

Full Length Research Paper

Framing of avian influenza coverage by Nigerian newspapers

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The study examined framing pattern, direction of portrayal, space allotment and placement pattern in reporting avian influenza news in some selected Nigerian newspapers namely, The Guardian, Vanguard, Punch and Tribune were purposively selected between the periods of February 1st to August 31st, 2006. Result showed that majority (52.56%) of avian flu disease stories were reported in the month of February and Guardian newspaper had the highest frequency of reports (69.2%). Analysis of the frames revealed that, public awareness (21.15%) was the most popular frame used. News on Avian Influenza and other Agricultural related issues had less placement patterns in most of the newspapers studied. The Vanguard newspaper had the highest frequency of reports on of avian flu on the front pages (23.1%), while the Guardian had the highest percentage (56.4%) of positive stories. There was no significant difference in space allotment among the selected newspaper ($F = 0.526, p > 0.05$). Similarly, there was no significant difference between space allotment and placement pattern ($t = 0.40, p > 0.05$). All the four selected newspapers stressed public awareness, industry crisis and Government responsibility as national issues in reporting the cases of avian influenza in Nigeria.

Key words: Framing, avian influenza, coverage, newspapers, Nigeria.

INTRODUCTION

News reports around Nigeria confirmed the outbreak of Highly Pathogenic Avian Influenza (HPAI) also known as bird flu, on February 8, 2006. Bird flu is caused by strains of the influenza virus that have evolved to be specially adapted to enter avian cells. There are three main types of influenza: A, B, and C. The virus that causes bird flu is influenza a type with eight RNA strands that make up its genome. The virus is a contagious viral infection disease primarily affecting birds and sometimes mammals such as pigs, tiger and humans (FAO, 2010). There are about 15 types that affect the respiratory, digestive and nervous system of many species of birds such as ducks and domestic chickens (FAO, 2010). Avian flu has the potential to develop into a global pandemic that can be as devastating as the Black Death of the 14th century (WHO, 2010). The H5N1 strain (which is one of the strains of avian flu) has a unique capacity to cause severe disease,

with high mortality, in human illness and death caused by this disease also have both economic and social costs. Migratory birds and mechanical vectors, such as contaminated cages and clothing, and through the international trade in live poultry, spread the infection (FAO, 2010). The disease can be transmitted to human through exposure to infected birds or handling of infected carcasses (WHO, 2010).

The World Organization for Animal Health (OIE) was officially notified of an outbreak of avian flu H5N1 among 6 poultry farms in Nigeria in March, 2006. The outbreak occurred at a poultry farm in the northern Nigerian state of Kaduna, where large numbers of chickens were being kept in battery cages. Samples were analyzed at the OIE/FAO reference laboratories in Padova, Italy, where highly pathogenic H5N1 was confirmed (FAO, 2010).

Usually most food supply and contamination issues are news worthy, bird flu outbreaks has gained increased press attention because of the major impact it has had economically, socially, culturally and geographically. The occurrence of HPAI subtype H5N1 virus in Africa and

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particularly in Nigeria is of major concern, putting at immediate risk the livelihood of many farmers and there is recognition to the fact that the best way of tackling the emergence of a pandemic influenza of avian origin is to control the virus at source, United Nation system Influenza Coordinator (UNSCIC, 2006). H5N1 is now endemic in a number of countries (FAO, 2010) and has become clear that its control and eventual eradication will require a medium to long term strategy involving multiple stake holders. Moreover, it was discovered that majority of available information focus on recommendation suitable for intensive poultry production system. Appropriate information suitable for village poultry farmers are slowly being produced as understanding of subsistence poultry production system decreases (Alders, 2006a). The problem arising from any issue should be targeted at where the concerned people are found (Sandman and Lanard, 2005), and with the knowledge that the most vulnerable groups (i.e. resources poor farmers, traders and communities) are the key target groups, German technical glossaries, technical manual and occupational health and safety guideline are required for all involved in HPAI prevention and control (Alders and Pizzari, 2006). In stable communities, community leader are able to influence community members to believe in ways beneficial to the entire community (Bagnol, 2006). There is the need for the mass media to live up to expectation in the interest of the populace.

Food and Agriculture Organization of the United Nation (FAO), World Health Organization (WHO), and United State Agency for International Development (USAID), Wildlife Conservation Society (WCS), and other related organization have held meeting on various aspect of (HPAI) surveillance and control. A common understanding of the problem and effective education and communication are important elements to be adopted as strategy if there will be any meaningful development. Communication to seek relevant and viable information through print media coverage is inevitable as it is noted that information gap is the bane of technological advancement and a long home exists between innovation creation and its usage by target audience, the most likely source of information regarding food and food safety matter is the print media (Eyck, 2000). Thus, it is important to examine media coverage of the issue in our daily newspapers to uncover the public understanding of the disease and its short and long-term effect.

The way an issue is framed could provoke an element of fear in readers, resulting in some levels of uncertainty and development of extreme actions towards any contact with the concerned framed issue. The need to look into the reports coverage of the Avian Influenza issue in the media, particularly the newspapers, being the oldest and most popular media, and with advantages over radio and television, for the fact that it can be read at convenience, it's all year round availability and storage, and for future reference (Moremeka, 1990) is imperative.

This study, therefore, examined the framing patterns of bird flu reports in some selected newspapers in Nigeria, to uncover the public understanding of the disease and its short- and long-term effects, what sources of information, and frames were used in the coverage of the disease outbreaks, and also how, what and why decisions were made regarding the disease by key players involved in the issue which includes the government, industries representative, consumers and commerce.

METHODOLOGY

Time frame of the study

For the purpose of this study, a seven month period from February 1, 2006 to August 31, 2006 was adopted. This was to ensure that the time frame covers the first outbreak of avian flu as reported by Elizabeth, Donald and McNeil (2006), published in New York Times Newspaper on February 8, 2006, which has since prompted increased media coverage.

Population, sampling procedure and sample size

Four Nigerian daily newspapers (Guardian, Vanguard, Punch and Tribune) in continuous publication between February 1, 2006 and August 31, 2006 were purposively chosen for this study because of their wide circulation. All the selected newspapers are located in the Southwest and were chosen due to large concentration of poultry farms in the southwest and their wider coverage with their blend of news. The method for identification of the study population and sample size for the present study was as described by Amanda et al. (2005); the 1st stage of this technique involved the identification of all avian flu stories in the selected newspapers. The second stage was selection of the sample size; an equal proportion (95%) of each article was systematically selected from the four selected newspapers in order to have a good representation of the newspapers, giving a sample size of 156 articles representing the media coverage surrounding the avian flu events, and these were coded so as to have a meaningful framing analysis in the present study (The sampling distribution is shown in the Table 1).

Unit of analysis

The unit of analysis was individual articles reporting avian flu disease. The stories were examined using a code sheet that consisted of categories including the newspaper, the headline, placement pattern, space allotment, source of information, frames used, date of publication, which incorporates the day, month and year, and overall tone or slant of the stories.

Inter-coder reliability

Using the Holists' reliability formula, Inter-coder reliability = $3m/N_1+N_2+N_3$ (Holists, 1985);

M = number of agreement where codes agree in classification;

N1 = number of news coded by the 1st coder;

N2 = number of news coded by the 2nd coder;

N3 = number of news coded by the 3rd coder.

Table 1. Population and sample size.

Newspapers	Total edition (population)	Selected editions sample size (95%)
Guardian	43	41
Vanguard	41	39
Punch	41	39
Tribune	39	37
Total	164	156

Source: Field survey, 2008.

Table 2. Inter-coder reliability frequency.

Coder	Punch	Guardian	Tribune	Vanguard
1	20	22	20	22
2	23	21	21	20
3	22	23	23	21
Number of agreement where coders agreed	20	21	21	20

Source: Field survey, 2008.

A total of 23 articles were randomly selected and coded by 3 independent coders: Table 2

1. Punch = $60 = 0.92$
65
2. Guardian = $63 = 0.95$
66
3. Tribune = $63 = 0.98$
64
4. Vanguard = $60 = 0.95$
63

Then the inter-coder reliability for the four selected newspapers was got through the mean of the four results aforementioned and this gave 0.95 as the final inter-coder reliability.

Development of content categories

The content categories developed for this study were similar to the procedures used by Amanda, et al. (2005) in a similar study. Each of the content is mutually exclusive and exhaustive. These are:

1. The source used within the story: where the information emanated from and this includes political leaders, University scientists, Government officials, food safety representatives, health care representatives, the consumers, poultry farmers as well as other related sources.
2. Direction of story: Slant of reported stories if positive or negative and also neutral story, positive stories are those reporting breakthrough on avian flu disease research, sensitization and also enlightenment through creation of awareness so as to safeguard people from dangers that may result from infection of avian flu. Negative stories are slants that convey the devastating aspect of the avian flu disease which can cause fear in the minds of the people, while neutral slant are those that are neither positive that is beneficial to people nor negative (harmful or dangerous to people's

well being).

3. Prominent frames: these focus on how the articles are framed. Frames signifies the way an issue is presented especially through the media which can affect public perceptions of the issues and it allows for an outline or plan for schemata of interpretation which allows individual or groups to locate, perceive, identify and label events.

Data gathered were subjected to both inferential and descriptive statistics using percentages and t-test were used for each of the four selected Nigerian newspapers. Table 3

RESULTS AND DISCUSSION

The results in Table 4 revealed that The Guardian newspapers had the highest frequency of reportage (69.2%) of avian flu disease stories among the selected newspapers, in the month of February, while in the month of March, the highest frequency of reportage (46%) was found in The Tribune newspaper, out of all the selected newspapers, in the month of April, The Vanguard newspapers had the highest frequency of reportage (17.9%) out of all the selected newspapers, in the month of May, The Punch newspaper had no report on avian flu case with the other 3 selected newspaper having very low frequency of reportage (2.5%) in each paper and it was discovered that in all the selected newspaper, there was a continuous decrease in the number of reported cases till the month of August as most of these selected newspapers had no records for the month of June, July and August. This could be as a result of low level of importance placed on agriculture news especially avian flu news (Figure 1).

Seven major frames emerged from the articles reviewed, after completing the analysis, public

Table 3. Coding sheet.

Date DMY	Name of newspaper	Headlines	Space allotted in cm ²	Source of information	Direction of story + - N	Prominent frame
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For the direction + = Stands for positive; - = Stands for negative; N = Stands for neutral.

Table 4. Distribution of avian Influenza news reports in some Nigerian newspapers (n = 156).

Month	Newspapers				Frequency/Total
	Guardian	Vanguard	Punch	Tribune	
February	27 (69.2)*	25(64.1)	16(41)	14(35.9)	82(52.56)
March	7 (17.9)	6(15.4)	18(46)	16 (41)	47(30.1)
April	2(5.1)	7(17.9)	5(12.8)	3(7.7)	17(10.9)
May	1(2.5)	1(2.5)	0 (0)	1(2.5)	3(1.9)
June	1(2.5)	0 (0)	0 (0)	0 (0)	1 (0.64)
July	0(0)	0 (0)	0 (0)	5(12.8)	5(3.24)
August	1(2.5)	0 (0)	0 (0)	0 (0)	1(0.64)
Total	39(%)	39(%)	39(%)	39(%)	156(%)

* Figures in parenthesis are in percentages. Source: Field survey, 2008.

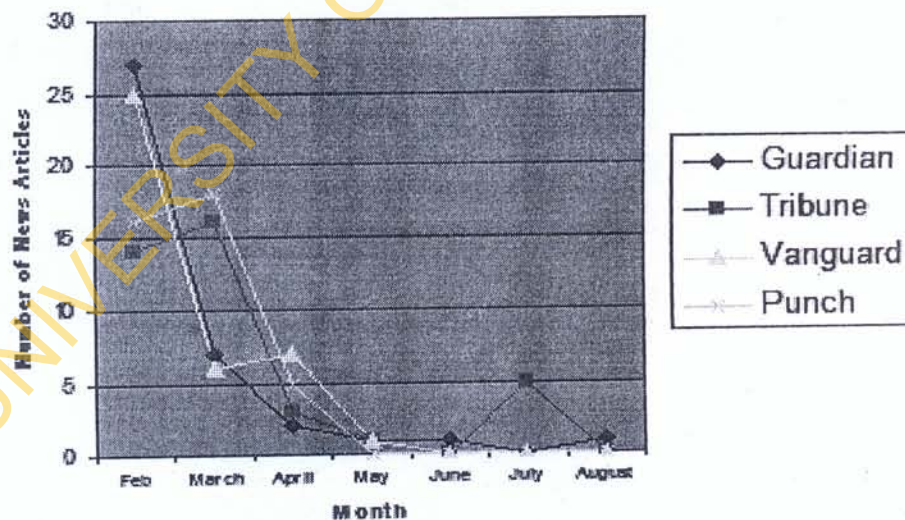


Figure 1. Distribution of Avian Influenza news reports in some Nigerian newspapers (n = 156).

awareness, industry crisis, government responsibility, health risk, social responsibility, blames and responsibility and economic calamity. The results shows that public awareness was the most popular frame (21.15%) used in

the articles reviewed. This frame conveyed findings, research, sensitization and enlightenment about Avian Flu disease, and to make the public aware about the level of spread of the disease and for all and sundry, this

Table 5. Avian Influenza coverage framing pattern in some selected Nigerian newspapers (n = 156).

Frames	Newspapers					Total
	Guardian	Vanguard	Punch	Tribune		
Government responsibility	7(17.95)*	12(30.77)	3(7.69)	8(20.51)		30 (19.23)
Public awareness	8(20.51)	5(12.82)	10(25.64)	10(25.64)		33 (21.15)
Health risk	9(23.08)	6(15.38)	3(7.69)	5(12.82)		23 (14.74)
Industrial crisis	8(20.51)	5(12.82)	8(20.51)	11(28.21)		32 (20.51)
Economic calamity	3(7.69)	2(5.13)	4(10.26)	1(2.56)		10 (6.41)
Social responsibility	2(5.13)	8(20.51)	5(12.82)	2(5.13)		17 (10.90)
Blames and responsibility	2(5.13)	2(5.13)	6(15.38)	2(5.13)		11(10.90)

Source: Field survey, 2008. *Figures in parenthesis are percentages.

includes presentation of research equipment into the laboratories, Veterinary hospital, enlightenment campaign and warning, to know proper handling of the infected birds to curb further spread and also provision of funds. This frame portrayed Avian flu in a positive fashion using key phrases like scientist claim success with new bird flu vaccine "institutes enlighten citizen on bird flu". "All you need to know about bird flu" "FDA approves new lab test to detect human infection" "West Africa seeks aid for regional birds flu fund".

Industry Crisis (20.51%) was the 2nd most popular frame used in the articles reviewed. This frame conveyed not only how the bird flu disease is devastating to the poultry industry in Nigeria but how it has had negative implications on the poultry industry internationally. It implied that avian flu disease had devastating consequences by communicating the negative aspects of the diseases using key phrases like "Bauchi Villagers storm poultry farm, Chase out officials", "Frustration scares investors from Nigeria", "Consumers shun poultry production in Ondo" and "Poultry farmers' lamentation over bird flu.". It was consistently characterized as a disaster causing disease causing panic and fear, which produces a negative tone throughout the articles reviewed.

"Government Responsibility" frame used (19.23%) in the articles reviewed conveyed the responsibility of the government in curbing the spread of Avian flu, provision of funds to the members of the public badly affected by the scourge as well as prompt intervention as at when due. The key phrases include "Government raises centre to combat bird flu", "Government begins 2nd payment to bird flu victims", "FEC okay, spending of N700m grant on avian flu" and "Katsina government releases N2m for bird flu victims".

Health risk – This frame presented 2 perspectives regarding health issue the 1st sub frame is zero health risk while the 2nd one is amplified health risk sub-frames which linked Bird flu to the humans, on zero health risk, here information presented in the articles showed that the disease was under control and that there was no need to fear, and also that the disease can be controlled by

proper cooking. Words and phrases associated with this frame included "Akunyili allay, fears on bird flu eats roast chicken", "WHO experts allay fear of bird flu mutating in human" and "well cooked poultry safe from avian flu while the amplified sub frame vision had phrases like "Avian flu could be endemic in Africa", "Bird flu threatens 100,000 British children" and "4 year old boy dies of bird flu".

Social / industrial responsibility – It was characterized by the activities of individual and the society in the fight against the bird flu scourge and ways of helping the society at large, it used phrases like "Bird flu" poultry farmers advised to take insurance cover" "FG urged to step up action against bird flu" and "Don't allow bird virus to become pandemic diseases.

Issues like who was at fault for the outbreak, why it happened how and who was responsible or who to blame were all conveyed by the articles reviewed here. In most articles, the government in action or lack of preparedness on their part, irregular inspection on the part of the regulatory agencies and politics were blamed for the spread of this disease and after the social / individual responsibility frame which was not pronounced in the frames used, this blame and responsibility comes next as a frame that was not pronounced, key phrases used includes "How politics worsened bird flu case", "We did not respond fast enough to bird flu threat", "Government attitude not encouraging to agricultural sector" and "Nigeria government ill prepared". Economic calamity – It was characterized by the impact the disease had on several areas of endeavor like other industries, national income, provision of essential services and finally on the population. It emphasized the level of loss recorded by every stakeholder is facing phrases used includes "Birds flu scourge may cost Nigeria N50 billion", "Billion of naira down the drain", and "Imo to lose N1billion naira and of all the frames used it was the most infrequent frame used (Table 5).

Though, all seven frames were present throughout the articles analyzed, the public awareness (33 out of 156 stories) and industry crisis. (32 out of 156 stories) frames were the most dominant. Though, Vanguard newspaper had the lowest frequency of occurrence out of these 4

Table 6. Placement patterns of Avian Influenza news coverage in Nigerian Newspapers in 2006 (n = 156).

Placement	Newspapers				
	Guardian	Vanguard	Punch	Tribune	Total
Front pages	5(12.8)	9 (23.1)	3(7.7)	4(10.3)	21
Others pages	34(87.18)	30 (76.9)	36(92.3)	35 (89.7)	135

Source: Field survey, 2008.

Table 7. Direction or slant of Avian Influenza stories in Nigerian Newspapers in 2006 (n = 156).

Slant	Newspapers				
	Guardian	Vanguard	Punch	Tribune	Total
Positive	22*(56.4)	15(38.5)	10(25.6)	14(35.9)	61(39.1)
Negative	12(30.8)	11(28.2)	17 (43.6)	17 (43.6)	57(36.54)
Neutral	5(12.8)	13(33.3)	12(30.8)	8 (20.5)	38 (24.36)

Source: Field survey, 2008. Figures in parenthesis are percentages.

selected newspapers signifying their lowest rate of reportage of frame of public awareness with (15 out of 156 stories) showing that they did not give preference to enlightenment and sensitization like the other three newspapers. While tribune newspaper frequency of reportage of frames of public awareness (10 out of 156 stories) and industry crisis of 11 out of 156 stories was the highest while the other two newspapers (Guardian and Punch newspapers have almost similar frequency level of coverage of both public awareness and industry crisis. Government responsibility (30 out of 156 articles), health risk (23 out of 156 articles and social/individual industrial responsibility, (17 out of 156 articles) were all reported to have these frequencies with the punch newspaper having the lowest rate of coverage in the area of Government responsibility (3 out of 156 stories) and health risk (3 out of 156 stories) the Guardian and Tribune newspaper had average coverage of their 2 frames while the Vanguard newspapers had the highest rate of coverage of these 2 frames i.e. Government responsibility and health risk this signifying that Vanguard focused more on the activities of government on the bird flu issue and the health risk involved than the other 3 newspapers reviewed while the social responsibility frame was seen to be portrayed by all the four papers in a similar manner.

Finally, the blame frame and economic calamity were the supporting frames with the least dominant frames but, the blame frame was more prominent in the Punch newspapers than in the other 3 Newspapers while the guardian and tribune newspapers followed the punch newspaper in the frequency of coverage, vanguard newspapers had the lowest coverage of this blame frame of all the 4 selected newspapers.

The result in Table 6 shows that the Vanguard news

paper had the highest frequency of reportage of avian flu news in the front pages (23.1%) in terms of placement pattern among the selected newspapers while The Punch newspaper had the lowest frequency (7.7%), though this was still generally low as compared with the use of other pages in all the selected newspapers.

However, in terms of the usage of other pages for placement in reportage of news, The Punch news papers had the highest frequency (92.3%) while the vanguard had the lowest frequency (76.9%) out of all these selected newspaper. This shows that The Vanguard newspapers gives more importance to agric news especially avian flu news with their placement pattern more than the other 3 selected newspapers while it was discovered that the Punch gives little importance to avian flu news due to their placement pattern.

The result in Table 7 shows that The guardian newspapers had the highest percentage (56.4%) of positive stories, while The Punch newspaper had the lowest percentage (25.6%) of positive stories out of all the selected stories, this implies that The guardian newspapers reported most of the activities of the Government in curbing the disease, public awareness sensitization finding, and also researches that may lead to break through. The vanguard and the tribune newspapers had 38.5 and 35.9% frequency of occurrence respectively

Moreover, in term of negative stories the result in Table 7 also shows that both The Punch and The Tribune newspaper had the highest percentage (43.6%) in relation to negatives stories this implies that both newspapers reported mostly the devastating nature of the disease on the health of individuals and the nation as a whole as well as the crisis rocking the industry. The guardian and the vanguard newspapers had 30.8 and

Table 8. ANOVA result showing the difference in the space allotted in the selected newspapers.

Space allotted	Df	Sum of squares	Mean square area	F value	P value	Decision
Between group	3	110340.9	36780.304	0.75	0.526	NS
Within group	152	7487023	49256.732			
Total	155	7597364				

Source: Field survey, 2008.

Table 9. T-test result to show the difference in the space allotted and placement pattern used in the selected newspapers.

Category	t value	Df	P value	Decision
Category areas placement	-8.44	154	0.40	NS

Source: Field survey, 2008.

28.2% respectively as their percentages of reportage of negatives stories. However, the vanguard newspaper had 33.3% as the highest frequency that reported neutral stories which were neither positive nor negative stories.

Hypotheses testing

The result on Table 8 shows that there is no significant difference in the space allotted in the selected newspaper ($F = 0.526$, $p > 0.05$). It implies that all the selected newspapers do not give prominence to avian flu news in their reportage because all of them used very little space to report avian flu stories.

H_1 : There is no significant difference in the space allotted and placement pattern used in the selected newspapers.

The result on Table 9 shows that there is no significant difference in the space allotted and placement pattern ($t = 0.40$, $p > 0.05$). The implication of this all the selected newspapers reported their stories using the same similar placement pattern and space, and this is also an indication of lower level of importance placed on avian flu news.

CONCLUSION

The following conclusions were drawn from the empirical findings of this study:

1. All the four selected newspapers stressed public awareness, industry crisis and Government responsibility as a national issue.
2. The health risk frame* was conceivably blown out of proportion to the health risk that the disease actually posed; this is analogous to findings from a similar study on mad cow disease that suggested that "the possible

linkage between a deadly human disease and a food source seemed to make for an ideal media story"

3. The industry crisis and the blames and responsibility were reported to have occurred due to lack of government preparedness at the inception of the disease.

RECOMMENDATIONS

In view of the immense importance associated with framing analysis, the issues spelt out, the findings and the observations noted, the following are the recommendations for policy makers and other partners:

1. The government and every stakeholder involved in poultry business should be more transparent and efficient about bird flu information so as to serve as a guide to quickly combat or work towards the reduction of the spread of the disease in the future.
2. Policy makers should not politicize every report of bird flu so as not to be cheating on the masses through political talks to all stakeholders and everyone who is affected, which will make them to cooperate with government agencies and other agencies for quick interventions.
3. To exhibit a sense of absolute dependability on information given by the government in the 3 tiers.

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