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Determinants of Acceptability and Use of Indigenous Cosmetics among Patrons in Ibadan Metropolis, Nigeria: Implication for Rural Livelihood

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Abstract

Use of indigenous cosmetics (IC) is fast loosing popularity in most African cities, in spite of their health, economic and social values. The study investigated acceptability and use of selected IC and determinants among patrons in Ibadan metropolis, Oyo state, Nigeria. A total 120 patrons of IC were sampled and survey questions were administered. PPMC and Tobit regression were used to isolate determinants of use of IC at 5% significance level. Result reveals a high relative health, economic and social values attached awareness and acceptability of IC among patrons. Black soap (made from wood and banana husk ash), coconut oil and shea butter were the most commonly acceptable and used. Patrons comprised individuals across different gender, religious and educational categories. Constraints to use of IC were poor packaging, inconsistency in quality and inadequate refined process. Use of IC was however significantly determined by sex - female (β = -2.274), perceived social advantage (β = 0.481) and acceptability (β=0.335). Perceived relative social advantage and acceptability were important predictors of use of indigenous cosmetics among patrons in Ibadan metropolis, Oyo state, Nigeria. Enormous prospects therefore exist for revitalization of the indigenous cosmetics industry in both rural and urban areas.

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Acknowledgement: The authors acknowledge the contributions of the teaching staff members of the Department of Agricultural Extension and Rural Development for the inputs made to enhance the smooth conduct of this research. The markets of indigenous cosmetics, especially the Iyalojas (woman market heads) in the selected markets of Oja-oba, Bere, Oje and Sango-elewure markets are also highly appreciated for providing information to link up with patrons of indigenous cosmetics.

1. Introduction

The drive to look good, maintain and improve external body health status is inherent in an individual. According to Adams (1977) the desire to improve one's physical attractiveness seems to be an inherent characteristic of most individual, so they develop several safe and healthy means to look good, this gave rise to the use of cosmetics. According to Sturrock and Pioch (1998) the body image is an important component of the self-concept and has stimulated the demand of certain products and services such as dietary, slimming, exercise and cosmetic items. Early beauty and cosmetic producers depended prodigiously on natural ingredients which include berries, bugs and charcoal to create a variety of colours and many more products were used for more than one purpose.

In Nigeria, the use of cosmetics is an age-long process that is universally practiced among the people of various ethnic groups of the country to maintain and enhance body beauty, as well as ensure skin care. Nigeria is a land of cultural diversities and this is expressed by the differences in their beauty–aids, despite apparent cultural fusion. Apart from farming, basket weaving, sowing and sales of clothing materials, sales of food products which were all major sources of livelihood among the rural people, production of cosmetics with the use of naturally available resources and sales also serve a means of household income generation strategy, especially in the rural area. The little income generated helps ensure not just means of survival, but also sustainability of living.

In the ancient times, rural women in Nigeria maintained and enhanced their body beauty making use of several cosmetics which were made locally with indigenous ingredients. The rural diversification gave room for rural women who mainly dwelt on their quest to look good, thereby making use of their knowledge of cosmetic production in making cosmetics. This serves as a source of livelihood which was totally an off-farm source of livelihood. These cosmetics were made available by the local women for occasions like marriage which includes the application cosmetics like Tiro (Kohl) and Laali (Henna-plant) on the bride. They are also used outside of these special occasions, as majority, especially women using them for body adornment in casual outings. The IC is also used in solving skin problems such as eczema and pimples with black soap and aloe vera, among others commonly used. Some of these cosmetics such as coconut oil and shea butter are also often used on new-born babies, basically for oiling of the hair and to maintain body pigmentation.

However, years down the line, the advent of technology brought about paradigm shift in the use of IC, leading to increased use of conventional ones. The use of conventional cosmetics gained so much popularity and prominence due to their ability to tone the skin and make an immediate impression. However, reports have shown that these chemicals are of serious negative implications to the health of users (Chinedu et al., 2013; Nigam, 2009) with quite a number of them having carcinogenic properties (Bridges, 2002) and others being reported to have allergic properties and often cause dermatitis (Johansen, Andersen, Rastogi, & Menne, 1996) among other skin-related diseases. Specifically, some of them contain varying components of harmful chemicals like amorphous carbon, zincite, cuprite goethite, elemental silicon or talc hematite, minimum, organic compounds (Adegoke, 2018; Hardy, Walton, & Vaishnav, 2004) and even heavy metals such as Lead. Some have been linked to dysfunctional reproductive system by interfering with production of female hormones called oestrogen (Schrader & Cooke, 2008).

The IC, made from natural ingredients presents a rather body-friendly alternative and are hardly associated with any negative consequences. Interestingly, although on a general note, many ICs have lost some prominence, however, other some other ones seem to have in recent years gained some measures of popularity and are now being currently made available in some designated urban markets and even in open market places for sale to users. However, patronage of these local products remains very low, with only few individuals appreciating the believed gentle and natural ways they care for the skin and who would rather prefer to choose them ahead of the conventional ones. This could be due to awareness of the negative health effects of the conventional cosmetics, or even their perceived relative advantage of social, economic and health dimensions, among other possible factors to their acceptability and hence use over the conventional alternatives among patrons. However, it is unclear in the literature what the determinants of acceptability and use of IC among patrons in Ibadan, Oyo state, Nigeria are.

Specifically, the study described the personal characteristics of the patrons of IC; ascertained the awareness of the IC; evaluated patrons' perceived relative advantages of the IC over the conventional ones. The study also ascertained the level of acceptability of the IC among the patrons; assessed the constraints to use of IC; and examined the level of use of IC. The null hypotheses that there is no significant relationship between acceptability of IC and use of IC, and that respondents' use of IC is not significantly determined by personal characteristics, awareness of IC, perceived relative advantage, acceptability and constraints to the use of IC were also both tested.

2. Theoretical Literature and Conceptual Framework of the Study

2.1. Theoretical Framework

Two theories, the Theory of Reasoned Action (TRA) and Theory of Planned Behaviour (TPB) are used to present the framework for this study. This theory was propounded by Ajzen and Fishbein (1980). The theory originates from the field of social psychology and explains how and why attitude affects behaviour. The TRA is built on the premise that an individual behaviour is determined by his attitude towards the outcome of that behaviour and by opinions of others within his social environment. Ajzen and Fishbein (1980) further proposed that an individual's intention to perform leads to specific behaviours. The term "behaviour" is the transition of intention into action. It is evident from the theory that intentions precede and motivate a behaviour, noting that they are indications of how hard people are willing or how much of an effort they are planning to exert, in order to perform the behaviour. As an addition to the TRA, the study considers some positions of the TPB as of direct relevance to the focus of this study. Similar studies have also applied the theory in predicting human behaviour. Stern (2000) and Staats (2003) for example asserted that the theory is one of the models most frequently used in the literature to explore pro-environmental behaviour including recycling, travel mode choice, energy consumption, water conservation, food choice, and ethical investment. The TPB which was propounded by Ajzen (2005) assumes that the best prediction of behaviour is given by asking people if they are intending to behave in a certain way. Here he noted that the intention will not express itself in behaviour if it is physically impossible to perform the behaviour or if unexpected barriers stand in the way.

According to Azjen, three determinants explain behavioural intention:

1. The attitude (opinions of oneself about the behaviour).
2. The subjective norm (opinions of others about the behaviour).

3. The perceived behavioural control (self-efficacy towards the behaviour).

The theory asserts that intentions are a function of attitudes, subjective norms and perceived behavioural control. It also highlights the importance of personal characteristics which join force with the identified variables in predicting intention and behaviour. Ajzen (1988) further states that for a good and predictive value of the model, it is necessary that the several model variables are defined on the same level of specificity.

2.2. Conceptual Framework

In this paper, use of IC is likened to behaviour, while acceptability mirrors behavioural intentions. While the former is responsible for the change or otherwise in the latter, relationship between the two variables is mediated by about three other proposed variables, which are not necessarily interrelated as articulated in the TPB. One of such is the perceived behavioural control, which in the case of this paper is mirrored as financial capacity (income level) and individual awareness level. The other key variables of possible consequences on use of IC as conceptualized in this study are attitudinal disposition (perceived social, economic and health advantages of IC). The third factor is the subjective norms which may be likened to the constraints to use of IC. Other constraints may also be related to opinions of others within his social environment as highlighted in the Theory of Reasoned Action. Figure 1 is therefore clearly a product of a blend of theory of Planned Behaviour and Theory Reasoned Action. Similar studies have also, in line with the TPB analysed behaviour and concluded that background characteristics of individuals have connections with attitude (Fadairo, Olutegbe, & Tijani, 2015) intentions and behaviours (Olutegbe & Fadairo, 2016). Specifically, Gibbon (2008) and Lee (2007) among others, implicated education and information, respectively.

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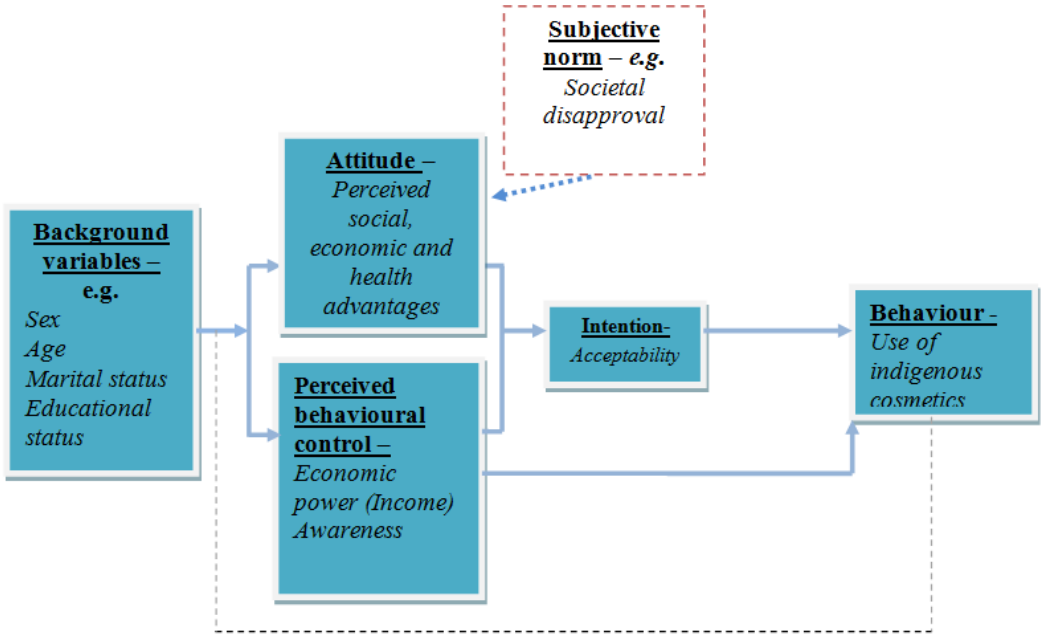

Figure-1. Framework for determinants of acceptability and use of indigenous cosmetics.

3. Methodology

This study was carried out in Ibadan, Oyo state. The state came to being in 1976 from western state. Oyo state covers approximately an area of 28,454 square kilometres. Oyo state is heterogeneous, though mainly

inhabited by the Yoruba ethnic group. Ibadan has been the centre of administration of the state since the days of the British council rule. Ibadan is located in south-western Nigeria, 128km inland northeast of Lagos and 530km southwest of Abuja, the federal capital. Ibadan is the capital and the most populous city of Oyo state, Nigeria. With a population of over 3 million, it is the third most populous city in Nigeria after Lagos and Kano, respectively. Samples were drawn from patrons of IC who constitute the population of the study from Ibadan metropolis using a multi-stage sampling procedure. The first list involved a purposive selection of four major markets in Ibadan. The reason is because the markets are the most patronized for IC due to the availability of different types. These markets are Oja-oba, Bere, Oje and Sango-elewure. Accidental sampling was then used to select thirty 30 respondents from each market within a period of three weeks. A total of a hundred and twenty patrons of IC were therefore sampled for the study. A well-structured questionnaire was used to sample respondents for the study based on the outlined specific objectives.

Awareness of a list of common IC was assessed on a two-point scale of "aware" and "unaware", with scores 1 ad 0, assigned, respectively. Awareness score was obtained and used as a benchmark to categorise respondents into high and low levels of awareness. Respondents' perceived relative social, economic and health advantages of IC was measured on a five-point Likert-type scale of "strongly-agree", "agree", "undecided", "disagree" and "strongly-disagree", with scores of 5, 4, 3, 2 and 1 assigned, respectively. The mean relative advantage score was obtained and used as a benchmark to categorise respondents into high and low level of relative advantage. Respondents were asked to indicate the level of acceptability of common IC and this was measured on a four-point scale of "high", "moderate" "low" and "not accepted", with scores 3, 2, 1 and 0 assigned, respectively. Mean acceptability scores was obtained and used as a benchmark to categorise respondents into high and low levels of acceptability. For constraints to use of IC, respondents were asked to indicate the constraints to the use of local cosmetics. The degree of severity was assessed as "very serious", "serious" and "not serious" with scores of 2, 1 and 0 assigned, respectively. Respondents' use of IC was also assessed on a four-point scale of "never" "rarely" "occasionally" and "always". Use score of IC was obtained and used as a benchmark to categorise respondents into high and low levels use of IC.

The study employed the use of both inferential and descriptive statistics. Pearson Product Moment Correlation (PPMC) was used to ascertain relationship between acceptability and use of IC and Tobit regression for the second hypothesis, and essentially to accomplish the main objective of this paper. The model, originally developed by Tobin (1958) may be expressed in the following way:

$Y^* = X\beta + \varepsilon$, where β is a vector of unknown coefficients, X is a vector of independent variables, and ε is an error term that is assumed to be independently distributed with mean zero and a variance of s^2. Y^* is a latent variable that is unobservable. If data for the dependent variable is above the limiting factor, zero in this case, Y is observed as a continuous variable. If Y is at the limiting factor, it is held at zero.

$Y = Y^*$ if $Y^* > Y_0$; $Y = 0$ if $Y^* \leq Y_0$

where Y_0 is the limiting factor. These two equations represent a censored distribution of the data. The Tobit model can be used to estimate the expected value of Yi as a function of a set of explanatory variables (X) weighted by the probability that $Y_1 > 0$ (Tobin, 1958) in Oladele (2005). The coefficients for variables in the model, β, do not represent marginal effects directly, but the sign of the coefficient will give the researcher information as to the direction of the effect.

$Y = a + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \beta_7x_7 + \beta_8x_8 + \beta_9x_9 + \beta_{10}x_{10} + \beta_{11}x_{11} + \beta_{12}x_{12} + \beta_{13}x_{13}$ + error term

Y = Use of IC
a = intercept
b = Slope of each individual variable
x_1 = Age,
x_2 = Sex (male = 1, otherwise = 0)
x_3 = Marital status (married = 1, otherwise = 0)
x_4 = Income (in Naira)
x_5 = Religion (Christian = 1, otherwise = 0)
x_6 = Education (formal education = 1, otherwise =0)
x_7 = Ethnic group (Yoruba = 1, otherwise = 0)
x_8 = Awareness (score)
x_9 = Perceived social relative Advantage (score)
x_{10}= Perceived relative economic advantage (score)
x_{11}= Perceived relative health advantage (score)
x_{12}= Acceptability (score)
x_{13} = Constraints to use of IC (score)

4. Results

Age distribution as shown in Table 1 below reveals that majority of the respondents (37.80%) and (32.50%) are within the age bracket of 21-30 years and 31-40 years, respectively. Results further reveal that 60.8% of the respondents are females compared to 39.2% who were male. Table 1 also shows that half (50.0%)

of respondents were married, 65.8% earned a maximum of ₦20000 monthly. Also, 28.3% represented by Islamic faithfuls agrees with Price (2001) report that scented oils and ointments were used to clean and soften the skin and mask body odour while dyes and natural paint were used to colour the face, mainly for ceremonial and religious occasions. A small percentage (25.0%) of the respondents has secondary education while 30.0% had tertiary education. Majority of patrons were also Yorubas (97.5%).

Table-1. Frequency distribution of the socio-economic characteristics of the respondents.

Socioeconomic characteristics	Frequency	Percentage	Mean	Standard deviation
Age			36.4	11.4
11-20	5	4.2		
21-30	30	37.8		
31-40	39	32.5		
41-50	25	20.8		
<50	14	11.0		
Sex				
Male	47	39.2		
Female	73	60.8		
Marital status				
Single	54	45.0		
Married	60	50.0		
Divorced	1	0.8		
Separated	5	4.2		
Religion				
Christianity	54	45.0		
Islam	34	28.3		
Traditional	32	26.7		
Income			23219.2	32897.0
Less or equal to 20000	79	65.8		
21000-40000	22	18.3		
40000-60000	10	8.3		
<60000	9	7.5		
Educational level				
No formal educational	28	23.3		
Primary	26	21.7		
Secondary	30	25.0		
Tertiary	36	30.0		
Ethnic group				
Yoruba	117	97.5		
Igbo	2	1.7		
Hausa	1	0.1		

4.1. Awareness of IC

The results of the analysis also show that (100%) of the respondents were aware of black-soap (Ose-dudu). The results in Table 2 further reveals that Aloe-Vera (99.2%), Kohl (98.3%) and Coconut-oil (98.3%) were the other IC with highest awareness level among patrons. Furthermore, the results show that 24.2% of the respondents were unaware of Bee-wax (Epo-eti), being the IC with the least awareness. Summarily, the study reveals in Table 3 that there is high level of awareness of IC among majority (99.2%) of the respondents with an average of score of 10.4 of the possible score of 11.

Table-2. Percentage distribution of respondents by their level of awareness.

Awareness	Aware	Unaware	Rank
Palm kernel oil (Adin-dudu)	96.7	3.3	7
Kohl (Tiro)	98.3	1.7	3
Black-soap (Ose-dudu)	100.0	0.0	1
Bee-wax (Epo-eti)	75.8	24.2	11
Shear-butter (Ori)	98.3	1.7	3
Coconut oil (Adi-agbon)	98.3	1.7	3
Aloe-vera (Eti-erin)	99.2	0.8	2
Henna-plant (Laali)	95.8	4.2	8
White-chalk (Efun)	89.2	10.8	9
Olive oil (Epo-olifi)	98.3	1.7	3
Camwood (Osun)	85.0	15.0	10

Source: Field survey, 2018.

Table-3. Respondents level of Awareness of Use of IC.

Level of awareness	Frequency	Percentage	Mean	Standard deviation	Minimum	Maximum
High	119	99.2	10.4	1.2	4.0	11.0
Low	1	0.8				

4.2. Perceived Relative Advantages of IC

Results on respondents' perceived relative social advantage as presented in Table 4 reveals that majority (78.3%) rated IC very high in terms of improvement of physical appearance with little or no skin blemish. Also, 45.8% rated IC's capacity to improve individuals' well-being very high. Economic wise, the results in Table 4 show that 92.5% rated IC very high in terms of saving of cost. A large proportion (90.0%) also gave a high rating to IC's multifunctional values. Results on relative health advantage of IC as perceived by respondents reveals that majority (87.5%) rated them high in terms of lack of harmful effects on the body. Also, 82.5% rated their ability for enhancement and maintenance of skin health very high, while 80.8% perceived highly that IC solves skin problem. This means that IC are perceived to have both preventive and curative health properties. Summarily, Table 5 shows that perceived relative advantage was high among majority (71.7%).

Table-4. Distribution of respondents based on perceived relative advantage of IC.

Perceived relative advantage	SA	A	UD	D	SD	Mean and Rank	
Social							
Improves physical appearance with little or no blemish	78.3	17.5	3.3	0.0	0.8	4.73	1
Gives rise to social acceptance	44.2	35	19.2	1.7	1.7	4.23	4
Improves self-confidence	44.2	37.5	14.2	4.2	4.2	4.23	4
Improves individual's well-being	45.8	48.3	5.8	0.0	0.0	4.40	2
Encourages positive self-esteem	44.2	37.5	0.0	0.8	0.0	4.25	3
Economic					0.0		
Saves cost	92.5	6.7	0.8	0.0	0.0	4.92	1
Used for different purposes	90.0	10.0	0.0	0.0	0.0	4.90	2
Longevity in its use	85.0	10.0	5.0	0.0	0.0	4.80	3
Durability	85.8	6.7	6.7	0.8	0.0	4.83	4
Health					0.0		
No harmful effects	87.5	7.5	3.3	1.7	0.0	4.81	1
Enhances skin health	82.5	15.0	1.7	0.8	0.0	4.79	2
Solves skin problem	80.8	14.0	4.2	0.8	0.0	4.75	3
Protective against violent rays	65.8	12.5	16.7	3.3	1.7	4.38	7
Can be used on various skin types	72.3	15.8	10.0	0.8	0.0	4.60	6
Not irritable	78.3	10.0	11.7	0.0	0.0	4.67	5
Prevents skins from infections	82.5	8.3	8.3	0.8	0.0	4.73	4

Table-5. Respondents perceived relative advantage of IC.

Level of perception	Frequency	Percentage	Mean (Threshold value)	Std. dev.	Minimum	Maximum
Fair	34	28.3	73.92	6.85	48.00	80.00
Good	86	71.7				

4.3. Level of Acceptability of IC

Results from Table 6 shows that 49.2% of the respondents indicated high acceptability of the indigenous black soap (*Ose-dudu*). Also, 45.0% indicated indicated high acceptability of coconut oil *(adi agbon)* and ranked second. Summarily, the study reveals form Table 7 that there is overall high acceptability of IC among majority (86.7%) of respondents.

4.4. Constraints to the Use of IC

Results from Table 8 reveals that majority of the respondents (75.8%) indicated poor product packaging of IC as a very serious constraint to acceptability and use of IC. In addition, 73.3% rated lack of refined process and 75.8% and low social acceptance as very serious constraints to acceptability and use. Summarily, poor packaging ($\bar{x}$=1.73) and low social acceptance ($\bar{x}$=1.70) were the most severe constraints to the use of IC as perceived by respondents. On the other hand, lack of definite application instructions ($\bar{x}$=1.55) and poor awareness/publicity about availability of the products ($\bar{x}$=1.48) were the least rated constraints to the use of IC.

Table-6. Distribution of respondents acceptability of different IC.

Acceptability	High	Moderate	Low	Not Acceptable	Mean and Rank	
Olive-oil (Olifi-epo)	34.2	52.5	12.5	0.8	2.20	3
Palm-kernel oil (adin-dudu)	8.30	62.5	27.5	1.7	1.78	8
Black-soap (Ose-dudu)	49.2	43.3	7.5	0.0	2.42	1
Coconut-oil (Adi-agbon)	45.0	47.5	7.5	0.0	2.38	2
Aloe-vera (Eti-erin)	13.3	56.7	30.0	0.0	1.83	7
Henna-plant (Laali)	15.8	57.5	26.7	0.0	1.89	6
Shea-butter (Ori)	28.3	44.2	27.5	0.0	2.01	5
White-chalk (Efun)	3.3	40.8	50.5	5.0	1.43	9
Honey (Oyin)	29.2	49.2	21.7	0.0	2.08	4

Note: Local Yoruba name in parenthesis.

Table-7. Summary of respondents' level of acceptability of IC.

Level	Frequency	Percentage	Mean (Threshold value)	Std. Dev.	Minimum	Maximum
Low	16	13.3	18.00	3.55	10.00	26.00
High	104	86.7				

Table-8. Distribution of respondents by their constraints to the use of IC.

Constraints	Very Serious	Serious	Not Serious	Mean	Rank
Low availability of products	65.0	30.0	1.5	1.60	5
Poor awareness/Publicity about the products	55.8	35.5	1.6	1.48	7
Lack of definite application instructions	63.3	28.3	1.7	1.55	6
Poor products packaging	75.8	20.8	1.7	1.73	1
Products lack refined process	73.3	23.3	1.7	1.70	3
Low social acceptance	75.8	16.7	1.7	1.68	4
Inconsistency in the quality of products	77.5	18.3	4.2	1.73	1

4.5. Use of the IC

The results from Table 9 reveal that 58.3% of the respondents always made use of black soap *(Ose-dudu)* while 40.0% each always and occasionally made use of coconut oil (*Adi-agbon*). These respective cosmetics ranked first and second among others. Also 40.0% of the respondents always made use of Shea-butter (Ori) while 40.0% always made use of Honey Oyin and ranked third and fourth, respectively. Summarily, Table 10 reveals that 59.2% were high users of IC.

Table-9. Distribution of Respondents by Use of different IC.

Use of cosmetics	Never %	Rarely %	Occasionally %	Always %	Mean	Rank
White-chalk *(Efun)*	40.0	47.5	6.7	5.8	0.78	10
Henna-plant (*Tiro*)	44..2	28.3	14.2	13.3	0.97	9
Aloe-vera (*Eti-erin*)	15.0	57.5	20.0	7.5	1.20	8
Coconut-oil (*Adi-agbon*)	3.3	16.7	40.0	40.0	2.17	2
Black-soap (*Ose-dudu*)	1.7	10.0	30.0	58.3	2.45	1
Palm-kernel oil (*Adin-dudu*)	10.	24.2	35.0	30.0	1.84	6
Olive oil (*Olifi-epo*)	5.0	26.7	31.7	36.7	2.00	5
Honey (*Oyin*)	2.5	27.5	29.2	40.0	2.08	4
Camwood (*Osun*)	22.5	36.7	23.3	17.5	1.36	7
Shea-butter (*Ori*)	5.0	21.7	25.8	47.5	2.16	3

Table-10. Respondents level of use of IC.

Level of use	Frequency	percentage	Mean (Threshold value)	Std. Dev.	Minimum	Maximum
High	71	59.2	16.98	4.80	2.00	28.00
Low	49	40.8				

The result of correlation as revealed in Table 11 shows that there was significant relationship between the acceptability of IC (r = 0.244) and the use of IC. The result of Tobit linear regression as presented in Table 12 reveals that respondents' personal attributes such as age and sex (female) significantly influenced use of IC in

the study area. The study further reveals that respondents' perceived relative social advantage and acceptability influenced their use of IC positively.

Table-11. Pearson's product moment correlation (PPMC) for test of relationship between respondent's acceptability and Use of IC.

Variables	r- value	p-value	Decision
Acceptability and use of indigenous cosmetics	0.244**	0.007	Significant

Note: **significant at 1%.

Table-12. Tobit regression analysis of determinants of Use of IC.

Model	Estimates (standard error)
Age	0.281 (0.215)
Age squared	-0.002 (0.003)
Male	-2.354*** (0.733)
Married	-1.447 (0.941)
Religion (Christianity)	-0.339 (0.750)
Years of formal education	-0.974 (0.864)
Ethnicity (Yoruba)	4.993* (2.876)
Awareness Scores	0.315 (0.408)
Social advantage Scores	0.468*** (0.167)
Economic advantage Scores	-0.060 (0.362)
Health advantage Scores	0.174 (0.156)
Acceptability Scores	0.352*** (0.098)
Constraints Scores	-0.044 (0.176)
logSigma	1.280*** (0.066)
Constant	-16.052** (6.650)
N	120
Log Likelihood	-319.364
Akaike Inf. Crit.	668.727
Bayesian Inf. Crit.	710.540

Notes: ***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

5. Discussion

The finding implies that use of IC cuts across different age groups, albeit the youths and middle-aged adults appear to be more represented. The study further indicates gender skewness, as more female than male Ibadan residents patronised IC. This is not very far from expectation in a typical Yoruba society as female are known to pay more attention to body adornment than male folks. This result generally agrees with Adegoke (2018) that Kohl (Tiro), one of the most common IC is although used mostly by women, but are also seen on men and children. It also agrees with Okereke, Udebuani, Ezeji, Obasi, and Nnoli (2015) that women, young and old, apply and beautify themselves with cosmetics of different texture and colours, especially during festive periods. Result of marital status implies that both the married and single population make use of the IC probably as make-up content during ceremonies and other outings. Result further establishes that no barrier of religion orientation exist to use of IC. This result disagrees with the arguments that specific IC are meant for specific religions and are in some instances used for specific religious events (Price, 2001) and other cases for warding off evil spirits (Claeyssens, 2009). The result which presents the Yorubas as major users of the IC more than other ethnic groups may not be unconnected with the fact that they are the most dominant ethnic group. Adekunle, Ogunbiyi, and Daramola (2006) had listed black soap, henna, cam wood and shea butter as the most commonly used IC among individuals of Yoruba descent in Nigeria.

The result which reveals high awareness level of different IC implies that black-soap (Ose-dudu), Aloe-Vera, Kohl and Coconut-oil were the most popular IC as against others like bee-wax (Epo-eti). Amubode, Olabode, and Toriola (2015) posited that among the Yoruba, traditional cosmetics include include *ororo* (lipstick), *tiro* (eye liner), *laali* (nail polish), *osun* (skin toner), *atike/pankeki* (powder), *ayoorun* (relaxer), *Ewe aailu* (conditioner) and *adiagbon* (hair/body cream). Based on the a priori, a high awareness level of the IC is expected to influence use positively, and a possible indication that the cosmetics are not threatened as against what appears to be the most popular belief. However, the non-significant effects of the high awareness on use of IC in Table 12 is an indication that other variables which are necessary for translating awareness to intention to use and actual use behaviour had not attained sufficient threshold. The variables, according to Ajzen (2005) include the attitude (opinions of oneself about the behaviour); the subjective norm (opinions of others about the behaviour); and perceived behavioural control (self-efficacy towards the behaviour). Generally, the result indicates that the patrons were favourably disposed to the abilities of the IC to improve

an individual's physical appearance, enhance beauty and solve skin problems with little or no skin defacement effects as well as in enhancing their well-being. The IC are also perceived to have both preventive and curative properties. Some authors have associated coconut oil, for example, to preventing and getting rid of irritations and infections in the gut, prevention of eczema, dandruff, among other functions. This result also aligns with Sahu et al. (2013)'s study of aloe-vera which reports that it was very efficacious in healing chronic skin problems. It is however curious that perceived health benefits/advantage had no significant effects on use of IC. The result suggests that perceived favourable perception of health effect is not sufficient to engender favourable intention and hence behaviour towards use of IC. This could be due to the relatively low representation of IC in the market, while conventional cosmetics have become more popular, readily available and accessible. Other constraints to the use of IC are also implicated as revealed in Table 8.

One of the most important constraints to use of IC identified was poor packaging, and this is congruous with the finding of Saydan (2013) that brand image is extremely important to marketing experts and customers, especially those who use brand image in making different positions and extending the brand. The result also implicates lack of refined process as a major constraint to patronage and use of IC.

The study further indicates that most patronized IC it was considered essential at solving skin problems, caring for their body and making sure that they appear socially acceptable. It therefore signifies that patrons of IC were intentional in their choice and use of the cosmetics due to their perceived high relative advantages over the conventional ones. This is consistent with the result presented in Table 12 which isolated perceived relative social advantage and acceptability as key predictors of use of IC. The result of hypotheses which establishes acceptability as a strong predictor of use of IC may not be unconnected with individuals' favourable behavioural control towards use of IC (Ajzen, 2005). Perceived behavioural control refers to self efficacy i.e in this case, the possession of resources to access and purchase IC from wherever. The significant contribution of sex (female) to use of IC corroborates the position of Guéguen and Jacob (2011) that women's makeup is often associated with the behaviour towards men. Okereke et al. (2015) also argued that although men and children make use of IC, the practice is more common among women. It is also an indication that IC are functional in body care of patrons, and creating less motivation to patronise conventional cosmetics. This is also further buttressed by the result which indicates that the people who perceived IC to be socially advantageous used the products more, as use varied along the continuum of perceived social advantage. The result agrees with Okereke et al. (2015)'s arguments that social acceptance influence the choice of skincare products applied by most women therefore implies that IC are at worst not inferior (if not superior) to conventional cosmetics in improving the skin health and beauty of patrons. The non-significance of perceived economic benefits of IC to their use in spite of the relatively lower prices (compared to conventional) however disagrees with Brian and John (2000) arguments that price is probably the most important consideration by the average consumer of IC.

6. Conclusion

Based on the empirical evidence from the study, it could be concluded that there is still in existence, an array of indigenous cosmetics in Ibadan, Oyo state, of which majority of patrons were aware. This is in spite of the natural inclinations towards modern cosmetics among majority of the people. This finding establishes further that indigenous cosmetics have gained almost an age-long relevance in spite of the increased proliferation of the modern/conventional cosmetics. The results of the subjective information provided by respondents further hinted that use and acceptability are being affected by poor packaging, inconsistencies in product quality and perceived lack of refined process. A more objective analysis were more revealing of key variables such as acceptability of indigenous cosmetics among patrons, female gender and perceived relative social advantage as being most important predictors of use of indigenous cosmetics. The significance of sex and ethnicity, as female individuals and of Yoruba ethnic descents used indigenous cosmetics more, were also established. The study concludes that overall, there is a huge market and potential for production of indigenous cosmetics in urban areas, with positive implications for improving rural livelihood and welfare of producers and other actors along the chain, majority of whom are resident in the rural areas. This situation provides a sufficient basis for drawing conclusion for the entire south western states of Nigeria, who are mainly of the Yoruba culture. This is due to the status of Ibadan city as one of the most preferred destinations of many inhabitants other states within the south west sub-region. The following recommendations hereby become very necessary in respect of the findings:

i. Producers of indigenous cosmetics should ensure that all factors that ensure acceptability like good and attractive packaging be well provided for so as to establish favourable rivalry with conventional cosmetics.
ii. Government programmes aimed at improving rural livelihood should endeavour to channel efforts at improving the rural cosmetic industry towards improving packaging and consistency in quality of products;
iii. Indigenous cosmetic producers should be assisted by the government and non-governmental organizations in establishing a good and functional market linkage system like shopping malls in the urban centres. This will ensure availability and hence accessibility of such products.

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