Impact of celebrity endorsement on consumer buying behavior: A study of telecommunication industry in Plateau State

Tsacha Aminuwa1*

Dr. Emmanuel Umaru Oki (PhD)2

1, 2, Department of Business Administration, University of Jos, Nigeria

*Corresponding Author: Tsacha2014@gmail.com.

ABSTRACT: Studies on the impact of celebrity endorsement on consumer buying behavior need broadening to imbue multiple viewpoints and examine the efficacy of this marketing strategy. The purpose of this study is to explore the impact of celebrity endorsement on telecommunication consumer buying behavior. A quantitative method was employed for this study and a survey questionnaire was used to collect the data. The study adopted a cross-sectional design where data used for hypotheses testing was drawn from customers of selected telecommunication service providers in Jos North local government, Plateau State. The study used a representative sample size of 400 respondents selected through random and convenience sampling techniques from which 378 questionnaires were usable. SPSS V 26.0 package was employed to conduct the analysis of the data collected from the field using the multiple regression models. The result revealed that celebrity trustworthiness positively but insignificantly impacts consumer buying behavior, implying that a celebrity that is high in trustworthiness may lead to consumers favoring the brand or service offering of the selected telecommunication service providers; however, trustworthiness alone is not enough. Other factors (e.g. socio-economic variables of the celebrity) can influence the buying behavior of the consumer regardless of whether the celebrity is credible or not. The result also showed that the other two predictors- attractiveness and expertise are important factors in determining celebrity’s effectiveness in influencing positively and significantly the buying behavior of consumers. Managers of telecommunication companies should devise suitable strategies to identify the right celebrity endorsement attributes that would lead to improved competitiveness, as the combined effect is greater than the use of one attribute.

KEYWORDS: Celebrity endorsement, consumer behaviour, attractiveness, trustworthiness, expertise.

I. INTRODUCTION

Today’s consumer world is full of competing brands, and it is not enough to contend in the marketplace with good products alone. Factors like market changes and consumer lifestyle are propulsive to brand owners to focus on more convincing ways to promote their brands. Brands are design with assiduous detail because of their continuous introduction, evolution, and promotion in a competitive and saturated marketplace. They integrate the marketing mix to form a deliverable to the marketplace. Business has had to deploy any means that can reach, convince, and lock in the individual, wherever they may be. There is a significant investment witnessed in businesses today in juxtaposing brands with endorser qualities.

Consumers have access to alternative products and services to alternate between them. Making business to continuously, devised marketing strategies that will enable them to harness the benefits of positive consumer behaviour, and (Rantanen, 2017) affirm celebrity endorsement to be one such strategy. Celebrity endorsement has become a prevalent choice for businesses. This celebrity endorsement is a promotional strategy intended to attract customers to influence their buying behaviour. (Hoegele, Schmidt, and Torgler, 2016) assert that some celebrities have charismatic personalities and possess distinctive qualities of trustworthiness, attractiveness, and likeability. Therefore, the use of
Celebrities in brand endorsement will help consumers remember the message of the advert.

Marketing strategy has positively contributed to firm survival (Uzuegbunam, 2017), and celebrity endorsement showed a positive impact on sales and brand image in another context (Byberg, Hansen, and Basic, 2015; Adam and Hussain, 2017). Therefore, endorsing a celebrity gives the brand a touch of glamour and, a famous face does provide additional appeal and name recognition in a crowded market.

Celebrity endorsement literature is dominant across western and developed nations, but documentation of celebrity endorsement in developing economies seems insufficient. The coverage of these economies needs broadening to imbue multiple viewpoints and examine the efficacy of this marketing strategy. Due to the difference in context, the impact of celebrity endorsement on consumer buying behaviour might differ across different economies. The contextual variability might be due to heterogeneity in levels of consumer buying behaviour across countries, the attitude and personality factors of the people, socio-cultural factors, and the availability and access to digital media platforms. Studies in a country are essential to developing a robust marketing strategy that may cater to country-specific needs. Focusing on the impact of celebrity endorsement can help advance more robust theories of celebrity endorsement as well as potentially inform future organizational marketing strategies objectives.

This research aims to explore empirically the impact of celebrity endorsement on mobile telecom users in Jos Plateau State - Nigeria. With the mobile telecom, products and services include; voice call connection, video on demand, mobile telephone, internet connection, VPN, digital TV connection, and payment service banking. It will identify the attributes of celebrities and determine how these influence the buying behaviour of telecom subscribers through surveys to measure the impact.

To achieve the stated objective of the study, the following two-tailed tests hypotheses or non-directional (stated in a null form) were tested using multiple regression analysis.

**H01:** There is no significant relationship between celebrity trustworthiness and consumer buying behaviour.

**H02:** There is no significant relationship between celebrity attractiveness and consumer buying behaviour.

**H03:** There is no significant relationship between celebrity expertise and consumer buying behaviour.

The rest of the paper is structured as follows; in section two, literature were reviewed, section three empirical approach. Section four, presents the empirical result, while conclusion and recommendations are made in section five.

## II. REVIEW OF LITERATURE

(Awasthi and Choraria, 2015, Eren-Erdogmus, Lak, and Çiçek, 2016) demonstrates a significant result when ascertaining how the attractiveness and credibility of the endorsed celebrity affect the consumer attitude reflected in their buying behavior. (Nur Shazzana, 2015) show a significant relationship with actual purchase behavior of the consumer and attractiveness of celebrity, making celebrity endorsement a major influence of consumers to buy local food brands. The study further shows how brand equity mediates the relationship between celebrity endorsement and actual purchase behavior and brand awareness as the most influential factor towards this relationship. An investigation by (Ifeanyichukwu, 2016) on the effect of celebrity endorsement on consumer purchase decision established a positive relationship between celebrity and purchase decision. (Gauns, Pillai, Kamat, Chen, and Chang, 2018) concluded that celebrity attributes do influence the purchase intention of consumers.

In brand awareness and brand associations, (Sharma, 2016) research shows a positive and significant effect of celebrity endorsements on two brand equity dimensions. However, there is no significant influence on perceived quality and brand loyalty in celebrity endorsement. (Wang, Kao, and Ngamsriudom, 2017), establish a positive relationship between the hypotheses constructs by examining if a causal relationship exists between endorser credibility, brand attitude, brand credibility, and purchase intention in the aviation industry. A negative relationship on the consumer buying behaviour is, observed when it comes to multiple product endorsements by a celebrity (Qureshi and Malik, 2017). The study further shows a significant relationship between celebrity endorsement and consumer purchase intentions. (Hani, Marwan, and Andre, 2018) the study indicated a negative influence when assessing the impact of celebrity endorsement on consumer behaviour pertinent to advertisement recall and intention to buy, mark inclination, and consumer mentality.
The study of (Singh and Banerjee, 2018b) revealed celebrity credibility has a significant influence on consumers’ attitudes towards the brand and advertisement. While in the case of purchase intention, both brand attitude and advertisement attitude built on celebrity credibility indicate a significant influence.

A study to investigate the presence of a compatible product-endorser match helped influence the purchase intent of millennial consumers and aid in favourable attitudes towards the advertisement. (McCormick, 2016) shows that millennials evaluated an unfamiliar celebrity endorsement where they indicated they had little intent to purchase the product endorsed by the unfamiliar celebrity. The unfamiliar celebrity did lead to favourable evaluations of the advertisement.

The results of (Albert, Ambroise, and Valette-Florence, 2017) indicate that only the brand-consumer match exerts a significant impact on brand attitude, brand commitment, brand identification, and behavioural intentions. Although, celebrity-brand and celebrity-consumer fits have a limited influence on the outcomes. (Djafarova and Rushworth, 2017) show that celebrities on Instagram are influential in the purchase behaviour of young female users.

However, the non-traditional celebrities such as bloggers, YouTube personalities, and Instafamous profiles are more influential as participants regard as more credible and can relate to these rather than more traditional celebrities. The female users are perceptively aware and prefer to follow Instagram profiles that intentionally portray positive images and provide promising reviews.

(Winterich, Gangwar, and Grewal, 2018) Power, distance, and beliefs (hereafter, PDB) determine the effectiveness of celebrity endorsements on attitudes towards the advertisement and the brand. Perception of source expertise and trust mediates the effect of celebrity endorsements, which is conditional on PDB. (Sofi, Nika, Shah, and Zarger, 2018) on the impact of subliminal advertising on consumer buying behaviour among young Indians. Consumers under the study have shown significant differences in their compulsive buying propensity after been exposed to subliminal advertising.

### III. EMPIRICAL APPROACH

This study employed a regression model, where the study variables are analyze. The general multiple linear regression model is:

\[ Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_p x_p + \varepsilon \]

Where:
- \( Y \) is a column matrix of the dependent variable.
- \( \beta \) is a vector of regression model parameters.
- \( x \) is a vector of independent variables.
- \( \varepsilon \) is a column vector of error terms.

Yamane’s sampling method was adopted. Data from questionnaires was administered to 400 telecom subscribers in Jos, Plateau state. The survey data are modelled using linear regression by employing the ordinary least square regressions package library available in SPSS V26.

### IV. EMPIRICAL RESULTS

The data collected for the study were subjected to statistical test. Where parametric test for normality and multi-collinearity are perform. For normality test, to ascertain whether the values of the residuals are normally distributed the study used a probability plot. The result in fig.1a shows points lying along a straight diagonal line from the bottom left to the right top, suggesting normality. The study met the assumption of normality of the residual shown in fig.1b. The residual scatterplot shown in fig.2 is often used for checking a) the homoscedasticity and b) the linearity assumptions. Results show no observable signs of funneling; suggesting the assumption of homoscedasticity is met. This also showed a linearity assumptions exists between the independent and dependent variables. The research further check for outliers using Mahalanobis distance as in:

\[ d_i = [(X_B - \bar{X})^T \cdot C^{-1} \cdot (X_B - \bar{X})]^{0.5} \]

Where: \( X_a \) and \( X_B \) is a pair of objects, and \( C \) is the sample covariance matrix.

There was mild outlier at case 160 with \( d_i \) value of 23.12 which exceeded critical value of 16.27 because \( d_i \) was 15.53 < 16.27. The critical value of 16.27 is based on the number of independent variable which is three (3) independent variable for this study.
Fig. 1a. Probability plot.

Fig. 1b. Residual plots: Histogram.
The model summary in table 1 of the independent variable (constant, celebrity expertise, celebrity trustworthiness, and celebrity attractiveness) and dependent variable (consumer buying behaviour, showed an R square value of (.413) that means 41.3% variance in consumer buying behavior is explained by celebrity trustworthiness, celebrity attractiveness, and celebrity expertise. R is the correlation coefficient that shows the relationship between the study variables. With a value of (.643), the finding indicate a strong positive relationship between the study variables. The Adjusted R Square is the coefficient of determination, which tells us the variation in the dependent variable due to changes in the independent variables. As shown in table 1, the value of Adjusted R Square was (.409), an indication that 40.9% variation on consumer buying behavior due to changes in the predictor variables.

Table 1: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std.Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.643a</td>
<td>.413</td>
<td>.409</td>
<td>1.95746</td>
</tr>
</tbody>
</table>

Source: Author Computation (2022)

a. Independent variables: (Constant), Celebrity Expertise, Celebrity Trustworthiness, Celebrity Attractiveness

b. Dependent Variable: Consumer Buying Behaviour

The ANOVA in Table 2 shows a significant value of (.000) less than (.05), meaning there is a significant relationship between consumer buying behaviour on one hand and celebrity trustworthiness, celebrity attractiveness, and celebrity expertise are good predictors of consumer buying behaviour. The ANOVA in Table 2 also showed the F-statistics. The F-statistics test the needed multiple hypotheses about the parameters in a multiple regression model. This statistics tests the null hypothesis that all the regression coefficients are equal to (.000). If the $F_{cal} > .05$, tab., reject the null hypothesis and accept the alternative hypothesis and vice-versa. The F-test with a value of 87.800 and the p-value of (.000) showed a strong linear dependency existing among the variables. F-statistics showed a very good fit.
Table 2: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1009.251</td>
<td>3</td>
<td>336.417</td>
<td>87.80</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>1433.034</td>
<td>374</td>
<td>3.832</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2442.286</td>
<td>377</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author Computation (2022)

a. Predictors (Constant), Celebrity Expertise, Celebrity Trustworthiness, Celebrity Attractiveness
b. Dependent Variable: Consumer Buying Behaviour

The Coefficients in table 3 showed that, \( CB = 4.826 + 0.082CT + 0.331CA + 0.315CE \). This means that consumer buying behaviour will increase on average by 8.2% with a 1% change in celebrity trustworthiness when celebrity attractiveness and celebrity expertise are held constant. It also showed that consumer-buying behaviour would increase on average by 33.1% with a 1% change in celebrity attractiveness when celebrity trustworthiness and celebrity expertise are held constant. Moreover, consumer-buying behaviour will increase on average by 31.5% with a 1% change in celebrity expertise when celebrity trustworthiness and celebrity attractiveness are held constant.

Table 3: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.Error</td>
<td>Beta</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>4.826</td>
<td>.765</td>
<td></td>
<td>6.308</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Celebrity Trustworthiness</td>
<td>.082</td>
<td>.049</td>
<td>.083</td>
<td>1.688</td>
<td>.092</td>
<td>.646</td>
</tr>
<tr>
<td>Celebrity Attractiveness</td>
<td>.331</td>
<td>.069</td>
<td>.317</td>
<td>4.807</td>
<td>.000</td>
<td>.361</td>
</tr>
<tr>
<td>Celebrity Expertise</td>
<td>.315</td>
<td>.052</td>
<td>.341</td>
<td>6.066</td>
<td>.000</td>
<td>.495</td>
</tr>
</tbody>
</table>

Source: Author computation (2022)

Table 4 showed that celebrity trustworthiness, celebrity attractiveness, and celebrity expertise had a significant relationship with consumer buying behaviour respectively because all their \( p \)-values were less than .01. Table 4 also revealed that there was a weak positive relationship between celebrity trustworthiness and consumer buying behaviour because .332 falls within .001 to .49 while celebrity attractiveness and celebrity expertise had a moderately positive relationship with consumer buying behaviour because .596 and .576 falls within .5 to .59.

Table 4: Correlations

<table>
<thead>
<tr>
<th></th>
<th>Consumer Buying Behaviour</th>
<th>Celebrity Trustworthiness</th>
<th>Celebrity Attractiveness</th>
<th>Celebrity Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Buying</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.332**</td>
<td>.596**</td>
</tr>
</tbody>
</table>
Test of Hypothesis I: Here, the study test the relationship between celebrity trustworthiness and consumer buying behaviour. The results in table 5 revealed that $P$-Value(.092) $> \alpha(.05)$. This means that $H_{01}$ is upheld and $H_1$ which states that celebrity trustworthiness had a significant effect on consumer buying behavior is rejected.

Decision: The result in table 5 revealed that $t − statistics$ for celebrity trustworthiness (CT) is greater than 1.64$(i.e. 1.688 \geq 1.64)$. This showed that there is no significant relationship between the two variables.

Test of Hypothesis II: The second hypothesis was to test the relationship between celebrity attractiveness and consumer buying behaviour. The results in table 5 showed that $P − Value(.000) < \alpha(.05)$. This means that celebrity attractiveness had a significant effect on consumer buying behavior. Hence, we reject the null hypothesis.

Test of Hypothesis III: The third hypothesis was postulated for the relationship between celebrity expertise and consumer buying behaviour. The results in table 5 revealed that $P$-Value (.000) $< \alpha(.05)$. This means that $H_{03}$ is rejected and $H_1$ which states that celebrity expertise had a significant effect on consumer buying behaviour is accepted. Therefore, we reject the null hypothesis.

Decision: The result in table 5 showed that $t − statistics$ for celebrity expertise (CE) is greater than 1.64 $(i.e. 6.066 \geq 1.64)$. This implies that there is a significant and positive relationship between the two variables.

Table 5: Path relationship results of Hypothesis

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>Beta</th>
<th>$t$-stat</th>
<th>$P$-Values</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_{01}$</td>
<td>CT $\rightarrow$ CB</td>
<td>.083</td>
<td>1.688</td>
<td>.092</td>
<td>Supported</td>
</tr>
<tr>
<td>$H_{02}$</td>
<td>CA $\rightarrow$ CB</td>
<td>.317</td>
<td>4.807</td>
<td>.000</td>
<td>Not Supported</td>
</tr>
<tr>
<td>$H_{03}$</td>
<td>CE $\rightarrow$ CB</td>
<td>.341</td>
<td>6.066</td>
<td>.000</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

***$P < 0.05$

Key: CT—Celebrity Trustworthiness; CA—Celebrity Attractiveness; CE—Celebrity Expertise, CB—Consumer Buying Behaviour

4.1 Discussion of findings

This discussion of findings was done in line with the research questions, objectives, and hypotheses of the study.

Relationship between celebrity trustworthiness and consumer buying behaviour.

The first hypothesis is the relationship between celebrity trustworthiness and consumer buying behaviour. The study revealed a positive relationship between celebrity trustworthiness and consumer buying behaviour. This study finds support in the research of prior studies ((Wang and Scheinbaum, 2018, Hani et al., 2018, and Singh and Banerjee, 2018a).

(Wang and Scheinbaum, 2018) stated that consumers’ perception of a celebrity endorser’s trustworthiness increases brand attitude, brand credibility, and in turn purchase intention towards endorsed brands. The study of (Singh and Banerjee, 2018a) revealed that celebrity credibility trustworthiness positively influences consumers’ attitude towards the brand and advertisement in the case of purchase intention; both brand attitude and advertisement attitude built on celebrity credibility has a positive influence.

Similarly, (Hani et al., 2018) on the effect of celebrity endorsement on consumer behaviour in the jewel, industry of Lebanon showed that the impact of trustworthiness on customer’s behaviour is relevant to advertisement recall and intention to buy.

The findings of this study showed a positive relationship between the two variables. This means that there is a positive effect of celebrity trustworthiness on consumer buying behaviour of selected telecommunications companies in Nigeria. Although the hypothesized relationship is positive, it is statistically insignificant which means that other factors (for example, age, educational level, and gender of the
subscribers of the selected telecommunications companies) can also influence consumer buying behaviour regardless of whether a celebrity is trustworthy or not. Therefore, endorsement of celebrities based on trustworthiness may not be applicable in all situations in influencing consumers in buying a particular brand of a product or a service offering as the case may be.

Relationship between celebrity attractiveness and consumer buying behaviour.

The second hypothesis is the relationship between celebrity attractiveness and consumer buying behaviour. The results revealed that celebrity attractiveness significantly determines consumer-buying behaviour. This agrees with the studies of (Omorodion and Osifo, 2019, Eren-Erdogmus et al., 2016, Wang and Scheinbaum, 2018).

Eren-Erdogmus et al., 2016 on the study of attractive or credible celebrities: who endorses green products better? The result indicated there was a main effect of both product and celebrity type on the attitude towards advertising. In addition, the results indicated that the credibility and attractiveness of a celebrity did matter for different types of products. Attitude toward green advertisement increased when the celebrity was credible for milk (nondurable product) and higher for attractive celebrity in a refrigerator (durable product).

Communication delivered by physically attractive celebrities can effectively achieve greater attention and remembrance, which explains why advertisers frequently use celebrities as spokespeople. Hence, to remain successful and competitive, telecommunication firms aggressively implement the use of celebrity endorsement attributes of attractiveness, in the advertisement of their products as a business strategy.

Relationship between celebrity expertise and consumer buying behaviour.

The third research hypothesis is the relationship between celebrity expertise and consumer buying behaviour. The study revealed that there is a significant relationship between celebrity expertise and consumer buying behaviour. This aligns with (Duah, 2016) on the effect of celebrity endorsement on the product competitiveness of Globacom Ghana Limited in Ghana. The study seeks to evaluate the effects of endorsements from celebrities on the product competitiveness of Globacom Ghana limited. The study showed that credibility, expertise, and attractiveness have a positive effect on brand positioning. The researcher concluded that the correct choice of a celebrity could surely increase sales growth, market share; avert impact, net profit, and sales revenue of product above its competitiveness.

(Belch and Belch, 2004) stated that celebrities are often chosen due to the knowledge and experience they have about the product they are endorsing. This implies that the celebrity is not recommending the brand to get money, but based on his knowledge within the subject area, that the brand is good. If the celebrity is perceived as being proficient, he or she is more likely to change the opinion of the consumers. Other groups of customers (millenials) have also shown that they are less likely to influenced to purchase the advertised product when there is no proper fit between the celebrity endorser and the product (McCormick, 2016). The level of celebrity expertise will determine its effectiveness. The more expertise a celebrity has the more effective it will be in influencing the buying behaviours of consumers of the selected telecommunication companies.

V. CONCLUSION

The impact of celebrity endorsement on consumer buying behavior through the antecedent role of celebrity trustworthiness, celebrity attractiveness, and celebrity expertise within the domain of telecommunications companies in this study, has empirically established the predictive roles of the three variables. In this study, three attributes of celebrities were taken into consideration. These three attributes are trustworthiness, attractiveness, and expertise. Conceptually, the researcher attempted to build a relationship between celebrity endorsement and consumer buying behavior.

The study concludes that it will be easy for any firm in the telecommunication sector of any economy to influence the purchasing behaviour of consumers. This can be done through the building of consciousness and sustainable insight in the minds of their customers using celebrity endorsement, more especially the celebrities that are trustworthy, attractive, and with the requisite expertise.

5.1 RECOMMENDATION

From the foregoing, this study recommends integrating the antecedents of consumer buying behavior identified in this study by telecommunications firms to consider in their marketing strategies to develop unique and superior marketing communication programs that will enhance brand loyalty. The use of trusted celebrities is recommended for endorsement.
purpose to avoid the cost of celebrity scandals. Telecommunications companies should, therefore, ensure that trusted hands are selected for the marketing campaign. For this reason, appropriate machinery should be put in place to vet the background of the celebrity to ensure that is devoid of scandals and multiple endorsements in the past. Telecommunication companies should engage celebrities that consumers see as carrying virtuous features such as intellectual skills, sportsmanship, charm, before purchasing a product or service.

The influence of consumer buying behaviour can be changed according to the type of celebrity as well as the product category. The attractive celebrity is more effective for impulsive buying, whereas the virtuous celebrity as well as the product category. The similarities between the celebrity and its target market should be considered such as putting into consideration the age, gender and culture of the celebrity to its target market. In some cases, individuals tend to favour and appreciate celebrities who share common features and traits with them.

The attractiveness of celebrities is also of great virtue in the endorsement of a product as more consumers tend to be influenced by their virtuous features such as intellectual skills, sportsmanship, charm, before purchasing a product or service.

Managers of telecommunication companies should devise suitable strategies to identify the right celebrity endorsement attributes that would lead to improved competitiveness, as the combined effect is greater than the use of one attribute. The similarities between the celebrity and its target market should be considered such as putting into consideration the age, gender and culture of the celebrity to its target market. In some cases, individuals tend to favour and appreciate celebrities who share common features and traits with them.

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retailing and consumer services, 32, 39-45.


