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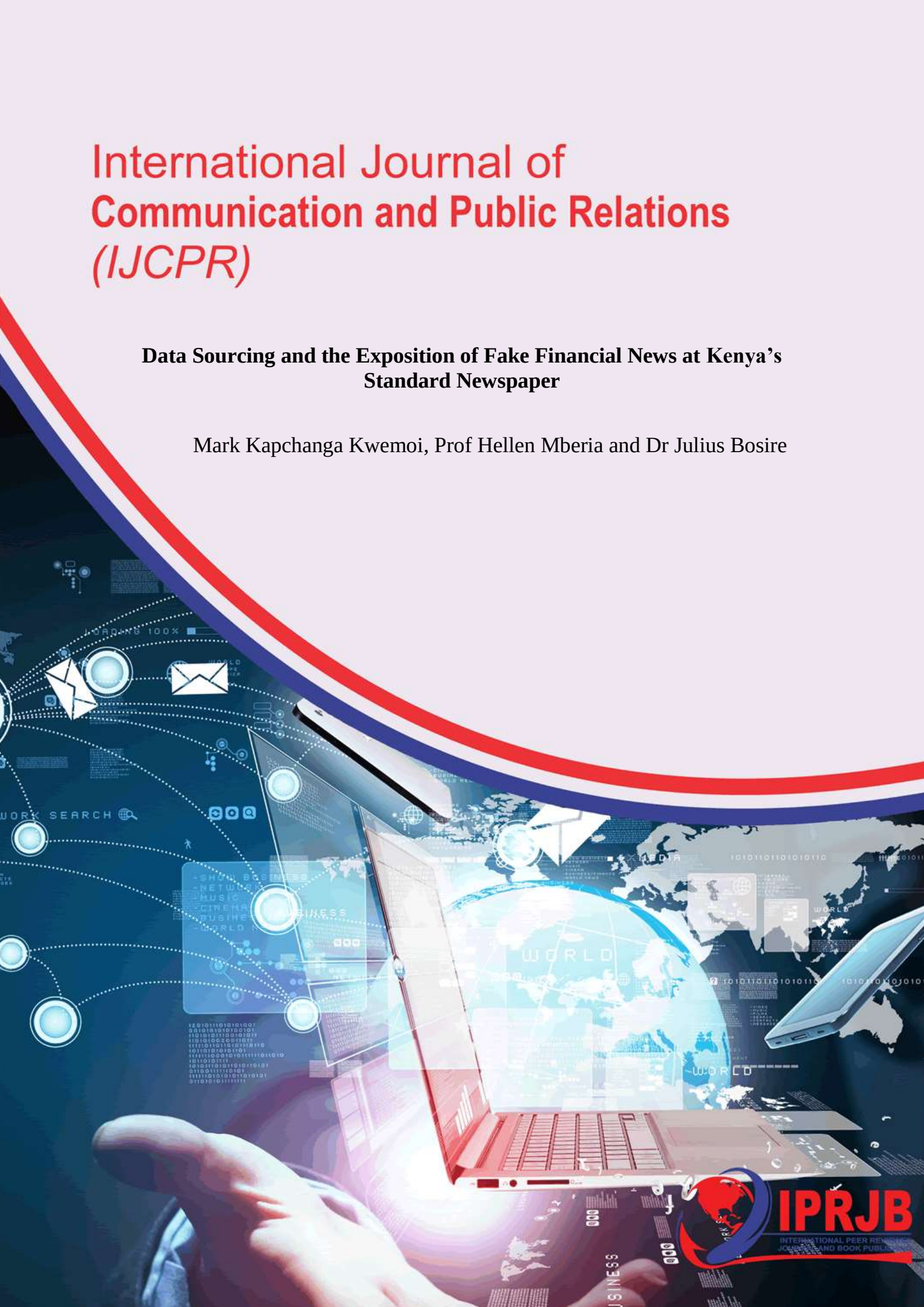

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Abstract

Purpose: This study investigated the sway that data sourcing has on the exposition of fake financial news at Standard Newspaper, Kenya's oldest print media.

Methods: The research, which was of concurrent mixed design, was conducted between October 2022 and December 2022. It involved financial news editors, reporters and graphic designers drawn from The Standard, The Saturday Standard and The Sunday Standard. Participants were enlisted through criterion-i purposeful sampling in the research whose structured and semi-structured data were gathered concurrently through face-to-face, telephone and electronic mail. Responses were organised systematically informed by the objective of the research. Thereafter, the quantitative and qualitative data were analysed separately before the pair of data were compared and integrated, and later interpreted.

Findings: The study established that data sourcing has a huge sway in the generation of fake financial news at the Standard Newspaper.

Unique Contribution to Theory, Policy and Practice: This study showed that how the media arranges, structures and packages and delivers content has a sway on the public, hence validating the Framing Theory. The outcome will guide media actors to pay for more focus on content sourcing for it informs the final output of the media.

Keywords: *Economic News, News Sourcing, Standard, Fact-Checking, Data-Driven Journalism, Sub-Editing, Numbers, Fake News, Kenya*

INTRODUCTION

Conceding that reliable information is the bedrock of the day-to-day life of the people (Starkman, 2014), the spirit of science that incorporates data is gradually being institutionalised, turning it into an integral reinforcement of news content (Cushion, Lewis & Callaghan, 2016). Little wonder newspapers across the globe have made it a standard to employ technical, datasets, data analytics and statistical skills to generate pedantic, in-depth and quality articles.

In their school of thought that is anchored on evidence and verification, data not only helps media in generating stories on their own but also explains, corroborates, illuminates and authenticates stories. For instance, the British Broadcasting Corporation — with the support of statistical specialists — has developed reporting backed by data as a backbone for its journalism (Sharon & Griffin, 2013).

While this genre of reporting plays a worthy role in the transmission of veritable content — through corroborating, putting in context and illuminating news —sporadically data is also mishandled, misinterpreted, misused and abused by the media, hence producing incorrect information. Sometimes, data is sloppily constructed, or even cynically misrepresented, leading to misreporting of facts. This has eroded media's public duty of informing and educating the public (Reglitz, 2017).

The Changing News Sourcing Landscape

This study was guided by the Framing Theory, which dwells with how media arranges, structures and packages knowledge and delivers it to the public. Once a storyline has been identified, a journalist embarks on a news gathering mission on variables of interest. Williams (2007) argues that the search and sourcing is carried out in a systematic way to enable a journalist to answer outlined research questions, and assess outcomes. Depending on the desired degree of balance between what story one wants to tell versus the capacity of the journalist, whims of the media owners and the editorial biases, media content can be sourced and gathered through eye-witness accounts, company documents, government databases, court records, ephemerals, minutes of meetings, webpages, data request from source, compilation of own data, crowdsourcing or through commissioned research (Hox & Boeije, 2005).

For financial news, this entails digging into company financial and economic reports and statements, emails and memorandums, transaction documents such as the insurance policies, loan applications, loan, mortgage documents, among others. It is in a firm's financial statements that a reporter can tell its financial and economic health, profitability and who the shareholders are (Hayes, 2014). Also put, sometimes seen as hidden, as footnotes are crucial details such as more information and explanation to items displayed in the financial and economic statements, disclosures, methodologies of accounting employed and any adjustments to methodologies from past periods of reporting, among others. Apart from the income statement, cash-flow statement the balance sheet, publicly-owned companies are also subject to detailed disclosures about their financial well-being, operating results, and management compensation.

While these documents tend to be thorough, comprehensive and exhaustive in content and numbers, financial details are sometimes skipped, mis-read or under-read by journalists due to the accounting jargons used, inadequacies of the journalists or the editorial pressure, which compels reporters to just skim through them without microscopic scrutiny. As a result, journalists tend to approach these books of account with what Paulos (2013) referred to as "halo effect" or the "anchoring effect" where media actors make assessments in consideration

of the first thing that comes into their minds. In effect, a journalist looking for a particular information related to a certain theory would be hesitant to seek content regarding another model at the same time. Such biases have been worsened by journalists employing theory-confirming strategy that Kuhn (1962) said tend to see journalists confirm a pre-conceived theory without necessarily asking insightful queries (Stocking & Gross, 1989) that may not approve the hypothesis.

In circumstances where a company wants to dispel negative market perceptions, inflate share prices or engage in stock options for profit, prompt investment via the stock sale, tax management, demonstrate expanded earnings a share thereby allowing improved dividend pay-outs, obtain bonus pay linked to company performance or obtain or renew financing, it can engage in creative accounting where glowing numbers, statistics and infographics are employed to sway the public (Teall, 2014). Such intentional misstatement of the economic health of a firm, which is done via the deliberate misreporting of figures in the statements, can then be transferred and turned into a news story by the media thus duping financial and economic news consumers (Blake & Gowthorpe, 2005).

This study attempted to fill a number of gaps. Key among them is the contextual gap whereby the study has elected to take a specific focus on the Kenyan media landscape and the Standard Newspaper in the researching and sourcing of data for financial news reporting. Moreover, this study sought to unearth the lack of specialised reporting in the Kenyan media landscape, which has eroded quality journalism in the country, unlike in developed economies such as Europe and America. As a result of the lack of beat reporting, the study exposes the misuse and abuse of data, resulting to warped financial news in Kenya.

Methodology

Research Design

A concurrent mixed methods research design, which incorporated a self-administered face-to-face, telephone and electronic mail, were employed as they are widely used and appropriate instruments to collect both the structured and semi-structured data (Malhotra, 1993). By concurrently collecting both types of data, the researcher sought to liken the two types of data to explore for harmonious findings, for instance, how the issues discovered in the qualitative data gathering match up to with the statistical outcomes in the quantitative analysis of data (Onwuegbuzie & Collins, 2007).

This kind of design was apposite to this research since it helped in gaining an in-depth comprehension of the influence that data driven journalism has on the exposition of fake financial news in Kenya. Crucially, the convergent mixed research design was useful in obtaining a more complete understanding from both quantitative and qualitative findings besides corroborating and explaining results from the two methods as expounded by Hong, *et al.* (2007).

Study Sample

Through the sample size computation, the researcher was able to determine sufficient size of sample, which could approximate outcome for the whole population with accuracy. This study used the Cochran Formula to compute the ideal sample size which constituted 14 graphic designers, 24 reporters and 20 editors, bringing the total sample to 58.

Interviews

A part of this study's data was gathered via in-depth, semi-structured interviews as put forth by Lindlof & Taylor (2011). This was seen fitting since it was used to probe the views, conviction and experiences of the data reporters, editors and graphic designers besides helping in gathering sufficient subjective knowledge (Richards & Morse, 2007) about data use in the print media in Kenya. Interviews were designed to draw out information on data driven journalism and the exposition of fake financial and economic news that is accurate, thoughtful and factual.

For completion of the interviews, respondents were not offered any financial or material gift. The interviews took place over telephone, e-mail and face-to-face. Each interview concluded before the anticipated 75 minutes had passed with a majority completed in the 65-70-minute range. All the interviews were taped using a digital voice recorder. Apart from the audio recordings, the researcher also kept written notes.

Questionnaires

The closed-ended questions with distinct set of pre-defined feedback, even though Connor Desai & Reimers (2018) observe that they can have biased responses, were posed in a pre-planned logical order. They required the participants to respond to them using a limited number of answers. The questions for this research included numerical, two-option response, multiple choice and Likert scales. A skip logic sequencing as proposed by Manski & Molinari (2008) were factored in some of the questions to allow respondents to skip irrelevant sections when necessary. The wordings of the questionnaire items were made in simple and straight English to facilitate prompt response.

The sourcing of data was assessed using five items, namely: "Do you use any form of data in the exposition of fake financial news?", "How do you source for the data used at the exposition of fake financial news?", and "How did you learn about the above form of data sourcing?" Others were "What are the challenges that you face in the sourcing of data for use in the exposition of fake financial news?" and "Is the sourced data tested for credibility before use in the exposition of fake financial news?"

Data Processing and Analysis

The researcher closely examined the data set to guarantee the correctness, completeness, suitability and representativeness of the details and the integrity of subsequent analyses. All the semi-structured data files were initially organised into an Excel spreadsheet comprising a 4x2 matrix in which the columns were labelled as interviewee code, interviewer question, interviewee response, and initial classification while each row represented a question and a response. The scholar categorised each response into initial classifications, including the sourcing of data, data sourcing challenges, financial and economic news exposition and not coded which arose as a result of the clarification exchanges in which the interviewees needed elucidation about an interviewer's question. Informed by the initial classification, data was prepared for more refined analysis in tandem with the objective of the research. The credibility of the coding was assessed via member checking in which results of the analysis were returned to all participants so they could examine inaccuracies in interpretation and ensure clarity of their original thoughts. Additionally, continuous inspection of the original data occurred to determine if coding and thematic analysis stayed true to original data collected during the interviews. The codes were then developed into qualitative response categories that were entered into an Access Database for Qualitative Data 1. All the quantitative data were entered

into Statistical Package for the Social Sciences (*SPSS 27*), which helped in organising, preparing, and understanding the data. Variables were converted for analysis using numerical indicators for labels indicated in the data collection section. Manual checks for accuracy of the data entry were made on a randomly sampled 15% of the downloaded questionnaire responses. Errors identified were checked and corrected. Data were then further analysed using SPSS 27 where regression analysis was carried out to examine the impact of data journalism in the exposition of fake financial and economic news. Being a relatively straightforward exercise, the data was entered into an Access Database for Quantitative Data 2. Subsequently, the two databases were linked by key informant identification numbers so as to ensure that each record contained in both the survey and interview data. The coded qualitative data was then quantified into dichotomous variables 0 or 1 based on presence or absence of each coded response. The descriptive outcomes from the qualitative data were later compared with those from the quantitative data and associations analysed using SPSS 27.

RESULTS AND DISCUSSION

This study sought to establish the role that data driven journalism has on the exposition of fake financial news at the Standard Newspapers in Kenya. The evaluation of the hypothesis — which was derived from the objective of the research — was conducted using regression analysis. The tests were done at 5% significance level ($\alpha = 0.05$). The qualitative data analysis was set in motion with 134 exchanges between the interviewees and the interviewer. During this process, 512 ideas were labelled with more than 144 codes found. A second-round coding and condensing was used to eliminate codes that were duplicated, overlapped or did not correctly represent the data under attention. The outline and the results from the evaluation of the quantitative and qualitative data were as explored below.

The objective of this research was met through the posing questions of to respondents that required them to highlight their experience with data journalism, their aptitude in this genre of journalism, challenges they face while sourcing for data and the testing for credibility of the gathered data.

It was established that most of the respondents had a journalistic experience of below five years. Majority of the journalists (40%) indicated that they had less than five years exposure to data reporting and editing. Worth-noting is that most of the participants in the study explained that they had learnt about data sourcing through external experts and intermittent trainings presided over at their work places.

It can, therefore, be inferred that data-driven journalism attracts relatively vibrant and energetic pool of human capital in newsrooms that presumably is capable of responding with minimal delay to the rapid and ever-volatile, full of pressure, aggressive and competitive media landscape that is characterised by the immediacy in news gathering, processing and dissemination. Since data journalism is heavily dependent on technological advancement, this then explains why newsrooms prefer relatively younger workforce that is technology sagacious.

This objective of the study guided Hypothesis H_0: Data Sourcing has no significant influence on the exposition of fake financial news. This hypothesis was tested by regressing data sourcing on exposition of fake financial and economic news guided by the equation $Y = \beta 0 + \beta X + \varepsilon$ where X represented Data Sourcing, Y denoted Exposition of fake financial news, $\beta 0$ indicated a constant and ε the error term. The results of the regression are as presented in the Table below:

Table 1.1: Regression results for the influence of Data Sourcing on the Exposition of Fake Financial News

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.391	.153	.129	.101316

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.067	1	.076	6.692	.015
	Residual	.370	36	.010		
	Total	**.436**	**37**			

Coefficients

Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	**Std. Error**	**Beta**		
1	(Constant)	.452	.147		3.065	.004
	Data Sourcing	.473	.186	.391	2.548	.015

Predictors: (Constant), Data Sourcing; Dependent Variable: Exposition of fake financial news

The results presented in the table above show that the influence of data sourcing on the exposition of fake financial news was significant ($F = 6.692$, $p < 0.05$). From the table, 15% of the variation in the exposition of fake financial news was explained by variation in Data Sourcing (R square =.153, $p < 0.05$). β was also statistically significant ($\beta = 0.473$, $t= 2.548$, $p < 0.05$). Overall, regression results presented above indicate that Data Sourcing has a positive effect on the Exposition of fake financial news as is expounded below:

$Y = \beta_0 + \beta X + \varepsilon$

This means that the Exposition of fake financial and economic news=0.452+0.473 of Data Sourcing. Hence, the hypothesis that Data Sourcing has no significant influence on Exposition of fake financial and economic news was rejected. As the standards of data sourcing (own compilation, eyewitness accounts, crowdsourcing and company and government documents) is enhanced, so does the accuracy and reliability of the Financial News produced.

This finding is corroborated by the information gathered during the interviews where the respondents argued that media actors face an arduous task in probing data coming from their diverse sources as most of them lack the requisite quantitative knowledge in auditing statistics, numbers, among other numerical data forms presented to them:

> I have not been trained in the crunching of data. I got a basic grasp of it through learning from work and in-house training that we access once in a while. I believe I would handle complex data, and turn them into a powerful story if I had the skills in data sourcing and analysis.

Some of the data training that the respondents claimed to have undergone were sponsored by news originators, among them commercial banks, government corporations, real estate firms, among others. This appears not to have instilled broader data skills in them:

> The trainings and data exposure skills that I have attended have chiefly been sponsored ones. The funders are mostly those with interest on how we churn out our financial and

> economic news such as commercial entities. As a result, their trainings are narrow and more confined to what they want us to write about them. Banks, for instance, focus their trainings on books of accounts like the Trial Balance, Balance Sheet, the Income Statement, among others. Hence, these financial institutions' concentration translates to profits, losses, tax computations, earnings per share, appreciation of assets, allowance for bad and doubtful debts. Never do they touch on other data such as real estate.

Yet, it was reported that it is necessary for media actors to have credible data that not only enriches and illuminates a financial and economic news but which also can be processed on its own into a compelling story for dissemination to the public. For a trustworthy story to be produced, it was elucidated that gathered data needs to be verified, fact-checked and, further, corroborated by diverse but sound and rich sources. For this to be attained, journalists are required to ask basic but necessary questions when engaging in the production of news.

The journalism of verification of data, according to an editor who formed part of the research respondents, include:

> Where did this data come from? Why should I believe the data presented to me? Where is the evidence that makes me believe this data? How was it processed and who was involved? Why was the data processing entity involved and what was his or her interest? These questions really matter to anyone in data journalism. Any slight deviation from such basics will be doing a disservice to the profession and the members of the public.

Another editor threw light on the same, pointing out that since they are truth-seekers, they have a duty to be open, honest and truthful to their readers:

> This means that when we source for data in our reportage, we must reveal as much as possible about our sources and methods employed to source for them. This calls for us to pose tougher questions about our data contacts such as: How do you know what you know? How direct is their data knowledge? What interests or biases might they have in the data? Are there conflicting accounts of the data at hand? What is it that we do not know about the data under consideration? This way, we will be creating a better environment for newspapers to verify data, hence produce news that is fact-based.

So, settling is the process of establishing the truth, validity and accuracy of content in data journalism that through such transparency, data-backed content consumers are able to independently judge the validity of what they are consuming, hence help in guarding against deception by sources which may warp the public's line of thought. However, a participant held that the escalated use of anonymous and unnamed data sources was eroding the production of unpalatable financial and economic news, in the end misinforming the public:

> It has become a standard practice that we purify questionable sources by granting them the privilege of anonymity even when they do not qualify for such. In some cases, these sources are even non-existent but are strategically used in financial and economic news production to sway readers through deception. This has been a very common way of doing things especially in real estate news reportage to push the public into buying certain pieces of land or houses at inflated prices. Firms listed in stock markets have also adopted this behaviour in a bid to sway the prices of their stocks or that of their competition

An essential scrutiny ingredient in the verification of data is fact-checking, which aims to foster the veracity and correctness of reporting. Globally, media outlets are institutionalising fact-

checking as a way of curbing the rise of production and dissemination of misinformation through the validation and verification of information in stories. Yet, crucial as it is, fact-checking in most newspapers in Kenya are absent, and where they are in existence, it is seriously understaffed or run by actors with limited skills and competence in content assessment. Treated as a vestigial function in newsrooms in Kenya, another interviewee said this about data verification and fact-checking:

> This has ushered in the cognitive biases innate to each of us to affect the quality of the data stories that we produce. These partisanships at times make us overlook relevant facts, even when they are clearly presented, or even make us engage in outright manufacturing of evidence in our bid to tell a story that those in power might have insisted on telling.

Aside from large private businesses, the research noted that the erosion of independent reporting had been aggravated by government and corporations hindering financial journalists via the media capture where what is gathered and disseminated by newspapers is censored. This squeezing out of independent and divergent voices in newsrooms was aptly captured in one of the recordings during the research:

> The data we source and process for financial and economic news are routinely audited and framed in such a way that it does not portray the entity or person in question in bad light, the truth therein notwithstanding. What is becoming fashionable in our operations are situations where we come up with figures, numbers and statistics, flirt with them in such a manner that we end up attaching a false sense of authority to them. Quantitative words to magnify or understate the prominence of an issue or subject under focus have become the most common way of conveying content. Paltry, more than, less than, over, huge, massive, many, a lot, only, among others, are some of these ambiguous quantitative words that we commonly use produce breaking news, straight news, opinions, investigative pieces, among other forms of financial news.

Putting into consideration that education enhances one's knowledge, skills and know-how which in turn betters their output, a logical conclusion can be drawn that a more experienced and better educated graphic designer, reporter and editor has the ability to source for superior and flawless data for employment in the production of a financial and economic story in a newsroom. In line with the arguments by Judge & Bretz (1994), it is definite that journalists with longer tenure better understand their work, develop expertise in their positions, and obtain valuable experiences, which all escalate the quality of data sources, thereby advancing the exposition of fake financial and economic news.

The study hypothesised that data sourcing has no significant influence on the exposition of fake financial news. However, the results indicated that the influence of data sourcing on the exposition of fake financial news was statistically significant ($F = 6.692$, $p < 0.05$). This is a manifestation that as the calibre of data sourcing increases, so does the standard of the exposition of fake financial and economic news. This perspective corroborates the arguments put forth during the interviews where majority of the respondents — 58% — held that the degree with which data sourcing is conducted in newsrooms has an astronomical bearing on the media output. A respondent during the research remarked:

> If skilfully discharged, data sourcing has the power to stimulate the churning out of a superior and pristine news content. The opposite is also true where if poorly carried out, it can lead to the dissemination of misinformation, mal-information or even disinformation.

These results are in synthesis with the existing literature which points out a positive effect of news gathering on news dissemination. Recent research suggests that journalists' training, experience and skills — especially in specialised reporting — has a bearing on the methods, techniques and procedures adopted in the sourcing of information, which in turn affects the by-product. Szabo & Petrovici (2014) held that the present-day communication explosion sphere that is vast, a huge variety of information and pseudo-information, events and pseudo-events try to capture the public's attention. That being the case, journalists through their analytical knack have to single out what they think might be worthwhile and of value to their constituencies.

Scholars aver that this could be met through information search by well-resourced specialists — with the propensity to meticulously and accurately collect data, analyse and reserve what is rated newsworthy (Popescu, 2003) — so as to avoid falling into the confines of the stakeholders of vested interests. In particular, in the struggle for control of limited news production time, space and cut-throat industry competition, Irlbeck, Akers & Palmer (2011) explained that information sourcing choice is paramount as each particular source may drive issue discussion in a given direction, skewing the agenda or issue proffered as important to the public.

Also in agreement with these thoughts was Dunwoody (1979) who appreciated that journalists are susceptible to agenda setting and framing of issues through the coverage of stories usually regarded as prestigious and credible such as business reporting, financial reporting, data reporting, among other specialised genre of journalism. Advocating for a stronger pool of highly-trained and skilled media workforce has the aptitude to source for quality information that can facilitate finely produced news, Ashlock, Dwayne, Ii & Kelemen (2006) argued that the frames developed by reporters have the power to construct schema to help the public position issues into understood and shared contexts.

CONCLUSION AND RECOMMENDATION

Conclusion

According to the findings, majority of the respondents were relatively young, aged between 25 and 45, and were holders of the undergraduate university degree. Most of them had a journalistic experience of less than five years while 40% indicated that they had not more than five years data journalism experience. Further, majority of the participants explained that they had learnt about data sourcing via external experts. Crucially, the research found out that majority of the respondents were of the thought that the low-standard with which data sourcing is conducted vastly influenced the production of skewed, fake and low-standard financial and economic news by newspapers in Kenya.

From the objective of the study, it is concluded that how media data is gathered influences on the financial news that is produced and disseminated to the public. On the results of the objective, it is concluded that the sourcing of data positively influences the financial news exposition. Hence, the more attention is paid to the data sourcing, the better the exposition of fake financial and economic news. Even so, it was established that newspapers in Kenya pay little or minimal attention on what forms the foundation of news production, hence the increased dissemination of sloppy and distorted stories.

Recommendation

The research results showed that data sourcing principally influences the exposition of fake financial and economic news at the Standard Newspaper. The implication of this to the practice is that building a newspaper's data sourcing is an effective and basic strategy for enhancing the

exposition of fake financial and economic news. Hence, media companies must work towards refining and tightening the employment of fine journalists to bolster the sourcing of valuable data to produce quality stories. This implies that if media firms tighten their data sourcing, then stand to tame the production and dissemination of fake financial and economic news.

Contribution to Knowledge

This research centred on a domain that is significantly a less explored realm in media research. It, therefore, contributes to understanding the link between data-driven journalism and the exposition of fake financial news, particularly among media in the developing economies like Kenya. At the same time, it confirms the findings of previous studies that have found a significant interdependence between news gathering, analysis, editing and the dissemination of media content to the public.

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