alex Ekwueme Federal University, Ndufu-Alike, located in Ebonyi State; Federal University of Technology, Owerri, located in Imo State; and Michael Okpara University of Agriculture, Umudike, located in Abia State.

Cochran's formula for determining an infinite population was adopted. A sample size of 384 was obtained. In addition, the content validity of the research instrument was established by handing out copies of the questionnaire to experts from marketing and sociology backgrounds who modified and made necessary corrections to enable the instrument to measure accurately what it intended to measure. A pilot study was conducted by distributing 30 copies of the questionnaire, which was used for the reliability test. In applying the Cronbach's Alpha, 0.890 was obtained. Moreover, the Statistical Package for Social Sciences (SPSS) version 22 was adopted to conduct simple linear regression data analysis.

### 3. RESULTS

Descriptive statistics were applied in the presentation and data analysis. The simple linear regression was used to test the hypotheses at 0.05 alpha level.

Based on the aggregate responses on Facebook effects, Table 1 shows that 855 indicated a very high extent, 787 indicated a high extent, 127 indicated a moderate extent, 106 indicated a low extent, and 75 indicated a very low extent in that order. This signifies that while many of the campus prostitutes (1,767) agreed that Facebook messages have the potential to change female students' attitudes toward campus prostitution, 181 disagreed.

The residual sum of squares (36.419) in Table 3 is less than the regression sum of squares (927.331), revealing that the model did not explain why the dependent variable differed extensively. The *F* statistics (0.000) significance value is less than 0.05, revealing that because of probability, the model could explain the variation. *R*-value of 0.981 reveals that Facebook messages have the potential to significantly and positively influence the attitudinal change of female students toward campus prostitution, as shown in Tables 2 and 3. The coefficient of determination shows that the variation in female students' attitudinal change toward campus prostitution is 96.2%. The error of estimate, as shown in the model of linear regression, is 0.19347, showing that the value is low. In addition, it

**Table 1.** Facebook effects on attitudinal changes of female students toward campus prostitution

| S/No  | Questionnaire items  | Very High Extent | High Extent | Moderate Extent | Low Extent | Very Low Extent | Total (Freq) |
|-------|--|------------------|-------------|-----------------|------------|-----------------|--------------|
|       |  | Freq.            | Freq.       | Freq.           | Freq.      | Freq.           |              |
| 1     | Facebook messages about campus prostitution can easily be targeted toward specific individuals.                            | 148              | 129         | 26              | 15         | 07              | 325          |
| 2     | Through Facebook messages, individuals can drop feedback on why they engage in campus prostitution.                        | 141              | 130         | 25              | 19         | 10              | 325          |
| 3     | Facebook messages can be very convenient and convincing in changing an individual's attitude toward campus prostitution.   | 144              | 127         | 21              | 20         | 13              | 325          |
| 4     | An individual's attitude toward campus prostitution can be exposed as immoral via Facebook messages.                       | 150              | 134         | 20              | 13         | 08              | 325          |
| 5     | Campus prostitution is a bad attitude, and an individual can easily be persuaded via Facebook messages to refrain from it. | 129              | 139         | 19              | 22         | 16              | 325          |
| 6     | An individual's attitude toward campus prostitution can change in totality to good moral behavior via Facebook messages.   | 143              | 128         | 16              | 17         | 21              | 325          |
| TOTAL |  | 855              | 787         | 127             | 106        | 75              | 1,950        |

**Table 2.** Model summary<sup>b</sup>

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .981 <sup>a</sup> | .962     | .962              | .19347                     | .205          |

Note: a. Predictors: (Constant), Facebook. b. Dependent Variable: Attitudinal Change.

**Table 3.** ANOVA<sup>a</sup>

| Model        | Sum of Squares | df  | Mean Square | F         | Sig.              |
|--------------|----------------|-----|-------------|-----------|-------------------|
| 1 Regression | 927.331        | 1   | 927.331     | 24775.501 | .000 <sup>b</sup> |
| Residual     | 36.419         | 973 | .037        |           |                   |
| Total        | 963.750        | 974 |             |           |                   |

Note: a. Dependent Variable: Attitudinal Change. b. Predictors: (Constant), Facebook.

**Table 4.** Coefficients<sup>a</sup>

| Model        | Unstandardized Coefficients |            | Standardized Coefficients | t       | Sig. |
|--------------|-----------------------------|------------|---------------------------|---------|------|
|              | B                           | Std. Error | Beta                      |         |      |
| 1 (Constant) | .327                        | .025       |                           | 12.987  | .000 |
| Facebook     | .930                        | .006       | .981                      | 157.402 | .000 |

Note: a. Dependent Variable: Attitudinal Change.

was indicated in Table 2 that there is no autocorrelation as the Durbin-Watson value of 0.205 is less than 2. Hence, female students' attitudinal change toward campus prostitution can be significantly and positively influenced by Facebook messages, as shown by its 0.981 coefficient. As such, H1 is accepted: the *t*-value of 157.402 is significant statistically, as revealed in Tables 4 and 13.

Based on the aggregate responses on Twitter effects, Table 5 shows that 826 indicated a very high extent, 785 indicated a high extent, 144 indicated a moderate extent, 102 indicated a low extent, and 93 indicated a very low extent in that order. This signifies that while many of the campus prosti-

tutes (1,755) agreed that Twitter messages have the potential to change female students' attitudes toward campus prostitution, 195 disagreed.

The residual sum of squares (49.870) in Table 7 is less than the regression sum of squares (1068.329), revealing that the model did not explain why the dependent variable differed extensively. The *F* statistics (0.000) significance value is less than 0.05, revealing that because of probability, the model was able to explain the variation. *R*-value of 0.977 reveals that Twitter messages have the potential to significantly and positively influence the attitudinal change of female students toward campus prostitution, as shown in Tables 6 and 7. The

**Table 5.** Twitter effects on attitudinal changes of female students toward campus prostitution

| S/No  | Questionnaire items   | Very High Extent | High Extent | Moderate Extent | Low Extent | Very Low Extent | Total (Freq) |
|-------|---|------------------|-------------|-----------------|------------|-----------------|--------------|
|       |   | Freq.            | Freq.       | Freq.           | Freq.      | Freq.           |              |
| 1     | Twitter messages about campus prostitution can easily be targeted toward specific individuals.                          | 138              | 129         | 25              | 15         | 18              | 325          |
| 2     | Through Twitter messages, individuals can drop feedback on why they engage in campus prostitution.                      | 143              | 126         | 20              | 18         | 18              | 325          |
| 3     | Twitter messages can be very convenient and convincing in changing an individual's attitude toward campus prostitution. | 144              | 134         | 19              | 13         | 15              | 325          |
| 4     | An individual's attitude toward campus prostitution can be exposed as immoral via Twitter messages.                     | 135              | 134         | 29              | 17         | 10              | 325          |
| 5     | Campus prostitution is a bad attitude, and an individual can easily be persuaded via Twitter messages to shun it.       | 129              | 132         | 26              | 20         | 18              | 325          |
| 6     | An individual's attitude toward campus prostitution can change in totality to good moral behavior via Twitter messages. | 137              | 130         | 25              | 19         | 14              | 325          |
| TOTAL |   | 826              | 785         | 144             | 102        | 93              | 1,950        |

**Table 6.** Model summary<sup>b</sup>

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .977 <sup>a</sup> | .955     | .955              | .22639                     | .160          |

Note: a. Predictors: (Constant), Twitter. b. Dependent Variable: Attitudinal Change.

**Table 7.** ANOVA<sup>a</sup>

| Model        | Sum of Squares | df  | Mean Square | F         | Sig.              |
|--------------|----------------|-----|-------------|-----------|-------------------|
| 1 Regression | 1068.329       | 1   | 1068.329    | 20844.055 | .000 <sup>b</sup> |
| 1 Residual   | 49.870         | 973 | .051        |           |                   |
| Total        | 1118.199       | 974 |             |           |                   |

Note: a. Dependent Variable: Attitudinal Change. b. Predictors: (Constant), Twitter.

**Table 8.** Coefficients<sup>a</sup>

| Model        | Unstandardized Coefficients |            | Standardized Coefficients | t       | Sig. |
|--------------|-----------------------------|------------|---------------------------|---------|------|
|              | B                           | Std. Error | Beta                      |         |      |
| 1 (Constant) | .048                        | .029       |                           | 1.659   | .097 |
| 1 Twitter    | .996                        | .007       | .977                      | 144.375 | .000 |

Note: a. Dependent Variable: Attitudinal Change.



coefficient of determination shows that the variation in female students' attitudinal change toward campus prostitution is 95.5%. The error of the estimate, as shown in the model of linear regression, is 0.22639, showing that the value is low. In addition, Table 6 shows no autocorrelation as the Durbin-Watson value of 0.160 is less than 2. Hence, female students' attitudinal change toward campus prostitution can be significantly and positively influenced by Twitter messages, as shown by its 0.977 coefficient. As such, H2 is accepted, being that the *t*-value of 144.375 is significant statistically, as revealed in Tables 8 and 13.

Based on the aggregate responses on WhatsApp effects, Table 9 shows that 854 indicated a very high

extent, 805 indicated a high extent, 132 indicated a moderate extent, 91 indicated a low extent, and 68 indicated a very low extent in that order. This signifies that while many of the campus prostitutes (1,791) agreed that WhatsApp messages have the potential to change female students' attitudes toward campus prostitution, 159 disagreed.

The residual sum of squares (28.416) in Table 11 is less than the regression sum of squares (888.860), revealing that the model did not explain why the dependent variable differed extensively. The *F* statistics (0.000) significance value is less than 0.05, revealing that because of probability, the model could explain the variation. *R*-value of 0.984 reveals that WhatsApp messages have the potential

**Table 9.** WhatsApp effects on attitudinal changes of female students toward campus prostitution

| S/No  | Questionnaire items  | Very High Extent | High Extent | Moderate Extent | Low Extent | Very Low Extent | Total (Freq) |
|-------|--|------------------|-------------|-----------------|------------|-----------------|--------------|
|       |  | Freq.            | Freq.       | Freq.           | Freq.      | Freq.           |              |
| 1     | WhatsApp messages about campus prostitution can easily be targeted toward specific individuals.                          | 145              | 132         | 25              | 14         | 09              | 325          |
| 2     | Through WhatsApp messages, individuals can drop feedback on why they engage in campus prostitution.                      | 139              | 133         | 23              | 18         | 12              | 325          |
| 3     | WhatsApp messages can be very convenient and convincing in changing an individual's attitude toward campus prostitution. | 148              | 135         | 21              | 11         | 10              | 325          |
| 4     | An individual's attitude toward campus prostitution can be exposed as immoral via WhatsApp messages.                     | 144              | 134         | 20              | 15         | 12              | 325          |
| 5     | Campus prostitution is a bad attitude, and an individual can easily be persuaded via WhatsApp messages to shun it.       | 139              | 139         | 18              | 14         | 15              | 325          |
| 6     | An individual's attitude toward campus prostitution can change in totality to good moral behavior via WhatsApp messages. | 139              | 132         | 25              | 19         | 10              | 325          |
| TOTAL |  | 854              | 805         | 132             | 91         | 68              | 1,950        |

**Table 10.** Model summary<sup>b</sup>

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .984 <sup>a</sup> | .969     | .969              | .17089                     | .268          |

Note: a. Predictors: (Constant), WhatsApp. b. Dependent Variable: Attitudinal Change.

**Table 11.** ANOVA<sup>a</sup>

| Model        | Sum of Squares | df  | Mean Square | F         | Sig.              |
|--------------|----------------|-----|-------------|-----------|-------------------|
| 1 Regression | 888.860        | 1   | 888.860     | 30435.505 | .000 <sup>b</sup> |
| Residual     | 28.416         | 973 | .029        |           |                   |
| Total        | 917.276        | 974 |             |           |                   |

Note: a. Dependent Variable: Attitudinal Change. b. Predictors: (Constant), WhatsApp.

**Table 12.** Coefficients<sup>a</sup>

| Model        | Unstandardized Coefficients |            | Standardized Coefficients | t       | Sig. |
|--------------|-----------------------------|------------|---------------------------|---------|------|
|              | B                           | Std. Error | Beta                      |         |      |
| 1 (Constant) | .243                        | .023       |                           | 10.463  | .000 |
| WhatsApp     | .949                        | .005       | .984                      | 174.458 | .000 |

Note: a. Dependent Variable: Attitudinal Change.

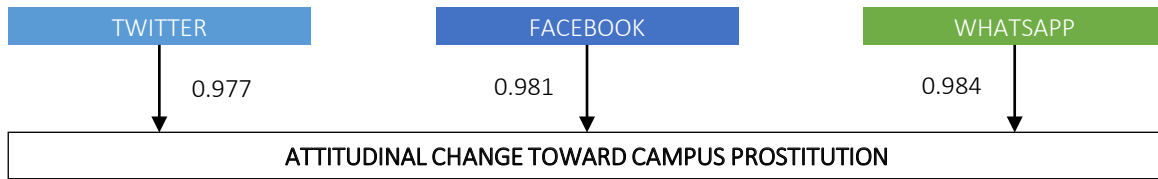


Figure 1. Hypothetical causal model results

Table 13. Summary results for hypotheses testing

| Hypotheses relationship | Hypotheses | Correlation coefficients | t-value | Decisions |
|-------------------------|------------|--------------------------|---------|-----------|
| Facebook → ACTCP        | H1         | 0.981                    | 157.402 | Supported |
| Twitter → ACTCP         | H2         | 0.977                    | 144.357 | Supported |
| WhatsApp → ACTCP        | H3         | 0.984                    | 174.458 | Supported |

Note: ACTCP – attitudinal change toward campus prostitution.

to significantly and positively influence the attitudinal change of female students toward campus prostitution, as shown in Tables 10 and 11. The coefficient of determination shows that the variation in female students’ attitudinal change toward campus prostitution is 96.9%. The error of the estimate, as shown in the model of linear regression, is .17089, showing that the value is low. In addition, it was indicated in Table 10 that there is no autocorrelation as the Durbin-Watson value of 0.268 is less than 2. Hence, female students’ attitudinal change toward campus prostitution can be significantly and positively influenced by WhatsApp messages, as shown by its 0.984 coefficient. As such, H3 is accepted: the *t*-value of 174.458 is significant statistically, as revealed in Tables 12 and 13. Finally, Table 13 and Figure 1 reveal the outcomes of the tested hypotheses.

#### 4. DISCUSSION

Facebook messages have the potential to positively and significantly influence the attitudinal change of female students toward campus prostitution ( $r = 0.981$ ;  $t = 157.402$ ;  $F = 24775.501$ ;  $p < 0.05$ ). Thus, university community can effectively and efficiently deploy Facebook as a social marketing strategy for combating campus prostitution within and outside the school premises. This is in contrast with Ufuophu-Biri and Iwu (2014), who revealed that students’ engagement in campus prostitution was motivated by Facebook messages. Instead of using Facebook to transform their positive attitude toward the act into a negative one, it aided campus prostitution. However, Ufuophu-

Biri and Iwu (2014) recommended that Facebook should not in any way be used to encourage campus prostitution. Moreover, Nnabuko et al. (2013) revealed that Facebook has a great influence on changing the attitude of Nigerians toward drug trafficking.

Similarly, Twitter messages have the potential to positively and significantly influence the attitudinal change of female students toward campus prostitution ( $r = 0.977$ ;  $t = 144.375$ ;  $F = 20844.055$ ;  $p < 0.05$ ). This indicates that Twitter can change the attitude of campus prostitutes from positive to negative if effectively deployed by the university authorities. Contrarily, Gora and Tarsani (2021) observed that Twitter communication had encouraged prostitution in Java, Indonesia. Corroborating this, Juditha (2021) found that Twitter is most widely used to encourage online prostitution; however, they advised that the government should intervene by blocking Twitter accounts used for promoting online prostitution. Consistent with this, Permatasari and Rakhmawati (2021) observed that serious effort had been made by the Indonesian government to stifle online (via Twitter) prostitution since children as well as female students are getting involved despite TV and Instagram artists who are already grounded in it.

Finally, WhatsApp messages have the potential to positively and significantly influence the attitudinal change of female students toward campus prostitution ( $r = 0.984$ ;  $t = 174.458$ ;  $F = 30435.505$ ;  $p < 0.05$ ). What this means is that WhatsApp communication on moral behavior can lead to behavioral transformation among campus prostitutes

when the authority of the universities deploys this social medium judiciously. Consistent with this, Widman et al. (2018) found that WhatsApp can successfully enhance attitudinal change toward sexuality. With reference to this, Arisani and Wahyuni (2023) discovered that the exposure to WhatsApp changed the attitudes of adolescents in certain schools in Indonesia toward bad sexual behavior. In contrast, Adegboyega (2019) revealed that WhatsApp, among other social media, ex-

poses students to prostitution and other sexuality. Similarly, Uzobo et al. (2020) indicated that high-risk sexual behavior among undergraduate students in the Niger Delta University in Nigeria was associated with WhatsApp messages. Thus, WhatsApp was instrumental to the students' exposure to immoral sexual behavior. Moreover, Sekyi et al. (2021) observed that in the management of relationships with their clients, sex workers deployed the WhatsApp platform.

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## CONCLUSION

The transformation of the attitude of female students toward campus prostitution in select Nigerian universities through the persuasive application of social marketing strategies such as Facebook, Twitter, and WhatsApp is the focal rationale for this study. Although the Nigerian university authorities have not formally adopted social marketing tools, specifically Facebook, Twitter, and WhatsApp to fight campus prostitution, the analysis revealed that Facebook, Twitter, and WhatsApp are potential efficacious strategies for communicating the need for female folks in Nigerian universities to make a U-turn toward campus prostitution, if cautiously deployed. This view is in tune with the theory of reasoned action that advocates for attitudinal change by exposing certain credible information to an individual or group.

In the 21<sup>st</sup> century, Facebook, Twitter, and WhatsApp have evolved and are still making tremendous impacts as social marketing weapons on the lives of people across the globe by transforming societies, so the university communities must embrace its adoption to avoid being sidetracked in the trajectory of information and communication superhighway.

Moreover, the Nigerian government should provide employment opportunities as well as an enabling environment for female students who have skills and talents, and are willing to do menial jobs even before they gain entry into high institutions. Female folks should be able to save enough money to foot their university education bills so that their chances of being lured into campus prostitution will drastically fade away. Interestingly, such programs as the National Poverty Eradication Program, Subsidy Reinvestment and Empowerment Program, YouWin, NPower, SURE-P, and other palliatives were laudable programs adopted by the federal government. Furthermore, the study advocates that the university authorities, including the governments and non-governmental organizations, should organize orientation and training programs via social media to formulate policies that will encourage the students to embark on part-time and ad-hoc jobs that will boost their finances while in school to discourage them from engaging in campus prostitution.

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