

COMPARING THE EFFECTS OF ADVERTISING VERSUS WORD OF MOUTH ON THE CHOICE OF A PRIVATE HIGHER EDUCATION INSTITUTE IN CAMEROON

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Abstract: The higher education sector in the world and in Cameroon is experiencing increased competition in connection with the liberalisation of activities and the creation of numerous private higher education institutes (PHEI). The creation of strong brands through the mobilisation of media and non-media means of communication is the preferred strategy of the players. However, the majority of PHEIs in Cameroon have many shortcomings in terms of implementing an integrated communication strategy, and adopt an ambiguous positioning. The aim of this research is to show the impact of advertising and word of mouth on the decision to choose a higher education institution in Cameroon. Based on a questionnaire survey of newly enrolled students in three PHEIs in the city of Douala, and a multinomial logistic regression model, the empirical results obtained indicate the absence of a word-of-mouth effect and the relative effectiveness of internet advertising and poster advertising. The absence or weak effects of TV and radio advertising indicate a lack of professionalism in the implementation of communication strategies.

Keywords: communication media, word of mouth, PHEI, higher education, multinomial logistic regression.

1. Introduction

The globalisation of higher education provision has widened the space of competition between higher education institutions at the international level, exposing developing country training institutions to direct competition from the best universities in the world. The training offered by a private institution of higher education (PHEI) corresponds to a category of services that can only be accurately evaluated after purchase and consumption. Assessing the quality of education requires specific experience and information derived from the consumption of the service. Faced with these challenges, universities in developing countries are investing massively in improving their educational offerings and deploying



marketing strategies to attract large numbers of applicants and position themselves favourably in the market for educational provision.

In Cameroon, the liberalisation of the higher education sector has greatly increased the range of training on offer through the creation of numerous PHEIs. The managers of these institutions are becoming increasingly aware of the importance of marketing communication in recruiting students (who are now regarded as customers) (Smørvik & Vespstad, 2020).

Understanding students' decision-making process when choosing an HEI is crucial in the current context of internationalisation of educational provision and increased competition. This is an important decision for students, as the cost of education is high and their professional future depends on it.

Nowadays, WOM is a preferred communication tool for organisations, and for advertisers it represents a relevant alternative to traditional media in relation to the development of social networks (Kilby, 2007). WOM is a process of communication between parties regarding the value of products and services (Anderson, 1998). It is an interpersonal communication between two or more people characterised by the parties' independence from commercial sources, informality, and the dissemination of information (Kim et al., 2001). WOM can be defined as "any positive or negative statement made by potential, current or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet". (Hennig-Thurau et al., 2004). Initially focused on researching the antecedents of WOM, marketing communications research now seems to be interested in the impact of WOM on consumer behaviour, with analysis of the reciprocal influences of messages exchanged between consumers (Gabbott and Hogg, 2000).

This shows that the emotional and rational content and frequency of messages, as well as the words and expressions used, are determining factors in the behavioural influence of eWOM (Bansal & Voyer, 2000; Liu, 2006; Maxham and Netemeyer, 2002).

The aim of this research is to compare the influence of eWOM and traditional advertising in the choice of an PHEI by students in Cameroon.

2. eWom and advertising

The relationship between eWOM and traditional communication has been studied in the literature, with the majority of studies demonstrating the influence of advertising on eWOM in most consumption situations (Eastman et al., 2006). Compared to traditional communication, eWOM generates an audience that is more behaviourally engaged, particularly with regard to the consumption of tangible goods (Katz and Lazarsfeld, 1955). For Shet (1971), eWOM is more effective than advertising in terms of improving recall and increasing the rate of trial of a new product. Furthermore, Villanueva et al (2008) have shown that leads recruited via eWOM are two to three times more profitable than those recruited via traditional

advertising for web content providers. Similarly, East et al (2005) reported that in activities such as insurance and catering, more than half of customers consider ewom to be their primary source of information, while almost 30% cite advertising as their primary source of information.

2. Advertising and the decision-making process when students choose an HEI

HEIs in Cameroon face stiff competition from both national and international universities. They use all the traditional and digital media to inform their targets (essentially students and their families) about the values and qualities of the institution and the range of courses on offer.

According to Kashorda (2002), advertising is a paid presentation of ideas, products, programmes or services, which can use a variety of media such as the written press, radio, events, urban posters, buses, direct mail, etc. Technological developments have also made it possible to increase the number of advertisements. Similarly, technological developments are enabling organisations to mobilise social networks to develop viral marketing campaigns.

Advertising is a central element of PHEI communication because of its impact on the target in terms of brand awareness and changes in attitude and behaviour towards the brand (Akanbi et al, 2011). From this perspective, the importance of television and radio in giving visibility and building a brand image of an PHEI is crucial (Hossler et al. (1990).

3. eWom and the decision-making process for student choice of an PHEI

Despite the fact that there is no research that specifically explores the impact of eWOM on students' choice of educational institution, there is nevertheless work that deals with the effects of eWOM in the education sector. These include the effects of eWOM on online teacher evaluation (Coladarci & Kornfield, 2007; Edwards et al., 2007). Moreover, few studies have examined the weight of social media in students' choice of an PHEI. Constantinides & Zinck (2011) have shown that the eWOM represents the least influential source in the choice of a university institution by American students.

4. Research methodology

4.1. The study population

The sample consisted of 300 students from 3 main private higher education institutes in Cameroon (IUC, ESG, PIGIER Cameroun). It was constituted using the random sampling method and the necessary data were collected using a questionnaire. The Ecole Supérieure de Gestion (ESG) is part of the Institut Supérieur du Golphe de Guinée (ISG) group. Founded in 1993, ESG is one of the largest IES in Cameroon. In 2018, ESG hosted the regional meeting of experts from the Central Africa and Great Lakes office of the Agence Universitaire de la Francophonie (AUF).

4.2. Sampling method

Quotas were used as the sampling method. It is justified by the targeting of students who have recently enrolled in one of the three main private higher education institutions in Cameroon (ESG, IUC, IUGET), but also by the budgetary constraints of the survey. We targeted 450 first-year students, with a quota of 150 students per institution. After eliminating incomplete questionnaires, we ended up with 299 valid questionnaires for data analysis.

4.3. Data analysis methods

In order to compare the respective influences of traditional media and eWOM in social networks on students' decision to choose an PHEI, we used multinomial logistic regression on SPSS 26. The dependent variable is 'choice of PHEI', which has three modalities: choice of ESG, choice of ICG, choice of Pigier Cameroun. The PHEIs are coded as follows: 1=IUC, 2=ESG, 3=Pigier Cameroun. The reference PHEI is 2=ESG.

5. Results of the empirical analyses of the research

5.1. Descriptive statistics on the sample

The results of the descriptive analyses show a relative balance of respondents on the 'gender' variable, with 57.9% male respondents and 41.8% female respondents. The three PHEIs concerned are evenly represented among the respondents, with 33.1% for IUC, 36.8% for ESG and 30.1% for PIGIER. The parents' occupation is likely to reflect the respondents' social category, with 33.1% blue-collar/managerial workers, 36.8% middle managers and 30.1% senior managers.

5.2 Assessing the reliability and validity of the regression

The first step in exploiting the empirical results is to assess the set of relationships between the dependent variable (a student's choice of an PHEI) and the independent variables (advertising sources and word of mouth). The chi-square distribution is used to assess this relationship. The null hypothesis that there is no difference between the model without independent variables and the model with independent variables is confronted with the alternative hypothesis that there is a difference between the model without independent variables and the model with independent variables (Monyai et al., 2015).

However, the initial log likelihood value of 557.098 corresponds to an evaluation of the null model (Table 1). The final value of the log likelihood is 96.320, which is evaluated after all the independent variables have been integrated into the model. The difference between these two values corresponds to the chi-square of the model (460.778). The chi-square statistic is significant with $p = 0.00 < 0.05$. So the null

hypothesis is not verified, and consequently, there is indeed a difference between the model without independent variables and the model with independent variables.

Table 1. Model fitting

Model	Model fitting criteria	Likelihood Ratio Tests		
	- 2 log likelihood	Chi-square	df	Sig.
Null	65,374 295 141			
Final	41,554 698 417	23,819 596 724	12	.000

The pseudo- R^2 of the model measures the strength of the association between the dependent variable and the independent variables. It represents the amount of variance in the dependent variable explained by the independent variables. The Cox & Snell pseudo- R^2 (0.786), as well as the Nagelkerke (0.885) and Mc Fadden (0.704) pseudo- R^2 values are high. The variance expressed by the model is therefore high (see table below).

Table 2. Pseudo R^2 of the regression model

Cox and Snell	0,786
Nagelkerke	0,885
McFadden	0,704

In order to establish the accuracy of the model, we will first examine the marginal frequencies of the independent variables. Table 4 presents the importance of each of the factors taken individually. It tests the improvement in the fit of the model with each of the factors. Factor scores shown in Table 4 with a p-value < 0.05 mean that there is a relationship between the dependent variable and the independent sources of communication, and that these factors should be included in the model.

The Wald statistic and the significance value (p-value) are used to assess the significance of each factor. The Wald test is used to measure the improvement made by adding each education factor to the zero intercept model. The aim is to test whether the sources of communication make it possible to discriminate significantly between students' choice of an PHEI and the reference PHEI (Hao & Yang, 2020).

Multicollinearity problems are assessed using the standard errors of the β coefficient estimates. An error greater than 2 indicates the existence of multicollinearity between independent communication factors. The confidence intervals shown in Table 4 are very small, suggesting high accuracy of the factors. Confidence intervals that include 1 indicate that there is no significant relationship between the level of

education and the factor scores. In order to avoid type 1 error, the critical significance value $p < 0.05$ will be divided by the total number of predictors. Thus, the statistical significance of our model will be strengthened and we will retain the value $p < 0.05/6=0.008$.

5.3. Evaluation of the weight of the explanatory variables

To test the causal relationships, we use multinomial logistic regression. The dependent variable is the choice of an PHEI with the following modalities: IUC=1, ESG=2, Pigier Cameroun=3. The independent variables are traditional media (radio, TV, internet, newspapers, posters) and word of mouth.

The variables in the $\text{Exp}(\beta)$ column are the odds ratios (OR), which reflect the fact that a one-unit increase in an advertising source increases the probability that a student who has chosen the reference PHEI (GSS) will choose another PHEI (positive odds ratio), or that a student who has chosen an PHEI will change his/her mind in favour of the reference PHEI (negative odds ratio).

Table 3. Results of the multinomial logistic regression

								95% CI	
		B	Std.error	wald	df	Sig.	Exp(B)	Lower bound	Upper bound
1	Intercept	61,878	2471,219	,001	1	,980			
	How effective is radio advertising when choosing an PHEI?	-2,750	,896	9,429	1	,002	,064	,011	,370
	How effective is TV advertising when choosing an PHEI?	-29,184	356,003	,007	1	,935	2,115E-13	,000	2,266E+290
	How effective is Internet advertising when choosing an PHEI?	6,891	1,074	41,173	1	,000	983,171	119,818	8067,423
	How effective is press advertising in choosing an PHEI?	-5,829	591,606	,000	1	,992	,003	,000	
	How effective is poster advertising in choosing an PHEI?	2,294	,654	12,294	1	,000	9,919	2,751	35,768
	Word of mouth	-2,604	,700	13,850	1	,000	,074	,019	,292
3	Intercept	-96,224	5,803	274,908	1	,000			
	How effective is radio advertising in choosing an PHEI?	-5,237	1,178	19,763	1	,000	,005	,001	,053
	How effective is TV advertising in choosing an PHEI?	-2,112	1,845	1,310	1	,252	,121	,003	4,501
	How effective is internet advertising in choosing an PHEI?	3,452	,953	13,136	1	,000	31,576	4,881	204,262
	How effective is press advertising in choosing an PHEI?	21,941	,000	.	1	.	3380580065,400	3380580065,400	3380580065,400
	How effective is poster advertising in choosing an PHEI?	1,764	,671	6,907	1	,009	5,834	1,566	21,738
	Word of mouth	-,998	,697	2,051	1	,152	,368	,094	1,445

With regard to the influence of traditional media on the choice of CUI (model 1) (GSS being considered as the reference institution), the effectiveness of radio advertising is positive, low and significant (OR=0.018; $p=0.000$; $wald=22.930$; [Binf=0.04-Bsup=0.94]) while the effectiveness of internet advertising is positive and significant (OR=1176.969; $p=0.000$; $wald=47.77$; [Binf=158.491 - Bsup=8140.272]), as is that of billboard advertising (OR=2.302; $p=0.000$; $wald=14.834$; [Binf=3.098-

Bsup=32.269]). However, the effectiveness of TV advertising (OR=-29.033; p=0.938) and press advertising (OR=-5.116; p=0.993) was not significant. The influence of word of mouth (OR=-2.676; p=0.000; wald=17.327; [Binf=0.000-Bsup=6.712E+307]) is negative and significant. This reflects the fact that increasing internet advertising by one unit increases by 1176.969 the choice of IUC by respondents who had previously chosen the reference institution ESG; then increasing poster advertising by one unit increases by 2.302 the choice of IUC by those who had previously chosen ESG; finally increasing advertising by one unit increases by 0.018 the possibility that a student who had previously chosen ESG would finally choose IUC. On the other hand, increasing press advertising (word of mouth) by one unit reduced the choice of IUC by those who had previously chosen ESG by 5.116 (2.676).

Model 2 presents the effectiveness of traditional media advertising and word of mouth on the choice of Pigier Cameroun, with ESG as the benchmark. The negative effect of radio advertising (OR=-1.270; p=0.000; wald=22.569; [Binf=0.00 - Bsup=0.35]) on the choice of an PHEI is significant, while the effects of internet advertising (OR=3.201; p=0.001; wald=11.505; [Binf=3.863-Bsup=156.169]) and poster advertising (OR=1.680; p=0.010, wald=6.662; [Binf=1.498-Bsup=19.205]) are significant and positive. This means that increasing internet advertising by one unit increases the choice of Pigier Cameroun by 3.201 over ESG. Similarly, increasing poster advertising by one unit increases the choice of Pigier Cameroun by 1.680 among students who had previously chosen ESG. However, the effect of TV advertising (OR=-1.270; p=0.460) and print advertising (OR=22.963; p=0.993) was not significant, nor was the effect of word of mouth (OR=-1.045; p=0.132; wald=2.268; [Binf=0.90-Bsup=1.371]).

6. Discussion of the results, managerial implications and limitations of the research

The analyses of the empirical results of the research show the superiority of communication media over word of mouth in the choice of an PHEI. Model 1 represents the determinants of those who chose IUC first. The effect of word of mouth is negative, while that of internet advertising is high, followed by poster advertising. Similarly, in model n°2 representing the behaviour of respondents who chose Pigier Cameroun first, word of mouth is not significant, unlike poster advertising followed by internet advertising which have positive and significant effects.

The importance of the eWom in the choice of an PHEI is not yet taken into account by the managers of these institutions, yet the eWom has a high potential for increasing recruitment. One of the solutions lies in the organisation of alumni associations (alumni), which are likely to generate and convey positive word-of-mouth to a wide range of targets, such as the business community, the educational community, university clubs, the general public, etc. These efforts are mainly aimed at improving and enhancing the reputation of the PHEI. The main aim of these efforts is to improve and reinforce the effects of word of mouth by improving its sources and distribution channels.

Similarly, poster advertising needs to be strengthened. This method of communication seems to be neglected by PHEI managers, but deserves a better allocation of resources, as its impact is small but significant.

Similarly, it is essential to improve radio and TV advertising by producing better quality spots. PHEI managers rarely use communications agencies to produce professional spots.

There are, however, limitations to this research. The first limitation relates to the data collection tool: the choice of measuring variables using a single item certainly makes it easier for respondents to understand, but this may weaken the reliability and validity of the constructs. In addition, the survey was conducted only in the city of Douala, which is home to the largest PHEI in Cameroon. Extending the scope of the survey to other regions of the country would reveal any differences in the effects of the media on the choice of an PHEI by students in Cameroon.

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