



Source Credibility in Environmental Reporting of Two Different Media Landscapes

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Abstract: *This research attempts to understand environmental communication taking place in countries with different political, socio-cultural contexts and organizational media levels. In this regard, the research's focuses on Pakistani and British print media systems, which have different organizational systems and contexts. Therefore, it is worth analyzing whether these organizational differences affect the way their news content in relation to the environment is being produced, with emphasis on the credibility of sources. A quantitative content analysis of two Pakistani and two British newspapers was conducted from the previous one decade through January 2007 to December 2016 by using a sample of 5315 environmental news stories published in four publications concerning from each country such as Dawn and Nation from Pakistan, whereas Telegraph and Guardian have chosen from the UK. The Significance of this quantitative study is based on the theoretical approach of agenda-setting and media source credibility. Assuredly, environmental reporting of Pakistani and British print media diverges in the context of source preferences in agenda-setting and media source credibility capacity. Subsequently, dominantly quoted news sources of environmental issues in Pakistani and British print media depict the environmental agenda of each country.*

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Introduction

This research paper focused on the relationship between journalists and institutional news sources that have the influential power to affect the presentation of the environmental debate. Nevertheless, the most challenging debate of media studies is to examine the composite relationship between news sources and media. Undoubtedly, sources are so powerful in shaping the news content despite the fact that media

source relationship contains a complex and difficult approach ([Dhiansawadkij, 2018](#)). Researches in sociological paradigms have proven that processes of news production increased the supremacy of experts and aristocrats in describing contemporary environmental issues. However, the bureaucratic approach of news work suggests that journalists practice authoritative sources in news culture for

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the credibility of facts ([Allan, 2011](#)). Consequently, primary definers have the potential to control and circulate media agendas and also the political narrative of the society ([Cottle, 2003a](#)). Furthermore, news media processes depict the institutional order through maintaining the political consensus of reported issues in the hierarchy of credibility ([Allan, 2011](#)). However, [Carvalho \(2007\)](#) indicates the fact that environmental communication is not limited to one class and territory; therefore, journalists prefer to use science expert sources in environmental reporting. He mentioned that during 1985-1987 in the British print media (such as *The Guardian* and *The Times*) have reported the scientific journal named 'Science and Nature' as a news source in the majority of its news articles. Similarly, to maintain the credibility of the facts in the news content of the media, journalists employed a high ethos of credible sources to report the issues in a certainty frame ([Uusi-Rauva & Tienari, 2010](#)). On the other hand, [Carvalho \(2007\)](#) suggested the strategy of effective environmental communication through the easy accessibility of information to the audience and the solution of environmental issues by science. Furthermore, generally, the conception of primary definers interlinked with the supremacy of authority agents; therefore, ([Manning 2001](#)) claimed that business practitioners have the potential to influence the government machinery. Authoritative sources have competition among themselves to get access to media and spread their own version of reality. Whereas, media text is not just the reflection of primary definers but the depiction of the other fragmentation of voices from the suppressed class of society. [Hallin \(1992\)](#) recommended that journalists adopt the journalistic norm of objectivity to customize the balance in the legitimate controversial issues while constructing news stories. Moreover, the representation of sources in the news text identifies their role in environmental discourse as active or passive actors.

Objectives

- To examine the dominance of credible or non-credible news sources in

environmental reporting of Pakistani and British print media.

- To understand the intra-media preferences regarding source selection in environmental reporting of Pakistani and British print media.

Literature Review

The most relevant area of news research has concluded that journalists who heavily rely on governmental sources are also called primary definers ([Miller & Riechert, 2000](#)). Similarly, Sigal (1973), in his great content analysis of American newspapers, explored that the "majority of news sources are governmental." Over time, with the variation of media and context, the finding has been replicated. [Gamson and Modigliani \(1989\)](#) and [Nimmo \(1985\)](#) conducted the research in the context of environmental concerns and found the prominence of official sources in the nuclear shutdown coverage. Consequently, the predominance of governmental sources is preferred for numerous reasons such as easy access to the information, especially during disaster circumstances, and also considered as credible for the media personnel and public mutually ([Miller & Riechert, 2000](#)). On the other hand, [Boykoff \(2012\)](#) argued that "established political actors dominated in US media coverage as sources and followed by non-governmental organizations as well as business community, whereas grass-root voices or activists are marginalized." Previously, Riechert & Miller explored the influence of official sources in the framing of environmental stories during the time periods of three American presidents and concluded that within the presidential time frame of Reagan, environmental issues were framed as habitat restoration, Bush administration put it in the economic frame while during Clinton presidency the issue was framed as a regulatory concern. Furthermore, news sources are a very imperative part of news story and journalists continually rely on them; therefore, they have the potential to affect the framing pattern of environmental news to influence the audience. However, Miller and Riechert (2000) found that environmental sources are less credible in comparison to the official sources because they

couldn't reach the occurring happenings immediately due to less power and resources.

However, within the environmental perspective, stakeholders, including public-private movements, government, and business corporations, influence the news content to amplify a specific agenda in the public sphere similarly sources are also powerful for increasing or decreasing the issue salience (Anderson, 2014); for example, corporations utilize the public relation management strategies to safeguard their reputation from the negative risk harming issues linked with them (Micheal, 2001). Therefore, the relationship between corporations and media is mutually beneficial for each other in the news production process. So, the relationship between corporations and media is mutually beneficial for each other in the news production process. Although, marketing plays the role of an intervening agent among media and corporations to shape the news agenda. Some previous researches contend that media organizations prioritize their economic benefits over social responsibility and also activate self-censorship strategy to safeguard the reputation of their sponsors in the case of any harmful situation (Pew Research Center 2000; Carvalho 2007; Edwards 2011; Anderson, 2014). Due to financial constraints, advertising may affect the content of environmental news stories, sometimes these stories are framed according to certain agendas or even couldn't get the space in media. Environment-related issues such as nuclear power, climate change, and GMOs have been framed in economic and progress prospect frames despite putting them in social or ecological harm frames.

During the newsgathering and production process, time is a crucial constraint for the reporters; therefore, they rely on already gathered information from the news agencies to the newsrooms so they can meet the deadline and follow the media competition (Anderson, 2014). Consumption of press releases in news production is valuable in order to reduce time and save cost. Moreover, it contains all essential facts and information and is constructed according to journalistic values. Press releases provide information with accuracy, especially with regard to environmental issues that are complex

and scientific in nature. In this scenario, we can understand their journalistic importance, but on the other way, the established firms with sufficient economic capital employ public relation experts to uphold their business interests by constructing the content of press releases used in environmental news formation. Public relations personnel trained as experts in communication strategy to prepare the press release content in a persuasive manner to influence the news framing process (ibid).

According to Manning (2001), NGOs and social movement groups are known as non-authority sources and experts of their particular policy field, but on the other hand, reporters do not prefer them as credible sources of information because they manipulate the environmental agenda to protect the mission of their concerned organizations. NGOs are labeled with certain policy agendas; that's why their claims are based on dramatic strategies instead of scientific grounds, and they earn fewer news values because of their alternative ideologies from the mainstream value system. Relatedly, common people are framed as non-scientific, less credible, and subjective agents who are powerless and passive in news media narrative (Cottle, 2000). Therefore, marginal voices are suppressed in the news coverage of environmental issues (Farbotko, 2005). Furthermore, cultural factors influence the coverage patterns of environmental issues in the media. Miller (2000) explored in the comparison of the US and British print media coverage of climate change and concluded that American newspapers more frequently used source quotes as compared to British print media. While British print media included more skeptical sources in the global warming news coverage.

The presence or absence of certain news sources depicts the news credibility of concerned authorities and opens the new debate for environmental communication. This study explores the presence of prominent news sources in news media of Pakistani and British perspectives.

Hypotheses

H1: British print media dominate with the viewpoint of credible sources on

environmental issues, but Pakistani print media focus on non-credible sources.

III: Environmental news coverage of British media dominating with political and academic sources whereas Pakistani print media more focused on NGO & international organization sources.

The landscape of Pakistani and British Print Media

Pakistani and British print media systems prevailed under different organizational systems with particular similarities and differences in which they exist. The worth exploring fact is whether either these organizational differences affect the way their news content is being produced or not in the capacity of source credibility analysis. This transnational comparative analysis of media models prevailed in Western Europe, and North America tends to be the dominant models globally. These models have actually influenced the development of other media systems.

As McQuail (2000) stated that, “the media do not constitute any single system with a single purpose or philosophy, but are composed of many separate, overlapping, often inconsistent elements, with appropriate differences of normative expectation and actual regulation (p. 133).

[Hallin and Giles \(2005\)](#) and [Hallin and Mancini \(2004\)](#) characterized three models of media in the western world. Polarized Pluralist Model, Democratic Corporatist Model, and Liberal Model.

These media systems are not the sole representatives of their conceptualized identity, but these systems have been influenced by many other factors, including nature of newspaper industry, political parallelism, and professionalization, the role of the state in media systems, form of government, individual or organized pluralism, interference of rational-legal authority and political history, in which media systems develop and evolve.

British print media system characterized under Polarized Pluralist Model. According to the conceptual framework of [\(Hallin & Mancini, 2004\)](#), “Polarized pluralist’s systems are

characterized by an interventionist government with a press that is largely influenced by literature and politics, with a high degree of political parallelism. In these systems, while journalists are considered members of the “elite” and a strong sense of professionalism among journalists. The last attribute is associated with the liberal media model [\(Hallin & Mancini, 2004\)](#). In contrast, the Pakistani print media system follow the liberal media model. “liberal systems are characterized by early commercialization of the press, limited (as compared to other models) state intervention, low political parallelism, there is little sense of professionalism as it is understood in polarized pluralist model” [\(Hallin & Mancini, 2004\)](#). Furthermore, [Carvalho and Burgess \(2005\)](#) have identified, geographical differences exist in the coverage of environmental issues. American elite papers give more coverage to the climate change uncertainty as compared to their equivalents UK, Finland, and New Zealand [\(Boykoff, 2007\)](#). The majority of research on the role of media in coverage of climate risk communication focused on the perspective of developed countries such as the context of US and UK [\(Anderson, 2009\)](#).

Cross-Cultural Environmental Coverage

Environment deeply rooted as a specific concern of the political and public sphere, therefore by the end of the 1960s and 1980s, environmental communication started to draw the attention of western news workers. In the contemporary era, the role of media is very crucial in environmental politics especially linked with the accessibility of information and meaning construction [\(Lester & Hutchins, 2009\)](#). Since 2002, the news agenda comparatively acknowledged the environmental beat and came up in competition with other beats such as politics and economics. Consequently, media scholars and researchers focused on reporting patterns of the environment and its sustainability in the media. Whereas a major portion of research regarding environmental journalism [\(Hansen, 1993; Shanahan & McComas, 1997; Spellerberg, Buchan & Early, 2006; Musukuma, 2002; Hutchins & Lester, 2006; Lester and Hutchins, 2009\)](#) have focused on developed countries. Significant differences were evident in the cross-cultural reporting of

environmental issues within western perspective. For instance, a transnational comparative study regarding global warming in the United States and France concluded that coverage of France was more event-based and focused on international relations and presented more narrow perspectives with comparison to the coverage of United States, while US media emphasized the conflict narrative between politicians and scientists ([Brossard et al., 2004](#)). Dejectedly, fewer media coverage has been given comparatively to the environmental issues of developing countries, yet they are possibly most affected by the worst effects of the environment ([Painter, 2007](#)). The more focused perspective of the western world left a major portion of the world inattentive regarding scholarly gaze to understand the reporting pattern of environmental issues with the combination of developing and developed countries to understand the journalistic practices of each country about environmental issues. Due to the seriousness of environmental issues, it's mandatory to protect the environment by putting this issue on the media agenda with improved journalistic practices. However, a number of researchers have noted that more internationally comparative research is required (e.g., [Boykoff & Boykoff, 2004](#)) in order to understand how diverse socio-economic, cultural, and political contexts construct the reporting of environmental issues. Such kind of work has already been done; for instance, [Boykoff and Boykoff \(2007\)](#) compared the environmental coverage of the UK and USA, [Brossard et al. \(2004\)](#) conducted research based on the comparison of US and French reporting. Similarly, [Dispensa and Brulle \(2003\)](#) examined the environmental coverage of New Zealand, Finland, and the United States. However, the gap within the domain of environmental communication gives insight to this research. Therefore, this research project fruitfully explored the difference in journalistic practices of two different countries, specifically in the context of developing and developed countries. This research strengthens our understanding regarding complex environmental communication between countries and helps to

comprehend the broader socio-political issues in the reporting of environmental issues.

Theoretical Framework

This study used the agenda-setting theory as a guide to explore the journalistic practices of Pakistani and British print media as source preferences. Moreover, McComb & Shaw (1972) have concluded that media set the agenda by providing the information to the readers, then priorities those issues in the minds of readers through attaching the amount of information and also set its position by determining the direction. McCombs claims that agenda setting performs its function at two levels, the object level and the attribute level. Whereas conventional research approach has focused on object-level agenda-setting, which is fundamentally associated with issue salience, therefore media coverage becomes influential by giving importance to the objects (e.g., candidates, issues, problems, and events). This is how media articulate us "what to think about." On the other hand, media can also tell us "how to think about" regarding particular objects through second-order agenda setting known as "attribute agenda". Furthermore, attribute agenda applied in this study.

Methodology

This research has followed the comparative research design to understand the two contrasting cases by consuming the quantitative research method. Therefore, methodologically a content analysis approach opted for this study. Selected newspapers of Pakistani and British print media are the elite newspapers of each respective country. The Telegraph and The Guardian, The Dawn and The Nation, are the representatives of two different media landscapes. This study utilized environmental news stories of Pakistani and British print media as secondary data for the analysis. Environmental news stories published in Pakistani print media such as (The Dawn & The Nation) and British print media including (The Guardian & The Telegraph) from 1st January 2007 to 31st December 2016 taken as the population of this study. A simple random sampling technique was

employed to draw the appropriate sample of this study.

Measurement and Operationalization Techniques

This variable of the study focused on identifying the viewpoint of credible and non-credible sources in Pakistani and British print media. However, credible sources reflect the authentic and reliable opinion of the experts. Although, academic experts, political, business and industry, economic, judiciary, independent, and NGO & International organizations taken as credible sources. Whereas non-credible sources include non-expert, unnamed expert, skeptic, and other sources. Apart from examining the inclination of Pakistani and British print media towards credible or non-credible sources, the researcher investigated the individual status of each news source in all four newspapers exclusively to investigate the dominance of each news source. While credible and non-credible source dominance are calculated collectively. Sources have been measured as active and passive actors in the given sample. The operational definition of a source is explained as a provider of quoted text. "The provider of information can be an individual, an organization, or a type of documentation (e.g., a spokesperson, a company, a report) (Durant et al. 1998) that uses quotation marks with attributions or verbs such as, "said" or "reported" (Charpentier, 2008). Unspecified sources have also been taken into account (e.g., "an official said", "a spokesperson stated"). Indirect, undefined, and vague references were considered non-credible sources. The dominance of sources is used to identify the active and passive voices of stakeholders within society.

Sources were coded on the basis of their presence, absence, or dominance in the news story and a total number of scores associated with each source predicted the activeness or passiveness of sources. The following mentioned sources were adapted and operationally defined from the studies of [Brossard et al. \(2004\)](#); [Kenix \(2008\)](#), and [Chetty, Devadas & Fleming \(2015\)](#).

- Academic/Expert
- Non-expert
- Political
- Unnamed experts
- Business and industry
- Economist
- Judiciary
- Sceptic
- NGOs/National or International Organizations
- Independent research groups
- Other

Unit of Analysis and Coding Scheme

Each paragraph of a news story has been considered as a unit of analysis. Sources were coded as absent (0), present (1), or dominant (2) in the news story. Sources occurred other than in headline, leading, or concluding paragraph such as in the main body of the news text has been considered as present. Similarly, the presence of a source in the headline/ leading and concluding paragraphs highlighted the central idea of the news story was considered as dominant. However, multiple sources have been coded as present in the news story, but only one source is coded as dominant.

Results

The viewpoint of Credible and Non-credible Sources

Table 1. Credible News Sources

Cross Tabulation Frequency of Academic/Expert News Source

	Newspaper		Total
	Pakistani	British	
Absent	443	241	684
	64.8%	35.2%	100.0%
Present	86	213	299
Academic/Expert	28.8%	71.2%	100.0%

Cross Tabulation Frequency of Academic/Expert News Source

	Dominant	Newspaper		Total
		Pakistani	British	
		64	92	156
		41.0%	59.0%	100.0%
		593	546	1139
Total		52.1%	47.9%	100.0%

It is found that there is a more dominance of expert and academic views in British newspapers and also revealed that source of academic experts

is low on the priority of Pakistani print media similarly there is a significant difference in presence as well.

Table 1(a). Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	116.883 ^a	2	.000
N of Valid Cases	1139		

0 cells (0.0%) have an expected count less than 5. The minimum expected count is 74.78.

Chi-square test of independence has been applied to observe and measure the relationship between the print media of Pakistan and Britain regarding the journalistic treatment of environmental issues. The Chi-square test indicated a significant relationship between Pakistani and British

newspapers with respect to their viewpoint as $\chi^2(2) = 116.883, p = .000$ is less than 0.05. However, the findings of this test suggest that print media outlets of both countries differ in presenting the viewpoint of more credible sources on environmental issues.

Table 2. Cross Tabulation Frequency of Political Sources

		Newspaper		Total
		Pakistani	British	
Political	Absent	331	255	586
		56.5%	43.5%	100.0%
	Present	124	104	228
		54.4%	45.6%	100.0%
	Dominant	138	187	325
		42.5%	57.5%	100.0%
Total		593	546	1139
		52.1%	47.9%	100.0%

Table 2 demonstrates the observed frequency values of political sources in Pakistani and British print media. However, this table covers the comparative analysis of Pakistani and British print media. Results show that in Pakistani print media (56.5%) and conversely (43.5%), political sources in British print media are absent. Count

of (54.4%) in Pakistani print media while (45.6%) in British print media observed present. This count of (42.5%) of the total coverage is given to the dominant view of the political sources in Pakistani print media, while (57.5%) from British print media cover the same approach.

Table 2(a). Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.088 ^a	2	.000
Likelihood Ratio	17.117	2	.000
Linear-by-Linear Association	15.342	1	.000
N of Valid Cases	1139		

0 cells (0.0%) have an expected count less than 5. The minimum expected count is 109.30.

Chi-square test indicated that there is a significant relationship between Pakistani and British newspapers with respect to their viewpoint as $\chi^2(2) = 17.088$, $p = .000$ is less than

0.05. The tendency of political sources is high in the coverage of British print media as compared to Pakistani print elite newspapers.

Table 3

Cross Tabulation Frequency of Business & Industry News Source

	Newspaper		Total
	Pakistani	British	
Business & Industry Absent	550	447	997
	55.2%	44.8%	100.0%
Present	26	75	101
	25.7%	74.3%	100.0%
Dominant	17	24	41
	41.5%	58.5%	100.0%
Total	593	546	1139
	52.1%	47.9%	100.0%

Table 3 illustrates the overall findings of above mention table concluded that business and industry news source is dominating in the

coverage of British print media as compared to Pakistani print media.

Table 3(a).

Chi-Square Tests

Pearson Chi-Square	Pearson Chi-Square	Pearson Chi-Square	Pearson Chi-Square
Likelihood Ratio	Likelihood Ratio	Likelihood Ratio	Likelihood Ratio
Linear-by-Linear Association	Linear-by-Linear Association	Linear-by-Linear Association	Linear-by-Linear Association
N of Valid Cases	N of Valid Cases	N of Valid Cases	N of Valid Cases

a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 19.65.

The Chi-square test depicts that there is a significant relationship between Pakistani and British newspapers with respect to their viewpoint as $\chi^2(2) = 33.726$, $p = .000$ is less than

0.05. Significant differences between Pakistan and the United Kingdom's print media with regard to the source of business and industry can be found.

Table 4.

Cross Tabulations Frequency of News Source of Economists

Economist	Absent	Newspaper		Total
		Pakistani	British	
		509	443	952

Cross Tabulations Frequency of News Source of Economists

		Newspaper		Total
		Pakistani	British	
Present		53.5%	46.5%	100.0%
		56	68	124
Dominant		45.2%	54.8%	100.0%
		28	35	63
Total		44.4%	55.6%	100.0%
		593	546	1139
		52.1%	47.9%	100.0%

Table 4 demonstrates the frequency of economic news sources in the coverage of environmental news stories of Pakistani and British print media. In this regard, (53.5%) news stories absent the economists' news sources in the coverage of environmental news stories in Pakistani print media, while (46.5%) economists' news sources are not presented in the coverage of British print media. More quantity of economists' news sources appears to be absent in Pakistani media than in British print media. Furthermore, just

(45.2%) news sources present the viewpoint of economists in Pakistani print media, although (54.8%) economists' news sources appear present in the coverage of British print media. Similarly, the viewpoint of economist news sources appears dominating with the ratio of (55.6%) in British print media on the other hand just (44.4%) economist news sources dominating in Pakistani print media that is completely low with comparison to British print media.

Table 4(a)

Chi-Square Tests			
Pearson Chi-Square	Pearson Chi-Square	Pearson Chi-Square	Pearson Chi-Square
Likelihood Ratio	Likelihood Ratio	Likelihood Ratio	Likelihood Ratio
Linear-by-Linear Association	Linear-by-Linear Association	Linear-by-Linear Association	Linear-by-Linear Association
N of Valid Cases	N of Valid Cases	N of Valid Cases	N of Valid Cases
Chi-Square Tests			

However, chi-square values depict the significant difference between Pakistani and British newspapers with respect to their viewpoint as $\chi^2(2) = 4.583$, $p = .101$ is less than 0.05. The

significant difference shows that the viewpoint of economists as a news source in Pakistani print media is low, but it's high on the British media agenda.

Table (5)**Cross Tabulations Frequency of Judiciary News Source**

		Newspaper		Total
		Pakistani	British	
Judiciary Absent		523	421	944
		55.4%	44.6%	100.0%
Present		65	112	177
		36.7%	63.3%	100.0%
Dominant		5	13	18

	27.8%	72.2%	100.0%
	593	546	1139
Total	52.1%	47.9%	100.0%

Table 5 tells the difference between coverage patterns of developing and developed countries' agendas while presenting the viewpoint of news sources. Values of the above-mentioned table show that (55.4%) new stories from Pakistani print media do not present the viewpoint of judiciary sources but only (44.6%) news stories from British print media deficient the judiciary sources in their news stories of environmental issues. Although fewer judiciary sources are present in the coverage of environmental news stories of Pakistani print media with (36.7%) ratio,

however (63.3%), sources present the viewpoint of judiciary in British print media. Indeed, an immensely difference of source coverage forecasting the news media agenda of both countries. Likewise, Pakistani print media dominating judiciary news sources with just (27.8%) whilst (72.2%) environmental news stories of British print media dominate the judiciary sources. Findings revealed that judiciary news sources dominating in the coverage of British elite newspapers rather than in leading Pakistani newspapers.

Table 5(a)

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	25.160 ^a	2	.000
Likelihood Ratio	25.417	2	.000
Linear-by-Linear Association	24.659	1	.000
N of Valid Cases	1139		

a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 8.63.

The observation of chi-square values illustrates the significant difference between Pakistani and British newspapers with respect to their viewpoint as $\chi^2(2) = 25.160, p = .000$ is less than

0.05. Subsequently, the judiciary as a news source dominating on the British media agenda as compared to Pakistani print media.

Table (6)

Cross Tabulations Frequency of Independent News Sources

		Newspaper		Total
		Pakistani	British	
Independent	Absent	516 58.4%	368 41.6%	884 100.0%
	Present	65 33.7%	128 66.3%	193 100.0%
	Dominant	12 19.4%	50 80.6%	62 100.0%
Total		593 52.1%	546 47.9%	1139 100.0%

Table 6 exhibit the frequency values of independent news sources in the coverage of British and Pakistan's print media. Consequently, findings concluded that print media outlets of Pakistan and Britain differ in presenting the

viewpoint of credible sources on environmental issues. Values of the above-mentioned table depicted that (58.4%) responses from print media of Pakistan do not present the viewpoint of independent news sources in the coverage of

environmental issues but (41.6%) news stories from British print media lacking the presentation of independent news sources. Moreover, Pakistani print media presents the viewpoint of independent news sources with a ratio of (33.7%), and the ratio of British media is (66.3%). Relatedly, the viewpoint of independent news sources dominating in agenda of The Telegraph

and The Guardian with the values of (80.6%) while on the other hand Pakistan's print media presenting a low concern in this regard with the ratio of (19.4%). Subsequently, British print media are more focused on the coverage of credible news sources in comparison to Pakistani print media.

Table 6(a)

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	66.808 ^a	2	.000
Likelihood Ratio	68.928	2	.000
Linear-by-Linear Association	65.616	1	.000
N of Valid Cases	1139		

a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 29.72.

Chi-square test of independence found a momentous relationship between Pakistani and British newspapers with respect to their

viewpoint as $\chi^2 (2) = 66.808, p = .000$ is less than 0.05.

Table 7

Cross Tabulations Frequency of NGO and International Organizations News Sources

		Newspaper		Total
		Pakistani	British	
NGO	Absent	370 64.5%	204 35.5%	574 100.0%
	Present	107 30.6%	243 69.4%	350 100.0%
	Dominant	116 54.0%	99 46.0%	215 100.0%
Total		593 52.1%	546 47.9%	1139 100.0%

Table 7 highlighted the results of frequent presentation of NGO/international organizations as a news source in the coverage of Pakistan's and British print media outlets. Results of this study explored a significant difference between the presentation of credible news sources in the coverage of The Dawn and The Nation from Pakistan and The Guardian and The Telegraph from the United Kingdom. Therefore, above mentioned table shows that mainstream newspapers of Pakistan do not prioritize the stance of NGO/international sources in the coverage of environmental news stories with the ratio of (64.5%) absent, although British print media does not present the viewpoint of

NGO/independent news sources with (35.5%) ratio. Furthermore, (30.6%) NGO/international organizations news sources present in the coverage of Pakistani and (69.4%) in British media prevailing. Additionally, (54.0%) NGO/international organizations source dominating in Pakistani print media while (46.0%) news stories from British print media dominating the same source that is comparatively low. Therefore, British print media prioritizing presenting the viewpoint of NGO/international organization sources with comparison to Pakistani print media in the coverage of environmental news stories.

Table 7(a)

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	100.428 ^a	2	.000
Likelihood Ratio	102.368	2	.000
Linear-by-Linear Association	26.664	1	.000
N of Valid Cases	1139		

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 103.06.

Findings of chi-square test of independence revealed a significant relationship between Pakistani and British newspapers with respect to

their viewpoint as $\chi^2(2) = 100.428, p = .000$ is less than 0.05.

Table 8. Non-Credible News Sources

Cross Tabulations Frequency of Non-Expert News Source				
		Newspaper		Total
		Pakistani	British	
Non-Expert	Absent	432 45.3%	521 54.7%	953 100.0%
	Present	105 86.8%	16 13.2%	121 100.0%
	Dominant	56 86.2%	9 13.8%	65 100.0%
Total		593 52.1%	546 47.9%	1139 100.0%

The findings mentioned in table 8 depict the vibrant difference in presenting non-expert sources in the news stories of Pakistani and British leading newspapers. Non-experts as non-credible news sources in both countries leading newspapers were measured by way of absent present and dominant response categories. Findings of the above-mentioned table explored

that non-credible sources such as non-expert sources not much highlighted on the agenda of British print media, but comparatively Pakistani elite newspapers are inclined to present the viewpoint of non-expert sources in the coverage of environmental issues, which are considered as non-credible sources.

Table 8(a)

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	106.000 ^a	2	.000
Likelihood Ratio	117.427	2	.000
Linear-by-Linear Association	91.591	1	.000
N of Valid Cases	1139		

0 cells (0.0%) have an expected count less than 5. The minimum expected count is 31.16.

The Chi-square test indicates that there is a significant relationship between leading newspapers of both countries with respect to their viewpoint as $\chi^2(2) = 106.000, p = .000$ is less than

0.05. However, frequency table formed some additional information such as likelihood ratio, linear by linear, and the category of association.

Table 9

Cross Tabulation Frequency of Unnamed Expert Sources

		Newspaper		Total
		Pakistani	British	
Unnamed Experts	Absent	380 42.5%	515 57.5%	895 100.0%
	Present	147 85.0%	26 15.0%	173 100.0%
	Dominant	66 93.0%	5 7.0%	71 100.0%
Total		593 52.1%	546 47.9%	1139 100.0%

Table 9 exhibits the observed frequency values of unnamed expert sources in Pakistani and British print media. The tendency of unnamed expert sources is low in the coverage of British print media as compared to Pakistani print media. Overall, findings of above-mentioned table depict the more reliance of Pakistani print media on

unnamed expert viewpoints in the coverage of environmental news stories, but count represents the low reliance of British print media on the unnamed expert's news source for the framing of concerned news stories as the non-credible source of information.

Table 9(a)

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	155.727 ^a	2	.000
Likelihood Ratio	174.154	2	.000
Linear-by-Linear Association	143.138	1	.000
N of Valid Cases	1139		

a.0 cells (0.0%) have expected count less than 5. The minimum expected count is 34.04.

The Chi-square test illustrates that there is a significant relationship between Pakistani and British newspapers with respect to their viewpoint as $\chi^2(2) = 155.727, p = .000$ is less than 0.05. A significant difference between print

media of selected two countries with regard to unnamed expert source seems obvious, all the elements such as Pearson chi-Square, likelihood ratio, and linear by linear, supporting the claim by P-value of (.000).

Table 10

Cross Tabulations Frequency of Sceptic News Sources

		Newspaper		Total
		Pakistani	British	
Skeptic	Absent	558 52.3%	509 47.7%	1067 100.0%
	Present	20 40.0%	30 60.0%	50 100.0%
	Dominant	15 68.2%	7 31.8%	22 100.0%
Total		593 52.1%	546 47.9%	1139 100.0%

Table 10 demonstrates the frequency of non-credible skeptic sources in the coverage of environmental news stories of prominent newspapers of both concerned countries. This comparative analysis distinguishes the difference between the coverage pattern of news media outlets of Pakistan and Britain and presents the viewpoint of sources as a pivotal part of the news story construction. Consequently, the values of the above-mentioned table revealed that skeptic news sources are dominating in the view point of Pakistan's dominating newspapers as compared

to leading newspapers of the United Kingdom. Moreover, it is worth mentioning that a substantial amount of environmental news stories in the Pakistani newspapers dominate the viewpoint of skeptic sources as compared to British print media. Statistically, speaking we can observe the variance in the percentages of both country's selected media organizations presenting the viewpoint of sceptic sources in news stories, but statistically, a significant difference is scarce across mainstream media of Pakistan and Britain.

Table 10(a)

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.229 ^a	2	.073
Likelihood Ratio	5.301	2	.071
Linear-by-Linear Association	.035	1	.852
N of Valid Cases	1139		

a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 10.55.

Chi-square test of independence has been applied to observe and measure the relationship between selected newspapers of Pakistan and Britain regarding the journalistic treatment of environmental issues. The Chi-square test has denied the significant relationship between Pakistani and British newspapers with respect to

their viewpoint as $\chi^2 (2) = 5.229, p = .073$ is greater than 0.05. As per the chi-square test of independence, analysis of the above-mentioned table safely concluded that between newspaper differences of presenting the viewpoint of skeptic sources is insignificant. In fact, the p-value is .073, which is greater than the cut-off value of .05.

Table 11

Cross Tabulations Frequency of Other News Sources				
		Newspaper		Total
		Pakistani	Pakistani	
Other	Absent	528 49.5%	538 50.5%	1066 100.0%
	Present	48 87.3%	7 12.7%	55 100.0%
Total	Dominant	17 94.4%	1 5.6%	18 100.0%
		593 52.1%	546 47.9%	1139 100.0%

Table 11 depicts the frequency of other news sources to measure the number of sources that were not fallen in the above-mentioned categories of all news sources. However, findings show that (49.5%) other sources are absent in Pakistani print media while (50.5%) are not

present in the news stories of British print media. Although other news sources are present in Pakistani print media with the highest ratio of (87.3%) however British media is low with a ratio of (12.7%) in this regard. Other sources are dominating in Pakistani print media with (94.4%)

ratio, but British print media do not present the dominant view of other sources in the news stories. Overall, results reflect a drastic difference

in presenting the viewpoint of other sources in Pakistani and British print media.

Table 11(a)

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	43.013 ^a	2	.000
Likelihood Ratio	49.701	2	.000
Linear-by-Linear Association	40.081	1	.000
N of Valid Cases	1139		

a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 8.63.

Chi-square test of independence applied to measure the significant relationship between Pakistani and British newspapers with respect to their viewpoint as $\chi^2(2) = 43.013$, $p = .000$ is less than 0.05. A significant difference can be found. Therefore, the conclusions of this test proposed that mainstream newspapers of the United Kingdom and Pakistan vary in presenting the viewpoint of non-credible sources on environmental issues.

Conclusion

The study explored the role of sources in setting the media agenda because sources provide a sufficient amount of information for news construction and critically influence the news production process. Subsequently, readers' perception is highly dependent on the consumption of news sources for information gathering; they might understand environmental issues very differently with exposure to different news sources. Moreover, this study recognised the worth of sources in the agenda-setting process and recommended that sources are the influential stakeholders who have the ability to influence the status of an issue on the individual, societal and policy levels to set the agenda. Similarly, the function of issue proponents (considered as sources) who put efforts and even compete with each other to acquire prominent narratives related to the issues to dominate on the media agenda. However, findings of this data have concluded that sources are the witness of the event or issue with their expert opinion on the concerned matter and also have the potential to set the media agenda; therefore, without their

presence role of media is less significant and stimulating in developing the media agenda.

Collectively all the given values, as it was found in the result chapter, show the significant difference in the coverage of Pakistani and British print media on the credible and non-credible sources divide. While Pakistani print media used unnamed expert, non-expert well as sources under the category of 'other' indicated the lack of authenticity and deficiency in journalistic professionalism. These anonymous sources are considered as less credible. On the other hand, British print media put their reliance on the sources most often referred to as the name of a spokesperson, government official, or company, usually with direct quotes which indicated a higher sense of responsibility and journalistic professionalism. Consequently, findings have concluded that in the construction of a news story, all that matters are sources, perhaps a subject in itself not be newsworthy, but suitable and relevant sources can put the newsworthy angle in the development of media messages. The source media relationship in the capacity of agenda-setting focused on the principles and dynamics of the agenda-setting process for environmental issues. In British print media, news sources intend to provide the plurality of perspectives in the environmental narrative. Furthermore, British print media dominating with political and expert voices in the news coverage while political and expert voices in the coverage of environmental issues are significantly accepted by the public, and they put more reliance on them. Although, British print media actively quoted authoritative sources such as government officials and academic experts in

the news construction process is subsequently due to the credibility of facts associated with them.

Likewise, news construction of media illustrates the institutional order of society because its objective is to sustain political consensus in reported issues and the hierarchy of credibility.

However, there is another confirmation from the findings of this data for the argument that environmental news coverage of Pakistani and British print media does not just entirely imitate the ideology of primary definers such as authoritative sources but also exhibit the voices of suppressed groups of society. Furthermore, 'the influences of stakeholders such as business corporations, government, and private sector movement' to environmental news coverage are not just capable to enhance the environmental agenda in the public sphere, but they also have the potential to lower the agenda by minimizing the issues from scenario.

On the other hand, this study confirmed that Pakistani elite newspapers dominantly focus on the local nature of environmental issues, and they tend to present the viewpoint of non-experts as 'non-scientific and subjective agents' who are potentially powerless and passive.

Generally, news sources have the power to influence the demonstration and salience of environmental news agendas. However, credible sources, commonly such as political and expert voices are considered as primary definers in news coverage of environmental issues. Also, credible news sources have more prospects to approach the news media. The fragmentation of diverse sources in news coverage of British print media anticipated an influential supremacy on the environmental policy of the environment; therefore public defined it as a plurality. Hence, environmental narrative in news coverage of British print media fragmented with competitive ideologies implanted within news structure.

Furthermore, active sources, including academic experts, political, business and industry, judiciary, and independent organizations, are the foremost part of British

print media with such an overwhelmed majority of responses. However, particularly top three sources taken as dominant in British print media with the highest frequency values among all sources are named political, academic expert, NGO & international organization sources. Hence, data shows that NGO and international organizations' sources demonstrate the mix response in the coverage of Pakistani and British print media with the depiction of slightly similar values with little difference. This result endorsed the preceding studies of ([Carvalho & Burgess, 2005](#); [Boykoff, 2007](#); [Dotson et al., 2012](#)), which supported the argument that media is influenced by politics and news media industries followed by the political agenda ([Dotson et al., 2012](#)). According to ([Carvalho & Burgess, 2005](#)) climate change coverage in Britain was linked with political agenda; therefore, political preferences reflected in the coverage of scientific knowledge, uncertainty, risk, and impacts.

A substantial percentage of British environmental news stories belongs to use the credible news sources, while the tendency of Pakistani-based environmental coverage focused on non-credible news sources. The portrayal of environmental issues in British print media structured by active sources considered as dominant voices of the society such as academic experts, political, business and industry, judiciary, and independent organizations, are the crucial fragment of British print media to reinforce the status quo of the society. While unnamed experts and non-expert sources are highly dominating stakeholders of environmental communication in Pakistani print media.

As previously mentioned, in Pakistani print media unnamed experts and non-expert sources are highly dominating stakeholders in Pakistani print media. Relatedly, geographical differences matter while covering climate change issues ([Boykoff, 2007](#); [Hedding, 2011](#)). Therefore, environmental coverage of Pakistani and British print media differs in the context of source preferences in agenda-setting and media source credibility capacity while considering the variant nature of both countries' media landscapes.

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