

The Effect of User Attributes on the Adoption of Social Media Marketing by Hospitals in Nairobi City County, Kenya

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Abstract: The general objective of this study was to examine the effect of the user attributes on the adoption of social media marketing by hospitals in Nairobi City County, Kenya. A total of 51 respondents from both public and private hospitals were used as the sample size for the study. Data was collected using a semi-structured questionnaire. Statistical analysis included Cronbachs Alpha, Correlation, Regression and Analysis of Variance was done. This study tested the null hypotheses that the user attributes or the hospital's marketers attributes do not have a significant effect on the adoption of social media marketing by Hospitals in Nairobi City County, Kenya. Hypothesis testing using p-value approach was done to give the strength of the decision to reject or fail to reject the null hypothesis. The study found that there was a positive and significant relationship between user attributes and adoption of social media marketing. The study, therefore, recommends that for hospitals to adopt social media marketing successfully, they must evaluate the capabilities of their marketers prior to engaging them to adopt and manage social media marketing in their hospitals.

Keywords: social media analytics, healthcare communication, social media, user attributes, hospital marketing.

1. INTRODUCTION

Social media marketing represents a new trend for companies who are trying to communicate with their consumers on online or offline media platforms. Businesses are looking for ways how to benefit from this potential, especially how to utilize the opportunities that websites like Facebook, LinkedIn and Twitter are offering for the companies' marketing departments and reputations (Hutchings, 2012). Today almost every person and business or organisation has a social media account. In less than a decade, hundreds of millions of people globally have become active users of social media sites the most popular of all Internet destinations. For the marketer social media increases brand awareness; influences purchasing behaviour; provides assistance in pre and post-sales communication and evaluation, and increases audience. Increased engagement with customers helps an organisation in its new product development programmes, customer relationship marketing and maintenance of lifetime value (Mangold & Faulds, 2009). Despite this, there seems to be limited understanding by hospital marketers on the appropriate choice of social media to engage in how to use these marketing tools effectively.

Statement of the Problem:

Africa has over 300 million internet users (about ten percent) of the world's total internet users. Out of this population, 51 million are estimated to be on Facebook. Africa registers a total of 26.5 percent penetration on the web against the world's average of 42 percent. Africa's growth rate of internet use is the highest in the world at a rate of 1,000 percent between the years 2000 and 2008 (Internet World Stat, 2009). Even though 40 percent of internet users in Kenya have been reported as looking for information on health and the possibilities that social media marketing offers for organisations to connect with their customers, there is still laxity in its adoption by healthcare institutions in Sub-Saharan Africa. Personal

characteristics such as educational level, age, gender, educational experience, experience with the computers and attitude can influence the adoption of technology (Schiller, 2003). Those individuals in charge of social media strategy within a company must take into account the various types and uses of social media when deciding where to direct their marketing efforts. Marketers recognize different purposes or ways in which consumers respond to or use these media (Weinberg & Pehlivan, 2011). Bruque and Moyano (2007) mentioned that end users have a major influence in use of technology. Insufficient and lack of technical knowledge, combined with little appreciation of the benefits of e-commerce, remains a major difficulty for SMEs (Bruque & Moyano, 2007). Others such limitations on specific technical does exist but can be overcome by hiring a suitable technical person (Gilmore, Gallagher, & Henry, 2007).

A. Objective of the study:

The objective of this study was to examine the effect of user attributes on adoption of social media marketing by hospitals in Nairobi City County, Kenya.

B. Hypothesis:

The null hypothesis was stated as follows:

H₀: User attributes do not have a significant effect on adoption of social media marketing by hospitals in Nairobi City County, Kenya

2. LITERATURE REVIEW

The Internet has profoundly changed the human experience as people use the Web to find information, buy and sell products, watch television shows, seek mates, search for entertainment, and participate in political spheres (Correa, Hinsley, & De Zuniga, 2010). Age of a marketing executive can be considered as the most important personal characteristic that affects computer adoption and Internet usage behaviors such as messaging, searching, downloading information, and purchasing (Serenko, Turel, & Yol, 2006). Morris and Venkatesh (2000) linked technology adoption with age differences. Younger individuals are more open to using a new technology than older ones since older people tend to be more concerned about the difficulties they may have in learning new systems. On the other hand, Teo (2001); Nunnally and Bernstein (1994) found no significant differences in Internet usage for online shopping across age groups.

Awareness and enthusiasm about emerging technologies, comfort with their use on the part of managers, and the existence of related experimentation and innovation positively influence the adoption (Tarafdar & Vaidya, 2006). Marketers who are able to actively engage their consumers have higher followers and wider reach. Active brand engagement is viewed as potentially the strongest substantiation of brand resonance, the final stage of brand development in the consumer-based brand equity pyramid propose by (Keller, 2009). Interactive marketing communications such as social media have a distinct advantage in their ability to encourage learning, teaching, expression of commitment, and observation of brand loyalty amongst consumers (Keller, 2009). Motivations for using the internet, including information seeking, convenience, entertainment and social interaction has provided the basis for identifying motives for engagement with social media (Ko, Cho, & Roberts, 2005). These motivations include motivation for participation with social media as well as motivation for participation with brands.

While engagement with consumers in social media is not without risks perhaps the greatest risk in this new era of communication is not being engaged at all (Cawley, 2011). The Level of engagement describes the user activity unique to each social media platform these include audience engagement such as comments, number of Facebook likes, Twitter followers, Foursquare check-ins, and Yelp reviews; information dissemination such as posts, videos, adverts and awards; Public Relations tools such that increase visibility, promote services and enhance corporate image (Huang & Dunbar, 2013).

On the basis of a survey of 200 business decision makers in companies across the world, Group (2008) define customer engagement as creating deep connections with customers that drive purchase decisions, interaction, and participation over time. Their survey indicates that companies are investing more in online programs and believe the internet is essential for building customer engagement. Measures of customer engagement used by these companies include sales volume, customer satisfaction, and frequency of visits to a website. Forrester further recommends identifying the ten most important things that engaged customers and prospects do and creating a dashboard to track the adoption, frequency, and intimacy metrics associated with these activities. When measuring the effects of social media in coordinating all aspects of a firm's marketing activity, it is crucial that a metric measurement system is built into the program from the very

beginning. Metrics falls into two primary categories namely on-site and off-site. Onsite metrics measure activity that takes place directly on the site, whereas off-site metrics measure activity that happens on other sites where customers interact (Zarrella & Zarrella, 2010). Benchmarks should be set so that they are comparable to traditional marketing metrics, such as sales, traffic, brand satisfaction, and customer loyalty (Hennig-Thurau et al., 2010).

3. RESEARCH METHODOLOGY

This study adopted a descriptive survey research design. The research population in this study were hospitals listed on the eHealth Kenya healthcare facilities website www.kmhfl.health.go.ke as at 31st Jan 2016 in Nairobi City County. These hospitals included both private and public hospitals. Primary data was collected through a pre-designed, and pre-tested semi-structured questionnaire that was given to identified respondents who are heads of the marketing department in the hospital or hospital officers that assume the role of marketing, drawn from the website list of 45 hospitals. The questions in the questionnaire were a mixture of open-ended, forced response types, and 5 Likert-type scales. Secondary data was used to acquire information on hospitals social media pages. The secondary data was collected through online information about the hospitals. The data was collected through the administering of the questionnaire to a sample of 68 respondents. Seventeen questionnaires were found to be invalid. Data was analyzed using statistical package for social science (SPSS). Descriptive statistics were estimated for the various variables. Descriptive statistics involve the use of frequency mode, mean and percentages. Multiple regression analysis was used to test the relationship between the dependent and independent variables. Linear regression analysis model was employed in the analysis to establish the effect of user attributes on adoption of social media marketing by hospitals in Nairobi City County, Kenya.

4. RESEARCH FINDINGS AND DISCUSSION

The main objective of this study was to examine the effect of user attributes on adoption of social media marketing by hospitals in Nairobi City County. User attributes measured, returned a Cronbach’s alpha reliability coefficient 0.800. This reliability coefficient was greater than 0.70 indicating that the items used to measure user attributes were consistent with the research objectives. Percentages were used to summarise the scores as indicated in Table 1. Five items were rated on a five point Likert scale using 1 to mean “No Extent at all” and 5 to mean “Greatest Extent”. The result was that only two percent of the respondents do not use Facebook at all. Blogs were the least used social media with 47 percent of the respondents stating that they do not use blogs at all. Ninety-eight percent of the respondents indicated that they use Facebook, 81 percent use Twitter, and 71 percent have LinkedIn personal accounts. Sixty five percent indicated that they use Instagram to a certain extent.

TABLE 1: EXTENT OF PERSONAL USE OF SOCIAL MEDIA

| Percentage (%) n=51 | | | | | | |
|---------------------|------------------|--------------|-----------------|--------------|-----------------|--|
| | No Extent at all | Small Extent | Moderate Extent | Great Extent | Greatest Extent | |
| Facebook | 2 | 12 | 29 | 47 | 10 | |
| Twitter | 19 | 12 | 37 | 24 | 8 | |
| LinkedIn | 29 | 24 | 27 | 20 | 0 | |
| Instagram | 36 | 16 | 22 | 16 | 10 | |
| Blogs | 47 | 24 | 16 | 12 | 1 | |

With regards to the level of education as shown in Table 2 hospital marketers with a master’s degree were more likely to use LinkedIn than certificate, diploma or degree holders. On average bachelor degree holders used social media for personal use than a certificate, diploma or master’s degree holder. The typical hospital marketer who uses social media has a bachelor’s degree and is between the ages of 20-30 years.

TABLE 2: LEVEL OF EDUCATION AND PERSONAL USE OF SOCIAL MEDIA

| | Facebook | | Twitter | LinkedIn | Instagram | Blogs |
|--------------------|-----------|----|-----------|-----------|-----------|-----------|
| Level of Education | (Percent) | | (Percent) | (Percent) | (Percent) | (Percent) |
| Certificate | 40 | 20 | 20 | 20 | 20 | |
| Diploma | 73 | 58 | 44 | 53 | 33 | |
| Bachelor’s Degree | 72 | 60 | 50 | 54 | 48 | |
| Master’s Degree | 65 | 56 | 51 | 44 | 35 | |

The motivation for personal use of social media is presented in Table 3. Fifty seven percent were driven by social interaction in their personal use of Facebook. Thirty one percent of the respondents were motivated by information gathering in their use of Twitter. The motivation for the use of LinkedIn was highest for professional engagement as LinkedIn is primarily used for human resource recruitment and career advancement information. Only two and four percent indicated that they use Facebook and Instagram respectively for professional engagement. Only six percent use blogs and Twitter for professional engagement.

TABLE 3: MOTIVATION FOR USE OF PERSONAL SOCIAL MEDIA PLATFORMS

| | Not applicable (%) | Information Seeking (%) | Entertainment (%) | Social Interaction (%) | Professional Engagement (%) |
|-----------|--------------------|-------------------------|-------------------|------------------------|-----------------------------|
| Facebook | 2 | 10 | 29 | 57 | 2 |
| Twitter | 16 | 31 | 10 | 37 | 6 |
| LinkedIn | 29 | 14 | 2 | 4 | 51 |
| Instagram | 36 | 4 | 31 | 25 | 4 |
| Blogs | 47 | 29 | 14 | 4 | 6 |

Table 4 indicates when the respondents last visited their personal social media accounts. Five items were rated on a five point Likert scale using 1 to mean “Not at all” and 5 for “Today” Sixty six percent of respondents who use Twitter indicated that they had visited their account in the last two weeks. Facebook scored highest as the social media platform that the respondents had visited on that day (today). Thirty three percent indicated they had visited LinkedIn in within the last week while 35 percent and 45 percent indicated that they did not visit any Instagram and blogs respectively.

TABLE 4: LAST TIME TO VISIT PERSONAL SOCIAL MEDIA

| | Total (percent) | Not at all/ not applicable (percent) | More than a month (percent) | Last two weeks (percent) | This week Weekly (percent) | Today (percent) |
|-----------|-----------------|--------------------------------------|-----------------------------|--------------------------|----------------------------|-----------------|
| Facebook | 100 | 2 | 4 | 4 | 29 | 61 |
| Twitter | 100 | 14 | 10 | 6 | 27 | 43 |
| LinkedIn | 100 | 27 | 6 | 18 | 33 | 16 |
| Instagram | 100 | 35 | 4 | 10 | 22 | 29 |
| Blogs | 100 | 45 | 10 | 10 | 27 | 8 |

Finally, on user attributes, the respondents were asked to indicate their familiarity with social media analytical tools. Five items were rated on a five point Likert scale using 1 to mean “No Extent at all” and 5 to mean “Greatest Extent”. Familiarity with social media analytics tools is shown in Table 5. Ninety percent of respondents had familiarity with Facebook Insights. Instagram analytics (Instafollow) rated the lowest with 39 percent stating that they had no familiarity with it at all. With regards to LinkedIn analytics, 35 percent of respondents had no familiarity with it at all. On Average of 27 percent indicated that they had no familiarity at all with any social media analytics tools.

TABLE 5: FAMILIARITY WITH SOCIAL MEDIA ANALYTICS TOOLS

| | No Extent at all (percent) | Small Extent (percent) | Moderate Extent (percent) | Great Extent (percent) | Greatest Extent (percent) |
|--------------------|----------------------------|------------------------|---------------------------|------------------------|---------------------------|
| Facebook Insights | 10 | 12 | 47 | 20 | 11 |
| Twitter analytics | 22 | 20 | 31 | 16 | 11 |
| LinkedIn Analytics | 35 | 22 | 27 | 10 | 6 |
| Instafollow | 39 | 10 | 33 | 10 | 8 |
| Google analytics | 29 | 16 | 31 | 8 | 16 |

The indicators for user attributes findings are similar to global statistics report that reported that the most used social network in Kenya is Facebook with the usage of about 92.44 percent. According to Kieti (2015) over 60 percent of Kenyans (2.5 – 3 million) accessing Facebook at least once a month are based in Nairobi. Facebook is the biggest social

media platform of all in Kenya with approximately 5 million active users, followed by Twitter with 1.7 million users, and LinkedIn with 1.3 million users.

With regards to the level of education, these findings are similar to Morris and Venkatesh (2000) who found a direct effect of age on usefulness perceptions for both short-term and long-term usage of technology. Venkatesh et al., (2003) found that older workers show weaker willingness to adopt new Information Technology products. Hargittai (2010) looked at the predictors of social networking sites usage among a diverse group of young adults. His study showed that a person’s gender, race and ethnicity, and parental educational background were all associated with use. However, Teo (2001) found no significant differences in Internet usage for online shopping across age groups. In the findings for the motivation of social media use (Curtis et al., 2010) in their research found that public relations practitioners tend to be “everyday users” of Twitter, not thought leaders or trendsetters across the entire social network.

Test of Hypothesis:

The researcher conducted a regression analysis between the predictor (User attributes) and the outcome (adoption of social media marketing), to empirically evaluate the relationship between user attributes and adoption of social media marketing by hospitals in Nairobi City County, Kenya. The null hypothesis tested stated:

H₀: User attributes do not have a significant effect on the adoption of social media marketing by hospitals in Nairobi City County.

A regression analysis was conducted between the predictor (user attributes) and the outcome (adoption of social media marketing), to empirically evaluate the relationship between the two variables. Regression results in Table 6 show that there was a significant positive relationship between user attributes and adoption of social media marketing by hospitals in Nairobi City County where R = 0.323. An R-squared of 0.104 indicates that the model explains 10.4 percent of the variance in the adoption of social media marketing predicted by user attributes.

TABLE 6: MODEL SUMMARY FOR USER ATTRIBUTES

| Model Summary | | | | |
|--|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .323 ^a | .104 | .086 | 4.65497 |
| a. Predictors: (Constant), User Attributes | | | | |

The ANOVA performed as shown in Table 7 revealed that there was a significant effect of user attributes on adoption of social media marketing (F= 5.717; Sig = 0.021). Table 7 also shows that a P-value of 0.021 at five percent significance level which indicates that the model was significant.

TABLE 7: ANOVA FOR USER ATTRIBUTES

| | | Sum of Squares | df | Mean Square | F | Sig. |
|--|------------|----------------|----|-------------|-------|-------|
| | Regression | 123.887 | 1 | 123.887 | 5.717 | 0.021 |
| | Residual | 1061.768 | 49 | 21.669 | | |
| | Total | 1185.656 | 50 | | | |

Table 8 displays the regression coefficients of the independent variable (user attributes) depicted by linear regression model $Y=B_0+B_3X_3$ where X_3 is the user attributes, and Y is the adoption of social media marketing. The results reveal that an increase in user attributes leads to greater adoption of social media marketing as show linearly by the linear model:

$Y=7.861+0.148X_3$; Where X_3 is user attributes and Y is the adoption of social media marketing.

This means that user attributes was significant (P>0.05) in positively influencing the adoption of social media by hospitals in Nairobi City County.

TABLE 8: REGRESSION COEFFICIENTS FOR USER ATTRIBUTES

| Model | Unstandardized coefficients | | Standardized coefficients | | |
|-----------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | t | Sig. |
| Constant | 7.861 | 1.704 | | 4.614 | .000 |
| User attributes | 0.148 | 0.062 | 0.323 | 2.391 | .021 |

Since the p-value is less than alpha (0.05), the null hypothesis is rejected and conclude that user attributes has a significant and positive effect on the adoption of social media marketing by hospitals in Nairobi City County.

This is consistent with the findings by Schiller (2003) where he noted that personal characteristics such as educational level, age, gender, educational experience, experience with the computers and attitude can influence the adoption of a technology. Yang and Fang (2004) found that motivations, skills, experience and education are all factors that influence the development and maintenance of attitudes. Therefore, maintenance and change of attitude should be considered as a complementary tool to techniques that can be used to improve user acceptance of new technologies. People use often use the Internet to socialize with people they do know and expand their circle of friends (Correa et al., 2010). They noted further that more than one-third of all Internet users engage in social media and instant messaging platforms.

5. CONCLUSION AND RECOMMENDATIONS

The above results of hypothesis testing resulted in rejecting the null hypothesis thus stating that user attributes have a significant effect on the adoption of social media marketing by hospitals in Nairobi City County, Kenya. The study recommends that hospitals must evaluate the capability of their marketers prior to engaging them to adopt social media marketing for their hospitals. As the study implies, Hospitals marketing and senior management may engage highly educated marketers, who are savvy and participatory in their personal use of social media networks but are not necessarily focused on effective management of corporate social media platforms. Further given that adopting and managing social media marketing is time consuming and in effect a full time job, limitations of resources may affect its effective utilisation. However, today there are many options for management of social media including the use of automated technology or indeed specialised consultants who with proper guidance can manage the social media platforms to the benefit of the hospital. As the study implies this being done without a well-defined purpose and a sufficient understanding of social media technology use and attributes, engagement of social media savvy marketers alone will impact on the successful benefits of the adoption of social media marketing.

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