

ORIGINAL ARTICLE

베트남의 Facebook 소셜 네트워크를 통한 기후변화 대응 평가

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Assessment of Climate Change Communication via Facebook Social Network in Vietnam Today

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ABSTRACT

Vietnam is one of the countries most affected by climate change. Therefore, communication activities on climate change in Vietnam are focused with various media such as television, newspapers, radio, internet etc. In particular, Facebook social network is a potential media but less interested and developed. In this topic, Audience Insight tool of the Facebook social network and the online sociological survey method were conducted to assess the current status and effectiveness of climate change communication activities via Facebook in Vietnam today. Vietnam ranks seventh in the world with 58 million users. However, the number of climate change communication fanpages has only about 15 fanpages with the largest number of followings is 94,721 persons. Among the 10 most contented Facebook users in Vietnam today, there is no fanpage related to climate change. The results of research and evaluation two fanpages of climate change communication that are the most and most frequent followers in Vietnam showed that climate change communication via Facebook in Vietnam is not as effective as expected. At the same time, online survey results also pointed out the causes of the above problems. This is the scientific basis for management agencies to find the solutions to promote the strength of Facebook social network in climate change communication in the future.

Key words : climate change, climate change communication, communication via social networks, Facebook

I . Introduction

Climate change communication is a major concern in countries around the world because the manifestation and impact of climate change is becoming more and more clearly and stronger. Moser(2010) mentioned the main

aspects of the communication process (section audience and media coverage, audience, structure, message, mode and mass media channels, and communication effectiveness assessments). In recent years, the rise of internet access and new communications technologies have led to the development of online methods for gathering public opinion.

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Online surveys became more popular over the past decade for several reasons, including relatively low management costs, the prevalence of internet communications, and feedback rate is higher than traditional survey methods (Leona et al., 2017). Koteyko et al.(2015) gave an objective view of climate change communication in the digital age, referring to the study of climate change communication on the internet via blogs and social networks. Scholars were increasingly focusing on social network platforms such as Facebook, Twitter, YouTube and Sina Weibo. Social media platforms provided a space for three key areas of climate change communication: information, discussion, and calls to action from users(Edson and Nicholas, 2017).

In Viet Nam, in recent years, the climate change issue was paid special attention by many government agencies and non-governmental organizations. In particular, many researches on this issue in the media were implemented such as the situation and proposed solutions to contribute to improving the quality of information on the climate change(Dinh, 2015; Quach, 2016). Only in a short time, there were many articles, documentaries, reports and special issues on climate change that were published, broadcasted and built on many newspapers, magazines, radio and television programs at both central and local levels. The weakness of these media is the low level of interaction between the communication channels and the communicated objects. Information is one-sided and it is difficult to gather feedback from the communicated objects. In ‘Mass Communication with Climate Change’, Dinh (2015) also pointed out that media on climate change communication were not fully effective because it did not take full advantage of the role of the Internet, social media, including social network (Dinh, 2015).

The overview showed that online climate change communication is becoming popular and convenient. Compared to other traditional media, its outstanding advantages are such as fast communication capability, for many groups of communication subjects, good interaction, rich form of expression, more attractive and low cost. Especially, climate change communication via the Facebook network in Vietnam has many advantages to develop due to the large number

of users and rapidly increasing, in which most are young people. However, there is no survey database on the use of Facebook network to communicate climate change in Vietnam today. Therefore, the research team conducted a small online sociological survey in a short time in Vietnam. The main goal is to evaluate the current status and the effectiveness of climate change communication via Facebook in Vietnam today, and to point out the causes of ineffective communication. In addition, this study also provides a scientific basis for managers and communicators to find solutions to improve climate change communication via Facebook in Vietnam in the future.

II . Methods

1. Audience Insight tool

The Audience Insight tool of Facebook was used to statistic media pages climate change on social networks Facebook and analysis Facebook user objects in Vietnam. Facebook has allowed users to search and update the latest information and continuously. Thus, this tool has been used to statistics on the current use of Facebook in Vietnam, including: Facebook pages, post time, content and presentation, the amount of interaction between Facebook user and articles, the most interested contents.

2. Sociological investigation method

- Questionnaire survey was designed to serve the research content. Online collection mode.
- Investigators: All Facebook users, irrespective of gender, age, occupation, living area.
- Sample size and sample: To demonstrate the superiority of Facebook is the rapid interaction between Facebook users and home page, we surveyed online, in a short time (from 26/4/2018 to 2/5/2018). 121 people responded to the survey, in which mostly students. Samples are selected randomly according to the interaction of Facebook users.

- The questionnaire consists of 10 questions, divided into the following: Facebook user's interest in climate change communication on social networks; Evaluate the effectiveness of some climate change pages (content, form, trust, interaction).

3. Method for assessing the effectiveness of climate change communication via Facebook

- Criteria for effectiveness evaluation: To assess the effectiveness of climate change communication via Facebook networks, it is necessary to consider two factors: the media pages and the target audience.
- + On the media, criteria of evaluation include: the number of media pages on climate change communication in Vietnam; number of posts; The number of people accessing the article (Reach) is reflected in the amount of interaction with the article (Reaction) and the ability to spread the message of the message (Viral); content and purpose of communication; expressive form. The criteria of interactions with the article and the ability to spread the article is expressed through likes, share and leave comments.
- + On the subject of communication (Facebook users), the criteria of effectiveness assessment is the awareness and action transformation for people receiving information communication climate via Facebook. This criteria is assessed by criteria sub-systems: the popularity of the facts of climate change on Facebook network; ability of updating, interacting and joining of users through

communication channels; the credibility of the informations climate change communication via Facebook; content, purpose and form of communication.

Currently, in Vietnam, there are about 15 fanpages of the most popular climate change media, two of which are selected are the National Meteorological and Hydrographic Center fanpage and Turn off the light turn on the ideas fanpage. Because these are two typical fanpages with large and frequent followers in Vietnam.

III. Results and analysis

1. Current status of climate change communication via Facebook in Vietnam

A. The fanpages about climate change communication on Facebook in Vietnam

According to statistics of We are social, no fanpage related to climate change in the 10 fanpage of Vietnam has the largest track. There are about 15 fanpages on climate change in Vietnam.

Research showed that high interactivity fanpages were real events, sharing videos, eye-catching photos, quality articles. Low interactivity fanpages were primarily due to the distance between two postings is too long or non-quality posts, less use of effective forms of communication such as video or images.

Table 1. Fanpage of some organizations related to climate change (updated: August 2017)

Organization	Likes	Introduction	Purpose of the Fanpages	Mode	Interactive
The National Meteorological and Hydrographic Center	94721	Fanpage of Center for weather forecasts, natural disasters in the Pacific Northwest, South China Sea and mainland Vietnam.	Alerts, Share information online	Videos, Pictures, Articles	Very high
Natural succession - Sustainable development	71207	Fanpage on how to live in harmony with nature, live and consume greener	Education change awareness; Call to action	Share Link Photos	Low
Earth Hour Vietnam	56106	Green mobility, green communities, green destinations, green futures and green connectivity: Deliver real action studies that go hand-in-hand with everyone.	Education change awareness; Call to action	Events, Photos, Videos, Articles	High

Organization	Likes	Introduction	Purpose of the Fanpages	Mode	Interactive
Turn off light turn on ideas	45690	A series of events that respond to Earth Hour of the youth groups who are acting for the environment in the country. They want to transmit the message "Decision Cleanly for green Hanoi"	Educational change awareness, Call to action; Share information	Events, Photos, Videos, Articles	High
Green generation	26538	A place to connect, share and disseminate environmental issues and solutions, climate and ecology towards sustainable development	Educational change awareness, Call to action; Share information	Events, Photos, Videos, Articles	High
Coastal resilience to climate change	15590	Strengthen resistance of coastal communities who are vulnerable due to the impact related to climate change	Consequences, warnings, status quo	Share Link	Average
Change	8846	Make sustainable changes in the field of environment and development through innovative media; improve capacity and create opportunities for young people to build local movement	Educational change awareness; warnings	Events, Photos, Videos, Articles	Good
Climate Change Prevention Study with Practical activities	2938	Studies of practical activities to contribute to climate change such as planting trees, collecting old bottles for recycling, reuse, etc.	warnings, Call to action	Photos, Articles	High
Meteorology, Hydrology and Climate Change	1960	Government organization of hydro-meteorological science	Educational change awareness; warnings	Photos, Videos, share link	Average
Climate Change and Sustainable Development - Hunre	395	A place to exchange learning information and share experiences and skills of students in the field of climate change and sustainable development at Hanoi University of Natural Resources and Environment (HUNRE).	Educational change awareness; warnings, Share information	share link Videos, Articles	Low
Climate change	357	Information channel on reducing and changing people's awareness about climate change	Educational change awareness; warnings	share link Photos, Articles	Average
Disaster Alert on the East Sea	114	Gather information on natural disasters in the East Sea.	Warnings	Photos, Articles	High

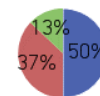
B. Assessing the effectiveness of some climate change communication fanpages in Vietnam

1) The National Meteorological Hydrographic Center fanpage

- Number of Articles: In the period from 01/06/2017 to 22/06/2017 on the fanpage had 38 articles, the main content of the articles was the warning information disaster. Therefore, these articles also had the highest number of interested people.
- Interaction with the articles: This fanpage had a fairly large audience, with 45,690 views. However, the amount of interaction depends on the type of presentation, the content and the time spent posting.

Update time affects the level of interaction of those posts, as users are using the Facebook to update information. The result of the survey showed that articles were updated at around 20 - 21h daily had a higher interaction than other time.

Content and purpose of articles:



■ Warning
■ Updating information ■ Providing information

Fig. 1. The content and purpose of articles on the National Meteorological Hydrographic Center fanpage

2) Turn off light on ideas fanpage

Fanpage “Turn off the light, turn on the ideas” is a page which transmits the message "Decision Cleanly for green Hanoi". Message transmission is the motto of this fanpage. Target audience of this fanpage is the youngest group of users, young, dynamic, receptive new, creative.

- Number of Articles: Statistics from fanpage "Turn off the light turn on the ideas" from 1/1/2018 to 30/04/2018 had 76 articles that divided by different content and forms.
- Update Time: In Vietnam, Facebook users usually check the information early 10-15 minutes at about 6 - 8am, 11am - 1pm, and from 7h30pm to 10h30pm. This Fanpage is applying the correct time to update the article according to the user's habits. Most of posts were updated during this time period (> 72%), so they already generated a good amount of interaction.
- Shared content: Information content accounted for the highest proportion (40.86%), Education accounted for

35.65%, the event accounted for 16.52%, the lowest was the share of writing (8.97%).

3) Assessing the effectiveness of climate change communication from Facebook users in Vietnam

- The popularity of climate change events on Facebook: The online survey showed that most people already knew the information about the climate change on Facebook. However, the number of people who could participate in the activities and the specific events on Facebook was low, only 13% respondents while 77% respondents have known but not joined. It mean that the effectiveness of climate change communication in changing the behavior via the Facebook is not high.
- The ability to interact and update information: People get to know about climate change mainly through TV and Facebook. However, Facebook has the level of interactivity and participation easier than other media. This is the advantage of Facebook in climate change communication.

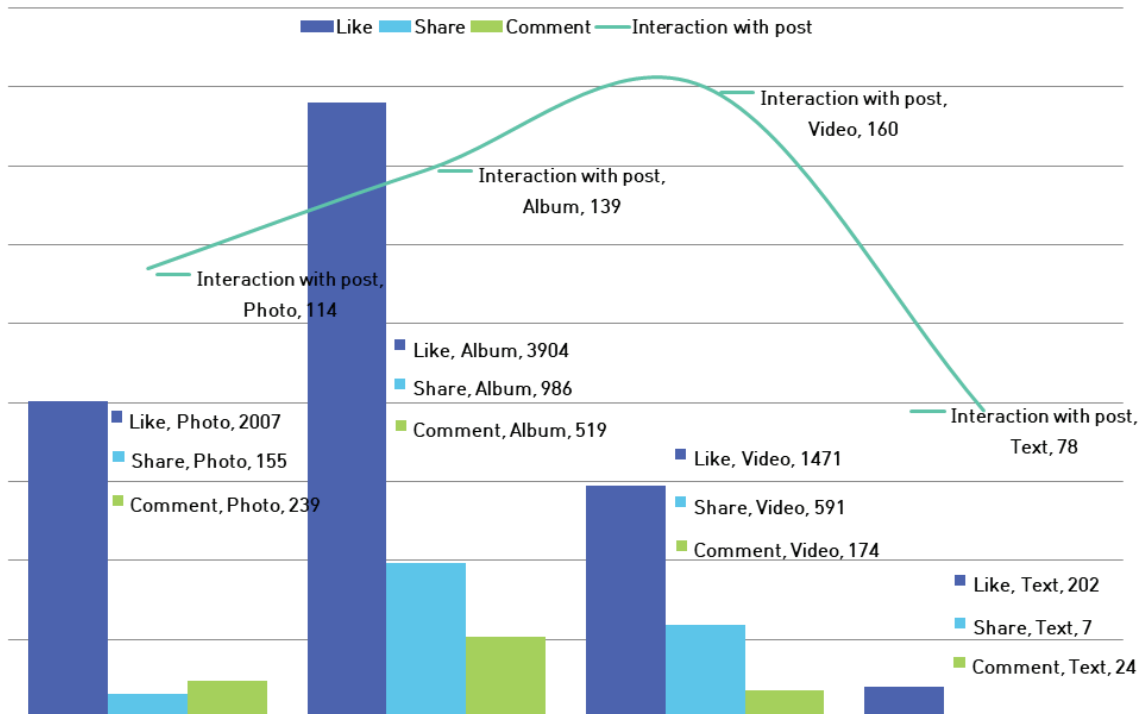


Fig. 2. The forms of the article and the interaction on the fanpage Turn off the lights turn on the idea

- The credibility of climate change communication information on Facebook:

According to online survey results, although it was easy to interact and participate, Facebook still brought the characteristics of the social network that the contents are updated by the members and the informations were not evaluated at high level of credibility. While the level of reliability of other media such as radio, books specialized were quite good.

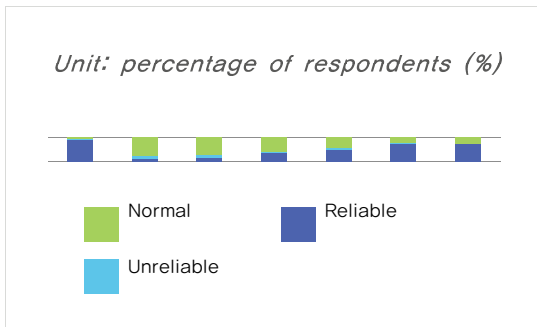


Fig. 4. The credibility of Facebook users for the media of climate change communication in Vietnam

- The content and purpose of climate change communication: Content and purpose of climate change communication on Facebook in Vietnam were various. According to the results of the survey, the main contents were real events for the purpose of transmitting the message and calling for action (61.2% of respondents), information on climate change such as status, causes, impacts accounts for 32.2%. Other contents were lower proportion, for example, education and guide responses to climate change and disaster risk reduction (32.2%) and sharing articles from other fanpages (23.1%).
- The form of climate change communication on Facebook: 61.2% of respondents said that video was the most attractive form for Facebook users because it could show content visually, lively and more understandable than other forms.

4) General assessment

The results of assessment several fanpages and feedback of Facebook users found that climate change communication

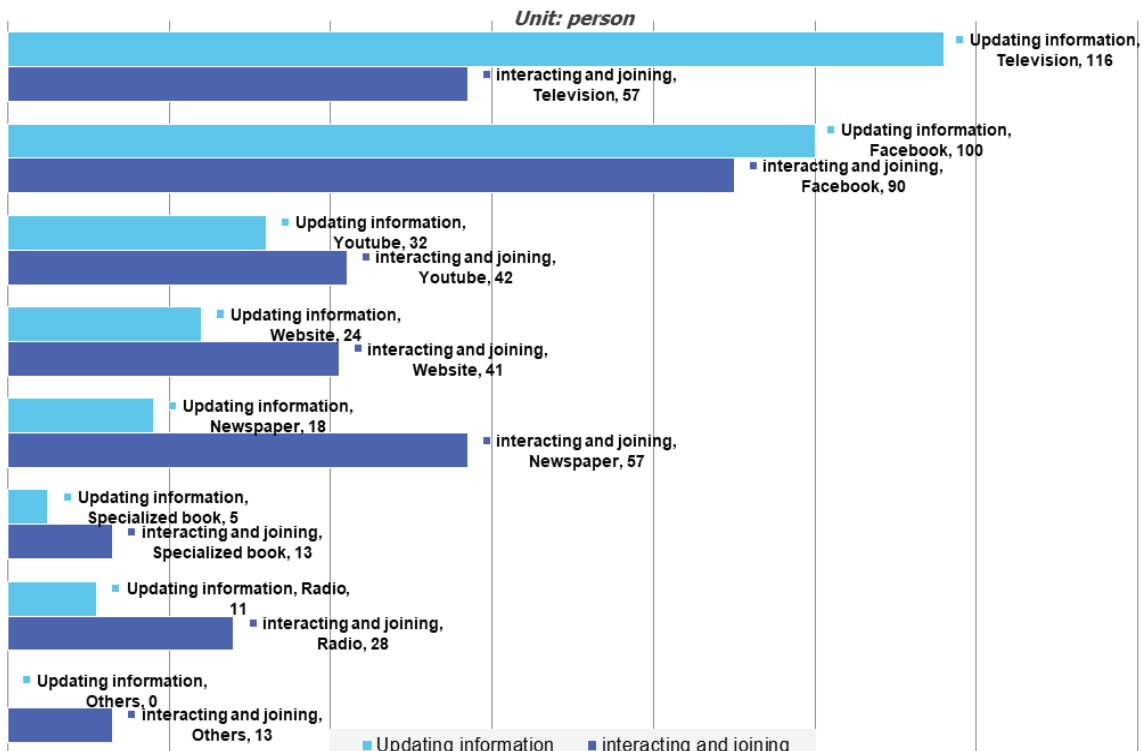


Fig. 3. Interactive ability of Facebook users with climate change communication media in Vietnam

on Facebook in Vietnam was not effective, showing:

The number of posts was not much.

Low engagement: views, likes, shares, media reviews on many fanpages were low.

- The forms of climate change communication were quite various: has exploited 4/5 expressive features of the Facebook network such as events, photos, videos, scholarly articles. The forms of fanpage started to tend using communication forms more effective (photos and video).

However, many other forms of effective communication such as livestream or creating groups to exchange information on climate change were not used to fully educate and change behavior more strongly.

- Content of communication: The contents of communication were mainly information on education, providing, updating the information on climate change, the actual events. However, the lack of academic articles on climate change (causes, consequences, impacts). Many important events or studies on climate change were not published and updated on Facebook. Therefore, the objects of communication (Facebook users) did not get and understand fully about the issues of climate change. This affected the awareness and transformation of the actions of Facebook user.

- Purpose of communication: The main purposes of fanpage about climate change in Vietnam were usually warning, educating, providing information, calling for action. The purpose is quite diverse, but there are still lack of fanpage of the prestigious agencies sharing scholarly articles or scientific articles on climate change.

- The effectiveness of climate change communication for Facebook users is not high: Climate change communication on Facebook was mainly to the extent that people knew the information, not yet attract the attention and participation of people, or the information was not reliable enough for the users. As a result, the media actually does not deliver the expected results.

C. The cause of ineffective climate change communication via Facebook in Vietnam

- The contents were not really useful to Facebook users.

The interactions of the posts (such as like, share, comment ...) were not high enough to meet the needs of users or not really affect the life of Facebook users. In fact, the articles on dangerous warnings, weather alerts, or weather areas on the National Meteorological Service fanpage attracted large followers and higher interaction rates due to direct impact the life of the user.

- The format of the article was not optimal.

The use of text articles (including article contributions from other reputable sources) made the articles more accessible to the reader. Because the EdgeRank algorithm will not prioritize such articles and cause a sense of boredom to the reader, there will be less interaction.

- Post infrequently

More than 90% of users will not return to the fanpage if they do not post regularly. With the algorithm of Facebook, the regular post will help keep the user stay on the fanpage, then it will be easy for communication, education, change the Facebook user's perception.

- Posting time was not reasonable.

They posted the articles at times when people were not resting. That was the reason of low interaction.

- Fan response rate was low

Social network is a two-way interaction media, so only posting and not interacting with fan's questions will be reduce the number of followers of fan pages.

Lack of content and titles that attracted the attention of Facebook users.

IV. Discussions

Nowaday, Facebook social network is developing and improving many of the remarkable features in the media. Therefore, this communication media should be promoted to convey the message of climate change and to interact with more people. In Vietnam, there was no survey and

evaluation of climate change communication via Facebook. Although the research results have some limitations such as small sample size, short survey time, low number of selected fanpages. However, surveys and assessments indicated that climate change communication via social networks in Vietnam was not paid attention much. This reflected in low fanpages on climate change communication and not high effectiveness of communication fanpages (number of articles, the amount of interaction, monitoring, sharing, understanding and concern of the user for the internal related to climate change). Compared with previous studies, this study is an important result in assessing the current status, effectiveness and pointing out the causes of ineffective climate change communication via Facebook social network in Vietnam today.

Research results also suggested that managers and communicators needed to take advantage of Facebook social network in climate change communication. On the other hand, it was necessary to study and implement solutions to improve the effectiveness of climate change communication in which focusing on communication via Facebook social network.

V. Conclusions

The research results provided meaningful insights into climate change communication via the Facebook social network in Vietnam today. Online survey results and analysis indicated that the climate change communication via Facebook in Vietnam was not interested in by the users. The effectiveness of climate change communication fanpages was not high due to several reasons such as low fanpages; not high quality of the articles; not really useful contents to users; not optimal article format, post irregular and unreasonable post time; low fan response rate, lack of contents, the titles appeals to Facebook users. The study results also suggested the managers, the communicators of climate change should pay more attention and look for solutions to take advantage and improve the efficiency of using Facebook in climate change communication in Vietnam today. Based

on the results of our current research, we will continue to survey and evaluate other climate change communication fanpages in order to find the solutions and improve the effectiveness of climate change communication fanpages via Facebook in Vietnam.

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국문요약

전 세계에서 베트남은 기후 변화에 가장 큰 영향을 받는 국가 중 하나이다. 현재 베트남의 기후 변화에 대한 대응 활동은 텔레비전, 신문, 라디오, 인터넷 등과 같은 미디어에 의존하고 있다. Facebook은 베트남 사람들이 가장 많이 사용하는 소셜 네트워크이다 (베트남의 페이스북 이용자는 5800만명으로 세계 7위). 그러나 상대적으로 그것을 기후변화 대응에 이용하고자 하는 관심은 적은편이다. 이 논문에서는 Facebook의 Audience Insight Tool(AIT)과 온라인 사회학 조사 방법을 활용하여 Facebook을 통한 기후 변화 대응 활동의 현재 상태 및 효율성을 평가했다. 베트남 Facebook의 기후 변화 대응 팬 페이지의 수는 15개 정도이며, 그중 가장 인기 있는 곳의 팔로워 수가 94,721명에 이른다. 이 연구에서는 베트남에서 가장 방문자가 많은 기후 변화 대응 팬 페이지 2곳을 조사하고 평가 한 결과, Facebook을 통한 기후 변화 대응은 예상 한 것만큼 큰 효과가 없었다. 또한 온라인 설문 조사를 통해 이러한 문제의 원인을 파악해 보고자 하였다. 이 결과는 앞으로 기후 변화 대응을 할 때 Facebook과 같은 소셜 네트워크의 강점을 부각시키면서 해결책을 찾고자 하는 기관들에게 과학적인 밑거름이 될 것이다.

주제어: 기후변화, 기후변화 대응, 소셜 네트워크를 통한 대응, 페이스북

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