

## Global Climate Change Coverage in Malaysia Mainstream Newspapers

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### ABSTRACT

*Global Climate Change can affect human life and activities. The rising amount of natural disasters, the warming of the Earth and the melting of the icebergs are some examples of its effects. This study is conducted to analyze the coverage of global climate change issue in four Malaysia mainstream newspapers. The data for this study are collected from January 2008 to December 2010. A content analysis is conducted to identify the frequency of the articles related with global climate change, the articles length, the trend of newspaper coverage and the frames of the articles. The findings for this study will provide an understanding about the ways Malaysia mainstream newspapers provide the coverage about Global Climate Change and the audience reactions towards the issue. The findings also suggested that the coverage of global climate change is influenced by the events pertaining the issue. This can be observed from the trend of newspaper coverage. Finally, the result on the frames indicates that the most published topic in global climate change issue is public action to reduce the effects of global climate change and reduce the emissions of the greenhouse gas.*

**Keywords:** climate change coverage, newspaper trends, Malaysia mainstream newspapers, newspapers coverage, newspaper framing.

## 1.0 INTRODUCTION

Nowadays, global climate change is undeniably has become one of the most crucial issue in the world. Not only is has disastrous impacts on the environment, global climate change can also badly damage the economic, social and politics of the countries in the world. Therefore many researches have been conducted by many scientists and scholars in various field to study the implications of global climate change in different perspectives and areas.

These studies have developed many findings and outcome. Some of the outcomes are delivered to the public so that the public will gain more knowledge on global climate change issue and most importantly is to develop their awareness on the issue. One of the tools to effectively convey this message to the public is through the media. Moreover, Wilson (1995) stated that majority of the public rely on the media to obtain information on global climate change and this study shows that media do have important role to provide the public on the knowledge regarding global climate change issue.

In Malaysia, global climate change has become significant issue among the society and the government. This is because Malaysia had been listed as one of the largest world carbon emitters because of the rapid industrialization and development which is taking place in the country. Apart from rapid development and industrialization, deforestation, energy and water usage, open burning and transportation are some of other factors that contribute to the increasing amount of Malaysia greenhouse gas emission in the atmosphere (WWF Malaysia).

Therefore in July 2009, Malaysia has launched its Green Technology Policy that focuses on the effort to reduce Malaysia carbon footprint across many sectors. At the same time the policy also helps to protect the environment by enhancing environment sustainability through various programs that had been planned by the government. Public needs to be informed and well equipped with the information regarding the programs that are planned by the government so that everyone can play their role in reducing carbon emission which can directly reduce the risk of the facing effects of global climate change.

Media has high potential in successfully influencing public opinion and actions (McCombs, 2002). Thus in order to ensure the policy can be successfully implemented, media need to play a strong role to educate the public and create their awareness regarding global climate change and also the government policy and effort to reduce the carbon emission.

Thus, this study is conducted to identify the trend of *Berita Harian* and *The New Straits Times* coverage on global climate change issue for year 2008 through year 2010. The trend is studied along with the occurrences of events regarding global climate change. Apart from that, the frames of the news stories on global climate change issue in these newspapers are also scrutinized. The study on the frame of the news stories will provide the researcher with the knowledge on global climate change agenda that is delivered to the public.

## **2.0 LITERATURE REVIEW**

The role of newspapers in shaping public opinion and influence their action is supported by researches. McCombs (2002) noted that “the pictures in people’s minds about the outside world are significantly influenced by the mass media, both what those pictures are about and what those pictures are”. As public does not have a direct access to the events which occur locally and internationally, they rely on the mass media including the newspapers to bring the story to them and make them understand about the events. Therefore newspapers contribution in shaping and influencing public opinion and action is significant.

### **2.1 Media and Agenda Setting Theory**

Although agenda-setting theory is very synonym with political issue, nowadays, agenda setting effects can also be related with environmental issue, health, sports and others. The Agenda Setting Theory has an important function in the media as it helps to shape public opinion and perceptions towards various issues.

Agenda Setting Theory suggested that media indirectly has become a mould to the public mind, and the public perceive the news based on what the media provide them. Therefore, setting the agenda for the public is important in order to sway public apprehension and awareness regarding those issues. Apart from influencing public apprehension and awareness, agenda setting also affects personal behaviour and actions (McCombs, 2002; McCombs & Reynolds, 2005; Wu & Coleman, 2009).

On the other hand, in certain cases, media would be able to tell the public what to think by providing the public with an agenda (Wanta et.al, 2004) or issue to talk and discuss about. As media are the tools for the public to gain access to the news in local context and international context, the public tends to rely and depend on the media to help them updated with majority of the events around them.

In this context, media not only provide the public with the news and reports about local and world news, but the media also play a role to emphasis on which news and events are important and should be the centre of attention.

### **2.2 The Framing of the Media**

Media framing is one of the important subjects in media studies. It is because the agenda of the media is set through media framing. Media framing is a process where events or issues are organized and made sense of and this process includes many parties such as media, media professionals and also their audiences (Reese, 2001). Media are indirectly set the agenda by emphasizing the issue of certain topic which are selected and framed before being published to the public.

Framing the news allows the information and message of an event to be selected and well organized before being conveyed in news either in the newspapers or television. Framing is also able to provide insights of how media representations on reporting the news can influence the issue of global climate change (Boykoff, 2008). Apart from that, many parties including the audience, the journalists and also the policy makers rely on framing in order to take certain actions (Nisbet, 2009).

Meanwhile, Niemeijer & Groot (2008) stated that framing is important for many purposes such as to organize, communicate and establish effective messages and information in various fields and sectors. Framing can produce an effective message because the message is selected and well organized before being delivered to the public.

Therefore, framing global climate change news in the newspapers is important because media has a vast role to provide the public with environmental education (Hanigan, 1995). Framing the media about global climate change is essential because global climate change is a wide subject with many issues, controversies and crisis that involves many parties. Public may get different information from different sources and this will create more confusion and uncertainty among the public on the issues concerning global climate change.

Framing global climate change will help to ensure the public to get proper news and paradigm on the issue. Framing the global climate change issues can be either on its negative effects which includes the sacrifice and penalty on the public, or in the positive way which is about the opportunity to benefit the future (Kenix, 2008). However Kenix (2008) believes that the emphasizing on the consequences of global climate change will leave readers with uneasy feeling and fear of the future. Thus, public will try to avoid engaging in the negative news on global climate change as human beings tend to stay away from the feeling of fear and discomfort. When this scenario happens, message and information regarding global climate change cannot be delivered effectively to the public.

On the other hand, Spence and Pidgeon (2010) stated that the public attitudes towards climate change mitigation may be more effective when the news contents discuss about the gains and benefits of global climate change. This statement shows that the public prefer to accept the news on positive outcome on rather than the negative news.

### 2.3 Newspaper Coverage and Public Understanding on Global Climate Change

International news on global climate change can easily be obtained especially in countries that are prone to its calamitous effects. Newspapers in many countries started to increase their coverage on global climate change issue. Although the trend is different from one country to another, but the scenario shows that the newspapers are becoming more alert of the issue and are keen to provide information regarding global climate change to their audience.

Doulton and Brown (2009), stated that the “rise in coverage of climate change and development reflects an increasing sense of impending catastrophe regarding the impact that climate change will have on development” (Doulton & Brown, 2009). It shows that media including the newspapers focus on the tragedy and the aftermath of the incidents as it have high news values that will capture their audience’s attention.

In Bangladesh newspapers article on global climate change are portrayed majorly in natural disasters and the calamity (Miah et.al, 2011). In Texas the overall newspaper coverage of global climate change in the state over 14 years period had increase and it is influenced by natural events such as Hurricane Katrina and Hurricane Rita (Liu et.al, 2008). Similar situation can also be observed in Mexico. Gordon et.al (2010) also believes that the newspapers tend to increase their attention and coverage on global climate change issue on weather events news.

Apart from weather events and natural disasters, the coverage of newspapers coverage in many countries are also driven by government policy, local and international conferences on global climate change (Liu et.al, 2008). Rhomberg (2009) stated that media will give more attention to global climate change issue when political system made the issue into their policy making agenda. This can also be seen from Sampei & Aoyagi-Usui (2009) study. They stated that apart from international event, media attention on global climate change issue in Japan had increase along with Japan national campaign on global climate change.

Although newspapers coverage on global climate change had increased over the years, however, public conception on global climate change is still ambiguous. This is because the unclear and inaccurate information provided by the newspapers on global climate change may increase probability of public's uncertainty on the issue (Zehr, 2000).

Based on the literatures, it is proved that there is a positive relation between newspaper coverage and public concern on global climate change issue. Therefore, it is important for the newspapers to take this opportunity to provide as much valuable information to the public in order to provide them with knowledge of the cause, effects and the solution of global climate change.

### 3.0 METHODOLOGY

#### 3.1 Sample

The samples for this research are the articles and features on global climate change of *Berita Harian* and *The New Straits Time*. The *Berita Harian* is one of the most influential Malay newspapers while *The New Straits Times* represent the English Language newspapers. The newspapers' articles on global climate change are retrieved from BERNAMA Infotek Service (BLIS) by using for keywords which are *pemanasan global*, *perubahan iklim*, *climate change* or *global warming*.

#### 3.2 Coding Procedure and Pilot Test

For this research, the researcher used the inductive approach of content analysis. Inductive approach of content analysis requires the researcher to conduct the open coding process that is to identify the themes of the raw materials by thoroughly read each article and features of the data that had been retrieved. In order to do the open coding process, the researcher read all the articles and features on global climate change that had been retrieved and identify the theme and frame by using paragraph by paragraph coding. The table below is the list of frames and themes identified in the articles. There are twelve themes had been identified and the themes are then categorized into three major frames.

**Table 1: Frames and Themes for the Research**

<b>Frames</b>	<b>Themes</b>
Cause	Human activities
	Business and industrial activities
	Agriculture
Effects	Weather events
	Loss of biodiversity
	Public health
	Food supply and agriculture
Public Actions	Political actors
	Educational sector
	Business sector
	Non Government Agencies (NGO)
	Individual

The researcher is the primary coder for this research and another coder who is literate in both English Language and Malay Language is selected to be the second coder. The researcher decided to only use two coders for this research so that it would be easier for the researcher to monitor and cooperate with the coder in order to obtain a valid and trusted result.

Then, a pilot test was conducted. Neuendorf (2002) mentioned that pilot test is essential because the pilot test will reveal whether the coding scheme is reliable or unreliable. In order to ensure that the coding scheme is reliable, the result of the intercoder reliability must fall between .75 to .80 (Neuendorf, 2002). However, according to Frey, Botan and Kreps (2000) as stated in Neuendorf (2002), 70% of agreement is also acceptable and reliable.

First, a percentage agreement ( $PA_o$ ) is calculated. The result of the percentage agreement shows that  $PA_o = .81$  (81.0% Agreement). After the percentage agreement is calculated, the intercoder reliability for the pilot test is calculated by using Scott's  $\pi$  formula. For the pilot test, the researcher manually count the percentage as the number of data is small and can be counted manually. The formula is attached in Appendix 4. The result of Scott's  $\pi$  for the pilot test falls on .773 or 77.3 %.

Therefore, as the result exceed the minimum requirement and it indicated that the coding scheme is valid and useful, the researcher proceeded with the coding process for other newspapers stories and features on global climate change. The remaining 517 articles and features were distributed accordingly between the two coders. An analysis had been carried out after the coders completed the coding process.

### 3.0 Operationalization of Characteristic in Coding Sheet

below are the definitions and example of the elements and words that are included in the coding sheet. These are the elements that are important in this research.

#### A) Causes of global climate change

Causes of global climate change refer to the inclusion of information on the causes or factors that trigger global climate change. There are three major causes of global climate change that are human activities, agricultural industry and industrial and business industry.

- **Human activities** – Human activities refer to any newspaper article or features on activities by human being that increase high level of greenhouse gas in the atmosphere. The examples of the activities are the usage of transportation, energy usage, open burning, cutting down trees for development and more (Boykoff, 2008).
- **Business and Industrial activities** - Business and industrial activities are among the factors that emits huge amount of greenhouse gas and cause global climate change.
- **Agriculture** – Some agricultural activities such as the production of palm oil release a big amount of greenhouse gas in the atmosphere. Agriculture also produces large amount of greenhouse gas.

#### B) Effects of global climate change

In this context, effects of global climate change can be characterized as any consequences that have to be faced by human being, plants, animal and the environment. The characteristic of the theme are as below:-

- **Weather Events** - According to National Geographic, the change of the global climate causes extreme weather event that leads to natural disaster such as floods, hurricane, wildfire, the melting of the iceberg and drought.
- **Loss of biodiversity** - Apart from the natural disasters, global climate change also affected water, plant, animal and the ecosystem. The warmer climate mainly affected the species which live in colder climate. Plants and animals all around the world have begun to extinct which includes the Adèle penguin that lives in the Antarctica (Isaacson, 2011).
- **Human health** - Apart from that, global climate change also affects the society and human activities. Food supply, human health, and settlement (Kovats & Akhtar, 2011) are in jeopardy. The changing of the climate generate many health implications and diseases such as



cardiovascular mortality, respiratory illness which is due to heatwaves<sup>1</sup>, malaria, dengue fever, Ross-River Virus in Australia<sup>2</sup>, and plague<sup>3</sup> (Patz et.al, 2005).

- **Reduction of food supply and agricultural product** - Other implication is on the food supply and agriculture product. It can happen when the Earth temperature begins to increase and created unstable weather event. The occurrences of a few series of drought and floods prevent the crops and yields to grow healthily thus it will affect the food production.

### C) Public Action on global climate change

This frame refers to the articles and features that tell the story of groups of people and individuals that perform the actions to reduce the effects of global climate change.

The researcher had identified that there are five categories of people who actively participate in the reduction of the effects of global climate change. They can be characterized as below:-

- **Political activities** - Political activities refer newspapers stories about government's actions such as meeting and conference, the invention of new policies related to global climate change and campaign (Boykoff, 2008). The article can be in the form of local government's actions or international government's action to combat global climate change.
- **Educational sectors** – Educational sectors refer to any newspapers' stories regarding the activities and the involvement by the educational sectors such as schools, colleges, universities, students and students' body in reducing the effects of global climate change.
- **Business sectors** – Business sectors can be referred organizations that conduct any activity or services and supply product and goods for commercial purposes. In this context, business sector frame can be operationalized as any newspapers stories regarding business sectors activities and initiatives to reduce global climate change.
- **Non-Government Organization (NGO)** – Non-government organizations (NGO) refer to organizations that consist by a group of people and it does not run to gain profit. One of the most well-known non-government organizations in Malaysia that actively organizes beneficial events and programmes to reduce the effects of global climate change and creating public awareness on the issue is World Wildlife Federation (WWF).
- **Individuals** – Individuals refer to the public either a single individual or a group of people that does not belong to any of the themes above. Individuals theme can be operationalized by

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<sup>1</sup> The research shows greenhouse gas emissions are likely to exaggerate the heatwaves.

<sup>2</sup> Ross River virus is one of a group of viruses called arboviruses (or arthropod-borne viruses), which are spread mainly by blood-sucking insects (WHO, 2005).

<sup>3</sup> Plague is a zoonotic disease circulating mainly among small animals and their fleas. The bacteria *Yersinia pestis* can also infect humans. It is transmitted between animals and humans by the bite of infected fleas, direct contact, inhalation and rarely, ingestion of infective materials.



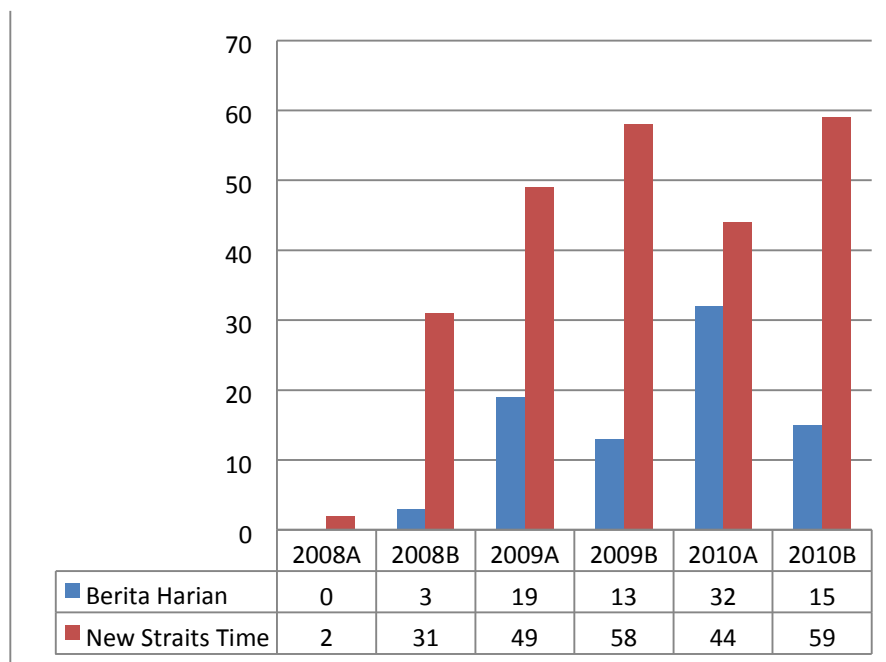
identifying the information in the newspaper stories regarding any efforts taken by the individuals or a group of people in the society in reducing the effects of global climate change.

## 4.0 FINDING AND DISCUSSION

### 4.1 Trend of Newspaper Coverage in *Berita Harian* and *The New Straits Times*.

The total number of articles which are obtained for this research is 325 articles. The first objective of this study is to examine the trend of newspaper coverage in *The New Straits Times* and *Berita Harian* from 2008 to 2010. Figure 1 shows the total number of newspapers articles on global climate change published in all four Malaysia mainstream newspapers according to year. Year 2008(a), 2009(a) and 2010(a) indicated the first half of these years which is January until June of that year. Meanwhile, 2008 (b), 2009 (b) and 2010(b) indicate the second half on year 2008, 2009 and 2010 that is in July until December.

**Figure 1:**  
**Trend of Newspapers Coverage on Global Climate Change from 2008 to 2010.**



\*2008A indicate the first half of year 2008 (January to June) while 2008B indicate the second half of year 2008 (July to December), etc.

Figure 1 shows the trend of coverage on global climate change in all four Malaysia mainstream newspapers in 2008, 2009 and 2010. During this study period, it is identified that the amounts of newspaper coverage on global climate change are not stable and slightly rose and fell. However, in general, the increasing number of newspapers coverage on global climate change shows that the newspapers are giving more attention on the issue. Even so, the attention given by each newspaper differs on a certain degree. This can be seen by the quantity of articles published in each year by the newspapers.

Each newspaper has dramatically increase their newspapers coverage on global climate change issue from 2008 (b) to 2009(a). These growing attentions on global climate change issue reveals that the newspapers are becoming more aware on global climate change despite of diverse degree of attention on the

issue. This scenario shows a positive trend in the coverage of global climate change in Malaysia mainstream newspapers.

The coverage of global climate change issue in Malaysia mainstream newspapers reaches its peak in 2010(b). 2010(b) has the highest total amount of global climate change article with 150 articles. This trend indicates that there is a significant correlation between newspapers coverage and global climate change event.

The growing media attention and awareness on global climate change issue can be driven by many factors. As mentioned by Boykoff and Robert (2007), media coverage on global climate change are influenced by regulatory frameworks, political constraints and economic drivers. This situation can be seen in the pattern of global climate change coverage in Malaysia mainstream newspapers. One of the factors can be analyzed through major events that are related to global climate change which occurred in 2009.

There is a significant relationship between the increasing numbers of newspaper coverage on global climate change issue with the occurrence of events concerning the issue. According to the newspapers trend, the first peak of newspapers coverage on global climate change in the mainstream newspapers is in 2009 (a).

In March 2009, Malaysia had participated in World Wide Fund (WWF) campaign on global climate change that is Earth Hour. As it was Malaysia first participation in Earth Hour Campaign, media in Malaysia including the newspapers gave wide attention and increase their coverage on the campaign. Most of the articles on global climate change within this period were on Earth Hour Campaign which was held in March and followed by Earth Day in April. Malaysia mainstreams newspapers increased their coverage on global climate change particularly on Earth Hour Campaign and Earth Day as to inform the public about the campaigns

The second peak of global climate change coverage by Malaysia mainstream newspapers are in 2009(b) which is in July 2009 to December 2009. Although *Berita Harian*'s coverage on the issue had slightly dropped but the other three newspapers increase their coverage during this period. This scenario can be influenced by local and international event in regard to global climate change issue that occurred during the period.

The adaption of climate change policy by Malaysian government in 2009 was one of the major events that influence the increasing article on global climate change issue in the second half of 2009. Apart from that, newspapers coverage on global climate change in July 2009 to December 2009 had increase because of United Nation Climate Change Summit in Copenhagen, Denmark which was held in December 2009. The summit was participated by many countries including The United States, China, India, Japan, the United Kingdom, Indonesia and Malaysia. The aim of the summit was to stabilize the greenhouse gas emission in the atmosphere to a level that will not bring harm to the climate (Dell'Amor, 2009).

The trend in newspapers coverage on global climate change decreases in the first half of 2010. Majority if the articles regarding global climate change issue during this period were related to Earth Hour 2010 campaign while some articles are the follow up article from 2009 United Nation climate Change Conference. Apart from the annual celebration of Earth Hour, Earth Day and World Environmental Day, there were no major events related to global climate change occurred within that period.

However, the decreasing trend of newspapers coverage on global climate change issue did not continue in the second half of year 2010. This is because the newspapers coverage on global climate change

once again began to increase in July 2010 to December 2010. This might significantly influence with the occurrences of 2010 United Nations Climate Change

Conference in Cancun, Mexico which was held from 29<sup>th</sup> November 2010 to 10<sup>th</sup> December 2010.

#### 4.2 Frame of Newspapers Coverage in Berita Harian and The New Straits Times.

The second objective of this study is to identify the frames and themes of global climate change that are commonly reported in Malaysia mainstream newspapers that represent their attention on the issue.

**Table 2: Number of Newspaper Stories for Each Frame**

	Cause	Effect	Public Action
<b>New Straits Times</b>	24	42	177
<b>Berita Harian</b>	2	20	60

Based on Table 2, the study reveals that all *Berita Harian* and *The New Straits Times* focus on global climate change as a public action issue. *The New Straits Times* has 177 (54.5%) news stories (n=325) on public action frame while *Berita Harian* has 60 (18.5%) news stories for the similar frame. The cause frame appeared in 24 (7.4%) news stories in *The New Straits Times* and only appears 2 (0.6%) times in *Berita Harian*. Meanwhile, the effects of global climate change appear in 42 (12.9%) news stories in *The New Straits Times* and 20 (6.2%) stories in *Berita Harian*.

The dramatic differences and a huge number of coverage on the issue prove that the newspapers have high tendency to report on public actions and the initiatives taken by the public to combat the problem. This situation is considered unlikely compared to the newspapers coverage of global climate change in other country.

Previous studies reveals that the newspapers coverage in other countries such as in the United States tends to focus on the conflicts and crisis on the issue while studies in Indian and Mexican newspapers shows that the newspapers in India and Mexico tend to focus on the effects and the consequences on global climate change. However, in Malaysia, the newspapers' coverage on global climate change issue majorly focuses on the solutions that are taken by the public on reducing the effects of global climate change.

The findings reveals that newspapers in Malaysia has the tendency to frame and report the news about public action which is able to help to inform the audience about actions that had been done by the society to reduce the effects of global climate change. It can also significantly provide the audience with the idea on how to reduce their greenhouse gas emission. Consequently, the audience is expected to take the similar actions in combating global climate change as being reported by the newspapers. This will lead to the high reduction of greenhouse gas emissions and this situation will bring a lot of benefits.

Apart from that, Malaysia mainstream newspapers tendency to report on public actions frame also shows that the Malaysian society is becoming more wary about global climate change issue. Thus they are making significant contribution and initiatives to reduce the effects of global climate change. This can be proved by the large amount of articles that tell the audience that the public in Malaysia organized and involved in activities to reduce global climate change effects.

Newspapers in Malaysia have less coverage on the effect and cause of global climate change because the country does face with serious threat of the natural disaster effect of global climate change. In comparison to other country, the natural disasters that occurred in Malaysia in conjunction of global climate change are in small number. Apart from that, as suggested by previous researchers, the news coverage on global climate change should be conveyed in a more positive way. Thus, by reducing the number of coverage on the negative news on global climate change can reduce public's fear on the issue.

## 5.0 CONCLUSION

As the conclusion, the trend of newspapers coverage on global climate change in Malaysia mainstream newspapers is related to the major events that are related to the issue. It can be observe by the amount of newspaper coverage which increases during the occasions that are related to global climate change. As stated by previous study, the coverage of certain issues can be influenced by certain trends and patterns in order to grab public attention (Newig, 2004). Therefore, it is not surprising that the newspapers coverage on global climate change issue drastically increase during major events and would decrease when there is no major occasions related to global climate change.

Apart from that The result signifies that the newspapers' portrayal on global climate change are majority on the positive actions that are taken by the to reduce the effects of global climate change. Portraying public initiatives to reduce the effects of green house gas and the reduction of greenhouse gas emissions shows that Malaysians are paying more attention on the issue. It also indicates that Malaysian public are becoming more aware of global climate change issue and as the result, they have increased their initiatives to combat the problem.

Future research should also focus on Malaysian journalist knowledge on global climate change issue. The researchers suggest that the future research will study on the journalists understanding on global climate change and how they portray the issue in the newspapers.

This is because previous studies stated that the some of the articles in the newspapers tend to provide misleading information and knowledge to the public. This situation will create uncertainty and confusions among the public. Therefore, a study on this area in Malaysia context will be beneficial as it will provide a useful insight on journalists knowledge on the issue.

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