

Influence of Radio on Women Voters' Political Knowledge on the 2013 Kenyan General Election

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Abstract: Prior research reveals a positive correlation between citizens' radio exposure and political knowledge in Africa. However, little is known about the connection between women voters' radio exposure and political knowledge during elections in Kenya. This study, therefore, examines the influence of radio on women voters' political knowledge on the 2013 general election within the setting of Kakamega County, western Kenya. The research is anchored on uses and gratifications theory and knowledge gap theory. It builds on scholars' recommendations on using local, national, and gender-relevant political questions to link women's radio exposure and political knowledge. This study adopted a descriptive quantitative correlational survey collecting data from 372 women voters using an interviewer-administered questionnaire. The results reveal medium to high radio exposure, but low to moderate political knowledge among majority of the women voters. Radio exposure explained 22.6% of the positive variance in women voters' political knowledge. Consequently, radio contributes to political learning and this has implications for political stakeholders in Kenya. They should harness the potential of radio to reach and enrich women's political knowledge. This article provides directions for future research on the influence of radio exposure on women's political knowledge and subsequently electoral participation under Kenya's new devolved political system.

Keywords: Elections; Kakamega County; Political knowledge; Radio exposure; Women voters

1 Introduction

Almost 81% of women in Kenya listen to the radio and spent an average of 5.3 hours per day tuned to it (Gillwald, Milek, & Stork, 2010). Radio, therefore, has the potential to boost women's political knowledge. Edegoh, Ezech, and Anunike (2015, p. 1) assert that "it is perhaps, the ability to provide political information as a vital

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pillar of democracy that has made radio relevant to politics and civic education.” This suggests a crucial role for radio in strengthening gender equality in political participation as advanced in Social Development Goals (SDGs), Kenya’s Vision 2030 and Constitution. Women’s electoral participation is important in solidifying democracy and advancing their development agenda (Shojaei, Samsu, & Asayeseh, 2010).

This article focuses on current affairs political knowledge which denotes learning about recent political and societal happenings covered by the media (Barabas, Jerit, Pollock, & Rainery, 2014). Such knowledge is measured by asking respondents’ surveillance-facts based questions on names of public officials, politics and the government. Such facts change frequently and demand individuals to constantly monitor news and public affairs (Delli Carpini & Keeter, 1996; Edgerly, Thorson, & Wells, 2018). Political knowledge signifies the effects of the reception of media contents on political learning. This is of scholarly interest as political knowledge predicts political attitudes, discussions and participation (Anduiza, Gallego, & Jorba, 2012; Barabas et al., 2014; Ferrín, Fraile, & García-Albacete, 2019; Fortin-Rittberger, 2016; Shaker, 2009).

Political knowledge though an important resource for electoral participation, remains inadequate among a majority of the individuals (Anduiza et al., 2012; Delli Carpini & Keeter, 1996). Compared to men, women require relatively higher levels of political knowledge in assessing their suitability to participate in politics (Fraile, 2014; Shojaei et al., 2010). Numerous studies demonstrate that political knowledge differences are gendered as women report low levels compared to men (Dolan & Hansen, 2020; Shojaei et al., 2010). This gendered gap persists amidst the changing socio-demographics, information accessibility and political situation (Ferrín et al., 2019).

Kenya located in East Africa has a vibrant broadcasting sector dominated by radio despite the changing media landscape in the country (Media Council of Kenya [MCK], 2012; Nyabuga & Booker, 2013). The 2020 Kenya National Bureau of Statistics (KNBS) economic survey reveals that the country has about 194 radio stations. Approximately 6.4 million (74%) of the households in the country own radio sets (KNBS, 2010) and almost 95% of Kenyans regularly listen to the radio (MCK, 2012). Amidst the changing media landscape, there is a need to examine the effects of media exposure on political knowledge (Anduiza et al., 2012). This study, therefore, examines the influence of radio on women voters’ political knowledge on the 2013 general election in Kakamega County in western Kenya.

This article set to make two contributions to the empirical literature on news media exposure and political knowledge in developing democracies in which radio as a legacy medium dominates. First, the paper considers the effect of radio exposure on women's political knowledge under a new devolved political dispensation. Women form a large voting bloc in Kenya. However, Kasomo (2012) notes that women remain marginalized in both politics and academic research in Kenya. Second, the research considers gender-relevant questions on issues considered of interest to women and also focuses on local and national level politics (see appendix). The failure to focus on such questions contributes to low women's political knowledge in comparative studies involving both male and female respondents (Dolan 2011; Fortin- Rittberger, 2016).

This article is situated in the sociological, psychological and communication approaches to political participation (Jung, 2010). Sociodemographic and cultural determinants to political participation are at the centre of the sociological approach. In this study, sociodemographics are conceptualized as control variables. The psychological approach focuses on political knowledge and attitudes. Political knowledge is the dependent variable in this research and partisanship as a political attitude is controlled. Communication approach evaluates the effects of news media use and interpersonal communication on political participation. Within this approach, this article focuses on radio exposure as a predictor of women voters' political knowledge. Connecting these approaches, Fraile (2014) argues that political knowledge is gendered due to the socio-economic resource and cultural differences between women and men. These differences further inhibit women's information access.

This study focuses on the general election held in Kenya on March 4, 2013, the tenth since the country's independence in 1963. The election was the first under the 2010 Constitution of Kenya which provides for affirmative actions toward women's political participation and citizens' political rights. Being the first election under Kenya's new Constitution implies that voters needed to learn more about it through various sources of political information such as radio. The Constitution of Kenya (2010) created a devolved government structure consisting of 47 counties with Kakamega County being the 37th county. The county is divided into 12 constituencies and 60 County Assembly Wards [CAWs] (County Government of Kakamega, 2018).

Kakamega County with a population of 1,867,579 is the fourth most populous in Kenya after Nairobi, Kiambu and Nakuru counties. This population consists of

970,406 (52%) females and 897,133 (48%) males. With 73, 273 more females than males, the county is the topmost with more females than males in Kenya (KNBS, 2019). In Kakamega County, females constitute 496,949 (53.8%) of the 924,142 persons in the voting-age population of 18 years and above (KNBS, 2019). During the 2013 election, 287, 325 (50.2%) of the county's 567, 460 voters registered through biometric technology were females (Independent Election and Boundaries Commission [IEBC], 2013).

In Kakamega County, over 92.7% of the females aged three years and above have low levels of education (pre-primary to secondary school). Only 25.1% of the households in the county have electricity connection (KNBS, 2019). The poverty level in the county is 49.2% (County Government of Kakamega, 2018). These characteristics make radio an ideal news medium for women in the county as it is cheap, can operate even on dry battery cells and broadcasts in local languages (Gillwald et al., 2010; Nyabuga & Booker, 2013; Simiyu, 2010). Radio ownership in households in Kakamega County stands at 77.8% which is 3.8% above the national figure (KNBS, 2010). In western Kenya in which the county is located, women have keen interest to listen to their favourite radio programmes and even carry their radio receivers as they work on the farm (Simiyu, 2010).

2 Problem Statement

Radio is an important source of voter information during elections in Kenya (Mbeke, 2010; Muriithi & Page, 2013; Schulz-Herzenberg, Aling'o, & Gatimu, 2015; Yankem, 2015). Thus, radio has the potential of reaching and improving voters' political knowledge, an important resource in electoral participation. Despite this, the association between news media use, political learning and knowledge remain unclear (Edgerly et al, 2018; McQuail, 2010; Shaker, 2009). Additionally, the role of radio in political participation in Africa (Conroy-Krutz, 2018) and political mobilization in Kenya, in particular, remains understudied (Yankem, 2015). To bridge this gap, this article examines the influence of radio on women voters' political knowledge on the 2013 general election in Kakamega County.

3 Literature Review

3.1 Women's Radio Exposure

During elections, voters have increased access to political information through various sources (Schulz-Herzenberg et al., 2015). Majority of women in Africa especially those in rural areas access their news and information from the radio (Didiugwu, Ekwe, Apeh, & Odoh, 2014; Gillwald et al., 2010). Prior research in Kenya shows a high level of radio listenership among the female audience (Gillwald et al., 2010; Ipsos Synovate, 2013; Koech, 2017). An audience survey by Ipsos Synovate (2013) reveals that a female radio listener in Kenya spends averagely 33 hours listening to the radio per week. The survey by Gillwald et al. (2010) shows radio ownership and listenership among women in Kenya to be 82% and 81% respectively. The survey further reveals that on average, a woman spends about 5.3 hours per day listening to the radio which is slightly above the national average of 4.9 hours for both male and female audiences. Gillwald et al. (2010) argue that women are often at home and this may allow them to listen to the radio within their households. In light of the foregoing, it is evident that radio is an important source of political information and consequently a likely contributor to women voters' political knowledge in Kenya.

Koech (2017) conducted a study on radio listenership among women in the rural Sub-County of Kipkelion West in Kericho County, Kenya. She established that almost three-quarters of the respondents listened to the radio daily. On average, women reported spending up to four hours per day listening to the radio. The researcher identifies two key reasons underpinning these results. First, the respondents considered radio programmes that they tuned to as being informative, educative and entertaining. Second, radio is a secondary medium that one can listen to without 100% concentration. This important to women as they can tune to the radio while engaged in other tasks within and outside their households.

A Comparative National Election Project (CNEP) survey was conducted after the 2013 Kenyan polls. It established that 82% of the respondents listened to the radio, with those reporting daily listenership being 61% (Schulz-Herzenberg et al., 2015). High radio exposure in Kenya might be attributed to low socio-economic status (SES) of the majority of her citizens. This leads to limited use of the other expensive news media (Mbeke, 2010). The CNEP survey reveals that 32% and 13% of the respondents had weekly read newspapers and accessed the internet respectively for news on the election campaigns.

During elections, the news media focus on voter education and election campaigns (MCK, 2012). The news media provide information on “electoral laws, the process of voting, campaign issues, political parties and candidates, and safety and security” (MCK, 2017, p. 7). In Kenya, the role of radio in elective politics is highlighted by its heavy use for election campaigns by candidates (Mbeke, 2010). Focusing on the 2015 Nigerian general election, Edegoh et al. (2015) conducted a study among 200 rural residents drawn from Idemili North and South local government areas in Anambra State. The research reveals that during this election, respondents to a large extent received from radio political information focusing on voter education, permanent voter cards and candidates’ political schedules. Other kinds of information received from listening to the radio covered election dates.

3.2 Women’s Political Knowledge

Past studies reveal that women more than men report low levels of political knowledge (Delli Carpini & Keeter 1996; Digiugwu et al., 2014; Dolan, 2011; Shojaei et al., 2010). Similarly, a survey conducted before the 2013 general election discloses gender gaps in respondents’ knowledge on Kenya’s 2010 Constitution. More female respondents had incorrect responses than their male participants (Ipsos Synovate, 2012). Overall, prior research demonstrates low Kenyans’ political knowledge before the March 4, 2013 election (Ipsos Synovate, 2012; Kenya Human Rights Commission [KHRC], 2014; Kenya National Dialogue and Reconciliation [KNDR] Monitoring Project, 2013).

Various socioeconomic, cultural, media-related factors and methodological shortfalls contribute to women’s low political knowledge. Women have low SES and this contributes to their limited exposure to information and subsequently political knowledge (Delli Carpini & Keeter, 1996). In the patriarchal society, we live in, socialization, a product of culture portrays politics as a “man’s world” or public life activity. Women, therefore, are discouraged from engaging in politics as their roles are designated at home or in private life (Dolan & Hansen, 2020; Fraile, 2014; Kasomo, 2012). Women’s socialization can also contribute to their disinterest in seeking political information. Furthermore, the domestic roles of parenting and taking care of household chores limit the time women have to be informed about politics (Fraile, 2014).

Socio-economic resource and cultural differences also contribute to the methodological limitations in the measurement of political knowledge during research. These methodological shortcomings lead to women obtaining low scores

in comparative studies involving male and female respondents (Dolan & Hansen, 2020). For instance, the treatment of incorrect and “Don’t Know” (DK) responses, in which DK answers are measured as being incorrect. Women are likely to give DK responses than men (Fraile, 2014; Ferrín et al., 2019). Women being more risk-averse than men are willing to give DK responses if they do not know or believe they do not know (Lizotte & Sidman, 2009). The present research is not a comparative one involving male and female respondents. Cognizant of the aforementioned, the operationalization of political knowledge in this study codes “1” for correct answers and “0” for incorrect, DK and No Response (NR) answers. This research adopted an interviewer-based questionnaire in which the DK options were not read out to the respondents.

Questions often used to measure political knowledge might be biased in favour of men’s political interests (Dolan 2011; Fortin- Rittberger, 2016). Such questions focus on national and international political news. According to Dolan (2011), women have the same or even better scores than men on questions on local affairs. In light of this, the study used questions on local politics (Kakamega County) and national (Kenyan) politics and women-focused issues (see Appendix for the specific questions).

On media-related factors weakening women’s political knowledge, McQuail (2010) notes that news is not intentionally set for learning. Additionally, broadcast media use may not translate into a lot of political knowledge due to individuals’ failure to pay attention to, understand and recall the content they are exposed to. Luskin (1990) argues that broadcast media provide news that is “too brief and shallow” to boost the political knowledge of their audience. Perloff (2014) adds that political news focuses on facts, figures and may contain jargon that is hard for people to understand. In agreement, Didiugwu et al., (2014) acknowledge that political messages on the radio may not be packaged in clear and persuasive ways to facilitate women’s electoral participation. Similar shortcomings exist in Kenya as political talk radio programmes aired during the 2013 polls were criticized for being poorly researched and lacking pre-editorial guidance (Muriithi & Page, 2013).

Low motivations and cognitive abilities which are shaped by various demographics, social and psychological factors also impact on political knowledge (Staples, 1998). In particular, they diminish the power of news media exposure on the political knowledge of the audience (Jung, 2010; Luskin, 1990). Those who listen to the media to gratify their information seeking needs and can process the political information broadcast gain political knowledge (Kim & Kim, 2007). This is in

contrast to those with limited cognitive abilities and seeking to gratify their entertainment needs. Low political knowledge during the 2013 polls in Kenya could also be attributed to the late start and limited scope of IEBC voter education programmes (KHRC, 2014). This may have limited the civic and voter education information that radio audiences were exposed to.

3.3 Link between Women's Radio Exposure and Political Knowledge

Didiugwu et al. (2014) carried out a study among women listening to a gender empowerment programme, Nnoko Umunwanyi targeting rural women in Enugu State, Nigeria. The programme was aired on the Federal Radio Corporation of Nigeria (FRCN) Enugu. The study reveals that over half (54.5%) of the respondents were listening to the gender empowerment radio programme. Those who listened to the programme noted that it had moderately raised their political knowledge. Another study conducted among undergraduate students in Ibadan, Nigeria indicates that radio access is a significant predictor of political knowledge (Oluwatosin, Olatunji, Olusola, & Popoola, 2020). Within East Africa, Conroy-Krutz's (2018) research reports that radio availability increases citizens' political knowledge in Uganda.

Muriithi and Page (2013) conducted a study on Kenya's 2013 polls based on the British Broadcasting Corporation's (BBC) *Sema Kenya* (Kenya Speaks) programme. This is a governance programme that was aired on both radio and TV in Kenya from October 2012 to January 2015. The research established a strong positive association between audience exposure to this programme and political knowledge. Overall, prior research indicates that radio was an important source of political information during 2013 election (Muriithi and Page, 2013; Scavo and Snow, 2016; Schulz-Herzenberg et al., 2015; Yankem, 2015).

3.4 Theoretical Framework

This study is anchored on Uses and Gratifications Theory (UGT) and knowledge gap theory. UGT advanced by Katz, Blumler, and Gurevitch (1974) is used in this article to articulate the link between radio exposure and political knowledge among women voters. A lot of what people know in politics is acquired through the news media (Scavo & Snow, 2016; Fortin-Rittberger, 2016; Staples, 1998). Therefore, political knowledge is a consequence of news media use and it is better understood if researchers examine why people use the media (Edegoh et al., 2015; Staples, 1998). Individuals can access political media to satisfy their surveillance gratification (Kim & Kim, 2007; McQuail, 2010). This gratification is geared

towards information seeking. Thus, it can contribute to political learning and consequently current affairs knowledge.

Katz et al. (1974) acknowledge that audience characteristics influence the extent to which news media is accessed and used and consequently media effects on political behaviours. Staples (1998) adds that that listening to the radio is shaped by individual characteristics (for example, socio-demographics and psychological factors). The foregoing provides a link between UGT and knowledge gap theory upon which this study is grounded in. Knowledge gap theory advanced by Tichenor, Donohue and Olien (1970) postulates that:

“As the infusion of mass media information into a social system increases, segments of the population with higher socioeconomic status [SES] tend to acquire this information at a faster rate than low-status segments, so that the gap in knowledge between these segments tends to increase rather than decrease (pp. 159-160).

Tichenor et al., (1970) acknowledge that individuals in higher SES use the news media more frequently to acquire information on public affairs. Furthermore, their higher educational levels contribute to their cognitive skills essential for information processing and this promotes their political knowledge. In this study, socio-demographic characteristics and use of other news media (besides radio) were used as control variables.

4 Research Questions

1. What was the level of women voters' radio exposure during the 2013 Kenyan general election?
2. What is the level of women's political knowledge about the 2013 Kenyan polls?
3. What is the link between women's radio exposure and political knowledge about the 2013 general election in Kenya?

5 Methodology

A descriptive quantitative correlational survey was adopted as this research aimed at describing and predicting relationships between radio exposure and political knowledge within the largely populated County of Kakamega. The sample size for this study was obtained from the population of 287,325 female voters at a confidence level of 95% using Yamane's (1967) formula:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = desired sample size

N = the finite size of the population

e =margin of error of 5%

1= a theoretical or statistical constant

$$n = \frac{287,325}{1 + 287,325 (0.05)^2} = 400$$

In drawing up the sample of 400 women voters, multi-stage sampling technique was adopted ensuring the six constituencies and 12 CAWs selected were representative of the 12 constituencies and 60 CAWs in Kakamega County. The researchers selected Lugari, Likuyani, Malava, Lurambi, Mumias West and Butere constituencies. From each sampled constituency, one rural and one urban CAW were selected.

5.1 Data Collection and Analysis

Primary data for this study was collected at the household level using an interviewer-administered questionnaire. The questionnaire was validated by two media studies lecturers. It was piloted on 48 women voters (12% of the study population) conveniently sampled from a CAW that was not part of those sampled in Kakamega County. The pilot study yielded Pearson's correlation coefficient of .734, indicating a strong correlation. After an initial evaluation of the completed and returned questionnaires, 372 (93%) were deemed usable for data analysis. SPSS Version 21 was used to generate quantitative outputs through descriptive and inferential statistics presented in tables. Data on the six political knowledge questions were subjected to Cronbach's alpha test, resulting in a score of .839 which indicates high reliability.

5.2 Operationalization of Study variables

The dependent variable in this study is political knowledge which is an additive index of dichotomous responses to six current affairs questions on the 2013 general election (see appendix) with correct answers coded as "1" while incorrect answers, DK and NR answers were all coded as "0". The scores were used to create an additive index of political knowledge, with scores ranging from 0 to 6.

Radio exposure is the independent variable in this research. Participants were asked to indicate approximate days in a seven-day typical week and hours in a typical 24-hour day of listening to the radio to obtain information on politics and current affairs. An index of weekly radio exposure was then computed by multiplying the number of days and hours per day spent listening to the radio to access information on politics and current affairs. Level of radio exposure ranged from 0 to 56 hours.

The control predictors in this study are socio-demographics (age, marital status, level of education, household income status and residential location), political disposition characteristics and use of other news media for accessing information on politics and current affairs. Each participant indicated her age, finally categorized as 1=18-35 years; 2=36-50 years; and 3=above 50 years. For marital status, each respondent's indication of her marriage status, finally categorized as 1=Single; 2=Married; 3=Separated, divorced and widowed. Education was measured by a participant's highest level of formal education completed with the following final groups used: 1=none; 2=primary school; 3=secondary school; and 4=middle-level college and university education. Household income status denotes the approximate monthly income obtained from all sources for all members of the household. This was classified as: (1) low =Kshs. 20,000 and below, (2) medium=Kshs. 20,001-50,000, and (3) high=above Kshs. 50,000. At the time the 2013 general election was held, 1 USD was approximately Kshs. 84.9. A respondent's area of residence is classified as either 1=rural or 2=urban. For political disposition characteristics, political party affiliation and partisanship were considered. Political affiliation was measured based on a participant's indication of a specific political party that she supported or identified in Kenya during the 2013 polls. Political partisanship denotes a respondent's strength of loyalty to a political party supported in the 2013 election based on a three-point scale ranging from 1 (not so strong) to 3 (very strong). The other news media considered in this study are TV, newspapers, internet and use of mobile phones through calls and SMS. This control variable is operationalized using the approach for measuring radio exposure. This considers the approximate total hours spent by each respondent on each of these news media.

6 Results and Discussion

Table 1 shows that 72% of the participants were aged 18-50 years, with those above 50 years constituting 28%. Almost three quarters (74.8%) of the participants were married, separated, divorced and widowed. Respondents who reported low levels of education which range from no formal schooling to secondary school qualifications

were 81.8%. Fifty-three per cent of the participants were from low-income households. Those from rural and urban areas constituted 41.7% and 58.3% respectively.

Table 1. Respondents' socio-demographics

Characteristics	Frequency	%
Age (years)		
18-35	162	43.5
36-50	106	28.5
Above 50	104	28.0
Marital status		
Single	92	24.7
Married	222	59.7
Separated, divorced and widowed	56	15.1
NR	2	0.5
Level of education		
None	72	19.4
Primary school	161	43.3
Secondary school	71	19.1
Middle level college and university	66	17.7
NR	2	0.5
Household income status		
Low	197	53.0
Medium	130	34.9
High	22	5.9
DK and NR	23	6.2
Residential location		
Rural	155	41.7
Urban	217	58.3

Table 2 reveals that 72.1% of the respondents were affiliated to political parties at the time the March 4, 2013 polls were held, with 58.4% of the participants identifying with ODM and UDF. Participants' whose level of political partisanship ranged from no strong to strong constituted 72.4% of those politically allied ($M=1.73$, $SD=0.81$).

Table 2. Participants' political disposition characteristics

Characteristics	Frequency	%
Political party affiliation		
None	96	25.8
Orange Democratic Party (ODM)	165	44.4
United Democratic Forum Party (UDF)	52	14.0
Others	51	13.7
DK and NR	8	2.2
Political partisanship		
Not so strong	126	47.0
Strong	68	25.4
Very strong	58	21.6
DK & NR	16	6.0

The first research question asked the level of women voters' radio exposure during the 2013 Kenyan general election. Table 3 shows that almost three-fifths (58.6%) of the respondents had their weekly radio exposure ranging from medium to high ($M=16.44$, $SD=13.46$). This is consistent with prior research which revealed radio as an important source of voter information during the 2013 Kenyan polls (Muriithi & Page, 2013; Schulz-Herzenberg et al., 2015; Yankem, 2015). The findings are backed up by high household radio ownership in Kakamega County (KNBS, 2010, 2019). Radio is a cheap news medium and one that overcomes language and illiteracy barriers (Gillwald et al., 2010; Nyabuga & Booker, 2013; Simiyu, 2010). Therefore, the results of the current research can be linked to low educational and household income levels of the participants. The results, therefore, imply that radio can be used to reach the large voting bloc of women voters in Kakamega County.

Table 3. Level of radio exposure

Level of radio exposure	Hours per week	Frequency	%
None	0	54	14.5
Low	1-11	81	21.8
Medium	12-23	113	30.4
High	24-56	105	28.2
DK and NR	-	19	5.1
Total	56	372	100.0

The second research question sought to determine the level of women's political knowledge about the 2013 Kenyan polls. Table 4 shows that 47.6% of the respondents were not and less politically knowledgeable. A total of 72.4% of the respondents had low to moderate levels of political knowledge. Considering the number of correctly answered political knowledge questions, the mean score for the respondents was 3.06 (SD=1.81). The findings are in harmony with low women's political knowledge in Kenya as reported in past surveys (Ipsos Synovate, 2012; KNDR Project, 2012). Limited respondents' political knowledge in the current study could be explained by their low SES (Tichenor et al., 1970). Indeed, slightly over four-fifths of the respondents in the current study were with low levels of education and over half were from low income households.

Table 4. Level of political knowledge

Level of political knowledge	No. of correct answers	Frequency	%
Not knowledgeable	0	15	4.0
Low	1-2	162	43.6
Moderate	3-4	107	28.8
High	5-6	88	23.7
Total	6	372	100.1

The findings in Table 4 indicate limited political learning from the radio during the 2013 Kenyan election. This may be attributed to women voters' socio-demographics. This is consistent with scholars who identify audience socio-demographics as deterrents to women's attention to radio broadcasts, understanding and recall of what they are exposed to (Didiugwu et al., 2014; Jung, 2010; Luskin, 1990; McQuail, 2010; Muriithi & Page, 2013; Perloff, 2014). UGT and knowledge gap theory identify socio-demographic characteristics as determinants of news media usage and political knowledge respectively (Katz et al., 1974, Tichenor et al., 1970).

The foregoing results for the current study may also be supported by inadequate in-depth election coverage on radio, poor packaging of the political news and information (Didiugwu et al., 2014; Luskin, 1990; Muriithi & Page, 2013; Perloff, 2014). The results may further be explained by low motivations and cognitive abilities to decipher political information broadcast on radio. Political knowledge is an important resource in electoral participation. Therefore, inadequate political knowledge among the respondents may have consequences on women voters' electoral participation in Kakamega County.

The final research question assessed the link between women's radio exposure and political knowledge about the 2013 general election in Kenya. Examining the matrix

of correlations in Table 5, it seems clear that with the exception of education and partisanship, all of the correlations were statistically significant. There was a positive correlation between radio exposure and political knowledge ($r = .708$, $n = 353$, $p < .001$). Similarly, there were positive correlations between six control variables and political knowledge: watching TV ($r = .314$, $n = 358$, $p < .001$), reading newspapers ($r = .221$, $n = 367$, $p < .001$), party affiliation ($r = .209$, $n = 364$, $p < .001$), surfing the internet ($r = .158$, $n = 367$, $p = .002$), mobile phone use to obtain political information ($r = .143$, $n = 364$, $p = .006$) and residential location ($r = .141$, $n = 372$, $p = .006$). There were negative correlations between three control variables and political knowledge: age ($r = -.551$, $n = 372$, $p < .001$), marital status ($r = -.351$, $n = 370$, $p < .001$) and household income status ($r = -.109$, $n = 372$, $p = .036$).

Table 5. Correlation between the variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Age	1												
2 Marital Status	.554**	1											
3 Education	-.010	-.019	1										
4 Household income	.028	.119*	-.030	1									
5 Residency	-.060	-.062	.022	-.010	1								
6 Party affiliation	-.339**	-.304**	-.030	-.130*	-.052	1							
7 Partisanship	-.255**	-.079	-.060	.064	-.033	-.160*	1						
8 TV	-.391**	-.224**	.004	-.090	.364**	.153**	.050	1					
9 Newspapers	-.201**	.002	.030	-.010	.243**	.088	-.070	.411**	1				
10 Internet	-.232**	-.134*	.029	-.020	.280**	.114*	-.050	.389**	.485**	1			
11 Mobile phones	-.105*	-.101	-.010	-.040	.155**	.046	.133*	.165**	.133*	.313**	1		
12 Radio	-.667**	-.462**	-.040	-.132*	.153**	.297**	.192**	.434**	.226**	.175**	.123*	1	
13 Political knowledge	-.551**	-.351**	-.020	-.109*	.141**	.209**	.110	.314**	.221**	.158**	.143**	.708**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

A four-step hierarchical multiple regression was performed to establish the influence of radio on women voters' political knowledge on the 2013 general election after controlling for the effects of socio-demographic and political disposition characteristics, and use of other news media. Table 6 reports the results of the four models of regression analysis. Model 4 is the one with the greatest interest to this study. The assumptions of linearity, normality and homoscedasticity were checked and met. As summarized in Table 6, Model 1 with socio-demographics explains 24.5% of the variance in women voters' political knowledge, $R^2 = .245$, adjusted $R^2 = .227$, $F(5, 211) = 13.697$, $p < .001$. Therefore, the set of socio-demographics (age, marital status, level of education, monthly household income status and residential location) predicted women voters' political knowledge on the 2013 election. The

value for adjusted R^2 indicates that 22.7% of the explained variance in women voters' political knowledge is accounted for by the combined five predictors in Model 1.

Model 2, with socio-demographic and political disposition characteristics as predictors, is a slight improvement over the earlier model, and accounts for 24.7% of the explained variance in women voter's political knowledge, $R^2 = .247$, adjusted $R^2 = .222$, $F(2, 209) = .297$, $p = .743$. The R^2 change was .002, thus 0.2% of the explained variance in women voters' political knowledge had been accounted for. The R^2 change is not significant, $p = .743$; this suggests that the set of political disposition characteristics (political affiliation and partisanship) could not predict women voters' political knowledge. The value for adjusted R^2 indicates that about 22.2% of the explained variance in women's voter knowledge could be accounted for by the combination of the seven predictors in Model 2.

Table 6. Hierarchical regression predicting political knowledge from radio exposure

Model	Predictors	R^2	Adjusted R^2	R^2 Change	β	t
1	Socio-demographics	.245	.227	.245**		
	Age				-.465	-6.637*
	Marital status				-.010	-.150
	Education				-.038	-.629
	Household income status				-.110	-1.814
	Residential location				.135	-2.257*
2	Political disposition	.247	.222	.002		
	Political affiliation				-.037	-.604
	Partisanship				-.036	-.575
3	Other news media	.279	.241	.032		
	TV				.055	.750
	Newspapers				.104	1.474
	Internet				-.191	-2.70**
	Mobile phones				.093	1.461
4	Radio exposure	.505	.476	.226*		
	Age				-.202	-2.959**
	Marital status				.015	.250
	Education				.026	.525
	Household income status				-.056	-1.087
	Residential location				.080	1.421
	Party affiliation				-.057	-1.108
	Partisanship				-.100	-1.897

TV	-.083	-1.336
Newspapers	.088	1.505
Internet	-.132	-2.240**
Mobile phones	.076	1.430
Radio exposure	.605	9.659*

Notes. * = $p < .001$. ** = $p < .05$.

Model 3, with socio-demographic and political disposition characteristics and use of other news media as predictors was a slight improvement over the earlier model, and accounts for 27.9% of the explained variance in women voters' political knowledge, $R^2 = .279$, adjusted $R^2 = .241$, $F(4, 205) = 2.286$, $p = .061$. The R^2 change is .032, thus 3.2% of the explained variance in women voters' political knowledge had been accounted for. The R^2 change is not significant, $p = .061$; this suggests that the set of predictors for use of other news media to access information on politics and current affairs could not predict women voters' political knowledge. The value for adjusted R^2 indicates that about 24.1 % of the explained variance in women voters' political knowledge could be accounted for by the combination of the 11 predictors in Model 3.

Model 4 in Table 6, with socio-demographic and political disposition characteristics, use of other news media and radio exposure as predictors was a significant improvement over the earlier model, and accounts for 50.5% of the explained variance in women's voter knowledge, $R^2 = .505$, adjusted $R^2 = .476$, $F(1, 204) = 93.288$, $p < .001$. The R^2 change is .226, thus 22.6% of the explained variance in women voters' political knowledge had been accounted for. The change in R^2 is significant, $p < .001$. This indicates that after controlling for socio-demographic and political disposition characteristics and the use of other news media, radio exposure accounted for 22.6% of the explained variance in women voters' political knowledge. The value for adjusted R^2 indicates that about 47.6% of the explained variance in women's voter knowledge is accounted for by the combination of the 12 predictors in Model 4. The ANOVA results of the hierarchical multiple regression revealed that each of the study's four regression models was significant, $p < .001$. The beta (β) coefficients for the significant predictors of women voters' political knowledge in Model 4 are: age ($\beta = -.202$, $t = -2.959$, $p = .003$); surfing the internet for political news and information ($\beta = -.132$, $t = -2.24$, $p = .026$); and radio exposure ($\beta = .605$, $t = 9.659$, $p < .001$).

The results of this study reveal that radio exposure had the highest explanatory power among significant predictors of women voters' political knowledge. Radio exposure accounts for 22.6% of the explained variance in women voters' political knowledge

on the 2013 general election and that this effect holds even control variables into account. These findings are supported by past research in various countries in Africa which show that radio exposure predicts political knowledge (Conroy-Krutz, 2018; Didiugwu et al., 2014; McQuail, 2010; Muriithi & Page, 2013; Oluwatosin et al., 2020; Scavo & Snow, 2016).

7 Conclusion

Consistent with prior research, results reveal a positive correlation between women voters' radio exposure and political knowledge about the 2013 general election in Kenya, with 22.6% positive variance to their political knowledge attributed to listening to the radio. This demonstrates the role of radio in political learning and subsequently enriching women voters' political knowledge. Despite this, almost half of women voters surveyed were not and less politically knowledgeable. Therefore, it is recommended that political stakeholders should continue to harness the potential of radio to inform and educate the large voting bloc of women in Kenya. Radio stations should increase gender-sensitive voter and civic education programmes targeting women to enrich their knowledge for political participation. These political education radio programmes should be continually offered before, during and after every general election. In their programme design to broadcasting, radio stations should through regular audience surveys consider women's socio-demographic and political disposition characteristics in specific counties in Kenya. This study was based on a sample of women voters from one county in Kenya and never linked radio exposure and political knowledge with actual contents broadcast on radio. Besides partisanship, this research did not consider other political attitudes that can shape the connection between radio exposure and political knowledge. Furthermore, correlational research design adopted in this study does not consider causal relationships between variables. Despite these limitations, this research contributes to a better understanding of political communication and knowledge in developing democracies and media systems dominated by radio. This article has examined the role of radio in contributing towards political knowledge among the large but politically marginalized voting bloc of women within the new devolved political dispensation in Kenya. Further research is needed focusing on the 47 counties in Kenya, incorporating socio- demographic and political attitudes of women and linking political knowledge to political broadcasts on radio. There is a need for a nation-wide study on the mediating role of political knowledge on the relationship between radio exposure and electoral participation.

8 Appendix. Political knowledge questions and answers

Area of testing	Questions	Correct answer	Correct responses (N=372)	%
Constitution/Law	What official document did you present to the electoral clerk when registering as a voter for the 2013 Kenya general election?	Valid Kenyan national ID or Passport	357	96.0
	What total percentage of valid national votes cast in a general election in Kenya must a presidential candidate get in order to be declared a winner?	Over 50% of the vote	85	22.8
Local	How many County Assembly Wards make up Kakamega County?	60	122	32.8
National	What is the name of the presidential candidate who vied on a CORD ticket in the March 4, 2013 general election in Kenya?	Raila Odinga	286	76.9
Gender-relevant	What is the name of the female presidential candidate who participated in the March 4, 2013 Kenya general election?	Martha Karua	121	32.5
	Which political coalition promised free maternity services in its election campaign manifesto in the Kenyan 2013 general election?	The Jubilee Alliance*	170	45.7

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