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Editor's Note



This is the first issue of JCSH. The JCSH, succeeding The Rangsit Journal of Social Science and Humanity (RJSH), continues to focus on the publication of various contemporary issues in social sciences and humanities. This issue presents you with seven (7) research articles from various disciplines.

In the first article, Khanittha Jitsaeng conducted a survey to study the use of social media for political communication among Thai youths. The study found that over 90 percent of youths followed political news from news feeds, media pages, and television and newspaper venues via Facebook. It also found that about 70.0 percent of the youths discussed political issues via Messengers, and 63.0 percent via Twitter.

Next, Sakol Sopitarchasak and Ronnapoom Samakkeekarom conducted in-depth interviews to understand how parents/caregivers of LGBTQI+ people in Thailand respond to and manage the stress of the circumstance. The authors found that rationalizations were their most common coping mechanism. Family resources such as family cohesion and communication skills were key factors for their positive responses.

In the third article, Pongsiri Ta-in and Yuwadee Terdudomtham studied causal factors related to underground lottery purchasing behaviors of Chompoo Samakki Credit Union Cooperatives members by qualitative research methods. The authors concluded that the causal factors were (1) factors related to underground lottery itself (i.e., easiness of choosing numbers, easiness of purchasing underground lotteries, receiving greater prize money than government lotteries, and offering a discount or commission to buyers), (2) internal factors of underground lotteries, and (3) external factors (i.e., influence from friends, media, and gambling experience).

In the fourth article, Guoxing Chen and Vanvipha Suneta studied the current hotspots of research on monuments and memorials, based on the relevant literature on CNKI and WOS databases from 2012 to 2021. The authors identified the main current themes of the monuments and memorial research and the evolutionary path of research directions.

In the fifth article, Erwin Ardianto Halim, Eakachat Joneurairatana, Jirawat Vongphantuset and Pairoj Jamuni investigated the meaning of the designs on East Sumba's woven fabric, a symbol of Indonesian identity. The authors also examined the aesthetics of the designs on the East Sumba Hinggi ikat woven.

In the sixth article, Onsong Seangsuk and Prapatpong Upala conducted a survey of passengers' perception of physical environment of rapid transit stations in Bangkok. Based on this survey, the authors proposed the design guidelines for the identity of rapid transit stations in Bangkok.

Last but not least, Supreeya Suthamtarikul studied and applied the concept of Wabi-sabi philosophy in fashion design titled "Nature: Impermanence". The authors also experimented with woven fabrics from natural fibers in Thailand in the design and sewing.

We welcome your comments and, of course, your manuscripts. Links to our manuscript submission site can be found at JCSH Online Submission and Review System:<http://jcs.h.rsu.ac.th> . We look forward to hearing from you and thank you in advance.

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The Use of Social Media among Thai youths for Political Communication

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Abstract

Political communication is one of the most important processes in Thailand's political system, as well as other democratic societies, as the success of its democratic governance depends on the connection between the people and the state through their public space. Consequently, social media has the potential to enhance Thai youths' access to political information, facilitate wider-ranging political discussions, and foster political mobilization through its spaces. This research, therefore, aimed at studying the use of social media for political communication among Thai youths in today's digital society. Four hundred samples were collected through multi-stage sampling from undergraduate students studying at higher education institutions in Thailand. A questionnaire was used as a research tool for gathering data, in which the content validity of the questionnaire was examined. Cronbach's alpha was also applied in a pre-test stage to measure the reliability of the research instrument. The alpha coefficient for all items was 0.92. The results found that more than half of the responding youths demonstrated a high use of Facebook and Twitter (58.4% and 52.7%, respectively), yet a low use of YouTube for political communication (47.5%). More than 90.0% of the Thai students followed political news from news feeds on Facebook media pages and online TV programs and newspapers; where more than 80.0 percent followed political news from interesting news stations/news media outlets via Twitter. In political discussions, roughly 70.0 percent of the youths discussed political issues via Messenger, and 63.0 percent of youths exchanged ideas with like-minded and dissimilar political figures via Twitter. In terms of political mobilization, nearly 70 percent wrote/expressed their support or opposition to political activities via Facebook, followed by Twitter (67.5%) and YouTube (38.7%).

Keywords: *social media, political communication, youths*

1. Introduction

The advancement of information and communication technology, as well as the rate of use of mobile phones and social media, has revolutionized the concept of public space and raised the hopes of strengthening democracy.

Political communication is one of the most important processes in a political system, as the success of democratic governance depends on the connection between the people and the state through their public space. Political communication is also closely related to political participation. Wongchaowpreecha and Tangprasert (2019) found that political communication was positively correlated with political participation, also in line with Breindl (2010) that stated that information exposure was an important basis for promoting political participation. Participating in all forms of politics to make decisions and share opinions about political struggles is valuable in the development of a democratic society. In communication through new media, social media is an important tool for communicating political issues both in the dimension of communication from the leader or political power to the people and in the communication dimension from people to leaders or political powers. In the past, communication through traditional media opened up 'opportunities' and 'spaces' for people to communicate, albeit with several limitations. Today's social media via the Internet, however, brought about important features of interaction, thereby promoting society's political participation. Acting as a tool in converging users with different demographic and cultural characteristics, shared interests in political issues further developed the powers of communication.

Internet and social media communication have the potential to serve three politically related objectives: tracking political information; discussion of political issues (political discussion); and political mobilization (Breindl, 2010). The first objective is the follow-up of news, in which social media plays a role as an alternative medium for receiving news, demonstrating the freedom of communication with less control than mainstream media. As a result, keeping up with the news regularly helps to build the awareness of

informed citizens. In the second objective, the enhancement of political learning leads to a profound understanding of political issues. In this dimension, communication may reflect the perspective, identity, and political position of the communicator as an active citizen in society. It also stimulates and promotes united cooperation in political activities, which leads to the third objective; which is to mobilize political forces in various activities through communication between groups of people with common political interests. Here, communicators can create social capital from their interactions, encouraging integration through political activities in both the virtual and real worlds.

Thailand is classified into four regions according to the original administrative areas, namely the central region, northern region, northeastern region, and southern region (Office of the National Economic and Social Development Board, 2005); each of which is home to several leading educational institutions. Educational institutions, particularly higher education institutions, have been a crucible for decades of youths' attitudes, thoughts, and behaviors; which continue to introduce new graduates into society. These settings are not only responsible for transferring knowledge and new ideas, but also promote political socialization, so that young individuals are ready to perform civic duties and participate in a democratic society. Learning outcomes, resulting from the accumulation of knowledge in civic roles through study and extracurricular activities, including cultivating various roles within the family unit and is reflected in the behavior and participation in political communication. New media has opened up a 'space' for youths to participate in political communication through various channels, especially social media; in which politics are not far away, but are a part of their lives. The research herein, therefore, aims to study undergraduate youths aged 18-22 years old, who are first-time voters from leading universities in each region to represent youths across the country.

The study of the use of social media among Thai youths for political communication is important to complete the body of knowledge in this aspect. This will further enhance the understanding of the influence of new media in promoting political communication of a new generation that will create changes within a democratic society. The results of this research are, therefore, intended to be useful in promoting and integrating social media for the benefit of political communication in different dimensions; namely tracking political news, discussing political issues, and political mobilization; with the end goal of enhancing political learning and communication among Thai youths.

2. Objectives

The objective of this study was to analyze and interpret the use of social media in political communication among Thai youths; including political information, political discussion, and political mobilization.

3. Materials and Methods

3.1 Conceptualization and Conceptual Framework

Political communication refers to the process of creating and interpreting political messages which stimulate a response (Griffin, 2009). In this context, receivers will become passive through the process of one-way or one-dimensional communication. Receivers may play an active role in interacting with politicians, government officials, or political powers through the process of two-way or two-dimensional communication. However, such communication is not an interaction between two people, but rather an interaction between groups of people who share common interests; thereby becoming three-dimensional communication. Political communication may thus occur simultaneously (synchronous) or at different times (asynchronous); such as sharing/forwarding political news or opinions, political news tracking, or the subscription of political news through various channels (Hoffman, 2012).

3.2 Three axes of political Internet use (Breindl, 2010)

The first axis is the tracking of political information. It is an important part of the encouragement of citizens to keep up with information. As informed citizens, they represent the heart of democracy. Information is therefore an important basis that drives communication and political participation.

The second axis is discussion and debate, which is a mechanism that promotes ‘active’ citizens. This process helps to refine and nurture political ideas through political debates with other citizens or political representatives in public spaces.

The third axis involves political mobilization, which is based on the idea that citizens need to be more politically involved to build a democratic society. Citizens need to be well informed and up to date with political news to actively participate in public political spaces for the benefit of determining the direction and political policies of society.

These three axes of political Internet use may, therefore, be used as a guide to the study of political communication, as well as online political participation (Breindl, 2010; Anouar, 2014); each of which relates to the dissemination of political messages or information, which is the essence of political communication, according to Griffin (2009).

From a review of related literature, a conceptual framework (Figure 1) was developed by setting an independent variable; youth characteristics, which included gender, age, income, and allocation of money spent on the Internet. The dependent variable was the use of social media in political communication, which covered three issues: political information (or follow-up) of political news; political discussion; and political mobilization (Breindl, 2010; Anouar, 2014).

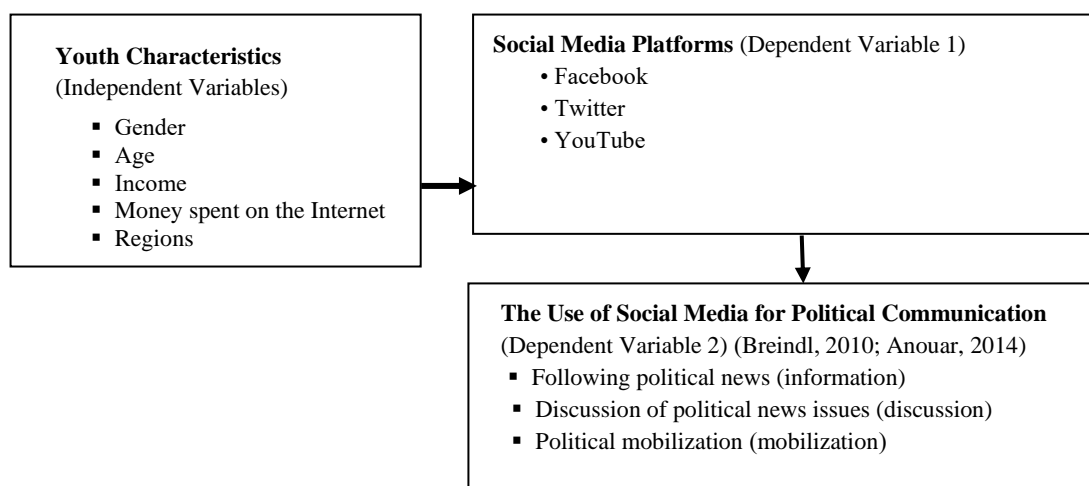


Figure 1 Conceptual framework

3.3 Methods

This study applied the Quantitative Research method. The population under the study was Thai university students aged 18-22 years studying in higher education institutions throughout Thailand; totaling 3,401,148 students (Office of the Permanent Secretary, Ministry of Higher Education, Science, Research and Innovation, 2020).

The sample of this research was calculated by using the Taro Yamane (Yamane, 1973) formula with a 95% confidence level (3,401,148 students; Office of the Permanent Secretary, Ministry of Higher Education, Science, Research and Innovation, 2020). Taro Yamane’s calculations are presented as follows:

$$n = \frac{N}{1+(e)^2}$$

n = sample size required
 N = number of people in the population
 e = allowable error (%)

Substitute numbers in formula:

$$n = \frac{3,401,148}{1+3,401,148 (0.05)^2} = 399.99$$

After calculating the sample size by substituting the numbers into the Yamane formula, the sample number was 399.99 persons. In order to obtain data reliability, the sample size was increased to 400 persons. The sample size was divided according to the population of four universities as follows:

Table 1 Population of each university and sample size.

Higher education institutions in each region	Population of each university	formula	Sample size
Srinakharinwirot University	22,478	$22,478 * 400/107,489$	84
Chiang Mai University	24,773	$24,773 * 400/107,489$	92
Khon Kaen University	30,441	$30,441 * 400/107,489$	113
Prince of Songkla University	29,797	$29,797 * 400/107,489$	111
Total	107,489	Total	400

The research used Multi-Stage Sampling, the first of which was a stratified sampling, which divided Thailand into four regions (central, northern, northeastern, and southern); where youths in each area demonstrated different forms of media usage and types of political communication behavior. Purposive sampling was then performed by choosing the leading university in each region, known for its role in political socialization: Srinakharinwirot University in the central region; Khon Kaen University in the northeast; Chiang Mai University in the north; and Prince of Songkla University in the south. These leading universities attempt to nurture their graduates with educational readiness and participation in a democratic society under their civic duties. The sample size was divided according to the population. The next step, cluster sampling, obtained a representative sample of each university population by random delegation, classified by field of study and year, collected via an online questionnaire administered by a designated teacher. The questionnaires were checked for completeness, and any incomplete responses were omitted. Additional systematic sampling was then conducted to obtain a total of 400 responses, representing 100%.

The validity of the content of the questionnaire was examined by three experts using the Index of Item-Objective Congruence (IOC). They subsequently made recommendations to improve its quality. Each question had an IOC value of 0.6-1.0. Upon improvement, the questionnaire was tested for reliability through the responses of 30 students at Khon Kaen University's Nong Khai Campus. The Cronbach's alpha coefficient was 0.92, indicating that the questionnaire was of sufficient quality for data collection.

Data collection was conducted from December 2021 to April 2022. Data analysis was performed by using descriptive statistics (frequency, percentage, mean, and standard deviation). The collection of data was authorized by each of the universities, in which the researchers coordinated with program lecturers to send QR codes and online questionnaire links to students via e-mail.

This research was eligible for an exemption for human research ethics from the Human Research Committee of Khon Kaen University, Khon Kaen, Thailand on November 3, 2021, authorized under registration number HE643221.

4. Results

The results of this research presented two issues: youth characteristics; and the use of social media in political communication, as follows:

4.1 Thai youth characteristics

The results showed that the participants were male and female in similar proportions, 55.7 and 44.3 percent, respectively; between 18-20 years of age, with an average monthly income of 5,001-10,000 baht (40.3%), and less than 5,000 baht (34.3%). More than a third of the population spent roughly 201-400 baht per month on Internet usage. It is worth noting that over 57.0 percent spent over 400 baht per month on the Internet. More than a quarter of the population was from Khon Kaen University (Northeastern region) at 28.25% and Prince Songkla University (Southern region) at 27.75%. Less than a quarter of the sample population was from Chiang Mai University (Northern region) at 23% and Srinakharinwirot University (Bangkok/central region) at 21%.

4.2 The use of social media for political communication among youths

The analysis of social media use in political communication revealed that the majority of youths used social media for political communication at moderate to high levels reaching 41.5 and 40.5 percent, respectively. More than half of the respondents used Facebook and Twitter at high levels; 58.4 and 52.7 percent, respectively. Only 47.5 percent used YouTube for political communication, as shown in Table 1.

Table 2 Percentages of youths classified by level of social media use in political communication.

Level of social media use in political communication	Percentage
1. Using social media in overall political communication (400 participants)	
Low level (0-18 points)	18.0
Moderate level (19-36 points)	41.5
High level (37-54 points)	40.5
Total	100.0
2. Using social media in political communication via Facebook (400 participants)	
Low level (0-6 points)	14.8
Moderate level (7-12 points)	26.8
High level (13-18 points)	58.4
Total	100.0
3. Using social media in political communication via Twitter (400 participants)	
Low level (0-6 points)	21.5
Moderate level (7-12 points)	25.8
High level (13-18 points)	52.7
Total	100.0
4. Using social media in political communication via YouTube (400 participants)	
Low level (0-6 points)	47.5
Moderate level (7-12 points)	22.5
High level (13-18 points)	30.0
Total	100.0

The use of social media in political communication consisted of the following three aspects:

1) Following political news (Information)

In terms of following political news via Facebook, it was found that about one in three youths were not friends with politicians, yet were willing to tag friends when they felt that political news would be of interest to them. Notably, more than 90 percent of youths followed political news from news feeds, media pages, and online or television programs or newspapers via Facebook. Regarding Twitter, 32.3 percent of youths never tagged their friends, followers, or political groups to share political news. Over 80 percent of youths followed political news from interesting news stations/media news outlets and shared 'likes' or gratified emojis when followers presented their favorite or consistent political issues via Twitter. It was determined that following political news via YouTube characterized youths that did not subscribe to political news channels, nor did they upload videos or share political news with friends; unlike that found in other social media venues, like Facebook (42.0%) and Twitter (38.5%).

2) Discussion of political news issues (Discussion)

When considering the discussion of political issues through Facebook, it was found that youths did not discuss political issues when different opinions were expressed, in which to find a common solution. Youths did not participate in any form of discussion or comment on political issues which were not consistent with their views, accounting for 47.3 percent. A larger percentage, roughly 70 percent of youths, chatted via

Messenger when they found common interests to share with politicians/friends on Facebook. Similarly, youths did not discuss political news issues via Twitter and YouTube in the same way, at approximately 48.5 and 62.3 percent, respectively.

3) Political mobilization (Mobilization)

When considering political mobilization through Facebook, it was found that youths did not mobilize political forces through Facebook in terms of cooperating in setting up public issues or political agendas, and had not been a mainstay in communicating political activities at local levels or in academia using Facebook as a tool, accounting for 55.8 percent and 50.0 percent respectively. It is worth noting that approximately 70 percent of youths wrote messages representing their support for or opposition to political activities and government policies via Facebook; which included their participation in political campaigns; such as elections, legislative nominations, or the removal of politicians. Youths, however, did not write messages supporting political activities via Twitter, nor did they participate in public issues or political agendas; in which the Twitter hashtag (#) is employed as a tool. Furthermore, they also did not make changes to their profile pictures in response to political activities. It is worth noting that more than 65 percent of youths participated in political campaigns via Twitter; such as elections, legal nominations, and/or the removal of politicians, demonstrating their willingness to write messages or statements of support for opposing government policies. In terms of political mobilization through YouTube, youths were not inclined to change their profile picture, nor did they use this form of social media to show their support or dissent of political issues or activities, at roughly 38.7 percent.

4.3 Differences between youth characteristics and their use of social media for political communication

When testing the difference in the average use of social media in political communication between gender, age, monthly income, and the cost of the Internet per month; it was found that both male and female students used social media for political communication with no differences at a statistically significant level (0.05). The results also indicated that age did not affect the use of social media in political communication at a statistically significant level (0.05). While students with varied monthly incomes used social media for political communication in significantly different ways (0.05), higher-income students used social media for political communication much more so than higher than lower-income students. It was also found that students with high monthly internet expenses used more social media for political communication than those with lower monthly Internet costs (0.05).

When considering differences between regions, it was found that different regions did not affect Thai youth's use of social media in political communication at a statistically significant level (0.05). However, when classifying the region into two groups, namely the 'central' region and 'other' regions, it was found that youths studying in the central region/Bangkok used social media for political communication more than those studying at regional universities (0.05).

5. Discussion

The results indicated that high-income youth's use of social media for political communication was greater than that of low-income youths, as higher incomes allowed greater access to the Internet and modern communication tools, thereby providing more opportunities to use social media for political communication. Those with higher monthly internet costs were also found to use social media for political communication more than youths with lower internet expenses, which led to an increase in the frequency and intensity of internet use, resulting in increased convenience and speed in using social media for various activities including political communication. Different incomes among Thai youths resulted in a digital divide in access to the internet and social media. While not simply a communication channel between people in today's society, social media represents an important information source for youths in a digital society (Van Aelst et al., 2017), as access to information is an important basis that encourages people to be knowledgeable and understanding of various political situations. These aspects may affect our youth's learning opportunities and news updates in various fields, including politics, and will affect their participation in political communication in the next order.

It was found that youths studying in the central region/Bangkok used social media for political communication more than those studying at regional universities. This is because the central region, particularly Bangkok, is the center of prosperity in various aspects; such as education and business. Those living in the central region were found to be better-educated, as well as having higher social and economic status, amid a higher cost of living. Youths studying at higher educational institutions in Bangkok were found to have greater learning opportunities and access to the Internet and social media than those studying in educational institutions in other regions. Consistent with the results of the study of the National Statistical Office, Bangkok has the largest number of mobile phone and Internet users, accounting for 97.2% and 91.4%, respectively; followed by the central region (95.0% and 81.2%, respectively), with 99.5 percent of youths in higher education connected to the Internet via mobile phone (National Statistical Office, 2021).

The results showed that more than half of the youths polled use Facebook and Twitter for political communication at high levels, and YouTube to a much lesser extent. We can deduce that different communication channels promote political expression in different dimensions, affecting the choices of media following their communication objectives. Facebook was found to be the most popular platform for political communication, followed by Twitter (Ahmad, Alvi, & Ittefaq, 2019). However, social media provides 'spaces', in which youths may openly express their political views and opinions. Such channels of social media, therefore, have changed the way younger individuals, particularly university students, engage in political communication and participation (Papagiannidis, & Manika, 2016). Social media can promote positive relationships between political parties and voters and encourage greater enthusiasm for political participation.

In following up on political news, the results indicated that youths tracked political news mostly through Facebook, again followed by Twitter and YouTube. Through such channels, youths are more active in political activities than in the past. Facebook's popularity may be because of its variety of entertainment content, which also stimulates interest and participation, making more conventional news channels unnecessary. For this reason, political news has become part of the youth's daily lives, through both intentional and incidental exposures (Quinlan, Gummer, Roßmann, & Wolf, 2018). Internet and social media are therefore becoming increasingly important channels for disseminating political news and information (McAllister, 2015; Ahmad et al., 2019).

It was further noted that the majority of young people followed social media news feeds or timelines, followed by media pages. In doing so, audiences stay up to date with news and events happening in society, making news sharing with friends on social networks more important and persuasive for individuals. It reflects the control of users (senders and receivers) who have the power of communication via social media. The various platforms' algorithms combine news with entertainment and user-generated content delivered through social media newsfeeds/timelines (Hogan, & Quan-Haase, 2010; Bergstrom, & Belfrage, 2018). Despite these trends, traditional media is considered a more reliable source of news than social media, and, therefore, may aid in the prevention of 'fake' news, as the audience can simultaneously check the news presented from various sources (Swart, 2021).

In political discussions, Facebook Messenger was found to be the main method used to express common political interests among friends and/or politicians. They also exchanged ideas with both like-minded and different-minded individuals via Twitter, though to a lesser amount. It can be explained that the internet and social media have provided spaces and opportunities for youths to discuss political issues. Political interest, therefore, develops and grows through political interaction and communication (Jiang, 2016). Facebook plays an important role as a platform for political discussion and has become a popular political communication channel among Thai youths. Social media not only stimulates interest in politics but also changes the way individuals communicate and participate in political news/activities. Thus, the older ways of communication and political participation have been replaced by new ones, which act as important driving tools. This allows youths to express, communicate, and participate in political activities without space and time constraints (Ahmad et al., 2019).

Research indicated that Twitter can be used as a positive factor to promote political learning from news exposure and social interaction, as it promotes access to political news and opinions of users with common interests. Relationships and social bonds are therefore important attributes that are hidden in information sharing, in which news from credible people will be more generally accepted and be considered

more important. This is consistent with Alami, Adnan, & Kotamjani (2019) that stated that social networking sites have a positive impact on students' political learning. Political dialogue and knowledge, therefore, are more significantly accessed through social media (Park, 2017; Kesici, 2018; Intyaswati, Maryani, Sugiana, & Venus, 2021).

Facebook, again, was used predominantly for political mobilization, where youths wrote statements expressing their support or opposition to political policies and activities. Participation in political campaigns, such as elections and proposed laws was also expanded, followed by Twitter and YouTube. This explains that the one-to-many and many-to-many communications fostered mobilization through social networks; despite users being younger and less experienced in political matters. As a result, political activities through online media are thus gaining in popularity among youths. Social media represents a key factor in encouraging participation and political mobilization in ways more diverse than in the past (Holmes, & McNeal, 2018; Ahmed, 2015).

YouTube proved to be the least popular tool for political communication and mobilization, as information is generally received by users (receivers) rather than users acting as senders or creators. Communication is typically limited to comments or 'likes'/'dislikes', contrary to the concept of political mobilization. Because YouTube communicates primarily with video requiring filming and editing, content creation is much more complicated than text and images created on Facebook and Twitter. However, the development of Web 2.0 technology has encouraged youth interaction and participation in political communication through social media, replacing the traditional hierarchical 'top-to-bottom' political communication with 'horizontal' communication. As a result, social media plays an increasingly important role in political communication (Ricke, 2014; Abd Kadir, Lokman, Hamidi, & Mohamed, 2019).

6. Conclusion

The results showed that most youths use social media for political communication at moderate to high levels. More than half of the respondents used Facebook (58.4%) and/or Twitter (52.70%); whereas YouTube garnered only 47.50 percent. In terms of political news tracking, more than 90 percent of youths followed political news from news feeds, media pages, and television and newspaper venues via Facebook. In discussing political issues, roughly 70 percent of youths chatted via Messenger when sharing common interests, whereas 63 percent exchanged ideas with like-minded and/or dissimilar political figures via Twitter. In terms of political mobilization, about 70 percent of youths expressed their support or opposition to political activities via Facebook, followed by Twitter (67.50%) and YouTube (38.70%). When testing the differences between youth characteristics and their use of social media for political communication, it was found that students with varied monthly incomes used social media for political communication in significantly different ways (0.05), higher-income students used social media for political communication much more so than higher than lower-income students. It was also found that students with high monthly Internet expenses used more social media for political communication than those with lower monthly Internet costs (0.05). When considering differences between regions, it was found that different regions did not affect Thai youth's use of social media in political communication at a statistically significant level (0.05). However, when classifying the region into two groups, namely the 'central' region and 'other' regions, it was found that youths studying in the central region/Bangkok used social media for political communication more than those studying at regional universities (0.05).

The findings indicated that the respondents used Facebook and Twitter at high levels for political communication, tracking political news, discussing political issues, and political mobilization. This reflects the limitations of the use of YouTube in political communication. However, the video and animated content on YouTube more easily reinforces political learning than the text and images on Facebook and Twitter's text-based platforms. YouTube's features are considered more interesting and compelling. Therefore, political communication through YouTube, especially in terms of following political news to enhance political knowledge, should be promoted. This is an important part of the development of well-informed citizens. Additionally, it was found that the exchange of political views with politicians and others through Messenger and Twitter resulted in greater shared political learning among youths. This will consequently help stimulate and encourage political participation in the next order. The research intends to provide helpful information to educational and media institutions, political parties, and related agencies; such as the

Parliament, the Election Commission, and King Prajadhipok's Institute in their communication with youths through Facebook, Twitter, and YouTube, to encourage them to become informed through social media and to support political learning. In this way, Thai youths will be increasingly included in the political process and make their participation more meaningful.

As participation in political communication is one of the duties of citizens in a democratic society, youths in other regions should be encouraged to increase the use of social media to enhance learning opportunities and political communication through such channels. Educational institutions and government play an important role in promoting the use of social media for political communication through learning activities in related subjects and improve infrastructure to help ensure equitable access for regional youths to narrow the gaps and disparities in the use of social media political communication between youths in central region/Bangkok and other regions.

Recommendations for future research are as such: various media types may be studied further to gain insights into how youths use such media to promote political communication in different dimensions; and a study of target groups eligible as first-time voters in state universities, like Rajabhat University and Rajamangala University of Technology; as well as autonomous universities, private universities, and community colleges that focus on non-graduates to examine their role in political communication and participation following the roles and duties of citizens in a democratic society.

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8. References

- Abd Kadir, S., Lokman, A. M., Hamidi, S. R., & Mohamed, S. (2019). Influence of Political Agenda Videos Posted on YouTube Based on Social Reality Issues. *International Journal of Recent Technology and Engineering*, 7(6S2), 264-272.
- Ahmad, T., Alvi, A., & Ittefaq, M. (2019). The use of social media on political participation among university students: an analysis of survey results from rural Pakistan. *SAGE Open*, 9(3), 1-9. <https://doi.org/10.1177/2158244019864484>
- Ahmed, R. I. (2015). *Role of social media in political mobilization among students*. Retrieved from https://www.researchgate.net/publication/272345897_role_of_social_media_in_political_mobilization_among_students
- Alami, A., Adnan, H. M., & Kotamjani, S. S. (2019). Examining the impact of using social networks on political knowledge and political attitude by Iranian university students. *Journal Komunikasi. Malaysian Journal of Communication*, 35(3), 125–140. <https://doi.org/10.17576/JKMJC-2019-3503-08>
- Anouar, L. M. (2014). Online political participation: Fractures and inequality between the citizens. *Procedia - Social and Behavioral Sciences*, 163, 257-263. <https://doi.org/10.1016/j.sbspro.2014.12.314>
- Bergstrom, A., & Belfrage, M. J. (2018). News in social media: Incidental consumption and the role of opinion leaders. *Digital Journalism*, 6(5), 583-598. <https://doi.org/10.1080/21670811.2018.1423625>
- Breindl, Y. (2010). Critique of the democratic potentials of the internet: A review of current theory and practice. *tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society*, 8(1), 43-59. <https://doi.org/10.31269/triplec.v8i1.159>
- Griffin, E. (2009). *A first look at communication* (7th ed). Boston, UK: McGraw-Hill.

- Hoffman, L. H. (2012). Participation or communication? An explication of political activity in the Internet age. *Journal of Information Technology & Politics*, 9(3), 217-233.
<https://doi.org/10.1080/19331681.2011.650929>
- Hogan, B & Quan-Haase, A. (2010). Persistence and change in social media: A framework of social
- Holmes, J. W., & McNeal, R. S. (2018). Social media use and political mobilization. *International Journal of Public Administration in the Digital Age (IJPADA)*, 5(4), 50-60.
<https://doi.org/10.4018/IJPADA.2018100104>
- Intyaswati, D., Maryani, E., Sugiana, D., & Venus, A. (2021). Social Media as an Information Source of Political Learning in Online Education. *SAGE Open*, 11(2), 1-8.
<https://doi.org/10.1177/21582440211023181>
- Jiang, L. (2016). The effects of the internet on online and offline political participation among citizens in Australia. In *the 66th Annual International Conference of British Political Science Association*, Brighton, UK.
- Kesici, A. (2018). Do social students use social media more often?. *Turkish Online Journal of Distance Education*, 20(2), 121–133. <https://doi.org/10.17718/tojde.557855>
- McAllister, I. (2015). *Internet use, political knowledge and political participation among young voters in Australia*. Åbo Akademi University, Turku, Finland.
- National Statistical Office. (2021). *Summary of key results of the 2020 household information and communication technology survey*. Retrieved September, 22, 2022, from
<http://www.nso.go.th/sites/2014/DocLib13/%E0%B8%94%E0%B9%89%E0%B8%B2%E0%B8%99ICT/%E0%B9%80%E0%B8%97%E0%B8%84%E0%B9%82%E0%B8%99%E0%B9%82%E0%B8%A5%E0%B8%A2%E0%B8%B5%E0%B9%83%E0%B8%99%E0%B8%84%E0%B8%A3%E0%B8%B1%E0%B8%A7%E0%B9%80%E0%B8%A3%E0%B8%B7%E0%B8%AD%E0%B8%99/2563/Pocketbook63.pdf>
- Office of the National Economic and Social Development Board. (2005). *Interesting information of Thailand in 2005*. Retrieved August 5, 2022, from
https://www.nesdc.go.th/ewt_w3c/ewt_dl_link.php?nid=2915
- Office of the Permanent Secretary, Ministry of Higher Education, Science, Research and Innovation. (2020). *Student Information*. Retrieved August 5, 2022, from
http://www.info.mhesi.go.th/newinfo/homestat_std.php
- Papagiannidis, S., & Manika, D. (2016). Political participation and engagement via different online and offline channels. *International Journal of E-Business Research*, 12(4), 1-22.
<https://doi.org/10.4018/IJEER.2016100101>
- Park, C. S. (2017). Do social media facilitate political learning? Social media use for news, reasoning, and political knowledge. *The Journal of Social Media in Society*, 6(2), 206–238.
practice. *Bulletin of Science, Technology and Society*, 30(5), 309-315.
<https://doi.org/10.1177/0270467610380012>
- Quinlan, S., Gummer, T., Roßmann, J., & Wolf, C. (2018). ‘Show me the money and the party!’—variation in Facebook and Twitter adoption by politicians. *Information, communication & society*, 21(8), 1031-1049. <https://doi.org/10.1080/1369118X.2017.1301521>
- Ricke, L. D. (2014). *The impact of YouTube on U.S. politics*. Lanham, US: Lexington Books.
- Swart, J. (2021). Tactics of news literacy: How young people access, evaluate and engage with news on social media. *New Media & Society*, 23(3), 505-512. <https://doi.org/10.1177/14614448211011447>
- Van Aelst, P., Strömbäck, J., Aalberg, T., Esser, F., De Vreese, C., Matthes, J., ... & Stanyer, J. (2017). Political communication in a high-choice media environment: a challenge for democracy?. *Annals of the International Communication Association*, 41(1), 3-27.
<https://doi.org/10.1080/23808985.2017.1288551>
- Wongchaowpreecha, K., & Tangprasert, S. (2019). Relationship between political communication and political participation of people eligible to vote in Nakhon Ratchasima Province. *Journal of RMUTI, Humanities and Social Sciences edition*, 6(2), 63-75.
- Yamane, T. (1973). *An introductory analysis*. (3rd Ed.). New York, US: Harper and Row.

“Will Life Be Difficult for Them?”: Thai Parents’/Caregivers’ Responses to the Disclosure of Their LGBTQI+ Children’s Gender/Sexual Identity

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Abstract

Studies worldwide have indicated that parents/caregivers of LGBTQI+ children experience difficulties understanding their children’s gender/sexual identity; this lack of comprehension leads to a lowered quality of life for the children. However, little is known about the experience of parents/caregivers of LGBTQI+ children in Thailand. To fill this knowledge gap and inform future interventions, this qualitative study explores how parents/caregivers of LGBTQI+ people in Thailand respond to and manage the stress of the circumstance. Twelve parents/caregivers (ages: 48–70) of eleven LGBTQI+ people in Thailand responded to a semi-structured, in-depth interview. The interview transcripts were analyzed with an inductive thematic analytical approach, and the results were further discussed under the family stress theoretical framework. Most parents/caregivers initially experienced difficulties in accepting their children’s gender/sexual identity and had concerns for their children’s future, but subsequently accepted or came to terms with the disclosure. The most common coping mechanism among the participants was rationalizations, which seemed to help them alter the meanings associated with having LGBTQI+ children or emphasize the absence of other stressful events. Family resources such as family cohesion and communication skill seemed to be critical regarding the parents’/caregivers’ positive responses. Relationships among families with LGBTQI+ children and their accessibility to relevant information seemed to strengthen family resources. Social interventions to normalize diverse genders/sexualities, eliminate discrimination, and reinforce family resources through general and context-specific approaches are recommended for supporting families with LGBTQI+ children.

Keywords: *parents, caregivers, family stress, gender, sexual identity, LGBTQI+, Thai*

1. Introduction

Greater well-being, higher self-esteem, life satisfaction, and general favorable health outcomes has been shown to be associated with family acceptance and support among LGBTQI+ youth and young adults (Ryan, Russell, Huebner, Diaz, & Sanchez, 2010; Simons, Schrager, Clark, Belzer, & Olson, 2013), while lowered risks for suicidality, depression, anxiety, and psychological distress among the populations has been predicted (Klein et al., 2022; McConnell, Birkett, & Mustanski, 2015, 2016; Puckett, Matsuno, Dyar, Mustanski, & Newcomb, 2019; Ryan et al., 2010; Simons et al., 2013). Acceptance and support from parents and family also predicted lowered prevalence of high-risk behaviors (i.e., drug abuse, alcohol consumption, smoking, and unprotected sex) among LGBTQI+ youth and young adults (Newcomb, Heinz, Birkett, & Mustanski, 2014; Newcomb, Heinz, & Mustanski, 2012; Padilla, Crisp, & Rew, 2010; Ryan et al., 2010). Meanwhile, LGBTQI+ youth and young adults who reported a higher level of family rejection were more susceptible to risks of suicidality, depression, drug abuse, and high-risk sexual behaviors (Ryan, Huebner, Diaz, & Sanchez, 2009; Yadegarfar, Meinhold-Bergmann, & Ho, 2014).

Despite the wish for their children’s well-being, studies have shown that many parents of LGBTQI+ or gender-variant children had difficulties coming to terms with their children’s gender/sexual identity (Aramburu

Alegría, 2018; Hill, & Menvielle, 2009; Pullen Sansfaçon, Robichaud, & Dumais-Michaud, 2015; Saltzburg, 2009). A quantitative study by D'Augelli, Grossman, and Starks (2005) found that parents who suspected that their children were LGBTQI+ were more likely to make disparaging comments against the children and that half of the parents had negative reactions when their children came out to them. Initial reactions of parents upon disclosure of their children's gender/sexual identity included disbelief, denial, rejection, hysteria, and physical attacks (Pullen Sansfaçon et al., 2020; Savin-Williams, & Dubé, 1998). Feelings of loss, grief, and mourning were also reported by parents in many studies (Hale, Chertow, Weng, Tabuenca, & Aye, 2021; Pullen Sansfaçon et al., 2020; Saltzburg, 2009). Parents of LGBTQI+ children also reported feeling alone, feeling like outcasts, and feared losing favorable relationships with others in society (Pullen Sansfaçon et al., 2015; Saltzburg, 2009). Allies of transgender persons were also found to be victims of transphobia themselves (Cook-Daniels, 2011, as cited in Pullen Sansfaçon et al., 2015). Studies have shown that while parents of LGBTQI+ children were looking for resources and help to overcome their distress, they encountered difficulties in gaining the support they needed from schools, healthcare providers, and other families with LGBTQI+ children (Johnson, Sikorski, Savage, & Woitaszewski, 2014; Pullen Sansfaçon et al., 2015; Saltzburg, 2009), due to the invisibility and non-recognition of families with LGBTQI+ children, and the lack of knowledge regarding where to obtain support (Pullen Sansfaçon et al., 2020; Pullen Sansfaçon et al., 2015).

Despite these obstacles in seeking support, when it was accessible, parents of LGBTQI+ children regarded help from health professionals, the network of other families, and the LGBTQI+ communities as significant support systems (Johnson et al., 2014; Pullen Sansfaçon et al., 2020; Saltzburg, 2009). Although currently there is a dearth of peer-reviewed studies and evidence-based interventions for families of LGBTQI+ children (Parker, Hirsch, Philbin, & Parker, 2018), organizations and networks of parents and allies of LGBTQI+ people, such as PFLAG (formerly, Parents, Families, and Friends of Lesbians and Gays), has been established in many countries worldwide to help parents and caregivers of LGBTQI+ people through their grief, provide education on topics relevant to gender diversity, and advocate for equal rights (Broad, 2011; PFLAG, 2021; PFLAG, 2022; Wei, & Yan, 2021).

Thai context

Although there are many non-profit organizations in Thailand that are working to support LGBTQI+ people's health and well-being, none of these organizations specifically target the parents and caregivers of LGBTQI+ people (Juntrasook, Ojanen, & Sopitarchasak, 2021). Meanwhile, evidence suggests that Thai LGBTQI+ youth experience victimization and rejection by their parents that adversely affects their well-being (Newman, Prabhu, Akkakanjanasupar, & Tepjan, 2022; Sopitarchasak, Kihara, Soe, & Ono-Kihara, 2017; UNDP and USAID, 2014; Yadegarfar et al., 2014), highlighting the need for support for the parents and caregivers of LGBTQI+ people in Thailand.

In addition, because there is a lack of evidence of how the parents and caregivers of LGBTQI+ people in Thailand are affected by and cope with their children's gender or sexual identity after the subject is disclosed to them, there is no basis to develop evidence-based supporting programs. Despite a study by Suttichainimit and Tuicomepee (2016), which focused on the experiences of homosexual Thai people's siblings, there is scarce literature on the experiences of parents and caregivers of LGBTQI+ children in Thailand designed as educational material and no peer-reviewed research articles on the topic (Juntrasook et al., 2021; Samakkeekarom, Thongchalaem, & Prapavadee, 2021; The Foundation of Transgender Alliance for Human Rights, 2015).

2. Objectives

To provide more evidence that informs social interventions that support the parents/caregivers of LGBTQI+ children, this study aims to understand how parents/caregivers of LGBTQI+ people in Thailand respond to the disclosure of their LGBTQI+ children's gender and/or sexual identity and how they manage-stress under the circumstance.

3. Materials and Methods

This qualitative study is part of the LGBT-4P research project, which aims to study the need for support of the LGBTQI+ population and their parents/caregivers, peers, partners, and health service providers. The research under the project includes studies of the experiences of parents/caregivers, peers, partners, and service providers of LGBTQI+ people. In this article, only the details related to parents/caregivers are presented and discussed. The parents/caregivers who participated in this study were interviewed through semi-structured in-depth interviews, conducted between February and April 2020.

3.1 Interview framework

The participants were interviewed based on guided questions (semi-structured) as follows:

- (1) The participants' basic personal information (e.g., age, current province of residence, profession)
- (2) How they understand of their LGBTQI+ children's gender/sexual identity (e.g., What is your LGBTQI+ child's gender or sexual identity as they self-identify; How do you understand the term [the child's gender identity or sexual identity]? Why do you think your child is LGBTQI+?)
- (3) Their experiences upon realization of their LGBTQI+ children's gender/sexual identity (e.g., When did you know about your child's gender/sexual identity? How do you feel about it? [If there were negative feelings,] how did you cope with it? How do you feel about your child's gender/sexual identity now? How did you live with your child after that? Do you have any concerns about how to act around you child?)
- (4) Their experiences with other people in relation with their LGBTQI+ children's gender/sexual identity (e.g., Do other family members/relatives/neighbors know about your child's gender/sexual identity? If so, what were their reactions? Has anyone rejected or discriminated against you and your child because of your child's gender/sexual identity? If so, how do you cope and what kind of support did you seek?)

3.2 Recruitment and sampling

The study included people who (1) were 18 years old or older, (2) were of Thai nationality, and (3) had been a caretaker of a child (e.g., biological offspring, younger siblings, nephews, or nieces) who self-identified as LGBTQI+.

The purposeful sampling method was adopted to recruit the participants from a list of parents who had participated in activities held by the Foundation of Transgender Alliance for Human Rights, and also through personal connections of LGBT-4P project's research team members. The participants were selected to include caretakers of children who identified in six ways: (1) gay men, (2) trans women, (3) lesbians, (4) trans men, (5) intersex persons, and (6) nonbinary individuals. The potential participants were informed about the research project and the objectives of the interviews through phone calls by the research team members. After each potential participant agreed to participate in the interview, the research team members appointed a date, time, and a place for the interview, according to the participant's preference. Participants could choose to participate in a phone interview. Prior to the interviews, research information sheets, along with a consent form, were mailed to the participants. Written, informed consent was obtained from all participants prior to the interviews. The participants were compensated 600 baht for their participation and for transportation to the interview.

3.3 Data collection

The interviews were conducted either in-person or via the phone, per the participant's choice. Before starting each interview session, the participants were again informed about the research's objectives and the interview guidelines. All participants were notified that they could refuse to answer any question and that they could stop the interview at any time. The interviews took approximately 40–60 minutes each and were concluded when information saturation was reached.

Twelve parents/caregivers of eleven LGBTQI+ people participated in this study. Two caregivers of a LGBTQI+ (i.e., a mother and an uncle) participated in an interview together. All interviews were audio-recorded with the participants' informed consent. All audio recordings were transcribed verbatim. All names were replaced

by codes (PR01, PR02, PR03, ... PR12) to protect their anonymity. The transcripts and interview records were kept in the research project's cloud storage which was only accessible to the team members.

3.4 Data analysis

The transcripts were systematically analyzed with an inductive thematic analytical approach. Data was initially coded and sorted into themes by two separate researchers (SS and RS). The results were compared, and themes were then revised by refining, combining, dividing, or discarding existing themes. The article was produced after both researchers had agreed on the final themes. Quotes selected to be included in this article were translated into English by the researcher (SS). All third-person pronouns referring to the participants' LGBTQI+ children were translated as gender-neutral pronouns (they/them).

3.5 Ethical approval

The research protocol was reviewed and approved by the Human Research Ethics Committee of Thammasat University (certificate number: 046/2562).

4. Results

Among the twelve participants, the age range was 48 to 70 years old. Two were male; ten were female. Nine participants were living in Bangkok during the time of the interview. Regarding the gender/sexual identity of the participants' children, three are gay men, two trans are women, two lesbians are women, two are trans men, one is an intersex person, and one is a nonbinary person (see Table 1 for details).

Table 1 Participants' basic information

Code	Male/Female	Province	Relationship to their child	Gender/Sexual Identity of the child	Sex assigned at birth
PR01	Female	Bangkok	Sister	Lesbian	Female
PR02	Female	Bangkok	Mother	Gay man	Male
PR03	Female	Bangkok	Mother	Trans man	Female
PR04	Female	Bangkok	Mother	Gay man	Male
PR05	Female	Bangkok	Grandmother	Trans woman	Male
PR06	Male	Bangkok	Father	Trans woman	Male
PR07*	Female	Bangkok	Mother	Gay man	Male
PR08*	Male	Bangkok	Uncle	Gay man	Male
PR09	Female	Phayao	Mother	Nonbinary	Female
PR10	Female	Bangkok	Mother	Trans man	Female
PR11	Female	Chiang Rai	Mother	Intersex	Male
PR12	Female	Prachuap Khiri Khan	Mother	Lesbian	Female

*PR07 and PR08 are siblings who raised a child (a gay man) together.

4.1 How caregivers learned about their children' gender/sexual identity

Preconceived notions

Most participants reported speculating that their children might be LGBTQI+ based on their observation of their children's behavior and demeanor. For male children, the observations include not having male friends, playing mostly with female friends, dressing themselves neatly, acting effeminately, being well-behaved, being gentle, and disliking violent play. For female children, the observations included behaving in traditionally

masculine ways, disliking or showing no interest in women's clothes (e.g., skirts), being reserved, having no male friends after puberty.

"They were well-behaved and a bit girly. They were not into girls. It seemed to me that they might be gay. I took a hint from their demeanor. They could be friends with all the girls, and I thought there were some men who liked them. So, I was pretty sure that they were gay." (PR02, mother of a gay man)

"I thought about it since they were little. They didn't like playing with boys. They didn't like violent play. They wouldn't do it. When they were two or three years old, they would play with girls all the time." (PR05, grandmother of a trans woman)

"I noticed something when they were little. I have two [daughters], and that's why comparisons can be made. They did not like fluffy skirts. They only liked simple stuffs [sic]. So, they were totally different from other girls." (PR09, mother of a nonbinary person)

"I noticed that my child was quite bold, unlike girls." (PR10, mother of a trans man)

From speculation to confirmation

After forming speculations, some caregivers took actions to confirm their conjectures about their children's gender/sexual identity by asking the children directly or having a discussion with their children's teachers. Some waited for the children to come out at the children's volition. Meanwhile, the other participants never inquired or discussed the subject with their children, but rather presumed the speculations to be true.

"When they were in first or second grade, I observed their demeanors [sic] and asked whether they were a girl or a boy. They said, 'I can be whatever, Mom. What do you want me to be?'" (PR02, mother of a gay man)

"I suspected that they might be a girl. So, I talked to two of their homeroom teachers from seventh and eighth grade whom they were close to. The teachers said to me, 'Don't you know? They're a girl.' I said I really didn't know. The teachers told me about my child's behaviors [sic] at school which were more telling than [at home]." (PR06, father of a trans woman)

"I knew for sure when they told me. They were in twelfth grade when they came to talk to me. They said they felt they were not like others, that they felt they were not a girl. They felt that they were a man." (PR03, mother of a trans man)

"It must be so. I was sure that my child was [gay], because they were not like others. Their demeanor, the way they walked, was not like others." (PR07, mother of a gay man)

4.2 Emotional responses

Most parents/caregivers reported feeling a range of negative emotions upon realization that their children were LGBTQI+. The most common emotions described by the participants were sadness and disappointment.

"I was sad, but I didn't say anything. Sometimes I was so hurt but I couldn't say it. If I say anything, it would put pressure on them, and they wouldn't talk to me when they're in troubles [sic]." (PR04, mother of a gay man)

"I had three sons. I was looking forward to having a daughter. I wished for a daughter. As I got them [a trans man], I was disappointed. But what can I do to them? I pondered about it, and then I thought they could be whatever they were. Whatever will be will be." (PR10, mother of a trans man)

"As a matter of fact, I felt disheartened. My thought was like, 'Are you sure? Is this a good idea? Will you be wasting your time?'" (PR12, mother of a lesbian)

On the other hand, some participants reported no negative emotions upon realizing their children were LGBTQI+.

"I didn't feel anything. They can do whatever makes them happy as long as it doesn't cause troubles [sic] to others. What's important is being a good person, earning a living, and being no burden to anyone else." (PR01, sister of a lesbian)

“Personally, I was not bothered. I thought it was alright. My child was still a teenager. They could take some time to find their identity, what they really are. I was never against LGBTQI+ people.” (PR03, mother of a trans man)

4.3 Concerns for their children

Regardless of whether or not the participants felt sad or disappointed about their children’s gender/sexual identity in the beginning, most reported being worried about their children’s lives as LGBTQI+ people. Such worries can be grouped into four aspects: (1) discrimination, (2) health, (3) long-term relationship, and (4) emotional instability.

Concerns about discrimination

Many participants indicated their worries about their children being bullied or discriminated by the outside world. Some were especially concerned about their children’s career and discrimination in workplace.

“Will life be difficult for them? Because I know that LGBTQI+ people are still not accepted in the society. My child might have more difficulties. I’m worried about how people in the society will react. Will the people be against my child?” (PR03, mother of a trans man)

“What if one day they get bullied? I thought a lot about these things.” (PR12, mother of a lesbian)

“The only thing I was worried about was their future. Would their life be stable when they grow up? Would the people at their job shun them because they are like this?” (PR07, mother of a gay man)

Health concerns

Concerns about the health of their LGBTQI+ children, especially for those with children whose sex was assigned male at birth, were primarily about HIV/AIDS and gender-affirming care.

“I’m anxious about AIDS. I can’t help thinking about it. How they make love is different. How do they protect themselves? That, I don’t know. And I dare not ask. I don’t want to bother them.” (PR04, mother of a gay man)

“I’m quite worried [about HIV]. I always tell them to be careful. But mostly I won’t tell them myself. I’d ask my wife to do instead, because she is more tender. We told them to be careful. But they are young and hormonal. We cannot always know what they do.” (PR06, father of a trans woman)

“To turn yourself from a man to a woman, many things will be adjusted, and they might not be perfect. There might be some deficiencies. And I’m mainly concerned about their health” (PR06, father of a trans woman)

“They used to do sports. They used to play tennis, but now they cannot hit the ball. Their father thought they took some freaky medicine, maybe birth control pills. I never asked, but deep down I was also curious whether that was true.” (PR11, mother of an intersex person)

Concerns about unsuccessful relationships

Another major concern by most participants was about their children’s long-term relationships and family building. Mostly this kind of worry stemmed from the participants’ belief that romantic relationships between LGBTQI+ people do not last long, that they are bound to be hurt and disappointed by such relationships, and that they might end up being alone.

“I was worried. I wanted my child to be a woman. I don’t want them to struggle in the future. I want them to have someone looking after them. I mean, I want them to have kids and get married.” (PR10, mother of a trans man)

“Would men truly like my child? Would they like a trans woman or a real woman? I think it’s just puppy love. That’s why they like each other now. I’m worried about these stuffs [sic] because I’ve seen it. This kind of relationships [sic] doesn’t last very long.” (PR06, father of a trans woman)

(Talking about her child’s romantic partner) “On one hand, I think I am relieved that there is somebody taking care of my child for me. But on the other hand, I don’t know how long this will last. I don’t know how long they can put up with my child, or when they will become bored with my child and go for another person instead.” (PR12, mother of a lesbian woman)

“I told them that their life will be like this, that there is no longevity [in LGBTQI+ relationships]. I taught them so. I said, ‘Even some straight couples who had kids together can break up. Even when they’re old, they can still break up. And when you’re like this [being a gay man], it’s going to last two months.’” (PR08, uncle of a gay man)

Concerns about emotional instability

There was also a concern about their LGBTQI+ children’s emotional stability, that their children were overly sensitive and could become excessively sad or angry. The sources of such concern included direct experiences and hearing about such inclinations from other people.

“When they fall in love, they fall hard. When *toms* [a Thai term for masculine-presenting lesbian] love [sic], they love immensely. That’s why I’m concerned. And they are sensitive as well. If they cannot control their emotions, they won’t harm other people, but they’d harm themselves.” (PR05, grandmother of a trans woman)

“I’m worried about their feelings when they are in love and then lose it. They’d be heartbroken. I’m afraid they will lose their mind. So, I try to teach them. [...] Although, if my child were a girl, I would still be worried. But as they are like this, I’m even more worried.” (PR06, father of a trans woman)

“I hear that *toms* [a Thai term for masculine-presenting lesbian] are self-indulgent and aggressive, that they might physically assault others, and that they get in and out of relationships capriciously.” (PR12, mother of a lesbian)

4.4 Behavioral responses

The participants had four primary behavioral responses after learning their children were LGBTQI+: (1) attempting to convert their children, (2) seeking information about diverse genders/sexual identities, (3) discussing with family members, and (4) consulting other families with LGBTQI+ children.

Attempting to convert their children

Some participants initially tried to change their children into becoming heterosexual by telling them to tone down their behaviors or act more traditionally masculine or feminine, according to their biological sex assigned at birth. Some tried reasoning with their child by telling them how life as an LGBTQI+ person would have hurdles.

“Honestly, I don’t want them to be [gay]. I tried to teach them that they are a man so they should listen to men’s music, that they shouldn’t sing girls’ songs. I told them that they should get manly stuffs [sic], maybe something in blue or black, not pink. I tried to teach them, but they didn’t listen.” (PR07, mother of a gay man)

“I tried. I tried [to make them manlier]. But it didn’t work. Their father tried harder than me. He taught them to box, to exercise, and do many other things.” (PR11, mother of an intersex person)

“I tried to teach them, but they were stubborn. Like a man, they wouldn’t listen. Maybe you can say they are being themselves. I was distressed. I was restless for a while, and then I thought, ‘Well, just let them be.’” (PR10, mother of a trans man)

“I said to her that it was going to be a waste of time if they would be in a relationship [as an LGBTQI+ couple], that they’d break up someday anyway.” (PR12, mother of a lesbian)

Among the participants, only a pair of caregivers (a mother and her brother, the uncle of a gay man) took their child to see a psychiatrist, hoping to convert the child to be heterosexual.

“We even took them to a hospital, the doctor said they were normal. We wanted the doctor to take care of the issue that they were like this [being gay]. But the doctor didn’t. I wanted the doctor to help them recover [from being gay].” (PR07, mother of a gay man)

Seeking information

Upon realizing their children’s LGBTQI+ status, some of the participants educated themselves about diverse genders/sexual identities. Learning methods varied among the participants, ranging from reading books

or information on the internet, seeking advice from doctors, learning from their own children, and learning from the LGBTQI+ community.

“I’d read books about sexual diversity from time to time. Books or the internet. I read about what *tom* [a Thai term for masculine-presenting lesbians] and *dee* [a Thai term for feminine lesbians] are. And there were so many words. It was not like I was researching seriously though. I would read when I find something by chance. It’s been 2–3 years.” (PR09, mother of a nonbinary child)

“I consulted a doctor who is my husband’s friend. A senior doctor. An obstetrician or something. I was told that it’s about having excessive male sex hormone [sic] in the body.” (PR10, mother of a trans man)

“My child started speaking some unfamiliar terms [about various genders]. And it was more than what I knew. So, I started learning, for example about asexual, queer, nonbinary, or gender-fluid. There were many words that I had to ask them what they meant, because I wanted to understand.” (PR03, mother of a trans man)

Communication among family members

In an attempt to manage their discontent, some participants sought to discuss the children’s gender/sexual identity with family members. Such discussions may have served to help them come to terms with their children’s gender/sexual identity, while also providing opportunities for caregivers to prepare a course of action as well as to learn about sexual diversity.

“We [I and my husband] talked. I said to them that they’ve never caused us troubles [sic].” (PR04, mother of a gay man)

(Talking about a discussion with the mother of the child) “We talked about what to do with their future, since they are like this. I thought that we had to do whatever it takes to ensure their best future, to make sure that they will not look so terrible that they would be rejected by people around them.” (PR08, uncle of a gay man)

(Talking about her new husband) “He said it was obvious to him that my child must be [LGBTQI+], because their words were usually unpolished, unlike girls. He said we cannot tell them off because these kinds of children have more male sex hormone [sic]. He said if we tell them off, they’d get sad or upset.” (PR10, mother of a trans man)

Meanwhile, positive communication between parents and their LGBTQI+ children seemed to play a vital role in instigating mutual understanding and providing reconciliation in their relationships.

“I tried to be close to them. I tried to talk to them and ask about how people around them reacted, how they felt, whether there was any problem or whether people around them understand them now that they were transitioning to live as a trans.” (PR03, mother of a trans man)

“We let our child say anything without blaming them, no matter right or wrong. But if it’s really bad then we will communicate straightforwardly. As we did so, it made him not afraid of their parents, not sorry for what they are.” (PR04, mother of a gay man)

“I think the happiest person from the situation was my child. They got to tell their mom and dad. They got to reveal their identity. They had been scared all along, but I just didn’t know. But as we now show that we are ok with who they are, they are just very happy and the atmosphere is great.” (PR06, father of a trans woman)

Consulting other parents/caregivers with LGBTQI+ children

Some parents/caregivers who had trouble coming to terms with their children’s gender/sexual identity reached out to other families who had LGBTQI+ children for advice.

(Talking about his neighbor) “He knew our kid was gay. He could only come to us. He couldn’t consult anybody else. He came to us, saying his child was like gay. Same as ours. We shared our problems. We told him not to forbid his child if they’re like this, to accept the reality and teach them to be discreet and not to act hideously. Outside of your home, if you’re not discreet, some people will be against you. There’re people out there who hate LGBTQI+ people. They might hurt you.” (PR08, uncle of a gay man)

“I talked to my neighbors about how our children were not quite like others’. Their children were like mine. They consulted me. I also consulted them. I told them not to fret about it. Our children don’t smoke. They don’t cause troubles [sic].” (PR02, mother of a gay man)
(Talking about a father of his child’s schoolmate) “He’s highly educated. But he didn’t know what to do [about his child’s gender]. He asked me what clinic I took my child to [for gender-affirming therapy], so I gave him the info.” (PR06, father of a trans woman)

4.5 Making peace with the reality

Among the participants who reported feeling discomfort with their children’s gender/sexual identity in the beginning, all subsequently managed to make peace with the circumstance [described as *tam jai* (tam jai) in Thai]. Nonetheless, rather than an understanding and acceptance of sexual diversity, such acquiescence seemed to stem from their perception that nothing further could be done to change their children’s identity.

“When they were young, I tried to train them [to be straight], but it didn’t work. So, I made peace with it. I didn’t know why I should be sad about it. I had to make peace with it. No need to be ashamed.” (PR07, mother of a gay man)

“Actually, as a mother, I want them to have a family that will be accepted by the society. But as they already are [LGBTQI+], I don’t know what to do.” (PR12, mother of a lesbian woman)

“As a mother, I couldn’t help thinking about it. But I tried making peace with it. I told myself that my life wasn’t difficult. My children are not so bad. So, I let it go.” (PR02, mother of a gay man)

4.6 Coping mechanisms: Rationalization

There were three primary patterns of rationalization which were adopted by most participants to help them justify and come to terms with their children’s LGBTQI+ status: (1) comparing their children to cisgender heterosexual people whom they perceived as worrisome, (2) resorting to the concept of ‘a good person’ [described as *kon dee* (kon dee) in Thai], and (3) focusing on what makes their children happy.

Comparison to worrisome cisgender heterosexual people

By comparing their LGBTQI+ children to cisgender heterosexual people they perceived as troublesome, the caregivers rationalized that having LGBTQI+ children was not as bad as they had initially perceived. Drug abuse, unwanted pregnancy, parents being neglected by their cisgender, heterosexual children, and unhappy marriages were commonly mentioned as examples of problems the caregivers witnessed among cisgender, heterosexual people.

“I could see that daughters [of other families] had troubles. They got pregnant while still studying. Women at the same age [as my child] already got kids. If my child were a [cisgender, heterosexual] woman and got pregnant, it would burden me. If they were a [cisgender, heterosexual] man, they also might knock a girl up. So, it calms my mind that they are like this.” (PR05, grandmother of a trans woman)

“I’m not dissing other people’s kids, but they are drug addicts. Our child doesn’t do drugs and they graduated. I’m happy. They even give me money.” (PR02, mother of a gay man)

“It’s good that my child doesn’t have a wife. All [cisgender, heterosexual] men are obsessed with their wife. But [LGBTQI+] kids love their mom and dad. They’re always around their parents. That means I get to have my child close to me.” (PR04, mother of a gay man)

As long as they are good people

The most common rationalization mentioned by the caregivers in this study was the idea that their children can be whatever they are as long as they are good people (kon dee). Being a good person in most caregivers’ view was about not causing trouble for them, being able to take care of themselves and their family, and not being involved with drugs and alcohol.

“[They can do or be] whatever makes them happy and doesn’t cause troubles for others. And what’s important is they are a good person.” (PR01, sister of a lesbian)

“Most importantly, as I said before, they don’t do drugs. If they were a drug addict, stuffs [sic] in my house would have all been gone. They work, earn, and share with us. We should be proud.” (PR07, mother of a gay man)

“I’m their mother. To say I never fretted about it would be a lie. I did, but I had to get over it. I had to think that my child has never misbehaved or partied too much to worry me.” (PR02, mother of a gay man)

“They’re a grown up now and have never caused troubles [sic]. And they’re brilliant. They have always been independent. They did well at school. They never caused troubles [sic] to worry me.” (PR10, mother of a trans man)

As long as they are happy

Another pattern of rationalization common among the caregivers was the idea that they wanted their LGBTQI+ children to be happy with their lives and that it was their children’s right to love whoever they wanted.

“Actually, it’s their happiness, not ours. We’re not going to be with them until they die. It’s their preference. It’s their choice. They should have the right to choose who to love.” (PR04, mother of a gay man)

“I think their identity is their personal right. I need to respect their identity and opinions, regardless of what they choose to be. I only teach them to do what is right, reasonable, and doesn’t cause troubles to others.” (PR03, mother of a trans man)

“They can be whatever they want as long as they’re happy. I have to let them be. If they were a [cisgender, heterosexual] woman, and if the husband were a playboy, would they be happy?” (PR10, mother of a trans man)

4.7 Facilitating factors: Attitudes of people outside of the family

Many participants talked about how acceptance and positive comments by people outside of their families helped them change and accept their children’s gender/sexual identity.

“When I go to the school and get to know someone there, they’d say things like, ‘Your child is so smart’ or ‘How lovely are they?’ The teacher also talked about them. So, my husband started to change. [...] I started changing how I think about it when my friends talked positively about my child, when people mentioned our family as a role model.” (PR04, mother of a gay man)

(Talking about her husband’s friends) “They asked my husband why he couldn’t accept his own child while he was alright with other LGBTQI+ kids he saw every day. They pointed out that our kid was a good kid who never caused troubles [sic].” (PR11, mother of an intersex person)

“People said I was lucky I didn’t have to work since my child was taking a good care of me. They were praising my child. So, I thought I should be proud and stop overthinking about things that shouldn’t matter.” (PR02, mother of a gay man)

5. Discussion

Despite variability in degrees, most parents/caregivers in this study initially experienced difficulties in accepting their children’s gender/sexual identity, but subsequently learned to accept or make peace with it. Although some participants had attempted to convince their children to become cisgender and/or heterosexual, none of these endeavors were successful. The parents/caregivers sought information to learn about diverse genders/sexual identities and how to interact with their children from external sources such as books, the internet, experts, or other parents/caregivers of LGBTQI+ children. Rationalizations were commonly observed among the participants as a coping mechanism which helped them come to terms with their children being LGBTQI+. To better understand the functions of the participants’ responses and coping methods, the results of this study will be further discussed under a family stress theoretical framework initially proposed by Hill (1949).

Based on Hill's (1949) family stress theory, and other modifications of the model (Boss, 1992; Boss, & Greenberg, 1984; Lavee, McCubbin, & Patterson, 1985), Willoughby, Doty, and Malik (2008) identified three primary factors proposed to determine how families respond to the disclosure of their LGBTQI+ children's gender/sexual identity: (1) how the events attributed meaning to family members, (2) families' inherent resources to adapt, and (3) other stressors.

Attributed meanings

According to the family stress theory, how a family and its members attribute meaning to an event affects whether, and to what extent, the event will be perceived as stressful (Weber, 2011).

The meaning which the participants in this study ascribed to the disclosure of their children's gender/sexual identity could be inferred from the concerns they had for their children. Upon realizing that their children were LGBTQI+, the participants were anxious that their children would experience discrimination, suffer from unsuccessful relationships, and/or be prone to health issues and emotional instability. These unfavorable consequences, which they attributed to their children being LGBTQI+, might have played a role in creating negative emotional responses (stress) among the participants.

On the other hand, some participants also looked for positive meanings in having LGBTQI+ children, which might have helped lessen their associated stress. For example, the grandmother of a trans woman was glad that she did not have to deal with her grandchild's possible pregnancy and raising children, while the mother of a gay man said it was good that her child didn't have a wife, as his marriage would separate him from her. Considering the family stress theory, additions of such 'pros' of having LGBTQI+ children possibly worked to reshape the meaning attributed to having LGBTQI+ children into more positive ones, leading to lower levels of stress.

Attitudes expressed by people outside of the family toward LGBTQI+ children also seemed to affect the meaning of having LGBTQI+ children. Parents/caregivers who were told by people in their communities, e.g., teachers, neighbors, or family friends, that their LGBTQI+ children were commendable in some respect, were likely to agree and change how they thought and felt about their children's gender/sexual identity. It seemed that affirming comments or displays of acceptance by other people toward their LGBTQI+ children may have created windows of opportunity for the parents/caregivers to re-evaluate how they thought about their children's gender/sexual identity.

Family resources

Researchers have identified several key constructs of family resources, such as cohesion, adaptability, problem-solving, and communication skill, that impacted how families respond to stressors (McCubbin et al., 1980; Patterson, 1988). Studies have shown that families with stronger family resources were more likely to have positive initial responses to their LGBTQI+ children's coming out (Willoughby et al., 2008).

This study found that cohesion and communication played vital roles when parents/caregivers contended with their children's gender/sexual identity. Conversations about their LGBTQI+ children among the parents/caregivers in the family seemed to provide opportunities to vent their discontentment and also to consult each other regarding future actions to adopt. Meanwhile, open and positive conversations between parents/caregivers and LGBTQI+ children about their gender/sexual identity seemed to help the participants develop understanding and acceptance of their children and allow them to have important conversations about their children's sexual health and gender-affirming care.

The participants' family resources seemed to be supported by their relationships with other parents/caregivers of LGBTQI+ children and their accessibility to relevant information, i.e., definitions of diverse genders and sexualities and related topics. Relationships between parents/caregivers of LGBTQI+ children of different families appeared to serve as a platform where they could share knowledge about how to communicate or take care of their children. Such relationships/networks occurred organically without organization, raising

concerns for other parents/caregivers who might not be able to find such support from other families. Nonetheless, experts, books, or the internet, were also mentioned by the participants as useful sources of information.

Pile-up of concurrent stressors

Family stress theory posits that a family's ability to respond to a stressor is undermined by the accumulation of other stressors (Patterson, 1988; Willoughby et al., 2008).

Arguably, some of the rationalizations taken as coping mechanisms by the participants may have been attempts to reduce concurrent stressors. Such rationales as, "as long as they are good people," or "as long as they are happy," are not relevant to genders of the people to whom they were referring, and thus do not alter the meaning of having LGBTQI+ children. It is likely that such rationales served to make having LGBTQI+ children appear less stressful to the parents/caregivers, as it appeased them by emphasizing the absence of other stressors, e.g., the possibility of their children abusing drugs or being unhappy.

Although thinking about the pros of having LGBTQI+ children (attributing positive meanings) and the absence of undesired behaviors (reducing concurrent stressors) might help lower the parents/caregivers' stress, such rationalizations might lead to more pressure on their LGBTQI+ children to "be good" or "be better" (e.g., attain better grades in school or put more effort into looking attractive), to compensate for their gender or sexual identity (Potiwan, & Tongyu, 2010; Sopitarchasak et al., 2015).

Implications

According to the prior discussion based on the family stress theory, interventions which aim to support families with LGBTQI+ children in Thailand should focus on eliminating negative meanings attributed to having LGBTQI+ children and reinforcing their family resources.

Social interventions which aim to eradicate prejudice and discrimination against LGBTQI+ people is critical for changing the meanings attributed to having LGBTQI+ children in Thailand. The results in this study suggest the parents/caregivers seek to alter the attributed meanings, primarily by adding arguably minor pros to the situation (i.e., no burden of grandchildren, having their children in their lives), without resolving major concerns (i.e., discrimination against their children, health and relationship issues, and emotional instability). Although the Gender Equality Act was enacted in 2015, there is confusion as to whether LGBTQ+ people are protected from discrimination under law (Reid, Newman, Lau, Tepjan, & Akkakanjanasupar, 2022) and discrimination against LGBTQI+ people in various contexts (i.e., schools, the workplace, or healthcare facilities) still persevere in the country (Newman, Reid, Tepjan, & Akkakanjanasupar, 2021; Ojanen, Newman, Ratanashevorn, de Lind van Wijngaarden, & Tepjan, 2020; World Bank Group, 2018). Measures against discrimination against LGBTQI+ people, along with education and communication with the public to eliminate prejudice and create empathy toward LGBTQI+ people, should be promoted to ensure an inclusive society and to assuage parents'/caregivers' concerns. Marriage equality, regardless of genders, is likely to allow more same-sex couples to be visible, which could reshape the social perception that people of non-heterosexual genders are capable long-term relationships (Porche, & Purvin, 2008; Reczek, & Umberson, 2012). Currently, there is no evidence indicating that LGBTQI+ people are inherently more emotionally unstable than the general population. Debunking such myths about LGBTQI+ people would be necessary unless new evidence suggesting otherwise emerges.

Reinforcing general family resources, such as family cohesion, communication skill, and adaptability, is critical for promoting parents'/caregivers' positive reactions to the disclosure of their LGBTQI+ children's gender/sexual identity (Willoughby, Malik, & Lindahl, 2006). Moreover, according to the results of this study, context-specific measures relevant to families with LGBTQI+ children, such as facilitating networks of the parents/caregivers of LGBTQI+ children or knowledge dissemination regarding gender diversity and how to take care for LGBTQI+ children, are likely to further strengthen family resources.

Although minimizing general concurrent stressors on an individual level may alleviate the parents'/caregivers' levels of stress, it does not solve the root causes of the stress and thus may only work

temporarily. However, social change on a structural level may help to mitigate accumulative, inequitable stressors encountered by families with LGBTQI+ children more efficiently. For example, expanding universal health care coverage to include gender-affirming care and related procedures, e.g., psychological assessments, would relieve many families with transgender youth from financial stress related to accessible services (Chokrungravanont et al., 2014).

Analyzing parents'/caregivers' experiences through the family stress theoretical framework gives a more systematic approach to understanding the phenomenon and informs initiatives. Additionally, efforts to change negative narratives about LGBTQI+ people to reinforce family resources and to reduce concurrent stressors need not be carried out separately, but rather can and should occur synergistically and strategically, according to contexts. Changing or creating new laws, as well as changing narratives about LGBTQI+ people, addresses the issue radically; it also takes longer to be accomplished. Meanwhile, support to strengthen family resources and reduce other stressful events would be important for the parents/caregivers of LGBTQI+ children.

Limitations

As the participants were purposefully recruited to include people of different genders/sexual identities, the numbers of the participants in each subgroup were too small to draw conclusions for any specific sexual identity. More research focusing on parents/caregivers of each subgroup will be necessary to understand the experiences specific to parents/caregivers of each gender/sexual identity. Furthermore, parents/caregivers who were highly against their LGBTQI+ children's gender/sexual identity were difficult to reach and thus were not recruited to participate in this study. Also, most participants were from Bangkok where there is higher visibility of LGBTQI+ people, a selection bias was likely to be at work in this study which might have resulted in conservative levels of negative responses by the parents/caregivers.

6. Conclusion

Adjustments in all three aspects of the family stress theoretical framework could be seen in the parents'/caregivers' responses to their children being LGBTQI+: (1) alteration of the meanings attributed to their children's gender/sexual identity, (2) using and strengthening family resources, and (3) reducing perceived concurrent stressors. To further support families and destigmatize having LGBTQI+ children in Thailand, social prejudice and discrimination against LGBTQI+ people must be addressed. Meanwhile, reinforcing family resources through general and context-specific approaches would be important in creating families' resilience to stress.

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8. References

- Aramburu Alegría, C. (2018). Supporting families of transgender children/youth: Parents speak on their experiences, identity, and views. *International Journal of Transgenderism*, 19(2), 132-143. <https://doi.org/10.1080/15532739.2018.1450798>
- Boss, P. (1992). Primacy of perception in family stress theory and measurement. *Journal of Family Psychology*, 6(2), 113-119. <https://doi.org/10.1037/0893-3200.6.2.113>
- Boss, P., & Greenberg, J. (1984). Family boundary ambiguity: A new variable in family stress theory. *Family Process*, 23(4), 535-546. <https://doi.org/10.1111/j.1545-5300.1984.00535.x>

- Broad, K. (2011). Coming out for Parents, Families and Friends of Lesbians and Gays: From support group grieving to love advocacy. *Sexualities, 14*(4), 399-415. <https://doi.org/10.1177/1363460711406792>
- Chokrungruanont, P., Selvaggi, G., Jindarak, S., Angspatt, A., Pungrasmi, P., Suwajo, P., & Tiewtranon, P. (2014). The development of sex reassignment surgery in Thailand: A social perspective. *The Scientific World Journal, 2014*, Article ID 182981. <https://doi.org/10.1155/2014/182981>
- D'Augelli, A. R., Grossman, A. H., & Starks, M. T. (2005). Parents' awareness of lesbian, gay, and bisexual youths' sexual orientation. *Journal of Marriage and Family, 67*(2), 474-482. <https://doi.org/10.1111/j.0022-2445.2005.00129.x>
- FFLAG. (2021). *Who are FFLAG?*. Retrieved July 20, 2022 <https://www.fflag.org.uk/who-are-we/>
- Hale, A. E., Chertow, S. Y., Weng, Y., Tabuenca, A., & Aye, T. (2021). Perceptions of support among transgender and gender-expansive adolescents and their parents. *Journal of Adolescent Health, 68*(6), 1075-1081. <https://doi.org/10.1016/j.jadohealth.2020.11.021>
- Hill, D. B., & Menvielle, E. (2009). 'You Have to Give Them a Place Where They Feel Protected and Safe and Loved': The views of parents who have gender-variant children and adolescents. *Journal of LGBT Youth, 6*(2-3), 243-271. <https://doi.org/10.1080/19361650903013527>
- Hill, R. (1949). *Families under stress: Adjustment to the crises of war separation and reunion*. New York, UK: Harper & Brothers.
- Johnson, D., Sikorski, J., Savage, T. A., & Woitaszewski, S. A. (2014). Parents of youth who identify as transgender: An exploratory study. *School Psychology Forum, 8*(1), 56-74.
- Juntrasook, A., Ojanen, T., & Sopitarchasak, S. (2021). *yòo rúuam sùk rêuuang lão kwaam sãm-pan kǒng kon glâi chít LGBTI+ [To Live Happily Together: stories of people who are close to LGBTI+ people]* T. Kiatwaterattana (Ed.). Faculty of Learning Science and Education, Thammasat University.
- Klein, D. A., Ahmed, A. E., Murphy, M. A., Pearlman, A. T., Johnson, N., Gray, J. C., & Schvey, N. A. (2022). The mediating role of family acceptance and conflict on suicidality among sexual and gender minority youth. *Archives of Suicide Research, 1-8*. <https://doi.org/10.1080/13811118.2022.2075815>
- Lavee, Y., McCubbin, H. I., & Patterson, J. M. (1985). The double ABCX model of family stress and adaptation: An empirical test by analysis of structural equations with latent variables. *Journal of Marriage and the Family, 47*(4), 811-825. <https://doi.org/10.2307/352326>
- McConnell, E. A., Birkett, M. A., & Mustanski, B. (2015). Typologies of social support and associations with mental health outcomes among LGBT youth. *LGBT Health, 2*(1), 55-61. <https://doi.org/10.1089/lgbt.2014.0051>
- McConnell, E. A., Birkett, M. A., & Mustanski, B. (2016). Families matter: Social support and mental health trajectories among lesbian, gay, bisexual, and transgender youth. *Journal of Adolescent Health, 59*(6), 674-680. <https://doi.org/10.1016/j.jadohealth.2016.07.026>
- McCubbin, H. I., Joy, C. B., Cauble, A. E., Comeau, J. K., Patterson, J. M., & Needle, R. H. (1980). Family stress and coping: A decade review. *Journal of Marriage and the Family, 42*(4), 855-871. <https://doi.org/10.2307/351829>
- Newcomb, M. E., Heinz, A. J., Birkett, M., & Mustanski, B. (2014). A longitudinal examination of risk and protective factors for cigarette smoking among lesbian, gay, bisexual, and transgender youth. *Journal of Adolescent Health, 54*(5), 558-564. <https://doi.org/10.1016/j.jadohealth.2013.10.208>
- Newcomb, M. E., Heinz, A. J., & Mustanski, B. (2012). Examining risk and protective factors for alcohol use in lesbian, gay, bisexual, and transgender youth: A longitudinal multilevel analysis. *Journal of Studies on Alcohol and Drugs, 73*(5), 783-793. <https://doi.org/10.15288/jsad.2012.73.783>
- Newman, P. A., Prabhu, S. M., Akkakanjanasupar, P., & Tepjan, S. (2022). HIV and mental health among young people in low-resource contexts in Southeast Asia: A qualitative investigation. *Global Public Health, 17*(7), 1200-1214. <https://doi.org/10.1080/17441692.2021.1924822>

- Newman, P. A., Reid, L., Tepjan, S., & Akkakanjanasupar, P. (2021). LGBT+ inclusion and human rights in Thailand: A scoping review of the literature. *BMC Public Health*, 21(1), 1816.
<https://doi.org/10.1186/s12889-021-11798-2>
- Ojanen, T. T., Newman, P. A., Ratanashevorn, R., de Lind van Wijngaarden, J. W., & Tepjan, S. (2020). Whose paradise? An intersectional perspective on mental health and gender/sexual diversity in Thailand. In *LGBTQ mental health: International perspectives and experiences* (pp. 137–151). Washington, D.C, UK: American Psychological Association. <https://doi.org/10.1037/0000159-010>
- Padilla, Y. C., Crisp, C., & Rew, D. L. (2010). Parental acceptance and illegal drug use among gay, lesbian, and bisexual adolescents: Results from a national survey. *Social Work*, 55(3), 265–275.
<https://doi.org/10.1093/sw/55.3.265>
- Parker, C. M., Hirsch, J. S., Philbin, M. M., & Parker, R. G. (2018). The urgent need for research and interventions to address family-based stigma and discrimination against lesbian, gay, bisexual, transgender, and queer youth. *Journal of Adolescent Health*, 63(4), 383–393.
<https://doi.org/10.1016/j.jadohealth.2018.05.018>
- Patterson, J. M. (1988). Families experiencing stress: I. The family adjustment and adaptation response model: II. Applying the FAAR Model to health-related issues for intervention and research. *Family Systems Medicine*, 6(2), 202–237. <https://doi.org/10.1037/h0089739>
- PFLAG. (2022). International PFLAG/family organizations. Retrieved July 20, 2022. form <https://pflag.org/intlfamilygroups>
- Porche, M. V., & Purvin, D. M. (2008). ‘Never in Our Lifetime’: Legal marriage for same-sex couples in long-term relationships. *Family Relations*, 57(2), 144–159. <https://doi.org/10.1111/j.1741-3729.2008.00490.x>
- Potiwat, P., & Tongyu, D. M. (2010). The marginalization process of the transgender. *Khon Kaen University Journal*, 10(1), 66–77. <https://doi.org/10.5481/KKUJGS.2010.10.1.9>
- Puckett, J. A., Matsuno, E., Dyar, C., Mustanski, B., & Newcomb, M. E. (2019). Mental health and resilience in transgender individuals: What type of support makes a difference?. *Journal of Family Psychology*, 33(8), 954–964. <https://doi.org/10.1037/fam0000561>
- Pullen Sansfaçon, A., Kirichenko, V., Holmes, C., Feder, S., Lawson, M. L., Ghosh, S., ... & Suerich-Gulick, F. (2020). Parents’ journeys to acceptance and support of gender-diverse and trans children and youth. *Journal of Family Issues*, 41(8), 1214–1236. <https://doi.org/10.1177/0192513X19888779>
- Pullen Sansfaçon, A., Robichaud, M.-J., & Dumais-Michaud, A.-A. (2015). The experience of parents who support their children’s gender variance. *Journal of LGBT Youth*, 12(1), 39–63.
<https://doi.org/10.1080/19361653.2014.935555>
- Reczek, C., & Umberson, D. (2012). Gender, health behavior, and intimate relationships: Lesbian, gay, and straight contexts. *Social Science and Medicine*, 74(11), 1783–1790.
<https://doi.org/10.1016/j.socscimed.2011.11.011>
- Reid, L., Newman, P. A., Lau, H., Tepjan, S., & Akkakanjanasupar, P. (2022). A scoping review of LGBT + inclusion in Thailand: Policy proposals and recommendations. *Sexuality Research and Social Policy*, 19(4), 1731–1746. <https://doi.org/10.1007/s13178-022-00751-6>
- Ryan, C., Huebner, D., Diaz, R. M., & Sanchez, J. (2009). Family rejection as a predictor of negative health outcomes in white and latino lesbian, gay, and bisexual young adults. *Pediatrics*, 123(1), 346–352.
<https://doi.org/10.1542/peds.2007-3524>
- Ryan, C., Russell, S. T., Huebner, D., Diaz, R., & Sanchez, J. (2010). Family acceptance in adolescence and the health of LGBT young adults. *Journal of Child and Adolescent Psychiatric Nursing*, 23(4), 205–213.
<https://doi.org/10.1111/j.1744-6171.2010.00246.x>
- Saltzburg, S. (2009). Parents’ experience of feeling socially supported as adolescents come out as lesbian and gay: A phenomenological study. *Journal of Family Social Work*, 12(4), 340–358.
<https://doi.org/10.1080/10522150903261932>

- Samakkeekarom, R., Thongchalaem, A., & Prapavadee, O. (2021). *bâan nêe mee kwaam làak lăai · kôo meu gaan doo lae sùk paa-wá kǒng yao-wá-chon têe mee kwaam làak lăai taang pêt [There is diversity in our home: a manual for taking care of gender-diverse youth's well-being]*. Foundation of Transgender Alliance for Human Rights.
- Savin-Williams, R. C., & Dubé, E. M. (1998). Parental reactions to their child's disclosure of a gay/lesbian identity. *Family Relations*, 47(1), 7–13. <https://doi.org/10.2307/584845>
- Simons, L., Schrager, S. M., Clark, L. F., Belzer, M., & Olson, J. (2013). Parental support and mental health among transgender adolescents. *Journal of Adolescent Health*, 53(6), 791–793. <https://doi.org/10.1016/j.jadohealth.2013.07.019>
- Sopitarchasak, S., Kihara, M., Soe, K. M., & Ono-Kihara, M. (2017). Disparities in mental well-being between non-minority and sexual minority male youth in Bangkok, Thailand: Quantitative findings from a mixed method study. *Journal of Population and Social Studies*, 25(2), 83–98. <https://doi.org/10.25133/JPSSv25n2.001>
- Sopitarchasak, S., Samakkeekarom, R., Techasrivichien, T., Suguimoto, S. P., Tharawan, K., Kihara, M., & Ono-Kihara, M. (2015). Victimization against non-heterosexual male adolescents in bangkok: A qualitative study. *Social Sciences Asia*, 1(4), 61–76.
- Suttichainimit, A., & Tuicomepee, A. (2016). Psychological experiences of family members following the outness of persons with homosexual orientation. *Academic Psychiatry and Psychology Journal*, 32(3), 14-27.
- The Foundation of Transgender Alliance for Human Rights. (2015). *naew bpà-dtì-bàt sǎm-ràp krôp kruua têe mee lôok lăan bpen gà-toiie [Guidelines for Families with Katoey Children]*. Women's Health Publishing Advocacy Foundation.
- United Nations Development Program (UNPD), & United States Agency for International Development (USAID). (2014). *Being LGBT in Asia: Thailand country report*. Retrived form <https://www.refworld.org/pdfid/54ed82784.pdf>
- Weber, J. G. (2011). The ABCX formula and the double ABCX model. *Individual and family stress and crises*, 82-96.
- Wei, W., & Yan, Y. (2021). Rainbow parents and the familial model of tongzhi (LGBT) activism in contemporary China. *Chinese Sociological Review*, 53(5), 451–472. <https://doi.org/10.1080/21620555.2021.1981129>
- Willoughby, B. L., Doty, N. D., & Malik, N. M. (2008). Parental reactions to their child's sexual orientation disclosure: A family stress perspective. *Parenting: Science and practice*, 8(1), 70-91. <https://doi.org/10.1080/15295190701830680>
- Willoughby, B. L. B., Malik, N. M., & Lindahl, K. M. (2006). Parental reactions to their sons' sexual orientation disclosures: The roles of family cohesion, adaptability, and parenting style. *Psychology of Men and Masculinity*, 7(1), 14–26. <https://doi.org/10.1037/1524-9220.7.1.14>
- World Bank Group. (2018). *Economic inclusion of LGBTI groups in Thailand*. World Bank. Retrived from <https://www.worldbank.org/en/country/thailand/publication/economic-inclusion-of-lgbti-groups-in-thailand>
- Yadegarfar, M., Meinhold-Bergmann, M. E., & Ho, R. (2014). Family rejection, social isolation, and loneliness as predictors of negative health outcomes (depression, suicidal ideation, and sexual risk behavior) among Thai male-to-female transgender adolescents. *Journal of LGBT Youth*, 11(4), 347–363. <https://doi.org/10.1080/19361653.2014.910483>

Causal Factors Related to Underground Lottery Purchasing Behaviors of Chompoo Samakki Credit Union Cooperatives Members

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Abstract

The study titled “Causal factors related to underground lottery purchasing behaviors of Chompoo Samakki Credit Union Cooperatives members” aimed to explore underground lottery purchasing behaviors of members of Chompoo Samakki Credit Union Cooperatives, and to investigate causal factors related to illegal lottery purchasing behaviors of members of Chompoo Samakki Credit Union Cooperatives. The study was conducted on the basis of qualitative research using document analysis technique, non-participant observation, an in-depth interview, and focus group discussion. The findings from the study showed that underground lottery purchasing behaviors of Chompoo Samakki Credit Union Cooperatives members could be divided into 13 points as follow: (1) Most of the key informants purchased both government and illegal lotteries of every draw, (2) Most of the key informants purchased underground lotteries almost every draw (3) Most of the key informants purchased illegal lotteries within a budget of 200-500 baht per draw, (4) Most of the key informants purchased underground lotteries from underground lottery hosts but some of them purchased illegal lotteries from online illegal lottery gambling, (5) payment methods were pay all promptly, pay after the draw or pay after two draws. However, purchasing underground lotteries from online underground lottery gambling, they were required to pay all promptly, (6) two types of choosing underground lottery hosts were (a) underground lottery hosts who are ordinary persons, such as friends, relatives or familiar persons, and (b) underground lottery hosts that are Applications or websites, (7) 3 models for selecting the numbers for underground lotteries were home address numbers, numbers displayed on vehicle number plates, and ages of family members, (8) Most of the key informants purchased all forms of underground lotteries in terms of “the first and last digit numbers” or “2-digit numbers up and 2-digit numbers down” and both “alternate numbers” and “exact numbers”, (9) Most of the key informants set a budget for purchasing underground lotteries at the maximum of 1,200-1,500 baht per draw; 200-500 baht per person per draw on an average, (10) Most of the key informants won the underground lottery prize very often; every other month or every other draw, but some of them once in a while won the underground lottery prize; 2-3 times per year, (11) Most of the key informants won the underground lottery prize per draw at the maximum of 5,000-6,000 baht per draw, (12) Most of the key informants were superstitious when purchasing underground lotteries, especially the belief in winning the underground lottery prize of a certain draw, (13) Most of the key informants felt indifferent towards losing the underground lottery prize as they thought they are able to win the lottery prize for the next draw. There are 3 significant factors affecting underground lottery purchasing behaviors of Chompoo Samakki Credit Union Cooperatives members, namely, (1) factor related to underground lottery itself, (2) internal factor of underground lotteries, and (3) external factor of underground lotteries. Factor related to underground lottery itself is divided into 4 minor factors as (a) easiness of choosing numbers, (b) easiness of purchasing underground lotteries, (c) they spend less money purchasing underground lotteries but receive prize money equal to or greater than purchasing government lotteries and (d) underground lotteries offer a discount or commission to buyers. Internal factor of those who purchase underground lotteries is divided into 3 minor factors, i.e. (a) knowledge about laws on gambling, (b) underground lotteries are enjoyment rather than striving for income and (c) purchasing underground lotteries is taking a chance rather than gambling. The last factor is external factor of those who purchase underground lotteries, divided into 3 minor factors as (a) influence from friends, (b) influence from media, and (c) influence of gambling they used to play in the past.

Keywords: Factors Affecting, Underground Lottery, Purchasing Behaviors, Credit Union Cooperatives.

1. Introduction

“Gambling” in Thai society – there is no clear information on how and when gambling took place in Thailand but perhaps it was influenced by India and China. The influence from India probably came from Hinduism or religious scriptures while the influence from China would be from trading during Sukhothai period (Center for Gambling Studies, 2022). Nonetheless, there were shreds of evidence in the Kingdom of

Siam Simon de La Loubere (Du Royaume de Siam) written by a French diplomat “Monsieur De La Loubère” who came to establish good relations during the reign of King Narai the Great during 1687 AD that “.....*Siamese tend to love gambling so much that they can ruin their own lives. They can sacrifice their freedom, justice, and even their children for gambling. In this city, those who can't afford to pay back the creditor have to sell their children. And, if that isn't enough, they have to sell themselves into slavery...*” (La Loubere, 2018).

Gambling was carried on to Rattanakosin period as there were pieces of evidence appearing on “Tra Sam Duang Law” (The Three Seals Law or the first Thai enacted law). The Three Seals Law is a collection of law texts compiled on the order of King Rama I the Great (Phra Phuttha Yodfa Chulaloke). Most of the texts were laws from Ayutthaya period that were revised to be used in Rattanakosin period (Supaporn Plailek, 2004). In the reign of King Rama III (King Phra Nangklao) in Rattanakosin period, trading with Chinese merchants took place. A lot of Chinese people migrated to Siam (Thailand). Most of them came from Fujian (Hokkien) province and Guangdong province. Those Chinese people had trading and accounting experience, including technological knowledge that were transferred to Siamese people (Chodkolsuek, Na Ranong, & Arranged, 2022). King Rama III granted “Jin Hong” permission to issue Chinese-style lottery (Huay) for the first time to solve the problem of empty treasury, in the second lunar month, the year of goat in 1835. It was considered the first-time issuance of “Huay” in Rattanakosin period (Silpa-Mag, 2022). From the issuance at that time, Huay was issued in every era. Prize winners would receive objects with value equivalent to the prize money. In the past, “Huay” or “Lottery” was issued periodically according to the need of money for special cases of official use only. Later, the government realized that lottery could help stimulate the circulation of currency as well as to generate national revenue. From that time, “Government lottery” was officially released (Silpa-Mag, 2022).

Nowadays, “Government lottery” is administered by the Government Lottery Office (GLO) regulated by “The Government Lottery Office Act B.E. 2517 (A.D. 1974) that came into force from 1 October 1974. “The Government Lottery Office” was established with the purpose to administer the issuance of government lottery tickets and other activities pertaining or beneficial to the operations of the Government Lottery Office (The Government Lottery Office, 2022). According to the statistics of the Government Lottery Office during 2006 – 2021, the Government Lottery Office generated revenue to the country totally more than 379,348 million baht (The Government Lottery Office, 2022).

However, there is another type of lottery in the form of “illegal lottery” or known as “underground lottery”. “Underground lottery” is the sale of illegal lottery with reference to the results of government lottery. The government lottery is drawn on the 1st and the 16th of every month. Underground lottery has gained huge popularity since it can be purchased starting from 1 baht and there is no limited amount of money for purchasing underground lottery, if hosts are able to receive customers' request. Besides, customers can purchase underground lottery from every number without seeking from government lottery stalls. Meanwhile, the value of underground lottery prizes is higher than that of government lottery prizes. Consequently, playing underground lottery is popular among a huge number of people as they will receive more money than playing government lottery and are able to choose any number without a limited amount of money spent on purchasing underground lottery.

HealthServ (2021) prepared the project studying gambling behaviors and effects from gambling in Thailand for the year 2021. Data were collected from 6,977 people aged 15 years and above in 24 provinces during 20 February to 8 April 2021. It was found that “Playing underground lottery” was the second most popular form of gambling among Thai people, after “Playing government lottery”. In this regard, 35.5% or 19.273 million people played underground lottery, increasing from 2019 by 1.536 million people or 8.7%. “Circulating fund in the underground lottery market was as much as 149,919 million baht, 7.139 billion baht per draw (21 draws) on average, higher than purchasing government lottery almost five billion baht. People of working age, 26-29 years of age and children in the age-group of 15-18 years played underground lottery the most, followed by the elderly and adolescents aged 19-25 years.

“Chompoo Samakkhi Credit Union Cooperative”. is located in Saraphi district, Chiang Mai province. It is a credit union cooperative established according to the ministerial regulation determining types of cooperative B.E. 2548 (A.D. 2005). It is considered a type of financial institutions established in the group of people having the same relationship, such as living in the same community, or working in the same field

of job, and those people strongly desire to help each other by bringing their money to accumulate as a fund. Every member needs to deposit their money according to their ability regularly as determined by the cooperative. The money in the fund will be able to help the members according to necessity and financial trouble through borrowings for solving and reliving the problems. “Chompoo Samakkhi Credit Union Cooperative” is considered a type of credit union cooperatives with the number of members more than 10,000 persons and working capital more than 100 million baht. It is ranked number 4th of large cooperative in the north region (Chompoo Samakkhi Credit Union Cooperative, 2022).

Most members of “Chompoo Samakkhi Credit Union Cooperative” are people living in Saraphi district, Chiang Mai province, having average income 54,000 baht per person per year (Chiang Mai Provincial Administrative Office, 2022). The majority of members of Chompoo Samakkhi Credit Union Cooperative are gardeners and employees whose education levels ranged from junior high school to senior high school. They have traditional local lifestyle and play gambling from time to time, especially “Playing underground lottery” which is considered a method for seeking luck and income to feed their families, other than gardening and being employees.

To make use of guidelines for solving problems related to playing underground lottery of members of Chompoo Samakkhi Credit Union Cooperative in the future, the researcher is interested in studying “The causal factors related to underground lottery purchasing behavior of members of Chompoo Samakkhi Credit Union Cooperative” to investigate underground lottery playing behavior of members of the credit union cooperative and causal factors related to underground lottery playing behavior members of the credit union cooperative by employing criminology knowledge, especially knowledge about “Economic Crime” and to find out causal factors related to underground lottery playing behavior of members of Chompoo Samakkhi Credit Union Cooperative. Information obtained will be shared with relevant persons to make a plan for solving problems related to underground lottery playing behavior of members of Chompoo Samakkhi Credit Union Cooperative accordingly.

2. Objectives

The objectives of the study are (1) to study the underground lottery purchasing behaviors among Chompoo Samakkhi’s credit union cooperative members. And (2) To study the causal factors related to underground lottery purchasing behaviors among Chompoo Samakkhi’s credit union cooperative members.

3. Materials and Methods

This qualitative research used the following four research methods. (1) Documentary research was conducted by reviewing the literature and relevant research published in print media or recorded as electronic documents to survey the current state of the problem. (2) Non-Participant observation was applied to gather data. The researcher decided to collect data using this method (Non-Participant Observation) by monitoring the operation of the illegal lottery outside by not participating in or appearing in the underground lottery. So, the researcher took the time to study and collect data starting from April 2022 and ending in September 2022, including a period of no-one observation for approximately 6 months. (3) In-depth interviews were used to obtain answers to the research questions. Ten informants from Chompoo Samakkhi credit union members with more than 5 years of underground lottery experience were interviewed. (4) A focus group was used to gather the opinions of a sample group. Six informants were the Head-committee of Chompoo Samakkhi credit union; (2) the Manager of Chompoo Samakkhi credit union; (3) Three of Chompoo Samakkhi credit union members with more than 5 years of underground lottery experience and (4) the Researcher were discussed.

3.1 Literature Review

3.1.1 Government Lottery

The history of “Huay” in Thailand began in the reign of King Rama III. The king granted “Chao Sua Hong” (The Millionaire Hong) permission to issue the first huay in 1835, known as “Huay Kor Khor” (Silpa-Mag, 2022). Later, in the reign of King Rama V, “The Royal Bodyguard Department” was given permission to issue the first lottery in the country on the occasion of the king’s birthday, 20,000 lottery tickets. Each lottery ticket was sold at 1 tamlung or 4 baht (Mongkolworadach, 2020). Later, King Rama VI allowed the issuance of “Sua Pa Million-Baht Lottery” to fund the purchase of guns for the Sua Pa Volunteer Unit (The

Government Lottery Office, 2019). In the reign of King Rama VII, the 1932 revolution took place. In 1933, the revolutionary group viewed that the issuance of lottery gained popularity among people. It was a method to generate revenue to the country while people were not in trouble. Therefore, the Siamese government lottery” was created to raise money for education and medication. In the meantime, the government authorized the Revenue Department to run the lottery under an arrangement related to the reduction of tax rates (The Government Lottery Office, 2019). Later the issuance of government lottery has been improved until the year 1974, “the Government Lottery Office Act B.E. 2517 was enacted. It prescribed the Government Lottery Office as a juristic person and a state enterprise affiliated to Ministry of Finance, to perform the duty of the issuance of government lottery tickets (Thai Government Gazette, 1974).

From 1 September 2017 onwards, the Government Lottery Office improved the format and size of lottery tickets, from a pair of tickets priced at 80 baht (40 baht each) to a single ticket sold at 80 baht. With regard to prizes, the 1st prize, 1 draw, is 6,000,000 baht. There are 2 consolation prizes, 100,000 baht for the six-digit winning number plus or minus one. The 2nd prize, 5 draws, is 200,000 baht. The 3rd prize, 10 draws, is 80,000 baht. The 4th prize, 50 draws, is 40,000 baht. The 5th prize, 100 draws, is 20,000 baht. The first 3 digits prize, 2 draws, is 4,000 baht. The last 3 digits prize, 2 draws, is 4,000 baht, and the last 2 digits, 1 draw, is 2,000 baht (The Government Lottery Office, 2022).

3.1.2 Underground lottery

“Underground lottery” or Huay Tai Din is a form of illegal gambling. Underground lotteries are based on numbers drawn in the official lottery (Suesawaluk, 2013). In other words, it is a lottery generated in various societies in which the hosts are people not the government. The issuance of underground lottery prizes is referred to or compared to the prizes of government lottery, which will be paid according to an agreement. The prizes may not be certain, depending on the prize payment rate of a host; for example, match the last 3 numbers exactly; pays 500 baht per 1 baht wagered, match the last 2 numbers; pay 90 baht per 1 baht wagered, etc. There are 3 major methods for playing underground lottery, i.e. (1) match 3 digits number, (2) match 2 digits number, (3) match a single number (Databet, 2562). Playing underground lottery is considered an illegal activity according to Section 12 of the Gambling Act B.E. 2478 (A.C. 1935) –whoever participates or gambles in a game held in violation of the provisions of this Act shall be liable to imprisonment for a term of 3 years or to a fine not exceeding 5,000 baht or to both (Thai Government Gazette, 1935).

3.1.3 Criminology Theories Related to Underground lottery Playing Behaviors

There are many criminological theories related to illegal lottery playing behaviors, namely,

(1) Imitation Theory

Gabriel Tarde, a French criminologist and sociologist. He believed that newspaper had a particularly crucial role in the dissemination of a crime. He pointed out that when a crime occurs, it does not occur alone but techniques of committing a crime are similar, contributing to an ongoing situation. Tarde studied considerable cases of crimes and noticed that crimes committed were similar. Therefore, he established the law of imitation, namely, (1) humans are more likely to imitate others’ fashion and traditions. Groups of people having similar characteristics seem to have changes in fashion and traditions gradually but if different groups make contact to each other, imitation is promoted more and more and (2) humans imitate new behaviors. Imitation is learning and some imitation causes a crime. Crimes spread the same way fashion does and the fashion of crimes is similar to the fashion of clothes and hairstyles that develop ideas and social learning. Persons commit a crime as they have known it before. That means a crime is caused by imitation (Chutinun, 2018).

(2) Rational Choice Theory

Gary Becker mentioned the way persons think before committing a wrongdoing that normally persons have independence to do or not to do any actions violating the laws by their rationally making their own decision. Guidelines for choosing to have illegal behaviors depend on worthiness of those actions, namely, satisfaction or maximum benefits they obtain from those actions. The satisfaction or maximum benefits are not limited only to properties but also psychological benefits or satisfaction. To commit a crime,

other than benefits humans shall receive, they consider possibility that other people shall learn about their behaviors including possibility to be arrested (Trimek, 2018).

(3) Aker's Social Learning Theory

Aker based his learning theory on a central principle in Sutherland's theory, which has been revised in essence several times. Until it was presented as a theory in the book "Deviant Behavior: A Social Learning Approach", which Aker named "Social Learning Theory"; Aker has presented the main principles of the theory, which can be summarized as follows; (1) Criminal behavior can be learned from external circumstances "Imitation" or "Conditioning". (2) Criminal behavior can be learned either through nonsocial reinforcement or through Nonsocial Discrimination Situation or Social Interaction Learning optional. (3) The fundamental components of learning will take place within the group. (4) Future reinforcements are necessary for learning (Reinforcement Contingencies). (5) The form and frequency of learning will be determined by Norms, which are applied reinforcements. (6) Criminal behavior is a result of the division of norms. (7) Aker's theory can clearly explain adolescent deviant behavior such as cigarette smoking or alcohol consumption. Furthermore, the theory is consistent, suitable for the rational choice theory (Rational Choice Theory) because both theories can explain the decision-making process, including developing the motivations, attitudes, and techniques required to commit crimes, as well as the learning of solitary offenders on occasion (Solitary Offending) (Suebpong Siri, 2016)

(4) Victimology in Economic Crime

Ta-in and Terdudomtham (2019) discovered a concept of "victimology" in economic crimes; for example, "Ponzi schemes". Victims of Ponzi schemes can be divided into 3 types, i.e., 1) victims who do not know they are investing in Ponzi schemes, 2) victims who know they are investing in Ponzi schemes but think they can get their money back in time, and 3) victims who are criminals. The major characteristics of the victims in (2) are that some victims in Ponzi schemes know they are investing in Ponzi schemes but invest more money in them since they think they know types and cycles of Ponzi schemes that how long Ponzi schemes will generate return for earlier investors before they will collapse. Many people have financial and investment knowledge. Victims view that if they invest in Ponzi schemes in an early stage, they are able to make profit in it at least 10-20% or more. Therefore, victims made an investment and expect they will be able to get their money back in time. In case they are unable to get their money back in time, they become victims of Ponzi schemes. The important characteristics of victim in (2) are perhaps in the same direction of types of victims of underground lottery.

(5) Victimless Crime

A victimless crime is an illegal act that typically involves only the perpetrator or takes place between consenting adults. It is debatable whether a victim is involved because it is consensual in nature. Victimless crimes are defined differently in different parts of the world and by different legal systems. Crime operations with no victims frequently commit crimes against public morality, such as gambling offenses, homosexuality crimes, recreational drug use, prostitution and prohibited sexual behavior between consenting adults, assisted suicide, and abortion offenses. However, when compared to other types of crimes, victimless crimes pose a low level of risk to society. (Fletcher, 2019).

(6) Maslow's Hierarchy of Needs

Abraham Maslow believed that most of human behaviors can be described by using persons' tendency to search for goals that make their lives achieve needs, desire, and things meaningful to them. He believed that humans are wanting animals and it is difficult that humans shall reach a hierarchy of needs completely. According to "Maslow's hierarchy of needs", when persons wish to be satisfied and when they receive satisfaction from one thing, they demand satisfaction from something else continually, considered characteristics of humans who wish to have something at all times. Maslow said that humans are born with an innate desire and this desire is hierarchical from the minimum to the maximum hierarchy. Maslow's hierarchy of needs starts from the lowest level that persons must receive satisfaction first before passing

to the other levels of needs, respectively. Maslow arrange the hierarchy of human needs as follow: (1) Physiological needs, (2) Safety needs, (3) Belongingness and love needs, (4) Esteem needs and (5) Self-actualization needs (Joong, 2007).

3.1.4 Credit Union Cooperative

“Credit Union Cooperative” is a cooperative established in the group of people having the same relationship, such as living in the same community, or working in the same field of job, and those people strongly desire to help each other by bringing their money to accumulate as a fund. Every member needs to deposit their money according to their ability regularly as determined by the cooperative. The money in the fund will be able to help the members according to necessity and financial trouble through borrowings for solving and reliving the problems. In case there is no trouble, cumulative deposits will be higher. In this regard, credit union cooperatives are cooperatives expect members to help themselves and help each other. They are managed by members and carry out activities to ensure members gain maximum benefits (Credit Union League of Thailand, 2022).

Chompoo Samakkhi Credit Union Cooperative is located in Chompu sub-district, Saraphi district, Chiang Mai province Thailand. It was established on 5 May 1984 and registered to be a credit union cooperative on 21 November 1986. It has 10,000 members and capital in cooperative accounting system for the year 2022 at 600,000,000 baht (Chompoo Samakkhi Credit Union Cooperative, 2022).

3.1.5 Related Research

Many researchers have investigated the causal factors related to illegal lottery playing behaviors. Suesawalak (2013) considered behavior in buying underground Lotteries among people living in Tambon Ang-Sila. The research found that there were factors affecting their buying decision which were found at a high level. When considering each aspect, the forms of buying underground lotteries was rated the highest, followed by the convenience, price, and compensatory awards/prize, respectively. Boonin (2018) explored illegal lottery playing behaviors among female undergraduate students in a public university. The research found that the excitement, challenges, and money making opportunity are the influencers to their behaviors. Tanboon, Tejagupta and Sabaiying (2018) studied underground lottery buying behavior and its effects of families in the local area of the southern part of Thailand. The research found that Underground lottery buying behavior can be divided into 4 types: 1) Underground lottery addiction. In this case, the subjects bought the Underground lottery every time with a trend to buy more. 2) Mental attachment. This is the case where the subjects bought Underground lottery sometime, in their perspective, buying an underground lottery is an entertainment source and allowing them to look forward to the result along with everyone else. 3) Improper way of life and wrong belief culture where the subject bought the Underground lottery because they followed some role model or the example they experienced. 4) People whose purpose is to get rich from buying underground lotteries. And Kidsumran (2018) reviewed illegal lottery buying among housewives having vocational training in Chonburi province. The research found that the highest influence factor was characteristic of illegal lottery that easy to access, followed by factor of seller; trust and temptation, motivation of purchaser, and denial of being trouble family, respectively.

Conceptual Framework

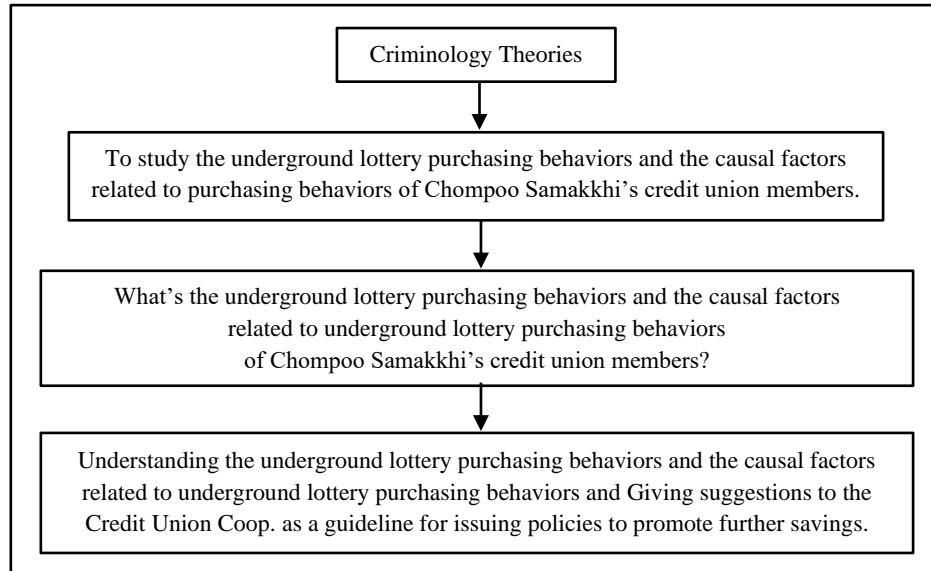


Figure 1 Conceptual framework of the study

4. Results and Discussions

4.1 The Underground lottery purchasing behaviors among Chompoo Samakkhi Credit Union Cooperative members

The qualitative documentary research, non-participant observations, in-depth interviews, and a focus group revealed the following aspects.

Chompoo Samakkhi Credit Union Cooperative members had 13 interesting underground lottery purchasing behaviors and can be divided into 4 groups follow:

4.1.1 The Method of Purchasing

(1) Lottery purchasing behavior

Most of the key informants purchased both government and underground lotteries of every draw.

(2) Frequency of purchasing underground lottery

Most of the key informants purchased underground lotteries almost every draw.

(3) Amount of money spent on purchasing underground lottery

Most of the key informants purchased underground lotteries within a budget of 200-500 baht per draw. Most of the key informants purchased 300 baht per draw on average and purchased no greater than 500 baht per draw.

(4) Channels of purchasing underground lottery

Most of the key informants purchased underground lotteries from underground lottery hosts but some of the key informants purchased underground lotteries from online underground lottery gambling.

The study results are consistent with the literature review associated with underground lottery. Namely, they were consistent with a study conducted by Tanboon et al. (2018) on underground lottery purchasing behavior. According to his study, purchasing behavior is divided into underground lottery addiction, mental attachment, improper way of life and wrong belief culture, and purpose to get rich from purchasing underground lotteries. Most of the key informants had underground lottery addictive behavior and mental attachment as there were members who purchased underground lotteries every draw and some members who purchased underground lotteries in some draws since they found it was an enjoyable activity and helped relieve their stress.

4.1.2 The Method of Payment

(5) Payment methods

The key informants had different payment methods, depending on each underground lottery host and types of underground lottery host. Underground lottery hosts who are ordinary persons provided different payment methods; for example, some hosts required customers to pay all promptly, some hosts allowed customers to pay after the draw, some hosts allowed customers to pay after two draws. For example, if customers purchase underground lottery that will be drawn on the 1st of that month, they do not need to pay at once but can pay after the 2nd draw (on the 16th) of the same month. However, purchasing underground lotteries from online underground lottery gambling, based on the Applications and websites, customers were required to deposit their money into an online account first. The deposited money shall become a credit for purchasing online underground lotteries. For example, customers deposit 100 baht, the deposited money will be a credit for purchasing underground lottery for 100 baht. If customers purchase 3-digit numbers, each digit number is 20 baht, they spend 60 baht in the system and 40 baht remain in the credit to be used for next purchase.

4.1.3 Types of Choosing and Underground Lottery Hosts

(6) Types of underground lottery hosts

Two types of choosing underground lottery hosts were:

(A) Underground lottery hosts who are ordinary persons

Underground lottery hosts who are ordinary persons were such as friends, relatives or familiar persons. Due to trust and reliability to ensure that when they win the prizes, they will not be cheated or their money will not be taken away. Moreover, underground lottery hosts whom customers have known for a long time allowed them to purchase underground lottery easily. Customers could purchase any number just give them a phone call. Besides, the acquainted underground lottery hosts were flexible in underground lottery payment like “Buy Now Pay Later or Buy two draws Pay once”, or giving a discount; for example, paying 500 baht get 10% discount, customers pay only 450 baht but if the customers win the prize, the hosts pay the full prize of 500 baht. In some case commission was given to some agents who received purchase orders of underground lottery from customers. In addition, customers believed that purchasing underground lottery with persons they know, they will not tell the police since playing underground lottery is illegal. If underground lottery hosts can keep it confidential, they gain trust from customers for the next purchase of underground lottery. Some people thought that if they purchase underground lottery from the hosts who win the prize very often, they will be able to win the prize very often too. This is considered a secret technique for purchasing underground lottery of each person.

(B) Underground lottery hosts that are applications or websites

It was founded that underground lottery application and underground lottery gambling website were more interesting than underground lottery hosts who are ordinary persons since customers gained higher returns. For example, in case of underground lottery hosts who are ordinary persons, if customers match 3 exact numbers, they will be paid 500 baht or 550 baht per 1 baht wagered but in case customers purchase through online underground lottery, they will be paid 800, 850 or 900 baht per 1 baht wagered, depending on each draw. The payment from the online channel is higher. In additions, customers were able to purchase underground lottery immediately since it is 24 hours available. Moreover, duration of purchasing underground lottery of online underground lottery was longer than that of underground lottery hosts who are ordinary persons. Normally, the purchase closing time of underground lottery hosts would be around noon time of the date lottery results take place. But in the online underground lottery, customers can purchase until 15.30 hrs., 30 minutes before the lottery results take place. In addition, when customers won the prize, the online underground lottery transferred money to the customers’ account immediately, different from the underground lottery hosts who are ordinary persons. The important thing is cheating was rare since the popular underground lottery applications or websites have been open for service for such a long time. There were reviews from service users to guarantee reliability with a large number of downloads or confirmation of all the prizes, no matter they are in the number of thousands or millions of baht.

4.1.4 The Model of Selecting Number

(7) Models for selecting the numbers of underground lotteries

The credit union cooperative members had the following models for selecting the numbers of underground lotteries: home address numbers, numbers displayed on vehicle number plates, and ages of family members.

(A) Home address numbers

It was found that most of Most of the key informants purchased underground lotteries based on home address numbers. For example, home address number 17, they would purchase both 17 and 71. In case of 3-digit home address numbers like 123, they would purchase 123, 132, 213, 231, 312, 321, etc. Home address numbers purchased were associated with superstition and dream. For example, if a snake crawls to a house, Thai people believe that it will be auspicious. House owners will be lucky or gain a lot of fortune. Therefore, the house owner would purchase a lottery having the house number for taking a chance to win the lottery prizes.

(B) Numbers displayed on vehicle number plates

It was found that Most of the key informants purchased “numbers displayed on vehicle number plates”, no matter they are cars or motorcycles, especially “the numbers displayed on the new vehicle number plates”. Thai people believe that anyone buys a new car, that person needs to purchase a lottery with the numbers displayed on the new vehicle number plate as the new numbers will bring luck to the vehicle owner.

(C) Ages of family members

It was found that most of Most of the key informants purchased the lottery with the number of “ages of family members”; for example, birthday anniversary for a family member who was born on 25 August 2022, that person will turn 34 years old. They would purchase the number 34 or 43. In case of the death date or death anniversary of a family member who was 78 years old, they would purchase the number 78 or 87.

Besides, it was found that the credit union cooperative members had “other types” for selecting underground lottery numbers, i.e.

(D) Dream

Some people selected numbers from their dreams, especially dreams at dawn that most likely become true. If the number in a dream is 20, they would purchase 20 or 02. This included dream interpretation. For example, dreaming of a king who paid a visit to a dreamer’s home, it is a symbol of good luck.

(E) Famous numbers

Famous numbers were such as the number of those who survived from disasters, the number of people who survived from big accidents, real age or age in monkhood of famous monk instructors who passed away or “numbers from calculation formulas” derived from “lottery calculation formula” considered as statistics that probability for winning the lottery can be calculated. Each person has his/her own lottery calculation formula that can be purchased differently.

(F) Frequently seen numbers

Sometimes there was a number of a group of number frequently seen, such as vehicle plate numbers XX 7792 and XX 4492, in such case, the number 92 or 29 is expected. Sometimes, if a person seen the number 181 and thought it was interesting, a lottery will be purchased by that number.

(G) Power of the day number

Many people believe that each day has its own power number. For example, the power of the day number of Sunday is 2, that of Monday is 3, respectively. In case lottery results take place on Monday, there will be the number 3 appearing on the six digits of the first prize. Therefore, if people purchase a lottery following the power of the day number, they would have a chance to win a prize on a certain draw.

(8) Models of playing underground lottery

Most of the key informants purchased all forms of underground lotteries in terms of “the first and last digit numbers” or “2-digit numbers up and 2-digit numbers down” and both “alternate numbers” (Tode) and “exact numbers” (Teng).

The study results are in harmony with a study conducted by Tantasuttikul (2015) on underground lottery purchasing behavior in terms of sources of underground lottery purchase. According to the study, it could be said that people purchased underground lotteries from 3 sources, namely, colleagues or people they are familiar with, neighbors, and close relatives. Most of the key informants purchased underground lotteries from underground lottery hosts who are ordinary persons, i.e., friends, close relatives or people they are familiar with and underground lottery hosts in the form of online underground lottery gambling like gambling websites and underground lottery applications. The results were also consistent with Tantasuttikul’s study in terms of the background of the numbers for purchasing underground lotteries since it was found that the numbers of underground lotteries were from 6 sources, i.e., dream, ages of family members, famous numbers from events, numbers from news on the internet. Most of the key informants brought the numbers for purchasing underground lotteries from home address number, number displayed on vehicle number plate, and ages of family members. Other interesting sources of numbers were dream, numbers from well-known news, frequently found numbers in daily life, and numbers from the power of the day number.

4.1.5 Budget for Purchasing

(9) Budget for purchasing underground lotteries

Most of the key informants set a budget for purchasing underground lotteries at the maximum of 1,200-1,500 baht per draw; 200-500 baht per person per draw on an average. Sometimes they spent additionally 100-200 baht if they felt confident with those numbers or met interesting numbers. There were many of them were not interested to purchase underground lottery more than what the budget they already set.

The results of the study were inconsistent with the with a study conducted by Siriwong and Chattan (2018) on underground lottery purchasing behavior in terms of the amount of money spent. The study mentioned that people spent at least 100 to 1,000 baht to purchase underground lotteries, depending on how many special numbers they had in mind. Most of the key informants determined their budget for purchasing underground lotteries at 1,200-1,500 baht per draw at the maximum but the average amount per person per draw ranged from 200-500 baht. They also spent more than the average budget if they were confident with the numbers or they came up with some interesting numbers.

4.1.6 Winning and Losing Emotion and Belief in Purchasing

(10) Frequent chances of winning underground lotteries

Most of the key informants won the underground lottery prize very often, every other month or every other draw on average. Some of them won the underground lottery prizes 2-3 times per year while the others, but in a small number, have never won the prizes.

(11) The maximum amount of money from winning underground lottery prizes

Most of the key informants won the underground lottery prize per draw at the maximum of 5,000-6,000 baht per draw.

(12) Superstition related to purchasing underground lotteries

Most of the key informants were superstitious when purchasing underground lotteries, especially the belief in winning the underground lottery prize of a certain draw. Some had itchy hands which is an ancient belief that that person will gain money or luck on that day. However, some of them were not superstitious, but only in a small number.

(13) Feelings when not winning the prizes

Most of the key informants felt indifferent towards losing the underground lottery prize as they thought they are able to win the lottery prize for the next draw. Some of them bought the same quantity, some felt sorry they did not win the prizes but they expected for the next draw, some viewed that they would purchase less because they felt they wasted some money but would like to purchase further.

A study conducted by Sanguansaksri (2017) on underground lottery purchasing behavior in terms of the highest amount of the winning prizes of underground lottery per draw. It was found that most people used to receive money from winning the prizes of underground lottery at 1,001-10,000 baht. Most of the key informants won underground lottery prizes per draw at 10,000-20,000 baht but the average amount of money from winning underground lottery prizes ranged from 5,000-6,000 baht per draw.

A study conducted by Ratawongwai (2020) on underground lottery purchasing behavior in terms of feeling when not winning the prizes found most people kept on purchasing government lottery and underground lottery though they have never won the prizes. Most of the key informants felt indifferent towards losing the underground lottery prize as they thought they are able to win the lottery prize for the next draw. They kept on purchasing the same quantity or equivalent to the quantity they used to purchase.

4.2 The causal factors related to underground purchasing behaviors among Chompoo Samakkhi's credit union cooperative members

The qualitative documentary research, non-participant observations, in-depth interviews, and a focus group revealed the following aspects.

There were 3 significant causal factors related to underground lottery purchasing behaviors of Chompoo Samakkhi Credit Union Cooperative members, namely, (1) factor related to "underground lottery itself", (2) "internal factor" of underground lotteries, and (3) "external factor" of underground lotteries.

(1) The causal factors related to underground lottery itself was divided into 4 minor factors as:

(A) Easiness of choosing numbers

The numbers of underground lotteries were more easily purchased than the numbers of government lotteries. If they would like to buy number 123, they perhaps could not obtain from government lottery but if they purchased underground lottery, they were able to gain the number 123 immediately. In addition, they could purchase the required numbers in different styles, such as 2-digit numbers up and down or the first three or the last 3-digit numbers.

(B) Easiness of purchasing underground lotteries

A purchase order of underground lotteries was made easily through telephone conversation with underground lottery hosts or through applications or websites available 24 hours.

(C) Customers spend less money purchasing underground lotteries but receive prize money equal to or greater than purchasing government lotteries

Government lotteries were expensive and purchasers could win the last 2-digit or 3-digits number prizes only. Compared to the money spent on purchasing underground lotteries at the same prices, underground lotteries gave the same or more returns. The rest of money could be used to purchase other numbers of underground lotteries in order to spread a chance to win a prize.

(D) Underground lotteries offer a discount or commission to buyers

Some underground lottery hosts offered a discount to purchasers; for example, paying 500 baht get 10% discount, customers pay only 450 baht but if the customers win the prize, the hosts pay the full prize of 500 baht. In some case commission was given to some agents who received purchase orders of underground lottery from customers.

The study results are consistent with the study conducted by Sanguansaksri (2017) on factors affecting underground lottery purchasing behavior since underground lottery offered "Buy Now Pay Later or Buy two draws Pay once", or gave a discount, followed by cheap price, easiness to purchase, and a wide variety of winning the prizes. Most of the key informants viewed that the numbers of underground lotteries were more easily purchased than the numbers of government lotteries. A purchase order of underground lotteries was made easily through telephone conversation with underground lottery hosts or through applications or websites available 24 hours. Some underground lottery hosts offered a discount to purchasers. In some case commission was given to some agents who received purchase orders of underground lottery from customers, making people more interested in playing underground lottery than playing government

lottery, consistent with the rational choice theory viewing that humans have reasons for doing or not doing any action by themselves. Under these circumstances, most of the key informants viewed that they spent less money purchasing underground lottery than government lottery but returns from winning the prizes of underground lottery were bigger. Underground lotteries were more easily purchased and underground lottery hosts kept it confidential by not reporting to the police. Therefore, the credit union cooperative member turned to play more underground lotteries than government lotteries, following the rational choice theory.

(2) “Internal factor” of those who purchase underground lotteries is divided into 3 minor factors as:

(A) Less severe punishment by governing gambling laws

All of the key informants knew that playing underground lottery is illegal but they kept on playing as they gave the reasons that it is not severely illegal. Other people play, even those who enforce the laws also play or even become underground lottery hosts. They thought that the law prescribing underground lottery to be illegal is the law that the government named underground lottery to be illegal, actually it is not a cruel action like that. If it is wrong, government lottery is also wrong. That is why they keep on playing underground lottery though they knew it is illegal.

The study results are consistent with a study conducted by Kitsamran (2019) on factors affecting underground lottery playing behavior as it was found that the number one important factor was giving reason by refusing damage. People in the survey viewed underground lottery was taking a chance rather than gambling. They compared to government lottery that if government lottery is not illegal, underground lottery should not be illegal. This is consistent with the opinion of most of the key informants as they viewed that the law prescribing underground lottery to be illegal is the law that the government named underground lottery to be illegal, actually it is not a cruel action like that. If it is wrong, government lottery is also wrong. This is consistent with techniques of neutralization as underground lottery purchasers used their reasons to protect their deviant behavior for not to be blamed from society and to reduce shame when committing a wrongdoing. They gave reasons that persons who enforce the law or their spouse are underground lottery hosts, being hypocrites, making those who play underground lottery feel less guilty or actually they viewed that they did not do anything wrong.

(B) Underground lotteries are enjoyment rather than striving for income

Most of the key informants viewed playing underground lottery is an enjoyable activity and challenging. If they win the prizes, they will be happy. If they do not win the prizes, it would be fine with them as they did not expect to be rich from playing underground lottery. They played underground lottery for fun. The money they gained will be used for purchasing things they would like to have or purchasing food they prefer.

(C) Purchasing underground lotteries is taking a chance rather than gambling

Most of the key informants viewed underground lottery was associated with taking a chance rather than gambling because they did not bet with anyone. It is a belief whether the numbers they chose would be drawn or not. If they are not drawn, it means their belief was wrong. Some of them viewed underground lottery is gambling because some people could not refrain from purchasing it.

A study conducted by Boonin (2019) on factors affecting underground lottery playing behavior found enjoyment and challenge were factors affecting underground lottery playing behavior to some extent, consistent with the opinion of the credit union cooperative members that underground lottery playing offered enjoyment and was challenging. If they win the prizes, they will be happy, if they do not win the prizes, it would be fine with them. The money they obtained from the prizes they used to buy things they preferred or purchased food they like. It may not be consistent with Strain Theory that believes that a crime is a direct effect from low social class people who feel disappointed and are deprived of rights from economic systems and everything determined by middle social class and high social class people, making them get angry and hate social systems. Consequently, low social class people have a higher chance to commit a crime than high social class people. It can be said that people play underground lottery because they do not have financial dependence. The study results found that most of the key informants viewed playing underground lottery were enjoyment and challenging, consistent with the victimology concept of Ta-in and Terdudomtham (2019)

who discovered a concept of “Victimology” in economic crimes related to Ponzi schemes”. Victims of Ponzi schemes can be divided into 3 types, i.e., (1) victims who do not know they are investing in Ponzi schemes, (2) victims who know they are investing in Ponzi schemes but think they can get their money back in time, and (3) victims who are criminals. The major characteristics of the victims in (2) are that some victims in Ponzi schemes know they are investing in Ponzi schemes but invest more money in them since they think they know types and cycles of Ponzi schemes that how long Ponzi schemes will generate return for earlier investors before they will collapse. Many people have financial and investment knowledge. Victims view that if they invest in Ponzi schemes in an early stage, they are able to make profit in it at least 10-20% or more. Therefore, victims made an investment and expect they will be able to get their money back in time. In case they are unable to get their money back in time, they become victims of Ponzi schemes. The important characteristics of victim in (2) are perhaps in the same direction of types of victims of underground lottery. It can be described that in a case victim already knew that they played or invested in underground lottery, which is illegal, but they still bring money to invest since they thought they knew the models of how to play underground lottery. Victims may view that underground lottery gambling can make a lot of profit, compared to a small amount of money in the investment which can be accepted if returns cannot be paid. Therefore, victims agree to invest as they thought they can monitor and follow up to get returns from underground lottery hosts. In case they cannot follow up the returns from underground lottery hosts, they become victims of a case of underground lottery accordingly.

Besides that, the study results are consistent with one of Victims types which is “Victimless Crime”. Because Gambling (the Underground lottery) is a crime of self-consent or the offender is a victim of the crime at the same time as well as prostitution, illegal abortion, etc. This type of crime affects not only a small percentage of the individual, but also the larger society. Some criminologists said that even though this type of offense, the offender is the one who commits the crime and suffers the consequences of his actions. But it is morally wrong and against the norm and values of that society. Even if it's an individual right but violates social norm.

HealthServ (2015) studied perspectives about underground lottery and gambling and found that 22.3% of people surveyed viewed purchasing underground lottery was not gambling, consistent with the opinion of the credit union cooperative members that underground lottery was taking a chance rather than gambling. This is consistent with the Rational Choice Theory viewing that humans have reasons to do or not to do any action by themselves. In such case, the credit union cooperative members viewed that underground lottery was taking a chance rather than gambling, showing that they viewed returns from taking a chance were higher than being arrested from persons who enforce the law as investment in underground lottery was smaller than in government lottery but it generates more profit. They also viewed it as enjoyment. If the government sector is strict in arrest and impose of more punishment for playing underground lottery, people perhaps viewed the punishment from playing underground lottery and chance taken from playing underground lottery are greater, which can be compared to severe gambling like playing card, Hi-Lo, Baccarat that people tend to lose a larger amount of money and can be arrested more easily than playing underground lottery. Most people probably view that underground lottery is gambling according to the rational choice theory.

(3) “External factors” of people who purchase underground lottery can be divided into:

(A) *Influence from friends*

Most of the key informants viewed that friends have an influence on playing underground lottery. Sometimes friends told the numbers and that person followed their friends to purchase underground lottery. Sometimes a person is an underground lottery agent, his/her friends would like to purchase underground lottery, they purchased with that person. Some people said friends did not have an influence of playing underground lottery.

The study results are consistent with the study conducted by Boonin (2019) on factors affecting underground lottery playing behavior as it was found that influence from friends was a significant factor affecting underground lottery playing behavior to some extent. This is consistent with imitation theory viewing that humans are more likely to imitate fashion and traditions of others. Imitation is a kind of learning and some kinds of imitation cause crimes. Crimes shall spread the same way as fashion does.

(B) Influence of media

Most of the key informants viewed that the news associated with people who win the lottery prizes or the news about famous numbers from well-known public figures or temples had an influence on purchasing underground lottery as they would like to be the one who can win the lottery prizes. However, some viewed that the news about winning lottery prizes had no influence since it is about individual luck.

The study results are also consistent with Maslow's Hierarchy of Needs viewing that humans are born with an innate desire and this desire is hierarchical from the minimum to the maximum hierarchy. Maslow's hierarchy of needs starts from the lowest level that persons must receive satisfaction first before passing to the other levels of needs, respectively. Almost all of the credit union cooperative members once received physical needs, safety needs, belongingness and love need, the next step is esteem needs. Winning lottery prizes quite often or winning the big lottery prizes are needs consistent with the stage 4 of Maslow's hierarchy of needs.

(C) Influence of gambling in the past

Most of the key informants used to play other kinds of gambling with enjoyment but not much severe like bingo. It is simple gambling which can be played by people of all genders and ages. When they could make a living on their own, they changed to purchase government lottery and then underground lottery. When they feel they are lucky in gambling as they won lottery prizes quite often, they are in the cycle of underground lottery.

The study results are consistent with Aker's Social Learning Theory viewing that criminal behavior can be imitated from other people through the process of communication. The process of communication can be in the form of training, teaching, perceiving from what have been told, including imitation from different methods. Persons become criminals because they get involved with and get familiar with criminal behaviors that blend them into cultural influence of thieves; for example, having experience in being in a group of criminals during the period of childhood. Under these circumstances, a lot of credit union cooperative members used to play other kinds of gambling that give enjoyment but are not much severe like bingo which is a simple gambling played by people of all genders and ages. Later, when they could make a living on their own, they changed to purchase government lottery and underground lottery, respectively. When they feel they are lucky in gambling as they won lottery prizes quite often, they are in the cycle of underground lottery, consistent with the differential association theory that higher frequency, intensity, and length of time seeing crimes are, a greater tendency for committing a crime or getting involved with a crime shall become.

5. Conclusion

Underground lottery (illegal lottery) purchasing behavior of members of Chompoo Samakkhi Credit Union Cooperative can be divided into 13 interesting points as follow: (1) Most of the key informants purchased both government and underground lotteries of every draw, (2) Most of the key informants purchased underground lotteries almost every draw (3) Most of the key informants purchased underground lotteries within a budget of 200-500 baht per draw, (4) Most of the key informants purchased underground lotteries from underground lottery hosts but some of them purchased underground lotteries from online underground lottery gambling, (5) payment methods, the key informants had different payment methods, depending on each underground lottery host and types of underground lottery host. Underground lottery hosts who are ordinary persons provided different payment methods; for example, some hosts required customers to pay all promptly, some hosts allowed customers to pay after the draw, some hosts allowed customers to pay after two draws. However, purchasing underground lotteries from online underground lottery gambling, based on the Applications and websites, customers were required to deposit their money into an online account first. The deposited money shall become a credit for purchasing online underground lotteries. (6) two types of choosing underground lottery hosts were (a) underground lottery hosts who are ordinary persons, such as friends, relatives or familiar persons, and (b) underground lottery hosts that are Applications or websites, (7) 3 models for selecting the numbers for underground lotteries were home address numbers, numbers displayed on vehicle number plates, and ages of family members, (8) Most of the key informants purchased all forms of underground lotteries in terms of "the first and last digit numbers" or "2-digit numbers up and 2-digit numbers down" and both "alternate numbers" and "exact numbers", (9) Most of the key

informants set a budget for purchasing underground lotteries at the maximum of 1,200-1,500 baht per draw; 200-500 baht per person per draw on an average, (10) Most of the key informants won the underground lottery prize very often; every other month or every other draw, but some of them once in a while won the underground lottery prize; 2-3 times per year, (11) Most of the key informants won the underground lottery prize per draw at the maximum of 5,000-6,000 baht per draw, (12) Most of the key informants were superstitious when purchasing underground lotteries, especially the belief in winning the underground lottery prize of a certain draw, (13) Most of the key informants felt indifferent towards losing the underground lottery prize as they thought they are able to win the lottery prize for the next draw.

There are 3 significant causal factors related to underground lottery purchasing behaviors of Chompoo Samakkhi Credit Union Cooperative members, namely, (1) factor related to “underground lottery itself”, (2) “internal factor” of underground lotteries, and (3) “external factor” of underground lotteries. The factor related to underground lottery itself is divided into 4 minor factors as (A) easiness of choosing numbers, (B) easiness of purchasing underground lotteries, (C) customers spend less money purchasing underground lotteries but receive prize money equal to or greater than purchasing government lotteries and (D) underground lotteries offer a discount or commission to buyers. Internal factor of those who purchase underground lotteries is divided into 3 minor factors, i.e. (A) knowledge about laws on gambling, (B) underground lotteries are enjoyment rather than striving for income and (C) purchasing underground lotteries is taking a chance rather than gambling. The last factor is external factor of those who purchase underground lotteries, divided into 3 minor factors as (A) influence from friends, (B) influence from media, and (C) influence of gambling they used to play in the past.

6. Recommendations

There are 3 recommendations for the research as follow:

(1) Policy recommendation – it is considered proper that Chompoo Samakkhi Credit Union Cooperative should implement a policy on creating “Credit Union Cooperative lottery” by submitting a proposal to relevant agencies, such as Cooperative Promotion Department, so as to give an opportunity for studying about Credit Union Cooperative lottery issuance, similar to Bank for Agriculture and Agricultural Cooperatives lottery and Government Savings Bank lottery, including increasing an opportunity to people to make their own choices on purchasing Credit Union Cooperative lottery to compete for a prize in the same way as Bank of Agriculture and Agricultural Cooperative lottery and Government Savings Bank lottery.

(2) Practical recommendation – it is viewed as appropriate to allow Chompoo Samakkhi Credit Union Cooperative to prepare public media in the form of infographics or video clips to publicize the comparison between bank deposits and underground lottery purchase. The comparison shall be made in terms of earnings received from 1 year bank deposits and 1-year underground lottery purchase, to see which one gives better long-term earnings. In the meantime, disadvantages of underground lottery purchase should be publicized as well.

(3) Academic recommendation – it is viewed as proper to revive the legalizing underground lottery scheme from the perspective of former Thaksin government since the scheme is considered being able to seriously address the underground lottery problems. Meanwhile, the revenue obtained from the sales of legalized underground lotteries can be used for country development.

7. References

- Center for Gambling Studies. (2022). *Retracing the history of Thai gambling*. Retrieved from <https://www.gamblingstudy-th.org/print.php?txtNo=39>.
- Chiang Mai Provincial Administrative Office. (2012). *Saraphi District Information*. Retrieved from <http://www.dopacm.go.th/index.php?op=district&place=๙๗๙๙&id=19>
- Chodkolsuek, S., Na Ranong, S., & Arranged, R. L. (2022). *Thai trade in the reign of King Rama III*. Retrieved from <http://www.kingrama3.or.th/index.php?lay=show&ac=article&Id=540025328>
- Chompoo Samakkhi Credit Union Cooperative. (2022). *2022 Annual Report*. Chiangmai, Thailand: Saraphi Publishing.
- Chutinun, A. (2018). *Criminology and Penology* (3rd Edition). Bangkok: Winyuchon.

- Credit Union League of Thailand. (2022). *Definition of Credit Union*. Retrieved from <https://www.cultthai.coop/cultthai/index.php/2017-05-24-02-43-05/2017-05-24-02-47-11>
- DataBet. (2019). *Illegal Lottery*. Retrieved from <https://www.databet.wiki/หัวข้อให้คิด/>
- Fletcher, R. (2019). *Victimless Crime*. Retrieved from <https://www.oxfordbibliographies.com/display/document/obo-9780195396607/obo-9780195396607-0272.xml>
- HealthServ. (2021). *10 issues of gambling situation in Thai society in 2021*. Retrieved from <https://healthserv.net/10ประเด็นสถานการณ์การพนันในสังคมไทยปี2564-19796>
- Joong, W. (2007). *Maslow's Hierarchical Theory of Motivation*. Retrieved from <https://www.bloggang.com/mainblog.php?id=wbj&month=07-12-2007&group=29&gblog=3>
- Kidsumran, O. (2018). *Illegal lottery buying among housewives having vocational training in Chonburi province*. (Master Thesis), Burapha University.
- La Loubere, S. (2018). *The Kingdom of Siam Simon de La Loubere*. Bangkok, Thailand: Sripanya.
- Mongkolworadach, S. (2020). *The importance of lottery to the Thai economy from 1874 – 1939*. (Master Thesis), Srinakharinwirot University.
- Ratawongwai, N. (2018). *The buying behavior of government lottery and underground lottery of the employees the sub-district administrative organization in Bang Phli district, Samutprakan province*. Faculty of Business Administration, Ramkhamhaeng University. Retrieved from <https://mmm.ru.ac.th/MMM/IS/vlt15-1/6114993075.pdf>
- Sanguansaksri, R. (2017). *Illegal lottery purchasing behaviors of Thai residents of an industrial area* (Masters thesis), Ramkhamhaeng University, Thailand.
- Silpa-Mag (2022). *Foreigners say that Thai people love to gamble?*. Retrieved from https://www.silpa-mag.com/history/article_15168
- Siriwong, P. & Chattan, K. (2018). An origin for interpreting and the consumers behavior in purchasing illegal lottery of elderly in Tha-Yang district, Phetchaburi. In *The 9th Rajamangala University of Technology National Conference*. Bangkok, Thailand
- Suebpongsiri, S. (2016). An Explanation of Autoerotic Deviance By Aker's Social Learning Theory. *Journal of Criminology and Forensic Science*, 2(1), 35-44.
- Suesaowaluk, (2013). *Behavior in Buying Underground Lotteries Among People Living in Thambon Ang-sila, Amphur Muang, Chonburi Province*. (Master Thesis), Burapha University.
- Ta-in, P., & Terdudomtham, T. (2020). Efficiency Enhancement of Law Enforcement to Prevent and Resolve a Ponzi Scheme Problem in the Transnational Venture Capital. *Rangsit Journal of Social Sciences and Humanities*, 7(1), 7-8.
- Tanboon, B., Tejagupta, C., & Sabaiying, W. (2017). Underground Lottery Buying Behavior and Its Effects of Families in the Local Area of the Southern Part of Thailand. In *The 8th STOU National Research Conference*. Sukhothai Thammathirat Open University, Nonthaburi, Thailand.
- Thai Government Gazette. (1935). *Gambling Act*. Retrieved from https://www.khaopracity.go.th/news/doc_download/a_250618_114236.pdf
- Thai Government Gazette. (1994). *Gambling Act*. Retrieved from <http://www.ratchakitcha.soc.go.th/DATA/PDF/2478/A/1978.PDF>
- The Government Lottery Office. (2019). *History*. Retrieved from <https://www.glo.or.th/about/history>.
- The Government Lottery Office. (2022). *Operational Objectives*. Retrieved from <https://www.glo.or.th/about/objective>.
- Trimek, J. (2018). Rational Choice Theory, *Criminology*. Rangsit University Pathum Thani, Thailand.

Research Hotspots and Trends in Monuments and Memorials: Visual Analysis Based on Knowledge Graph

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Abstract

Monuments and memorials have been extensively researched in recent decades, and this overall upward trend is continuing. Effectively identifying the frontier hotspots of this research topic and predicting the future development trend is significant. Using the visualization software CiteSpace, this study analyzes the relevant literature on CNKI and WOS databases from 2012 to 2021. The results reveal the following: (1) The main current themes of the monument and memorial research can be divided into four parts, namely “basic theory, technology, and method”, “history, memory, and commemoration”, “type of remains, heritage, and dark tourism”, and “space environment and art”. (2) The relevant themes can be summarized in the evolutionary path of three research directions: “history, memory, and commemoration of the monument and memorials”, “tourism development and preservation and/or conservation of monuments and memorials”, “artistic design of the space environment of the monuments and memorial”. (3) The cross-border disciplines and fields, improvement of basic theory, innovation of technology and methods, and development and criticism of “counter-monuments and anti-memorials” are important concerns for future research on this topic.

Keywords: Monument, Memorial, CiteSpace, Research hotspots, Research theme

1. Introduction

As the central object of protection under The Venice Charter passed in 1964, the term “monument” is one of the oldest and most used in the heritage world. In the realm of monument and site protection, although the word has the extended meaning of “monuments” in Chinese, it still firmly retains its original meaning (Lu, 2021). In 1903, Alois Riegl (1981), in his famous “Der Moderne Denkmalkultur: Sein Wesen Und Seine Entstehung”, began to describe the meaning of the word monument (Denkmal): “In its oldest and most original sense, a monument is a work erected by man for the specific purpose of keeping particular human deeds or destinies (or a complex accumulation thereof) alive and present in the consciousness of future generations”¹.

In 1982, the aforementioned seminal article by Alois Riegl (1981) was translated into English by Kurt W. Forster and Diane Ghirardo and published in *Oppositions*, and the number of research papers on monuments and memorials subsequently showed an overall upward trend (Figure 1)². In recent years, there has been an increasing amount of research literature in China and other countries on this topic (Figure 2). Consequently, effectively identifying the research frontiers and hotspots of the topic and predicting its future development trend is very important. Using the CNKI (China National Knowledge Infrastructure) and WOS (Web of Science) databases (2012–2021) as data sources, this study integrates methods such as quantitative analysis and information visualization. Using the analysis results provided by CiteSpace software, this study identifies and explores the research hotspots and trends in monuments and memorials.

2. Objectives

This study uses the knowledge graph method to statistically analyze the data, with the aim of identifying the hotspots at the forefront of research on monuments and memorials to clarify the main current research themes and explore the direction of research and how it has evolved. Based on this, future trends in research on the topic are explored. At the macro level, research can provide decision-making support for the formulation of relevant policies, while from the individual micro point of view, the grasp of research hotspots and trend tracking is of great significance for scientific researchers in improving efficiency and output.

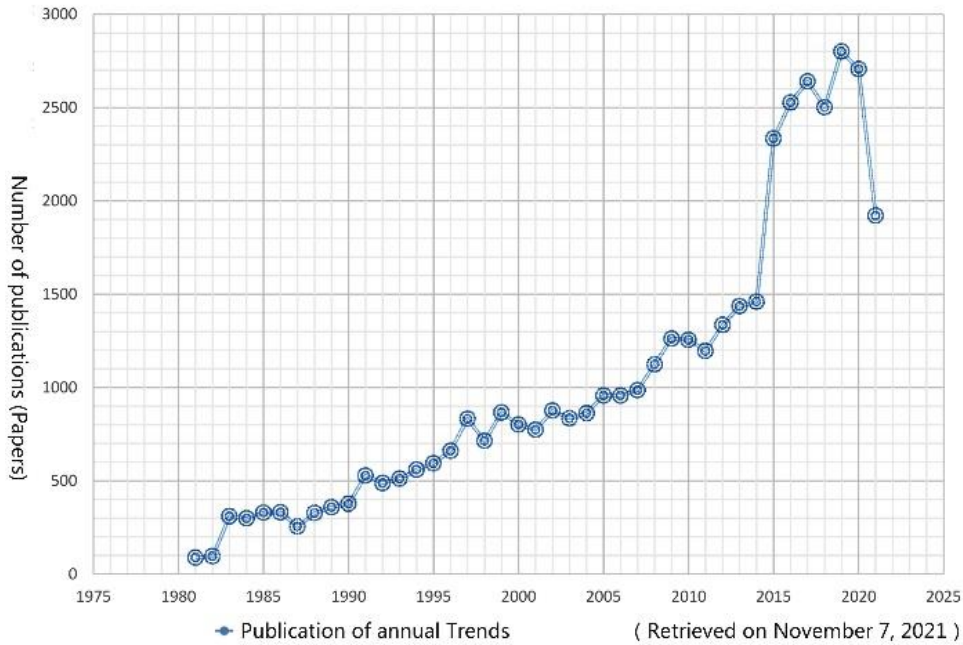


Figure 1 Annual trends of publications under the theme “Monument or Memorial” in the WOS Core Collection (1981–2021)

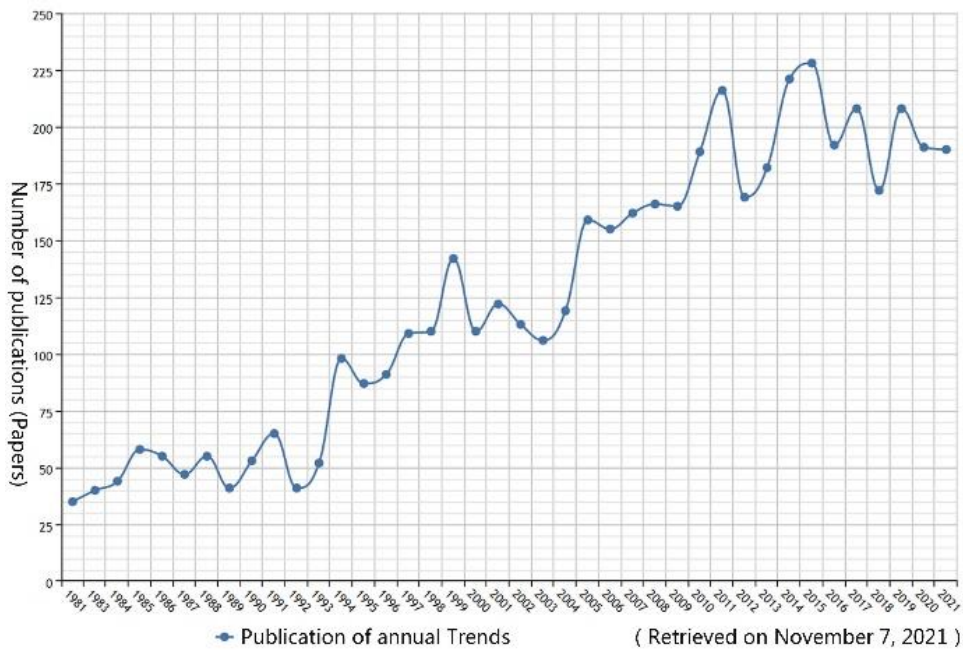


Figure 2 Annual trends of publications under the theme “Monument or Memorial” in the CNKI database (1981–2021)

3. Materials and Methods

This study adheres to the principle of objective and systematic screening, selecting the words “monument or memorial” and “place” to represent the Chinese “纪念碑” (Jinianbei) and “场所” (Changsuo) according to their definitions. In this article, Chinese and English literature data are obtained from CNKI and WOS databases, respectively, from 2012–2021, last updated on November 11, 2021. Each document data

record includes the author, title, abstract, keywords, and citations of the document. In order to ensure the literature sources are as representative and comprehensive as possible, this study only selects the Web of Science Core Collection of SCI-EXPANDED (Science Citation Index Expanded), SSCI (Social Science Citation Index), A&HCI (Arts & Humanities Citation Index), CPCI-S (Conference Proceedings Citation Index - Science), CPCI-SSH (Conference Proceedings Citation Index - Social Sciences & Humanities), and ESCI (Emerging Sources Citation Index) when searching the WOS database. The document types selected are articles and proceedings. The English literature data is limited to the disciplines in Figure 3, with a total of 3067 items of literature data obtained. All journals are in the data source category of Chinese literature, with a total of 17 items obtained. After the software merges and eliminates interviews, book reviews, and duplicate literature, 3032 items of literature data published from 2012–021 were obtained for this study.

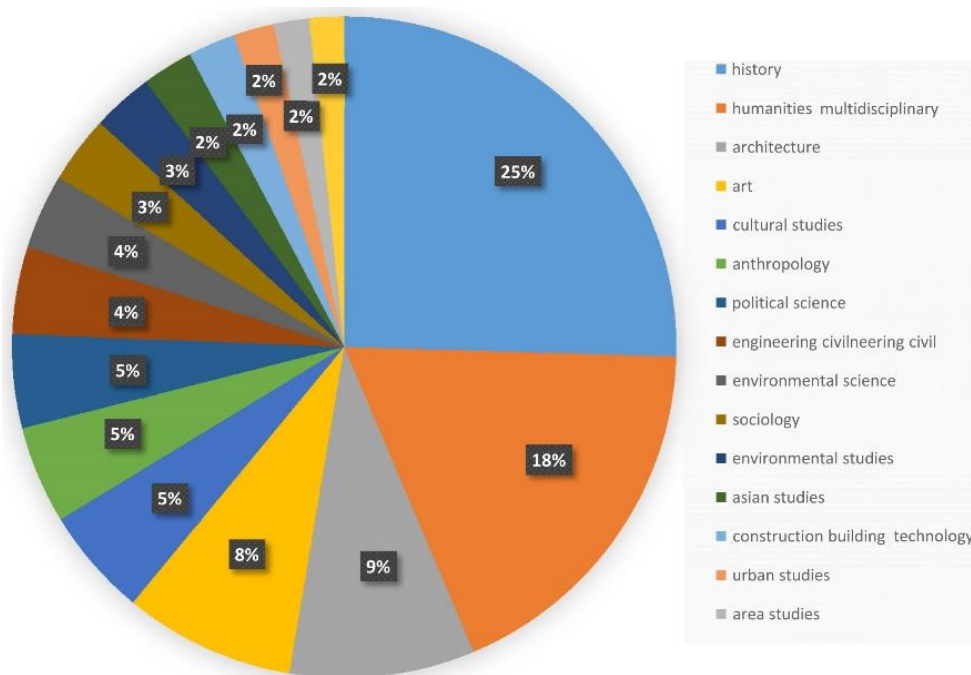


Figure 3 Subject distribution map showing the number of research articles on monument and memorial sites (2012–2021)

In contrast to other common information visualization analysis software, such as ArneMiner, PaperLens and Thomson Data Analysis (TDA), CiteSpace integrates cluster, social network, multi-dimensional scaling, and other analysis methods, focusing on the relationship among the evolution research disciplines and their intellectual bases, and the internal connections between different research fronts (Qin, 2014). Therefore, CiteSpace (5.8.R3) is selected for this study to conduct corresponding data mining and quantitative analysis on the cited literature and citations. The research combines information visualization methods, bibliometric methods, and data mining algorithms with documentary data from the statistical analysis of time characteristics, network distribution characteristics, research hotspots, etc. A visual knowledge graph is provided to show the development process and structural relationships in the analysis of monument and memorial sites. From the perspective of multiple, time-sharing, and dynamic, information mining is carried out on the scientific literature, the research theme of monument and memorial sites analyzed, and the evolutionary path and development trends clarified. Due to data collection limitations, the paper can only reflect the related research on monuments and memorials in the past ten years, while early research in this field requires researchers to collect data separately and conduct comprehensive research.

In the specific operation, the time division boundary is selected as one year, the node type is a keyword, and the threshold value selected as g-index (k value is selected as 20). After running the

visualization software CiteSpace, the keyword co-occurrence network graph containing 303 keyword nodes and 775 connections was obtained; among them, the modularity $Q = 0.4798$ and the weighted mean silhouette $S = 0.7931$ are both within a reasonable range.

4. Results and Discussion

Research hotspots can be explored using a certain number of related article combinations; it is mainly determined by high-frequency keywords and noun phrases selected from the paper. “Keywords are highly-refined summaries of the core content of the article, reflecting its research value and direction; the correlation between keywords can reflect the internal connection of knowledge in various disciplines to a certain extent along with the distribution and evolution of the research theme. It can more intuitively reflect the changes in the research hotspots, research methods, and research directions in different periods” (Zhang et al., 2021). Therefore, the relevant visualization graphs and data tables for this study have been obtained through the relevant analysis function of the visualization software CiteSpace. This research adopts the analysis method of the keyword co-occurrence network to analyze the research hotspots and development directions of the research on monument and memorial sites in the past decade.

4.1 Identification of the Research Theme

The centrality concept of CiteSpace software is mainly used to measure the strength of the network nodes in the graph structure; the higher the centrality of a node, the stronger its importance and influence on the entire graph (nodes with a centrality exceeding 0.1 are called key nodes), and the more likely it is to establish a co-occurrence relationship with other nodes. This research uses the relevant analysis function of the visualization software CiteSpace to construct a keyword co-occurrence network. It obtains the keyword co-occurrence graph of the monument site research (Figure 4) and the top 20 keywords in the centrality ranking (Table 1).

Table 1 Top 20 keywords for centrality value

Sequence Number	Keyword	Centrality	Frequency	Year
1	Collective memory	0.12	77	2012
2	Memory	0.10	71	2012
3	Politics	0.09	61	2012
4	History	0.20	59	2012
5	Historical memory	0.12	50	2015
6	Cultural heritage	0.06	41	2013
7	Monument	0.16	37	2012
8	Place	0.07	30	2012
9	Identity	0.07	29	2013
10	War memorial	0.06	29	2012
11	Sepulchral monument	0.10	28	2013
12	Public space	0.04	26	2014
13	Dark tourism	0.03	24	2012
14	Heritage	0.08	24	2014
15	War	0.07	23	2013
16	First world war	0.13	21	2012
17	Memorial museum	0.04	20	2017
18	Landscape	0.01	19	2013
19	National identity	0.04	19	2013
20	Death	0.05	17	2014

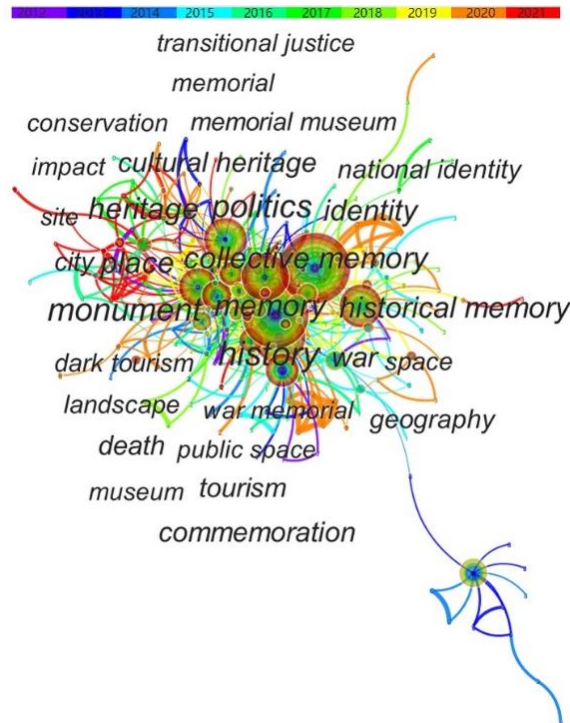


Figure 4 Keyword co-occurrence views for research on monument and memorial sites

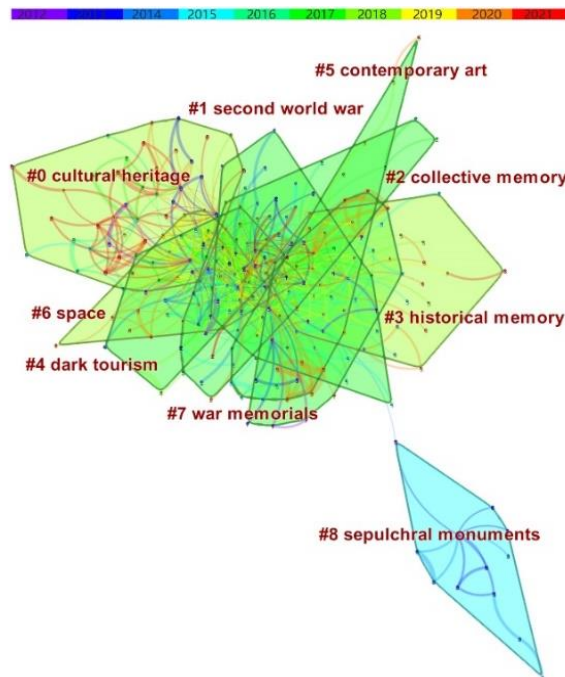


Figure 5 Keyword co-occurrence views for research on monument and memorial sites

Since the size of a node in the graph depends on its frequency value, the keywords in Table 1 are sorted by frequency level. In the table, “collective memory”, “memory”, and “historical memory” are related to memory (Centrality being 0.12, 0.10, 0.12, respectively), and “history”, “sepulchral monument” and “first

world war” (Centrality being 0.20, 0.10, 0.13, respectively), and “monument” (Centrality of 0.16), are search bases and the key nodes of this graph. They are an important intellectual base in the research specialty of monument and memorial sites and most closely related to other keywords. The different colors in Figure 4 represent different years, and the color change of the node circle layer from purple to red represents the time transition from 2012 to 2021. In this study, “collective memory” has the highest frequency (77 times) and the most significant impact; correspondingly, it has the most prominent nodes and circles in the graph. In addition, “memory”, “politics”, “history”, “historical memory”, “monument”, “sepulchral monument”, “heritage”, and “first world war” exhibit frequencies of 71, 61, 59, 50, 41, 37, 28, 21, respectively. While forming nodes, they are closely connected with “collective memory”, which is the main issue with research in this field.

Table 2 Keyword co-occurrence network cluster table for research on monument and memorial sites (Words related to coverage are sorted from high to low according to their influence on the cluster.)

Cluster ID	Size	Coverage	Silhouette	Mean Year	Begin Year	End Year
#0	41	cultural heritage; numerical simulation; conservation; biodeterioration; stone conservation	0.833	2017	2012	2021
#1	38	second world war; remembrance; historical memory; first world war; World War I	0.692	2015	2012	2019
#2	30	collective memory; public space; place of memory; transitional justice; historical memory	0.754	2015	2012	2021
#3	28	historical memory; culture memory; civil war; memory studies; places of memory	0.743	2017	2015	2021
#4	26	dark tourism; tourism; dark heritage; pilgrimage; historical memory	0.788	2015	2012	2021
#5	19	contemporary art; Khmer rouge; human rights; statistical data; educational institutions	0.847	2017	2012	2020
#6	17	space; city; nature conservation; open cast mining; underground mining	0.823	2018	2013	2020
#7	13	war memorials; World War II; morale; taste; stress	0.89	2016	2012	2020
#8	12	sepulchral monuments; Bohemia; Moravia; epigraphy of Rosenberg	0.972	2013	2013	2014

4.2 Hotspot Theme Analysis

In this study, the “LLR log-likelihood algorithm” is used to perform cluster analysis on keywords, with a keyword cluster knowledge graph generated in Figure 5³. From the description of modularity (Q value) and weighted mean silhouette (S value) in the aforementioned research methods, it can be seen that their values are all within a reasonable range, indicating that the research cluster has a significant effect. These clusters reflect the current development status and hotspot issues in the research specialty of monument and memorial sites, including “cultural heritage”, “second world war”, “collective memory”, “historical memory”, “dark tourism”, “contemporary”, “space”, “sepulchral monument”, etc. (74 cluster tags). When

performing keyword cluster analysis with CiteSpace software, “Summary Table/Whitelists” should be selected in the “clusters” menu bar and the cluster timeline combined to obtain a keyword co-occurrence network cluster table (Table 2). In addition, because the number of members in some cluster groups are too low, the significance of the analysis is relatively small; the eight cluster groups shown in Table 2 are automatically generated under the default settings of the CiteSpace software, and the researcher does not need to list the remaining cluster groups in detail.

It can be seen from Table 2 that the *S* values of the other cluster groups except #1 are all above 0.7, indicating a high-quality cluster⁴. The mean year represents the timeliness of the cluster, while the earliest appearance of keywords began between 2012 and 2021 (due to the year intervals of the sample data, the most influential keywords in the cluster group may also be earlier than the Begin year in related research). For example, the mean year of the “cultural heritage” in the cluster #0 group is 2017, and the Begin year 2012; specifically, the most influential keywords in the cluster group from 2012 to 2021 first appeared in 2012, and then other members continued to develop, making its theme one of the research hotspots around 2017.

By analyzing the cluster situation of the keyword co-occurrence network cluster in Figure 5 and Table 2, except for the cluster #8 group, the research contents of other cluster groups overlap. Therefore, research on monument and memorial sites can be summarized into four themes: “basic theory, technology and method”, “history, commemoration, and memory”, “remains-type heritage and dark tourism”, and “space environment art”. The specific contents are as follows: Firstly, research on basic theory, technology, and method. In recent years, some researchers have focused on basic theoretical research on monument and memorial sites from the perspective of imaginary, symbolic, identity, effect, and experience (e.g., Stańczyk, 2013; Savenije & Bruijn, 2017; Farrelly, 2019); In terms of technology and method, some researchers use visualization, X-ray and spatial analysis techniques (Panou et al., 2018; Buccolieri, 2016; Gizzi et al., 2016), as well as new analysis methods such as CO₂ isotope ratios to carry out related research on monument and memorial sites (e.g., Pironti et al., 2022). These methods not only enrich the basic theory of this type of research but also provide more powerful theoretical and technical support for the design practice of monument and memorial sites. The continuous updating of research methods is conducive to the researcher’s understanding of research objects from different aspects—an in-depth exploration of characteristics and development value. Thus, the diversified presentation of relevant research results can be promoted.

Stańczyk (2013) explored the reshaping of national identity in post-communist Poland through an analysis of urban spaces with the aid of two controversial monuments in an attempt to unravel the complexities of communalization and state-building in the country after the fall of communism. Savenije and Bruijn (2017) used the concept of historical empathy, combining contextualization and affective engagement, to investigate the ongoing interplay between cognitive and affective dimensions of historical learning in museums. Farrelly (2019) used the experiments of three memorial sites to develop the tourists’ understanding of the experience by theoretically imagining the nature of the community and its role in establishing the relevant theory of the memorial experience. Panou et al. (2018) used augmented reality (AR) technology on three monuments in the ancient city of Chania in Crete, Greece, combining virtual reality with location awareness, gamification, and social aspects. The past state of the monuments is displayed and superimposed on the real world. When users visit these monuments, they can see their past and present state, thus enhancing the interaction of tourists with the cultural remains (Panou et al., 2018). Buccolieri’s (2016) study analyzed the patina on outdoor bronze monuments in a completely non-invasive manner with the help of portable energy dispersive X-ray fluorescence (EDXRF) equipment and obtained helpful information as well as providing a theoretical reference for the future monitoring and restoration of such monuments and statues. The research of Gizzi et al. (2016) is based on a new method of spatial analysis techniques. On a regional scale, he analyzed the correlation between the weathering patterns observed on buildings and typical microclimate factors of the region (especially sunlight and wind) through on-site assessments and discussions on the conservation status of residential sites, revealing the effects of wind, rain, and sunlight on well-protected building stone. Concetta Pironti’s (2022) research shows that a new analytical method for CO₂ isotope ratios is an effective tool and non-invasive marker for monitoring environmental pollution in museums and cultural heritage sites.

It can be seen from the relevant research that the use of new theories, digital technologies, and media offers a future development direction in conducting cross-border research on issues relating to monument and

memorial sites. The relevant fundamental theories, technologies, and methods currently used in monument site research are still in the process of continuous exploration, and the relevant research is constantly developing on the basis of learning from the knowledge of related disciplines. However, a complete targeted theoretical system has not yet been formed, with technology development and method experience still in progress. Secondly, research on history, memory, and commemoration. People regard this public place as “milieux de mémoire” through the commemorative act of building the monument or memorial site. The purpose of these places is to evoke the memory of the historical content while simultaneously shaping it and inducing the emotional experience and resonance of the visitors. In specific research, “collective memory”, “memory”, “history”, “historical memory”, “sites of memory”, “cultural memory”, “memory study”, “war memorials”, “sepulchral monument”, “war” and so on, have become essential keywords or theoretical concepts. It can also be observed from Table 2 that “collective memory”, “memory”, and “history” are ranked second and fourth for centrality. In the co-occurrence graph, there is a close, overlapping relationship between memory and history.

As early as 500 BC, the ancient Greek poet Simonides used the spatial arrangements in buildings to construct contrived memory (Solso, 2000). As an essential concept in the humanities and social sciences, “memory” began in the 1970s and 1980s and originated from the “memory research fever” in Europe (Alings, 1996). At present, related research on memory is continuously being published in the journal “Memory Research”. As one of its representatives, “Rethinking France: Lieux de mémoire” edited by Pierre Nora (2020), a well-known French expert on social memory chose to go back into cultural-social history. By analyzing the role of palaces, churches, and other memorial sites such as “Lieux de mémoire” in the construction of nations and states, the memory that shapes the French “national consciousness” can be explored. Wakao (2010) discussed the formation, background and process of monuments, cemeteries, and historical relics in the United States, Britain, France, Germany, Eastern Europe, Northern Europe, and other countries and regions. He analyzed the complex social-mechanical relationships that emerge, since they are created as the image objects and passed on, erased, or forgotten (Wakao, 2010). In addition, some researchers have questioned and criticized the concept of a monument, arguing that it was based entirely on the physical form without preserving public memory. According to Pierre Nora (1989), “The fewer memorials that are created from within, the more forms of memorials are created from the outside”. While Huyssen (1984) points out that “in an era of markedly increased public commemoration, the need for remembrance of the past and the thinking and study of remembrance today appear to be inversely related”.

Existing research shows that relevant historical, memory, and memorial research is a substantial knowledge base for monument research, and these knowledge theories are conducive to the expansion of such research from different perspectives, promoting the diversified presentation of the results.

The third is research on remains-type heritage and dark tourism. Places, where black events such as death, disasters, evil, brutality, and massacres have occurred, are increasingly becoming tourist attractions. They and “historical monuments” are a kind of precious cultural heritage in human society. They have become important physical places of remembrance, history, and record, demonstrating demand but also composing remembrance, historical reference, narrative heritage, and populist heritage sites. In fact, heritage is a controversial concept, and the quest for historical “accuracy” has always favored a compromise between conflicting ideologies, interpretations, and funding. The outbreak of heritage manifests in the rise of the secularization and democratization of commemoration. It is also the product of the politicization of commemoration, completely changing the commemorative system and ultimately leading to the proliferation of commemoration (Nora, 2020). As we all know, these heritages are multivalent because they not only provide a visual, perceptual channel but also a way of remembering and forgetting, or even a theater of memory (Welch, 2016). Research in this area can be divided into two directions: remains conservation and tourism. In specific research, keywords such as “cultural heritage”, “dark heritage”, “dark tourism”, “pilgrimage”, “tourism”, “World War II”, “World War I”, and “conservation” are usually used.

The term “dark tourism” was first coined in 1996 by Foley and Lennon (1996; 2001). The term “encompasses the presentation and consumption (by visitors) of real and commodified death and disaster sites”. Lennon has made an important contribution to interpretive issues, selective commemoration, and the interpretation of scholarly debates in the field of “dark tourism”. As a professional researcher specializing in tourism, Golańska (2015) has undertaken a philosophical inquiry into “dark attractions” inspired by the

aesthetics of Deleuze and Guattari, aiming to separate the term “dark tourism” from its typically negative values. Unlike previous studies on dark tourism, which were biased toward theoretical papers and qualitative methods, Dimitrovski et al. (2017) used a relatively rare quantitative modeling approach to explore the behavior of tourists who visit dark sites or participate in such activities.

The relevant research reveals that dark tourism sites are not only part of our cultural heritage and worthy of utilization, preservation, and/or conservation by human society but also monumental places with a humanized function. From the perspective of remains and heritage, research on certain monument sites is conducive to enhancing their unique value, such as by reflecting and recalling history.

Fourthly, research on the space environment and art. In order to set off the environmental atmosphere and infect visitors with a more intuitive artistic image, many monuments and memorials of commemorative significance are often visual art images such as intuitive and figurative single or group statues and relief or complex sculptures. These visual art images make monuments a vital art type in the history of human art, reflecting the spiritual outlook and temperament of an era and even considered to be historical images of an era. By interpreting them, we can peek into that era’s ideology and general political landscape. In specific research, “space”, “public space”, “memorial museum”, “architecture”, “landscape”, “contemporary art”, “public art”, “statue”, “monumental sculpture”, and so on have become important keywords.

Starting from the differences in periods and spirit of the times, Jianqun Li (2021) believes that a monumental sculpture, as an art form carrying social politics, religion, and culture, is an image of the history in an era, reflecting its spirit and temperament. Schütz (2020) looks at the cities of Bristol and Marseille, analyzing how their dynamic commemorations combine heritage and aesthetics with protest and draw attention to the artist’s ability to challenge existing civic narratives. Drawing on the case of Jochen Gerz, a German conceptual artist known for his innovative monuments, Yang (2013) introduces six unprecedented ways to build monuments. On the basis of analyzing the rise of abstract sculpture and its influence on monumental sculpture, Tan (2021) discusses the similarities and differences between Chinese and Western abstract monumental sculptures in terms of content and form. Through a collection of images and texts, Yoon (2019) explores the visual rhetoric and symbolism of statues in public spaces, deciphering their language, objectivity, and materiality, as well as their role as media icons and voices in political debate.

Judging from the relevant research articles retrieved, monumental sculpture art presents two forms of figurative and imagery at the same time. Most of their research starts with the theme, image, form, etc., and then interprets the symbolic meaning behind them, the spirit of the times, and the political identity they reflect.

4.3 Hotspot Theme Evolutionary Path

The timeline views generated by CiteSpace software can intuitively show the activity and persistence of each cluster keyword in the research topic simultaneously with the evolution and development of each cluster keyword and the closeness of the relationship between clusters. As can be seen from Figure 6, the keywords of the eight groups of clusters #0 to #7 have a certain temporal relationship and mutual connection with each other, indicating that their research popularity has a certain continuity and relevance. The keywords of cluster #8 do not form a clear timeline between each other, and the time relationship is weak. The start and end times of the cluster are 2013 and 2014, indicating that its research topic keywords are only periodic research hotspots with poor persistence. The three groups of clusters #0, #2, and #4 cover the time span from 2012 to 2021, indicating that their research topic keywords have the highest activity and strongest research continuity. From the timeline of each cluster, the earliest keywords in the six groups of clusters #0~#2, #4, #5, and #7 all appear in 2012. However, the development speed and ending time of each cluster are different. Taking cluster #2 as an example, “collective memory” is located at the far left of the timeline, and the earliest keyword in the cluster. Its appearance means that cluster #2 starts to form gradually, while other keywords in the cluster change with time. The transitions appear one after another, such as war (2013), public space (2014), body (2015), commemoration (2016), holocaust (2017), Central Asia (2018), Europe (2019), king (2020), art (2021), and so on. The cluster develops rapidly from 2012 to 2017, slowing down after 2017, but from the overall perspective, the development of cluster #2 is relatively stable, with new keyword members appearing every year. Cluster #2 is also relatively compact, and society has been deeply concerned about it for many years, which may explain why its research popularity has continued for such a long time.

As can be observed from Figures 6 and 7, the number of keywords generally shows a fluctuating and decreasing trend. In 2012, relatively large numbers of keywords were used in research on monuments and memorials, peaking in the past decade, “collective memory” and “memory” being the most important. From 2013 to 2016, the number of keywords appears to be generally stable, with “cultural heritage”, “public space”, “historical memory”, and “conservation” being the most important in the corresponding years. From 2017 to 2018, the number of related keywords decreased rapidly but rebounded from 2019 to 2020.

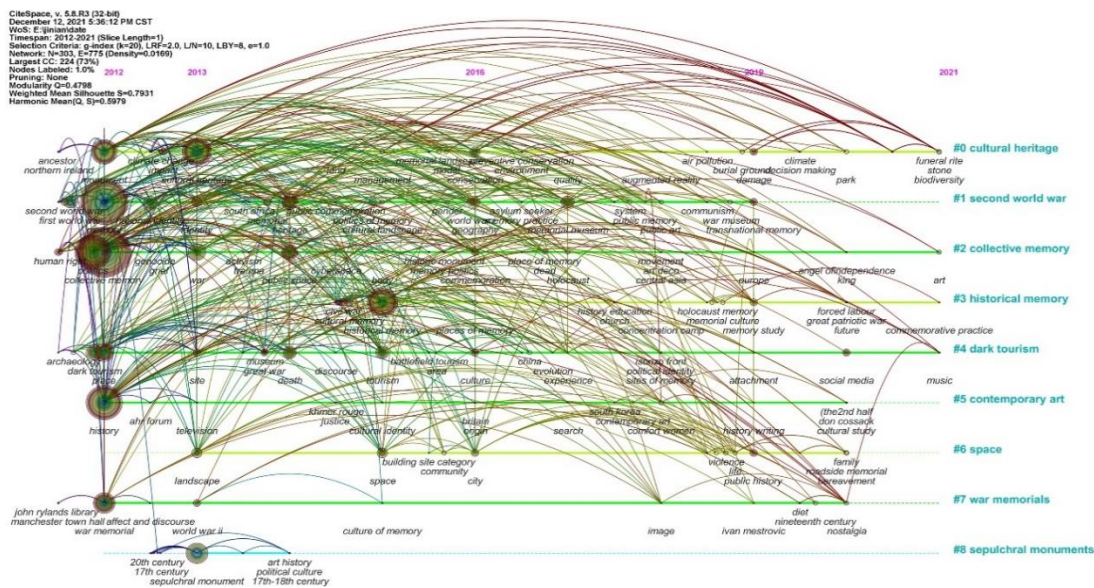


Figure 6 Timeline view of keywords used in research on monuments and memorials

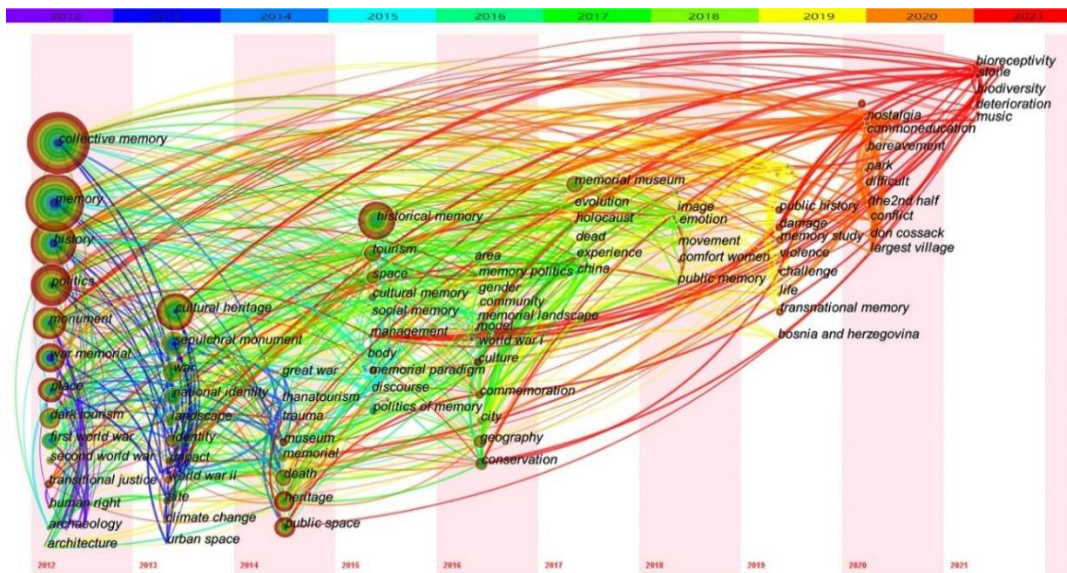


Figure 7 Time-zone view of keywords used in research on monument and memorial sites

Looking at Figures 6 and Figure 7 comprehensively, the term “collective memory” has had the most extensive influence on monument and memorial research in the past decade. During the same period, a vertical differentiation path for “memory → history → politics → architecture → construction → place space → dark tourism” was also formed. Over time, each longitudinal path evolves into a different lateral path. By

synthesizing the horizontal and vertical evolution processes, three important research evolutionary paths can be sorted and summarized.

First is the “history, memory, and commemoration of the monument and memorial sites” research path. Their relationship is both inclusive, mixed, and two-way interactive. In a certain sense, although there are noticeable differences between “memory” and “history”, it can also be said that they are the same. Memory is the matrix that constitutes history; history is verified memory and where the relationship with memory begins. As the connection between memory and history, the content and most crucial feature of monument and memorial sites in history is monumentality. While shaping people’s memory, memory can, in turn, strengthen monumentality; that is, it can reshape the monument and memorial sites.

This research path can be branched into three aspects: history, memory, and commemoration. Among them, the historical evolutionary path can be divided into two branches: theoretical discussion and war reflection. The evolutionary path of “history → historical memory → public history” theoretically mixes history and memory, reflecting the different emphasis placed on the historical theory of the intellectual base of monument and memorial sites in different times. The evolutionary path of “war → painful experience → holocaust → life” reflects the content construction of the monument and memorial sites. For example, “war remains” needs to reflect the harm caused by war to people, and reverence for life. The evolutionary path of “memory → collective memory → cultural memory, social memory → public memory” reflects the different perspectives of memory theory on the intellectual base of monument and memorial sites at different times. The evolutionary path of “commemoration → model → image → social media”, reflects the differences in the way monument and memorial sites are commemorated and visually represented at different times, such as the encrypted monument presented in Zhao (2020).

Second is the research path “Tourism development and preservation and/or the conservation of monument and memorial sites”. Monument and memorial sites often have historical, artistic, economic, and research value. They also carry rich historical memory, cultural spirit, and social identity, promoting the protection and dissemination of remains-type heritage and transforming tangible assets into an actual cultural tourism economy on the premise of preservation and/or conservation.

In order to better reflect the role of tourism development in monument and memorial sites, the research path can be divided into two branches: emotional experience and protection/utilization. The evolution process of “dark tourism → commemoration → impact → emotion → common education” reflects the significance of dark tourism development in monument and memorial sites. Through highly creative commemorative facilities and scenes, deceased people, events, and things can be commemorated while simultaneously touching people’s hearts and mobilizing the emotions of tourists, making them feel the “trauma” and awakening the “respect” and “humane” aspects of life and goodwill, thereby inspiring a deeper level of interest, learning, experience, and exploration of the relevant content. The evolution process of “archaeology → culture heritage → management → evolution → conservation” indicates the direction of how best to protect and utilize monument and memorial sites. For the remains-type monument and memorial sites, history is annotated through archaeological excavations, while at the same time, the research, protection, and utilization of cultural relics not only promotes people’s understanding, appreciation, and participation in history, but also contributes to the sustainability of the site.

The third research path is the “artistic design of the space environment for the monument and memorial sites”. Compared with ordinary places, monuments often have memorials carrying commemorative significance. At contemporary monument sites, the settings and meaning of memorials have changed. For instance, by expressing monumentality in the form of a monumental “environment” rather than a single sculpture (Lin & Fu, 2007). Therefore, in contemporary times, the artistic design of the space environment of monument and memorial sites is different from the past.

This research path can be branched into three levels: planning, space, and memorials. The evolution process of “landscape → area → geography → park → biodiversity” reflects the design considerations of the monument and memorial sites from the planning level. The evolution of the research process “site → urban space → public space → memorial museum” reflects the different spatial emphasis of the monument and memorial sites. “Monument → memorial paradigm → challenge → art” reflects the discussion of memorials carrying commemorative significance from the perspective of artistic creation.

5. Conclusions and Research Trends and Prospects

5.1 Conclusion

This research uses information visualization software to analyze the development status and hotspots of articles on monument and memorial sites on the WOS and CNKI databases from 2012 to 2021. The following results are revealed:

(1) The hotspot keywords of the monument and memorial site research mainly include “collective memory”, “memory”, “politics”, “history”, “historical memory”, “cultural heritage”, etc. These fall mainly into three cluster groups, summarized into four research themes: “basic theory, technology and method”, “history, memory and commemoration”, “remains-type heritage and dark tourism”, and “space environment and art”.

(2) The relevant themes of monument and memorial site research can be summarized into three evolutionary paths: “history, memory, commemoration of the monument and memorial sites”, “tourism development and preservation and/or conservation of monument and memorial sites”, “artistic design of the space environment of monument and memorial sites”.

5.2 Research Trends and Prospects

This research uses the keywords co-citation, co-occurrence network, centrality, cluster, and Burst Terms generated by CiteSpace software to vividly display the research status, research hotspot, and development direction of the issue through analysis. In order to promote more scientific and effective research on the issue of the monument and memorial sites, it is recommended that future research focus on the following aspects:

The first is the cross-border between disciplines and fields. The study of monument and memorial sites requires the joint participation of multiple disciplines and fields. In the past decade, the related research has involved history, archaeology, architecture, and art, and this cross-border cooperation is likely to continue in the future. This will ensure that the research into the issue continues to deepen and diversify while promoting the extension of research specialties and opening up more related research branches.

The second is the improvement of essential theory and the innovation of technology and methods. Although research on monument and memorial sites has received significant attention from academic circles, its fundamental theories are based primarily on history, philosophy, environmental science and engineering, architecture, and art, with its knowledge points being relatively scattered, demonstrating the characteristics of fragmentation. The basic theory needs to be continuously integrated and improved. Therefore, it is necessary to strengthen the construction of theoretical research to form a systematic system. At the same time, it is also necessary to ensure the continuous innovation of research techniques and methods to improve the quality and enhance the value of scientific research.

Third, the development and criticism of “counter-monuments and anti-memorials”. As an emerging theory and design practice, it has independent significance and characteristics and is still growing and developing. On the one hand, it counters traditional monuments in spiritual and material expressions, aiming to remodel collective memory while revitalizing memorial activities and memorial spaces. On the other hand, because it is mainly aimed at specific objects in the memorial space, its inherent antagonism, even subjectivity, brings limitations to its theoretical and practical research.

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7. Notes

¹ Alois Riegl' original paper in German: Unter Denkmal im ältesten und ursprünglichsten Sinne versteht man ein Werk von Menschenhand, errichtet zu dem bestimmten Zwecke, um einzelne menschliche Taten

- oder Geschicke (oder Komplexe mehrerer solcher) im Bewußtsein der nachlebenden Generationen stets gegenwärtig und lebendig zu erhalten.
- ² *Oppositions* was an architectural journal produced by the Institute for Architecture and Urban Studies from 1973 to 1984. Many of its articles contributed to advancing architectural theory and many of its contributors became distinguished practitioners in the field of architecture. Twenty-six issues were produced during its eleven years of existence. See Hays, K. M. (1998). *Oppositions Reader: Selected Essays 1973-1984*. Princeton Architectural Press.
- ³ The words in Figure 4 are single keywords. Among them, the circle size represents the frequency of keywords, and the greater the frequency, the larger the circle; the lines represent the connection between keywords. Closely linked keywords will form a small group (i.e., closely related keywords will be clustered). Figure 5 shows the keyword clustering of these small groups; the most representative keywords indicate the clusters' names.
- ⁴ In general, the number of cluster members determines its representativeness. The more members, the greater the representativeness; the size of the weighted mean silhouette (S value) of the cluster indicates the quality of the cluster; the S value will approach infinitely but will not exceed 1.

8. References

- Alings, R. (1996). *Monument und nation: Das bild vom nationalstaat im medium denkmal - zum verhältnis von nation und staat im deutschen kaiserreich 1871-1918*. Berlin, Germany: De Gruyter.
- Buccolieri, A., Buccolieri, G., Castellano, A., & Marabelli, M. (2016). X-ray fluorescence for the study of the patinas on an outdoor bronze monument. *International Journal of Conservation Science*, 7(4), 1009-1022. <https://doi.org/10.3390/heritage4040170>
- Dimitrovski, D., Senić V., Marić D., & Marinković V. (2017). Commemorative events at destination memorials - a dark (heritage) tourism context. *International Journal of Heritage Studies*, 23(8), 695-708. <https://doi.org/10.1080/13527258.2017.1317645>
- Farrelly, F. (2019). Revealing the memorial experience through the tourist-led construction of imagined communities. *Tourism Management*, 75(12), 13-21. <https://doi.org/10.1016/j.tourman.2019.04.031>
- Foley, M., & Lennon, J. J. (1996). JFK and dark tourism: A fascination with assassination. *International Journal of Heritage Studies*, 2 (4), 198-211. <https://doi.org/10.1080/13527259608722175>
- Gizzi, F. T., Sileo, M., Biscione, M., Danese, M., & de Buergo, M.A. (2016). The conservation state of the Sassi di Matera site (Southern Italy) and its correlation with the environmental conditions analysed through spatial analysis techniques. *Journal of Cultural Heritage*, 17, 61-74. <https://doi.org/10.1016/j.culher.2015.05.002>
- Golańska, D. (2015). Affective spaces, sensuous engagements: in quest of a synaesthetic approach to 'dark memorials'. *International Journal of Heritage Studies*, 21(8), 773-790. <https://doi.org/10.1080/13527258.2015.1020960>
- Huyssen, A. (1984). Mapping the postmodern. *New German Critique*, 33, 5-52. <https://doi.org/10.2307/488352>
- Lennon, J. J., & Foley, M. (2001). *Dark tourism: The attraction of death and disaster*. Massachusetts, US: Cengage.
- Li, J.Q. (2021). Monumental sculpture and the spirit of the times: An example of the history of western fine art. *Art Magazine*, 9, 12-16+21. <https://doi.org/10.13864/j.cnki.cn11-1311/j.006487>
- Lin, H.-W., & Fu, C.-C. (2007). A study on the differences between the significance of war memorial: Based on the purpose of monuments erected in Kinmen and Gettysburg, U.S.A. *Journal of Architecture*, 62(12), 23-48.
- Lu, D. (2021). Monument de jinianbei hanyi jiqi dui buke yidong wenhua yichan baohu de yingxiang [The monument meaning of monument and its impact on the protection of immovable cultural heritage]. *China Cultural Heritage*, 3, 33-44.
- Nora, P. (1989). Between memory and history: Les lieux de mémoire. *Representations*, 26, 7-24. <https://doi.org/10.2307/2928520>
- Nora, P. (2020). *Field of memory: Cultural and social history of french national consciousness*. Nanjing University Press.

- Panou, C., Ragia, L., Dimelli, D., & Mania, K. (2018, Mar 17-19). Outdoors mobile augmented reality application visualizing 3D reconstructed historical monuments. In *4th International Conference on Geographical Information Systems Theory, Applications and Management (GISTAM)*, Funchal, Portugal.
- Pironti, C., Ricciardi, M., Proto, A., Cucciniello, R., Fiorentino, A., Fiorillo, R., & Motta, O. (2022). New analytical approach to monitoring air quality in historical monuments through the isotopic ratio of CO₂. *Environmental Science and Pollution Research International*, 29(20), 29385-29390. <https://doi.org/10.1007/s11356-020-12215-8>
- Qin, X. N., Lu, X. L., & Wu, C. Y. (2014). The knowledge mapping of domestic ecological security research: Bibliometric analysis based on CiteSpace. *Acta Ecologica Sinica*, 34(13), 3693-3703.
- Riegl, A. (1981). *Der moderne Denkmalkultus: Sein Wesen und seine Entstehung*. Universitäts-Bibliothek, Germany.
- Savenije, G. M., & de Bruijn, P. (2017). Historical empathy in a museum: Uniting contextualisation and emotional engagement. *International Journal of Heritage Studies*, 23(9), 832-845. <https://doi.org/10.1080/13527258.2017.1339108>
- Schütz, M. (2020). Rewriting colonial heritage in Bristol and Marseille: Contemporary artworks as decolonial interventions. *Heritage and Society*, 13(1-2), 53-74. <https://doi.org/10.1080/2159032X.2021.1914298>
- Solso, R. L. (2000). *Cognitive psychology*. Boston, US: Allyn & Bacon.
- Stańczyk, E. (2013). Remaking national identity: Two contested monuments in post-communist Poland. *Central Europe*, 11(2), 127-142. <https://doi.org/10.1179/1479096313Z.00000000015>
- Tan, Y. L. (2021). Emergence and exploration of abstract monumental sculpture. *Art Magazine*, 9, 17-21. <https://doi.org/10.13864/j.cnki.cn11-1311/j.006488>
- Wakao, Y., & Wada, M. (2010). *Rekishi no ba: Shiseki, kinenhi, kioku*. Kyoto, Japan: Mineruva Shobō.
- Welch, M. (2016). Political imprisonment and the sanctity of death: Performing heritage in “troubled” Ireland. *International Journal of Heritage Studies*, 22 (9), 664-678. <https://doi.org/10.1080/13527258.2016.1184702>
- Yang, Z. (2013). Jinianbei de liuzhong xinjianfa Deguo gonggong yishujia Jochen Gerz jieshao chang [The six new construction methods of monument German public artist Jochen Gerz introduction course]. *Sculpture*, 4, 74-75.
- Yoon, T. H. (2019). *Decoding dictatorial statues*. Onomatopée.
- Zhang, E. X., Tan, Y., Zhang, W., & Qin, X. N. (2021). Research hotspots and trends of domestic ecotourism economy: Visualization analysis based on knowledge map. *Ecological Economy*, 37(06), 124-133.
- Zhao, B., & Huang, X. (2020). Encrypted monument: The birth of crypto place on the blockchain. *Geoforum*, 116, 149-152. <https://doi.org/10.1016/j.geoforum.2020.08.011>

A Study of East Sumba Textile Handwoven Animals “Hinggi” Motifs Ikat in terms of Dualism and Triple Patterns

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Abstract

This study investigated woven cloth motifs in terms of dualism and triple patterns. East Sumba's woven fabric is a traditional Sumba fabric that preserves and stores motifs and meanings from the community's perspective and is realized in physical forms through the medium of woven fabric. Every society has a culture, and the East Sumba people are no exception. Therefore, East Sumba people's beliefs are worldviews that pervade all aspects of their lives. This cultural viewpoint manifests itself not only in thoughts but also in behavior. East Sumba people developed actions that were notably visible in many items, particularly woven fabric motifs. East Sumba's woven fabric is a symbol of Indonesian identity. Sumba's woven cloth motifs not only serve as aesthetics but also depict the strong interaction between humanity, nature, and East Sumba people's beliefs. This study was an in-depth examination of the message contained in the motifs on East Sumba's woven fabric using the concepts of dualism and triple patterns. East Sumba woven fabric documents not only cultural history but also advances cultural science in the world of interior design education, particularly for generation Z.

Keywords: *Aesthetic, Woven fabric, Meaning, Motifs, East Sumba, Hinggi*

1. Introduction

The Sumba society is a community that evolves and grows based on tradition and culture, which eventually becomes a practice that the Sumbanese people strongly hold. People in East Sumba particularly continue to retain its customs and culture to this day. As regarded historically, the social structure of the Sumba community system is divided into three distinct social stratifications: (1) *Marimba* (nobles), (2) *Kabihu* (free people), and (3) *Ata* (servant). With the arrival of Christianity, this stratification was simplified only to two stratifications: nobles (*marimba*) and servants (*ata*).

East Nusa Tenggara is a central Indonesian archipelago that is currently one of the country's most popular tourist destinations. However, evidence of the designs of East Sumba Ikat woven fabric in East Nusa Tenggara is limited (Ningsih, 2019). The uniqueness of East Sumba's weaving qualities may be noticed in its motifs; thus, this study concentrated on East Sumba's weaving motifs.

East Sumba weaving, also known as *Hinggi*, includes ikat wrap weaving. The ikat technique is the most traditional and commonly employed by the Batak people (Saputra, 2019). East Sumba woven fabric themes include horses (thought to be the national animal), dragons, turtles, and many other animals presented face-to-face and symmetrically. Within that regard, traditional Indonesian houses are often classified into three cosmoeses based on their level of sacredness. First, the most sacred area is the head (roof), where the ancestral spirits reside. Second, the body section (living space, middle) is the occupants' living space and the link between the upper and lower worlds. Third, the feet (below) that is a soiled and dirty area (Halim, Darmayanti, & Amelia, 2020). As a result, examining the structure of society and the three cosmoeses in traditional Indonesian houses provided the foundation for this research.

This study investigated the aesthetics of East Sumba woven cloth's animal themes in terms of dualism and triple designs in depth. As a result, it served as both cultural heritage documentation for East Nusa Tenggara and a reference for future research.

2. Objectives

1. To investigate East Sumba's Niche of Motifs of Ikat Weaving.
2. To identify the meaning of East Sumba's weaving designs using the concepts of dualism and triple patterning.
3. To investigate the aesthetics of the unrevealed animal designs on the East Sumba *Hinggi* ikat woven.

3. Materials and Methods

This was a descriptive qualitative study. The method was conducted by defining the object based on observations, which was supported by a cultural studies approach. The qualitative study analysis included the utilization of the exploratory literature. The data sources included both primary and secondary sources (Sugiyono, 2010). This study, as a descriptive study, primarily reported a circumstance or discourse without testing hypotheses or making predictions. Since the data given was qualitative, all data was classified into a substantial category. This was then evaluated using scientific references to clarify the phenomena in terms of the significance of woven fabric motifs in East Sumba (Denzin, & S.Lincoln, 2011). This study applied Jakob Sumardjo's "Paradox Aesthetics" theory in 2014.

3.1 Research Framework

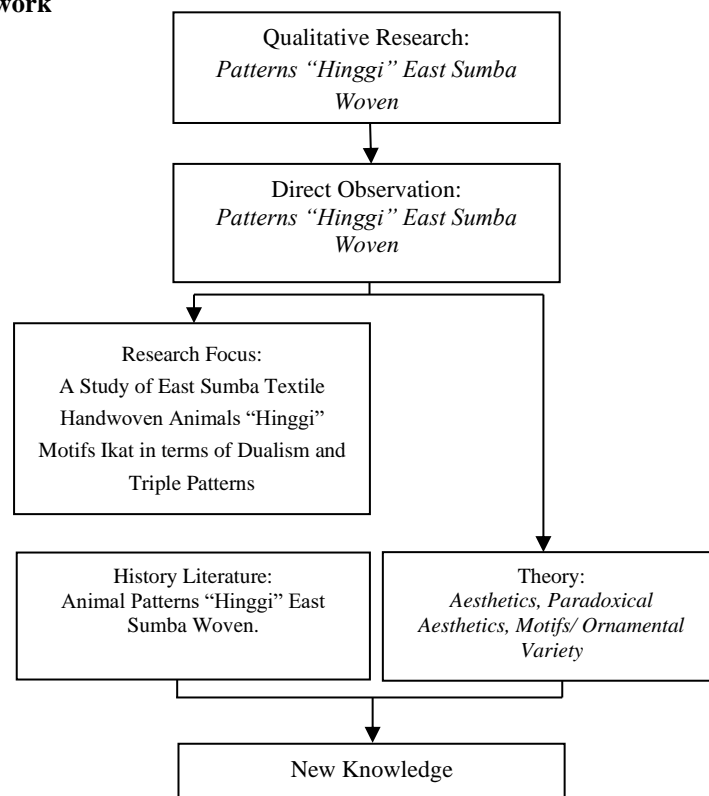


Diagram 1. Research Framework

A Study of East Sumba Textile Handwoven Animals "Hinggi" Motifs Ikat in terms of Dualism and Triple Patterns

Source: Author (2022)

3.2 Review of Literature

3.2.1 Theory on Aesthetics

In Greek, aesthetics "*aistheta*," which is derived from "*aisthe*," means "everything that is perceived by the senses" (Junaedi, 2016). Aesthetics, according to Djelantik, Rahzen and Suryani (1999) is an area of

beauty-related philosophy. Ratna further emphasizes that humans and beauty cannot be parted; hence the type of beauty that is portrayed in the piece of art must be preserved. Many experts describe aesthetics; for example, Herbert Read defines aesthetics as the unity and relationship of forms between our sensory perceptions, whereas beauty is misdirected. Additionally, aesthetics, according to J.W. Moris, is imposed on objects that have a beauty value but are not beautiful. Moris concludes that aesthetics is both beautiful and not beautiful in (Ratna, 2011). According to Kant's expert in (Kartika, 2004), there are two types of aesthetic values: (1) pure aesthetic value, which can be found in lines, shapes, colors, and fine art; and (2) extra aesthetic value, which can be found in human, nature, and animal forms so that art enthusiasts can enjoy this other beauty.

According to Kattsoff (1953), aesthetics are associated with one's feelings, and this feeling is oriented to things that are beautiful in form and meaningful in objects. As a result, they can be appreciated by the audience (Kattsoff, 1953).

According to the above description, the aesthetic value of animal motifs in East Sumba Hinggi was included in the extra aesthetic value due to many other beauties through the portrayal of animals.

3.2.2 Theory on Paradoxical Aesthetics

According to Jacob Sumardjo, paradoxical aesthetics is the recognition that premodern society's aesthetics exist in a mystical, spiritual, and religious culture that is thought cosmologically and considers humans to be equal elements of the world. Thus, the reality is determined according to each individual's thoughts (Sumardjo, 2014).

In this study, the dualistic theory and the three patterns by Jakob Sumardjo were used, i.e.:

1. Two Pattern Aesthetics

This Two Pattern Theory departs from mystical-spiritual and cultural-religious thinking and is based on the essential premise that life is divided and conflicts exist in pattern two communities. A number of social groups will be divided (Sumardjo, 2013). Culture is not a culture of harmony. Pattern two's paradox attempts to reconcile two antagonistic parts, both opposing and facing patterns. Pattern two is evident in society in the manner of a paradigm that emphasizes opposites rather than complementary (Sumardjo, 2013).

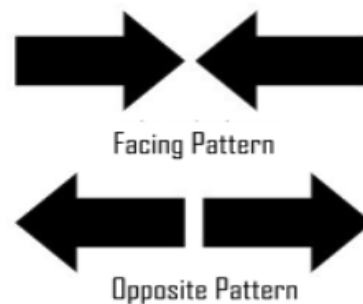


Figure 1 Aesthetic of pattern two

Source: Sumardjo (2014)

2. Triple Pattern Aesthetic

The Triple Pattern suggested by Jakob Sumardjo is the foundation of primordial people's beliefs. They bring together two antagonistic but complementary elements. This unification attempt creates a third universe, referred to as the "middle world," which can unify the opposing upper and lower worlds. The harmony of the two opposing worlds is represented by the events in the triple pattern. They all win, and no one loses.

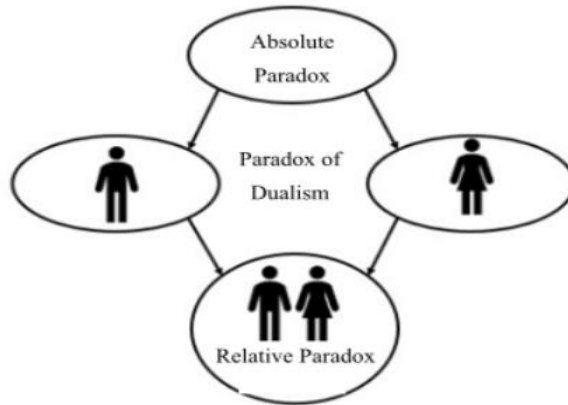


Figure 2 Three-pattern aesthetic
Source: Sumardjo (2014)

The concepts of "pattern two" and "pattern three" serve as the foundation for investigating aesthetic concerns of the Hinggi ikat motif in East Sumba in order to discover the aesthetics of the Hinggi motif.

3.2.3 Motifs/ Ornamental Variety

Ornamental Variety or Motif comes from the Greek "*ornare*," which means decoration or jewelry (Soepratno, 2004).

Motives, according to Toekio M, are found in society as a medium for expressing feelings that are depicted in a visual manner. As a result, decoration is constantly associated with the surroundings, and it can be described as a complement to the aesthetic sense. Apparently, each decoration has a meaningful purpose (Kuntjoro-Jakti, 2010).

Ornamental diversity was brought as new aspects into local culture during the Hinduism and Buddhist kingdoms in Indonesia, serving as an addition to aesthetic value and creativity. In Indonesia, ornamental variety employs wildlife and flora in native decorative arts associated with Hinduism, human response to nature, and human gratitude to the Creator.

The decorative variation includes ornamental variety. Motifs are the results of applying natural philosophy, in which nature serves as a source of inspiration for its creation. Ornamental motifs can take the form of figurative, geometric shapes, as well as flora and fauna. In addition, ornamental motifs can be used in two- or three-dimensions art (Hasanadi, 2014).

Ornamental variety is a heritage that dates back to prehistory. In relation to that long historical background, as an archipelagic country, Indonesia has several ornaments. The natural environment, flora and fauna, and the humans who inhabit the archipelago all have an impact on ornamental variety in Indonesia. This leads to a natural human desire to decorate. This belief aspect is critical in the development of decoration, so it has a particular significance. (Halim, 2022).

Ornamental elements are frequently adapted or created from natural processes, according to (Utomo, 2007). There are five ornamental varieties: geometric, botanical, animal, figurative, and polygonal. Animals are often the major figures in Indonesian ornamental variety.

According to the experts' definitions and descriptions, the Hinggi Ikat pattern in East Sumba was a figurative motif with an animal figure as the main character.

4. Results

Ikat weaving is created by incorporating the weft crosswise on the longitudinal or warp threads of textiles made of yarn, wood fiber, cotton, and silk. The quality of ikat weaving is determined by the fabric, colors, and motifs selected (H Kara, 2014). Weaving, according to Budiyo, is a cloth-making technique

based on the principle of combining yarn crosswise with warp yarn and alternating weft (in) (Izzara, & Nelmira, 2021).

Hinggi is a significant woven ikat textile for the Sumba people that Sumbanese men wear. It is used on a daily basis as well as at Sumbanese cultural ceremonies. Hinggi offers a range of animal motifs inspired by Sumbanese home animals, such as horses and chickens, each with a story about their lives (Rizki, & Widyastuti, 2020). For the Sumbanese, this ikat woven fabric serves not only as a covering for the body but also as a cultural object with a profound "message" and demonstrates distinct values that are part of Indonesia's cultural history (Soeriadiredja, 2013). When employed in funeral ceremonies, the Hinggi motif distinguishes itself because it is inspired by Sumbanese's sacred objects such as animals, plants, or humans (Soeriadiredja, 2013).

Ikat Weaving Motif

In Indonesia, woven fabrics offer varied motifs, which are usually characteristics of the tribe or island where the woven cloth originated and was manufactured. The motifs created and employed as initial ideas in the creation of ornaments draw more attention and provide the first impression (Sunaryo, 2009).

Structural Principles of Hinggi Ikat weaving in East Sumba

Hinggi is well-designed, with motifs aligned in an attractive design. Lines have an important role in the composition of Sumba woven cloth designs. The lines are horizontal lines that split the fabric into sections. Each section is a location for the woven fabric motif. Padua (central plane) is located in the fabric's transverse strip in the center. There are straight, curved, broken, or dotted lines on the fabric (Soeriadiredja, 2013).

Hinggi Motif of Ikat East Sumba

The Hinggi motif is symmetrically represented and separated into three planes: the upper plane, the middle plane, and the lower plane (Adams, 1969). In Sumba woven fabrics, this is known as the mirror image concept. The surface of the woven cloth reveals an important element in dividing the composition of East Sumba's ikat motifs into three conflicting sections. This characteristic depicts the relationship between the sections (top, middle, and bottom) (Soeriadiredja, 2013). The Cosmos Division at Hinggi Ikat Weaving, East Sumba, is shown below. Hinggi motifs are symbolic groups from the environment and local culture that include images of living creatures (people, wildlife, and plants) as well as natural objects such as artifacts in the form of jewelry. The schematic motif group, or motifs with an openwork base, consists of abstract motifs derived from local ideas and foreign influences (Indian, Chinese, Portuguese, and Dutch). The group of foreign impact themes includes eco-culture motifs from outside the East Sumba area, particularly from India, China, Portugal, and the Netherlands. The Patola Ratu motif, which is made to cover the surface of the fabric sheet, as well as figurative motifs, schematic motifs, and foreign influence motifs, show the Indian influence (Anas, 2007). Hinggi motifs are divided into two groups that are separated by a geometric intermediate motif path.

Central motifs are figurative motifs that are both local and foreign-influenced, while foreign-influenced motifs take the place of the central motif, which is shown in a larger size (Anas, 2007). As stated in the introduction, every traditional Indonesian house has three cosmic structures, and Hinggi has the following cosmic structure:

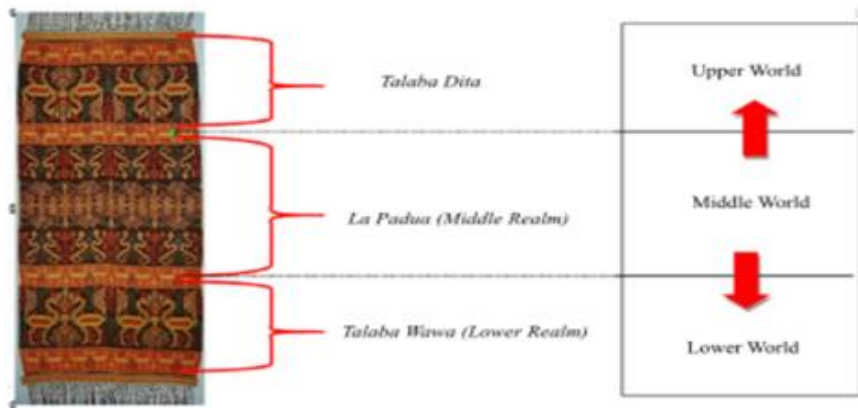


Figure 3 Cosmos Division at Hinggi ikat East Sumba
 Source: Author (2022)

1. Dragon Motif on the Hinggi East Sumba

A dragon is a mythological Chinese animal that represents prosperity, goodness, and wisdom. The dragon motif is made out of a basic shape, which is a hexagonal shape. Circles and lines are complimentary ornaments for the dragon motif. The dragon motif is a Chinese acculturation motif (Hoop, 1949). Dragons are represented in a stylized form Onvlee, with no specifics of Chinese dragons. Dragons in Hinggi are described in various ways, starting from resembling China's dragon to eventually becoming simplified form (Anas, 2007).

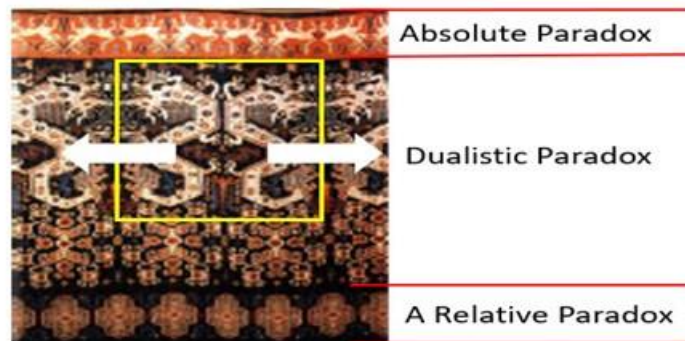


Figure 4 Dragon Motifs on Hinggi
 Source: Author (2022)

The cross between vertical and horizontal appears more packed in the three-cultural pattern culture. It is an attempt to bring the heavenly (vertical) and earthly (horizontal) worlds into harmony, and the middle human realm aligns itself with the world above (Sumardjo, 2013).

According to the research, the dragon motif in Hinggi is a combination of dualism and triple patterns. Dualism can be seen in two objects that are diametrically opposed but complement each other. They provide meaning through the color of black and white or male and female. Similarly, the triple pattern serves as a counter-balance to the two patterns, pattern two and pattern three (Halim et al., 2020). Figure 3 shows an illustration of the dragon pattern. In accordance with the findings of the preceding analysis, the middle area or humans with a dragon motif were well-balanced in life. The dragon motif in the center is believed to inspire people with dragon-like qualities such as nobility, prosperity, and generosity. As a result, people can balance the upper area. In terms of furniture design principles, the legs of the furniture perform a critical role as the foundation.

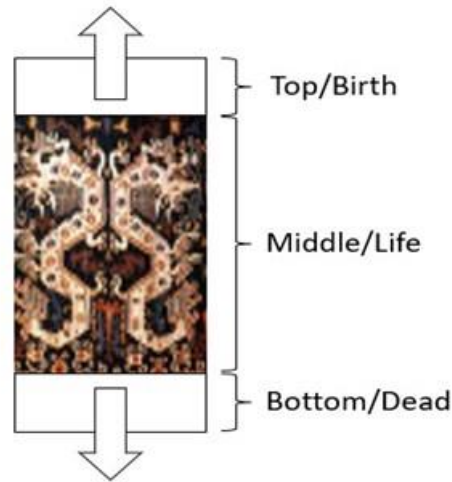


Figure 5 Dragon's Motives Analysis
 Source: Author (2022)

2. Rooster Motifs on Hinggi

The rooster is the second motif. East Sumba residents refer to it as *Manu*. *Manu* has a crest, a wattle, a high tail, three front heels, and one back heel that set him apart. In the Hinggi community, the rooster is the key character in the cockfighting game, which impacts the economic environment and serves as a forecasting animal (Therik, 2017)

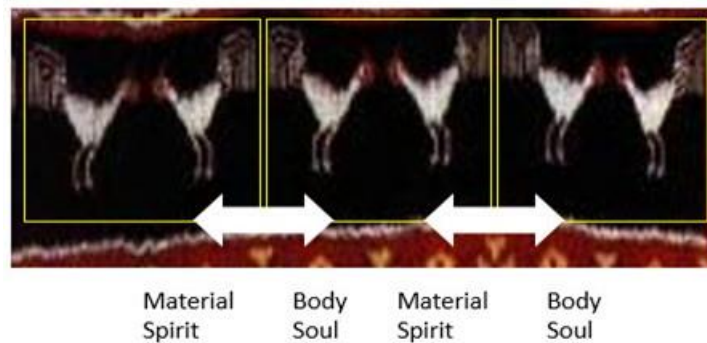


Figure 6 Equations of reverse motifs & Motifs Rooster
 Source: Author (2022)

The "aesthetic" analysis of the chicken motif on Hinggi is shown in a mirror system. With regard to Jako Sumardjo's dualism viewpoint, the mirror system appears to be a cockfighting contest. The two-esthetic pattern emphasizing the "opposite" is commonly referred to as dualism. The Rooster motif comprises two patterns, one representing the human side and the other reflecting the life of the spirit realm. These contradicting elements, such as right-left body-spirit, yet complement each other. Dualism provides "power," "life," and "alertness" to face life, both consciously and metaphysically.

3. Combined Animal Motif on Hinggi

The Hinggi motif on East Sumba woven fabric is distinguished not only by its single animal theme but also by the presence of multiple animals on a single sheet of fabric. One sheet of fabric may contain three different animals: a dragon, a deer, and a horse. Horses are respected in the East Sumba community because the Sumba people like riding horses, which is a traditional Sumbanese game. As a result, horses are classified

as high-class. In the twentieth century, deer were largely found on Sumba, and there were documented exports of deer antlers as hunting trophies. The last one is the dragon, as described in the preceding description (Kartiwa, 2007).



Figure 7 Equations of reverse motifs
Source: Therik (2017)

The symmetrical mirror method is employed to examine "Aesthetic" motifs depicting horses, deer, and dragons. This Hinggi has a dualism approach and a triple pattern. This Hinggi remains in the center area, which is thought to be a place for humans to work and follows the life cycle. There are contradictory reasons for this, as in human life, which always illustrates good and evil, dark and light patterns, as well as the sun and moon motifs, demonstrate how humans develop and become a connection with the world above. Hinggi's triple pattern is consistently divided into three parts and associated with the top, middle, and bottom.

5. Conclusion

The aesthetics of animal motifs in Hinggi are part of the Sumbanese people's structure and life, particularly in East Sumba. The animal motifs in each Hinggi fabric have a strong foundation with the East Sumba people's daily life and environment. It also delivers profound meaning. The background for these motifs is historical, social, and cultural circumstances. It elevates animal motifs beyond their purely aesthetic value. This contradictory aesthetic approach offers a previously undiscovered picture that is distinct in each of the current animal motifs. Based on the previous analysis of animal motifs, it was discovered that the patterns that appeared were pattern two, pattern three, and a combination of patterns two and three. As a result, it's noteworthy that the triple pattern balances the existence of two conflicting patterns. It strikes a balance between human and natural beliefs, historical activities, and traditional rites relevant to the people of East Sumba. According to (Anas, 2007), the dragon motif's structure begins with a pattern of three appearances in the form of a triangle, three stalks, and a tapered vertical.

The animal motif's aesthetic element at Hinggi is always based on other aesthetics that complement the beauty of the Hinggi ikat cloth. This research also discovered that animal motifs have a long-term aesthetic element, which means they can be employed as complementary motifs as well as complementary meanings and backgrounds endlessly. It may even benefit the people of East Sumba, Sumba as a whole, and the entire Indonesian society in the future.

6. References

- Adams, M. J. (1969). System and Meaning in East Sumba Textile Design: A Study in Traditional Indonesian Art. *Southeast Asian Studies Cultural Report Series*, 16.
- Anas, B. (2007). Motif Naga pada Hinggi Sumba Timur Sebuah Metamorfosa Estetik. *ITB Journal of Visual Art and Design*, 1(1), 55-65. <https://doi.org/10.5614/itbj.vad.2007.1.1.5>
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage handbook of qualitative research*. sage.

- Djelantik, A. A. M., Rahzen, T., & Suryani, N. N. M. (1999). *Estetika: sebuah pengantar*. Bandung, Indonesia: Masyarakat Seni Pertunjukan Indonesia.
- H Kara, O. A. M. A. (2014). 濟無No Title No Title No Title. *Paper Knowledge. Toward a Media History of Documents*, 7(2), 107–115.
- Halim, E. A. (2022). Kajian ragam hias pada rumah adat karo ditinjau dari etnomatematika. *Jurnal arsitektur zonasi*, 5(2), 274-280.
- Halim, E. A., Darmayanti, T. E., & Amelia, C. (2020). Study of Aesthetic Elements of Karo Traditional House in terms of Dualism and Triple Patterns. *American International Journal of Social Science*, 9(1), 1-5. <https://doi.org/10.30845/aijss.v9n1p1>
- Hasanadi, H. (2014). Membentuk karakter melalui penanaman nilai-nilai budaya rumah gadang Minangkabau. *Suluah*, 15(19), 42-59.
- Hoop, A. N. J. (1949). *Indonesische siermotieven. Ragam-ragam perhiasan Indonesia. Indonesian ornamental design*. Jakarta, Indonesia: Koninklijk Bataviaasch Genootschap Van Kunsten En Wetenschappen.
- Izzara, w. A., & Nelmira, w. (2021). Desain motif tenun songket minangkabau di usaha rino risal kecamatan koto tengah kota padang. *Jurnal Seni Rupa*, 10(2), 423-431. <https://doi.org/10.24114/gr.v10i2.25928>
- Kartika, D. S., & Prawira, N. G. (2004). Pengantar estetika. Rekayasa Sains.
- Kartiwa, S. (2007). *Tenun ikat: ragam kain tradisional Indonesia*. Jakarta, Indonesia: Gramedia Pustaka Utama.
- Kattsoff, L. O. (1953). *Elements of philosophy*. New York, US: Ronald Press Co.
- Kuntjoro-Jakti, R. D. R. I. (2010). Ragam hias nusantara. *Humaniora*, 1(2), 246-252. <https://doi.org/10.21512/humaniora.v1i2.2866>
- Ningsih, y. S. (2019). Revitalisation of Sumba woven into fashion product for urban people as a target market. *Serat rupa journal of design*, 3(1), 61-76. <https://doi.org/10.28932/srjd.v3i1.1056>
- Ratna, N. K. (2011). Estetika Budaya dan Sastra. Yogyakarta, Indonesia: Pustaka Pelajar.
- Rizki, A. E., & Widyastuti, T. (2020). Kajian Visual Hinggi Dan Lau Untuk Upacara Kematian Suku Sumba. *Texture: Art and Culture Journal*, 3(2), 118-128. <https://doi.org/10.33153/texture.v3i2.2979>
- Saputra, H. (2019). Seni dan budaya tenun ikat Nusantara. *Res. Gate*, 1, 1-15.
- Soepratno, B. A. (2004). *Ornamen Ukir Kayu Tradisional Jawa*. Jawa Tengah, Indonesia: Semarang Effhar Offset.
- Soeriadiredja, P. (2013). Rumah Tradisional Sumba: Tempat Pertemuan Manusia Dengan Para Dewa. *Jurnal Museum Nasional*, 47-60.
- Sugiyono, D. (2010). Memahami penelitian kualitatif. Jakarta, Indonesia: Alfabeta
- Sumardjo, J. (2013). *Estetika Nusantara*. Jawa Tengah, Indonesia: ISI Press Surakarta untuk.
- Sumardjo, J. (2014). *Estetika Paradoks*. Jakarta, Indonesia: Kelir.
- Sunaryo, A. (2009). *Ornamen Nusantara: kajian khusus tentang ornamen Indonesia*. Jawa Tengah, Indonesia: Dahara Prize.
- Therik, J. A. (2017). *Tenun Ikat Dari Timur (Keindahan Anggun Warisan Leluhur/(Ikat in Eastern Archipelago (An Esoteric Beauty of Ancestral Entity))): Diandra Kreatif*. Yogyakarta, Indonesia: Diandra Kreatif.
- Utomo, T. P. (2007). *Arsitektur dan interior Nusantara: seri Jawa*. Jawa Tengah, Indonesia: Kerja sama Institut Seni Indonesia (ISI) Surakarta dan UNS Press.

Design Guidelines for the Identity of Rapid Transit Stations in Bangkok from Passenger's Perception of Physical Environment

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Abstract

The perceived value of the rapid transit lines in Bangkok can be increased when unique features allow them to be distinguished from each other. This paper aims to describe the perception of physical environments at the four lines of rapid transit in Bangkok including the BTS Sky train (BTS), MRT Blue Line (MRT BL), AERA1 (AERAWAN), and MRT Purple Line (MRT PPL). Questionnaires were used to collect data from 800 passengers, using The Likert Scale and One-way ANOVA analysis to analyze the physical environment of the 4 stations. The questionnaire is divided into 3 phases, (1) Indoor physical environment (2) Outdoor physical environment and (3) Interchange stations. The physical environment perception that significantly affects all passengers' perception was the outdoor area including the external building, other public transport systems, the entrances, exits, and sign systems in the station. The second was the indoor physical environment comprised of the ticket vending machine, walkway, sign system, the position of the information and cooperate image, followed by the interchange station, Skywalk, and shops. This guideline was designed to assess the stations based on three criteria. (1S) Story is the background from culture, society, that, and the area near the station (2S) Space of the station should be associated with the physical environment of each station. (3S) Style focuses on the pattern of designing a sustainable context for the station. The research findings can be used to identify the environmental factors of the stations that will increase the perceived value of the passengers.

Keywords: *Physical Environment, Perception, Identity of Station*

1. Introduction

The Master plan mass rapid transit Bangkok Metropolitan Region is the latest version in the Thai government Ministry of Transport for the development of an urban rail transit network system servicing the greater Bangkok area. The rapid transit was established to improve traffic congestion in Bangkok; moreover, it was aligned with Mass Rapid Transit Master Plan in Bangkok Metropolitan Region by extending 11 fully integrated rapid transit lines including elevated and underground trains. It is expected to be completed within the year 2029 (Mass Rapid Transit Authority of Thailand, 2016). Recently, rapid transit operated on 4 lines consisting of the BTS Sky Train (1999-2022), MRT Blue Line (2003-2022), APL (2010-2022) or subsequently known as AERA 1, and MRT Purple Line (2016-2022).

The environment is important for the perception of physical factors that convey identity from the office environment, such as physical form and free space in the office with decorative patterns space and shapes including the interior atmosphere (Balmer, & Grayser, 2006). The size of the station building, and its interior affects the emotional response and visual weight generated by this impression (Tork, Elgohary, & Dewidar, 2019). The physical environment of the station can be categorized according to the purpose of each area including the external building, the entrances and exits, the interchange station and Skywalk, the nearby buildings, and inside the station such as graphical symbols, signposts, walkways, ticket section, and platform. Distinct physical environment characteristics of each station can lend an identity representing the station's uniqueness (Puttipakorn, & Upala, 2018).

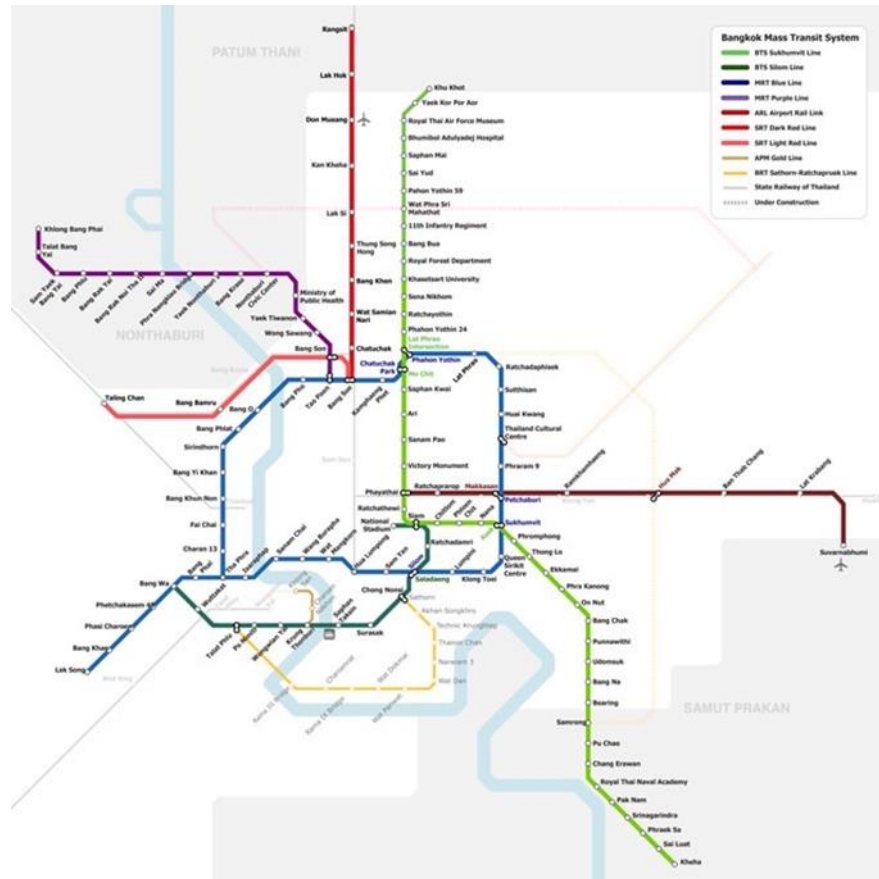


Figure 1 Bangkok's transit lines map (Clark, 2021)

In addition to symbol and sign systems, pictures are one of the best ways to effortlessly reinforce the passengers' perception of the new physical environment (Alman, 1976). Other topics in this study indicate that the identity of the station can be affected by environmental factors; creativity through graphic design can further uniquely identify the station through efficient use of the building. Furthermore, it increases the positive passengers' perception of the service in the station. (Sirijansawang, & Upala, 2018).

The individual perception will be interpreted according to different understandings, the meaning of a picture depending on the environmental factors that are related to each other including the cultural context that influences that image. Also, the meaning of "Reconstruction of Historic Buildings," shows the importance of historical value or symbolism as a national monument rather than the original design of the building. based on shared experiences and feelings which are tied to images, the process of inventing this method of communication creates a traditional society. The physical environment of the station is categorized according to the purpose of each area including the external building, the entrances and exits, and nearby buildings. Graphical symbols are another crucial area in the station., such as informational signs, walkways, ticket vending, and platform designations. It was found that pictures were one of the best ways to effortlessly reinforce the passenger's perception of the physical environment. Cities could benefit from considering 'community supportive' transit design that promotes local identity in addition to more pragmatic wayfinding concerns. (Douglas, 2010) The consistency of brand identity is formed by its features like culture, vision, personality, positioning, presentations, relationships, and other beliefs followed by the entity. (Mindrut, Manolica, & Roman, 2015)

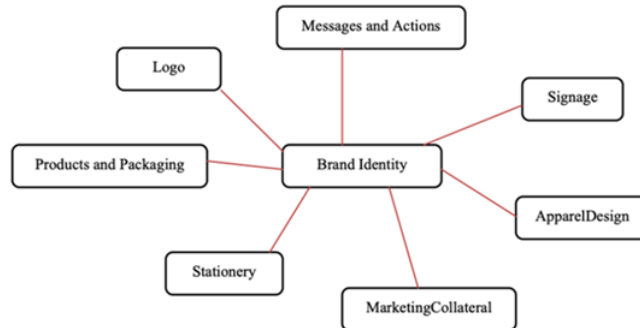


Figure 2 Branding Identity Elements (Mindrut et al., 2015)

Images can help passengers identify specific stations however it can be difficult to decipher different signs.

Information regarding passenger satisfaction with the mass transit system is lacking. The physical environment has not been elucidated since it is the main point to enhance the cooperate image of that station. Even if a building is present, it is difficult to find an appropriate design to connect the building with the station, but a good design can provide distinguishing characteristics. The size of the station building, and its interior affects emotional response and visual weight generated by the impression of the passengers (Tork et al., 2019). Railway stations play an important role in choosing the required color palette to identify the station buildings as a part of the history and cultural qualities(Glăveanu& Tanggaard, 2014).

Behavior perception is based on both the inner influence of the individual and the external influences (Ames. 1949). There are also several other factors that can influence this such as personal experiences, race, religion, culture, ability to evaluate the surrounding environment, ability to comprehend signs and maps, local traffic congestion, underground retail space and the characteristics of the public transport environment Thus, the individual perception and understanding of the surrounding environment are different (Horrayangkurl, 2013). A different color is assigned for the vaults in each station, to identify the railway station lines Perception of colors is also used to express the design concept (Novakova.,& Foltinova,2014). Colors combined with light can be used for aesthetic and functional arrangement at the station, to underline particular functional elements, branding, or to show directions. The form of a station and its aesthetical values becomes more expressive of the city's identity, even if the exterior design can be a representation of an international style at first glance (Ye-Kyeong., & Hye-Jin,2015).Therefore, aesthetics are not bound to represent a specific art movement, but rather symbolize an identity to its environment.

The passenger's perception of the physical environment can build on identity design for other mass transit systems in the future to increase the value of the station and promote tourism. The identity design can represent the unique community, society, and culture.

1.1 The Problem of Passengers' Perception

Despite their high-capacity transit system, numerous studies revealed that several problems must be addressed actively. For instance, the passengers merely recognize the symbol of the train, and they found that it is difficult to decipher the signs. Passenger satisfaction towards the mass transit system is low based on survey results of photographs of symbols on platforms, in trains, in stations and on roads due to inconsistencies in the symbol system. The old symbolic system is still in use This system is complicated and does not accurately portray the information that a passenger might need at transit decision points such as entrances and walkways. There were some symbols that can be seen from the platform area, but the symbols were placed too high to be seen from inside the train. See the details in Figure 3-8 .

1.2 Literature Review

Physical Environment

Perception and understanding of the physical environment vary among individuals. The color is assigned for each station, to identify of the railway's line stations (Tork et al., 2019)

The physical environment be described to enhance the corporate image (Worasit, & Choonhachatrachai, 2016)

Perception of Colors combined with light can be used for aesthetic and functional arrangement at the station, to underline particular functional elements, branding or to show directions

Perception

The individual perception will be interpreted according to different understandings, the meaning of that picture depending on the environmental factors that are related to each other (Douglas, 2010)

Identity of Station

Culture can create a uniqueness from habitat, lifestyle, traditions, beliefs, and important places of worship. Which can be communicated as an idea for creativity that will not be duplicated (Duxbury, & Jeannotte, 2011)

As the concept states, brand identity is how a company is being identified. The consistency of this brand identity is formed by its features like culture, vision, personality, positioning, presentations, relationships, and other beliefs followed by the entity. (Mindrut et al., 2015)

The stations were designed with the concept of identity from the physical environment around the stations that representation. (Seangsuk, & Upala, 2020)

2. Objectives

- 1) Examine the physical environment of 4 rapid transit line stations in Bangkok.
- 2) Comparative analysis of the passenger's perception of the rapid transit stations in Bangkok.
- 3) To suggestion and make guidelines that will indicate the identity of the station design.

3. Materials and Methods

Guidelines Design for the Identity of Rapid Transit Stations in Bangkok from Passenger's Perception of Physical Environment is a mixed methods research scope to study the 4 rapid transit lines from the central station of the mass transit system, interchange station and terminal station.

Step 1 Literature review to examine the 4 lines of the rapid transit and summarize the physical environment of the stations. Passenger behavior is observed to designate the station sample and the research questions and the research instrument.

Step 2 Filed study to collect data by observing the physical environment of the station and the passengers' behavior. A questionnaire consisting of 4 parts (1) Demographics (2) the passenger's perception towards the physical environment of the station section, (3) the demand on identity (4) passenger' satisfaction using the 5-point Likert scale to measure satisfaction is 5=Very satisfied (Highest), 4=Satisfied (High), 3=Neither satisfied nor dissatisfied (Medium), 2=Dissatisfied (Low), and 1=Very dissatisfied (Lowest). Collect the data. The sampling group was attained by systematically, counting the passengers of 4 lines in equal intervals for 200 people on each line to total 800. The samples were analyzed to compare the passenger's perception towards of the station.

Step 3 Analysis and conclusion by descriptive statistics to summarize mean, standard deviation, and ONE-WAY ANOVA.

The result of the station's examination indicated the most highly used area period time and the station as shown below.

- 1.) Data collection by the period of time

Rush hour in the mourning (7:00-9:00 a.m.) and evening (16:00-18:00 p.m.)

Regular time from 9:01 a.m. until 15:59 p.m.

- 2.) From BTS, MRT BL, AERA1, and MRT PPL Selected 3 stations per line consisting of the central station of the mass transit system, interchange station and terminal station.

The 4 Lines of Rapid Transit Station in Bangkok

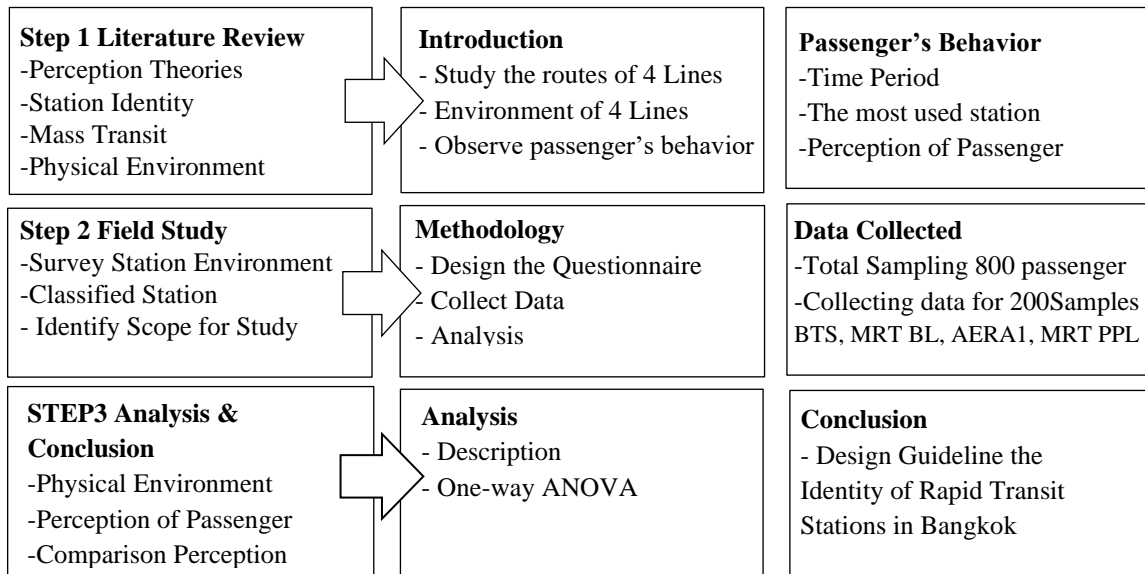


Figure 3 Conceptual Framework (Seangsuk, 2022)

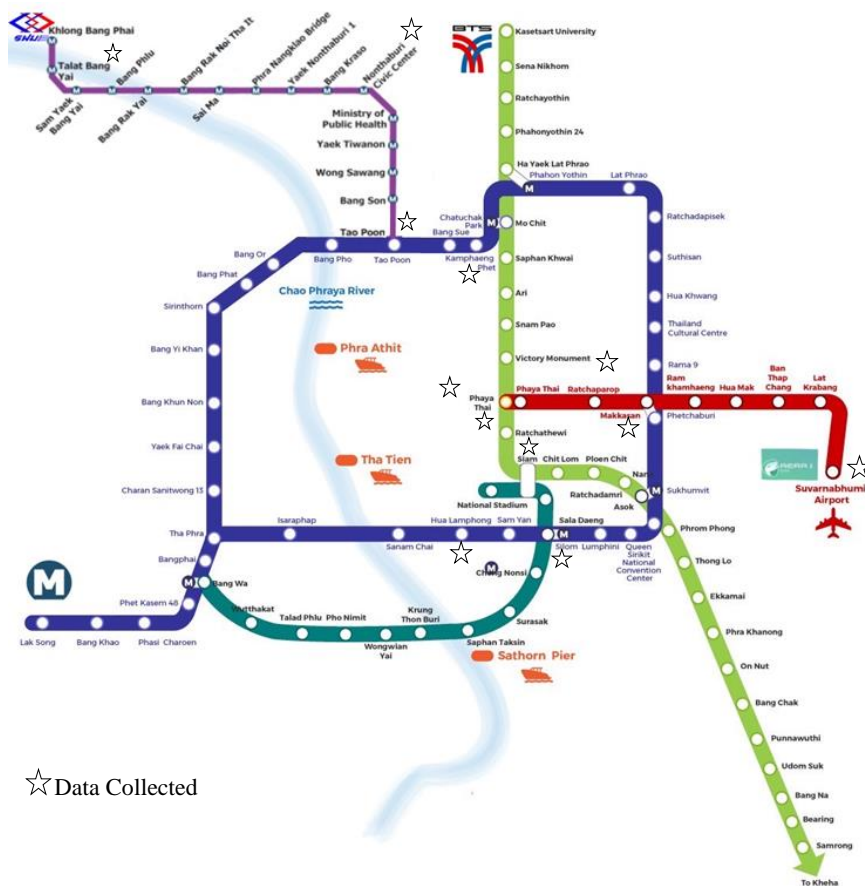


Figure 4 The 4 Lines of Mass Rapid Transit in Bangkok (Travel happy, 2023)

3.1 Physical environment of the station

BTS Sky train (BTS) is the first mass transit railway system in Thailand, operating in Bangkok, Samut Prakan and Pathum Thani. BTS Sky train provides 2 lines: Sukhumvit Line and Silom Line with 47 stations in total running from Khu Khot Station to Kheha Station. The latter services 14 stations in total running from National Stadium Station to Bang Wa Station. Both of the Sukhumvit lines are interchanged at the Silom Line at Siam station.

MRT Blue Line (MRT BL) is popularly called “subway” since it is the first underground metro rail system in Thailand to service 38 stations in total and runs in a circle-shaped curve from Lak Song Station, to interchange at Tha Phra station where the. The MRT can interchange with the BTS. In addition, at Tao Poon Station passengers can access the MRT PPL. At Phetchaburi Station passengers can change their routes to Suvarnabhumi Airport by taking AERA 1.

AERAWAN (AERA1) From Suvarnabhumi Airport, AERA1 is formerly known as Airport Rail Link (APL). AERA1 is a special mass transit system project comprised of 8 stations. Formerly, AERA1 was in the construction of an electric train route in the suburban rapid transit system. AERA1 is under of the rapid mass transit network in Bangkok metropolitan. It was built with an elevated structure at a height of 20 meters throughout the project except for routes approaching Suvarnabhumi Airport

MRT Purple Line (MRT PPL) or also known as M.R.T Chalong Ratchadham line runs from Tao Poon station to Bang Yai station with underground and elevated structures. The MRT Purple Line which is comprised of 16 stations, operates from Bang Bua Thong District, Nonthaburi Province (The western outer ring) past Bang Yai District, Nonthaburi Province.



Figure 5 BTS (Green line) Station for Data Collected



Figure 6 MRT BL (Blue Line) Station for Data Collected



Figure 7 AERA1 (Airport Link) Station for Data Collected



Figure 8 MRT PPL (Purple line) Station for Data Collected

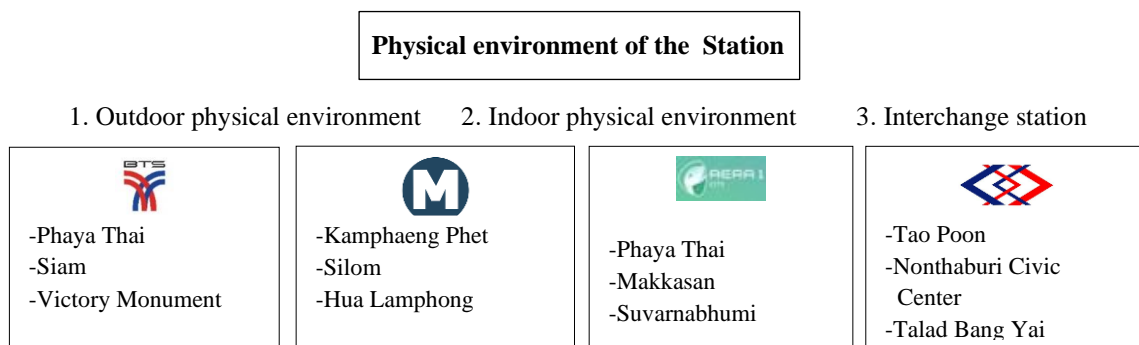


Figure 9 The scope of the station for study

4. Results

The passengers' perception the physical environment of BTS, MRT BL, AERA1, and MRT PPL, as demonstrated in table 1, revealed that of 800 respondents there were more males than females. the results are described below.

Table 1 Demographic

Gender	Passenger							
	BTS		MRT BL		AERA1		MRT PPL	
	n	\bar{x}	n	\bar{x}	n	\bar{x}	n	\bar{x}
Female	87	43.50	80	40.00	82	41.00	81	40.50
Male	113	56.50	120	60.00	118	59.00	119	59.50

4.1 BTS

The physical environments that had a significant impact on passengers' perception were the external building and nearby public transport connection systems with an average score of 4.37 (high level), followed by the position of the information at the station with a score of 4.25 (high level). Moreover, walkways inside the train station were marked as 4.11 (high level). Nonetheless, the interchange station and Skywalk, Corporate Image and the demand for shops remained at the lowest levels, respectively. The details are described in Table 2 below.

Table 2 The passengers' perception the physical environment at BTS


Line	Physical environmental	\bar{x}	S.D.	Level	No.
1. BTS 	1. External building and nearby public transport connection systems	4.37	0.816	high	1
	2. The position of the information	4.25	0.827	high	2
	3. Walkway inside the train station	4.11	0.875	high	3
	4. Ticket Vending Machine	4.09	1.034	high	4

Line	Physical environmental	\bar{x}	S.D.	Level	No.
	5. Sign system in the station	4.05	0.920	high	5
	6. Train station entrance/exit	4.03	0.916	high	6
	7. Signpost	3.84	1.097	high	7
	8. Interchange station and Skywalk	3.78	1.037	high	8
	9. Corporate Image	3.74	0.919	high	9
	10. Shop/souvenir shop	3.26	0.985	Medium	10
	Average	3.95	0.947	high	

4.2 MRT BL

As demonstrated in table 4, the respondents revealed that the external building and the nearby public transport connection systems with a score of 4.39 (high level) was the physical environment that dominated the passenger' perception. Ticket vending machines accounted for the same level with 4.33. Following this, the position of the information at the station came with a 4.25 score (high level). Three areas that had slightly impact on the passenger's perception were the interchange station and the Skywalk, corporate image, and shops, respectively. The details are described in Table 3 below.


Table 3 Passengers' perception the physical environment of MRT BL

Line	Physical environmental	\bar{x}	S.D.	Level	No.
2. MRT BL 	1. External building and nearby public transport connection systems	4.39	0.816	high	1
	2. Ticket Vending Machine	4.33	0.840	high	2
	3. The position of the information	4.25	0.827	high	3
	4. Walkway inside the train station	4.11	0.876	high	4
	5. Sign system in the station	4.07	0.901	high	5
	6. Train station entrance/exit	4.06	0.905	high	6
	7. Signpost	3.98	0.896	high	7
	8. Interchange station and Skywalk	3.86	0.995	high	8
	9. Corporate Image	3.74	0.919	high	9
	10. Shop/souvenir shop	3.35	0.972	Medium	10
	Average	4.01	0.991	high	

4.3 AERA1

The physical environment that predominantly affected passengers' perceptions towards the station was the train station entrances/exits with a 4.91 score (highest) Next, the ticket vending machine accounted for 4.24 (high), accompanied by the external buildings and the nearby public transport connection systems was 4.21 (high). On the other hand, the interchange station and Skywalk, shops and cooperate image slightly gained the passenger' perception The details are described in Table 4 below.

Table 4 Passengers' perception of the physical environment at AERA1


Line	Physical environmental	\bar{x}	S.D.	Level	No.
3. AERA1 	1. Train station entrance/exit	4.91	0.998	highest	1
	2. Ticket Vending Machine	4.24	0.854	high	2
	3. External building and nearby public transport connection systems	4.21	0.821	high	3
	4. The position of the information	4.20	0.842	high	4
	5. Walkway inside the train station	4.13	0.860	high	5
	6. Signpost	3.96	0.886	high	6
	7. Sign system in the station	3.95	0.947	high	7
	8. Interchange station and Skywalk	3.69	0.920	high	8
	9. Shop and souvenir shop	3.67	0.985	high	9
	10. Corporate Image	3.40	0.885	Medium	10

Line	Physical environmental	\bar{x}	S.D.	Level	No.
	Average	4.00	0.899	high	

4.4 MRT PPL

Two areas that had a substantial impact on passengers' perception were external buildings and nearby public transport connection systems with an average of 4.14 (high), followed by walkways inside the train station with the score of 4.12 (high). Furthermore, the position of the information accounted for 4.14 (high). In contrast, the respondents indicated that directional signs to the station, the entrances, exit, and shops respectively were the lowest compared to other areas.

Table 5 Passengers' perception of the physical environment at MRT PPL

Line	Physical environmental	\bar{x}	S.D.	Level	No.
4. MRT PPL 	1. External building and nearby public transport connection systems	4.91	0.998	highest	1
	2. Walkway inside the train station	4.24	0.854	high	2
	3. The position of the information	4.21	0.821	high	3
	4. Sign system in the station	4.20	0.842	high	4
	5. Interchange station and Skywalk	4.13	0.860	high	5
	6. Ticket Vending Machine	3.96	0.886	high	6
	7. Corporate Image	3.95	0.947	high	7
	8. Signpost	3.69	0.920	high	8
	9. Train station entrance/exit	3.67	0.985	high	9
	10. Shops such as pharmacies, restaurants, and souvenir shops	3.40	0.885	Medium	10
	Average	3.90	0.751	high	

4.5 Comparison of physical environment affecting the passenger's perception of the station

Passengers of the 4 different lines that share the similar travel behavior show the same levels of perception towards the outside physical environment of the station and the interchange station. The details are illustrated in Table 6





Table 6 The comparison of the physical environment affecting the 4 lines passenger's perception





Physical environment	Line								F	Sig
	BTS		MRT BL		AERA1		MRT PPL			
	\bar{x}	S.D.	\bar{x}	S.D.	\bar{x}	S.D.	\bar{x}	S.D.		
1. Indoor	4.08	0.769	4.14	0.725	4.36	0.856	3.85	0.758	0.564	0.570
2. Outdoor	4.04	0.905	4.10	0.875	3.98	0.783	3.18	0.773	0.365	0.694
3. Interchange stations	3.52	0.713	3.60	0.779	3.65	0.775	3.71	0.771	1.584	0.208

*P < 0.05

Comparison of the physical environments among all four stations yielded similar results categorized by the area. The most significant area was the outdoor physical environment, followed indoor physical environment and the interchange station, respectively. The details are described in Table 7 below.

Table 7 The summary on physical environment affecting the 4 lines passenger's perception





Physical environment	BTS	MRT BL	AERA1	MRT PPL	Average
					
1. Outside physical environment					
● external building and other public transport connections	4.37	4.39	4.21	4.12	4.27
● Train station entrance/exit	4.03	4.06	4.91	3.98	4.24
● Informational sign	3.84	3.98	3.96	3.73	3.87
	Total average				
	4.08	4.14	4.36	3.94	4.13
2. Indoor physical environment					
● The position of the information	4.25	4.25	4.20	4.14	4.21
● Ticket Vending Machine	4.09	4.33	4.24	3.81	4.11

Physical environment	BTS	MRT BL	AERA1	MRT PPL	Average
					
● Walkway inside the train station	4.11	4.11	4.13	4.12	4.11
● Sign system	4.05	4.07	3.95	4.08	4.03
● Corporate Image	3.74	3.74	3.40	3.80	3.67
Total average	4.04	4.10	3.98	3.99	4.02
3. Interchange stations					
● Interchange station and Skywalk	3.78	3.86	3.69	3.83	3.79
● Shops	3.26	3.35	3.61	3.59	3.45
Total average	3.52	3.60	3.65	3.71	3.62

4.6 The demand for the identity of each station

The station identity analysis result revealed that each station has a distinguishing physical environment. The three areas which have the lowest impact on the perception are the interchange station, the provided area that connects with other public transport connections and Skywalk. Consequently, it is crucial to reinforce the identity of each required area by integrating the physical environment around the station so that it will be able to meet the needs of the passengers. The details are shown in Table 8 below.

Table 8 The demand for the station identity

Line	The station identity		Design concept
	Demand	Non-demand	
	75.96%	20.04%	1. Indoor physical environment
	78.22%	21.78%	2. Outdoor physical environment
	82.24%	17.76%	3. Interchange station
	83.30%	16.70%	

4.7 The demand for shops at the station

The demand for shops at the stations are as follows: BTS, MRT BL and AERA1 passengers have moderate demand at 3.26, 3.40 and 3.55, respectively, and MRT PPL passengers have high demand 3.98. The details are shown in Table 9 below.

Table 9 The demand for station shops

Line	Analysis of Variation	SS	DF	MS	F	Sig.
BTS	Between groups	489.786	2	244.893	2.634	.074
	Within groups	18219.812	196	92.958		
	Total	18709.598	198			
MRT BL	Between groups	134.753	2	67.377	.324	.724
	Within groups	40746.121	196	207.888		
	Total	40880.874	198			
AERA1	Between groups	4577.818	2	2278.909	2.151	.119
	Within groups	207700.856	196	1059.698		
	Total	212258.683	198			
MRT PPL	Between groups	13247.122	2	6623.561	3.206*	.050
	Within groups	404995.732	196	2066.305		
	Total	414242.854	198			

*P < 0.05

From Table 9 it was not found that MRT PPL passengers have significant demand ($p < 0.05$) thus, it is crucial to employ Scheffé's test to compare the differences.

Table 10 The demand for station shops

Line	\bar{x}	BTS	MRT BL	AERA1	MRT PPL
BTS	3.26	-	-3.646	-5.784	-3.313
MRT BL	3.40		.333	-3.242	-6.674*
AERA1	3.35			.387	-5.886
MRT PPL	3.98				

*P < 0.05

This table indicates that the demand for station merchandise and souvenirs of MRT PPL and MRT BL passengers has significant demand at $p < 0.05$.

4.8 Passengers' satisfaction with the 4 Lines service

The questionnaire revealed that the overall satisfaction of passengers with the sky train service was 3.96 in total meaning that the passengers have high satisfaction, MRT BL passengers show the highest satisfaction with 4.08 (high level), followed by BTS with an average of 3.93 (high level). MRT PPL and AERA1 had 3.89 and 3.61 (high level), respectively. The details are demonstrated in Table 11.

Table 11 Passengers' satisfaction 4Lines of Rapid transit

Line	\bar{x}	S.D.	Min	Max	Level	No.
MRT BL	4.08	0.767	2.00	5.00	high	1
BTS	3.93	0.917	1.00	5.00	high	2
MRT PPL	3.89	0.817	2.00	5.00	high	3
AERA1	3.61	1.094	1.00	5.00	high	4
Average	3.96	0.835	1.00	5.00		high

5. Discussion and Conclusion

The association between and station and the residents around the station are important criteria to determine if the identity of the station can be formed effectively. Besides, the investigation of areas around the station could provide an important avenue for future research because the historical or cultural background of each area can enhance and depict its uniqueness. The most significant physical environment feature that the passengers of 4 lines from MRT, AERA1, and MRT PPL perceived were Outdoor from the external building. Passengers can look at the scenery around the station to recognize the station by nearby places and the terminal station. In contrast, the passengers of MRT BL are intended to easily recognize the physical environment because the station has a distinctive physical environment, with symbols, advertising, identity, and other elements of the station. These are the reasons that MRT BL has a higher perception of the physical environment.

5.1 Design Guideline for the identity of the station

To efficiently establish a memorable identity, consider The 3 S's: Story is the background from the regent, culture, social, and historical that area near the station Space from the area to have function in the station such as exit, ticket machine, information, and platform. Style focus on the conceptual design within the context of the station.

5.2 The demand for station's shops and souvenir

Passengers from MRT PPL have a high demand for station merchandise and souvenirs because the train route runs out of town. Thus, the result of this study suggested that commercial spaces such as shops, community malls, and OTOP product centers can be operated in the future.

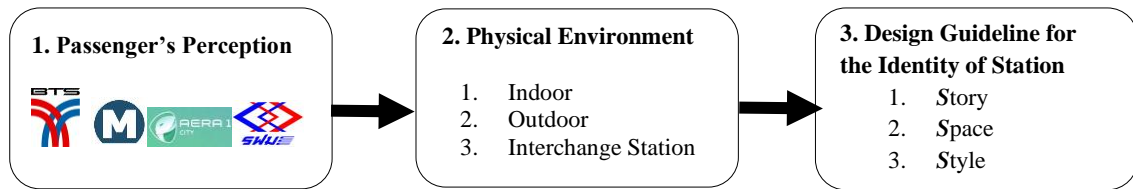


Figure 10 3S Concept for designing the station's identity

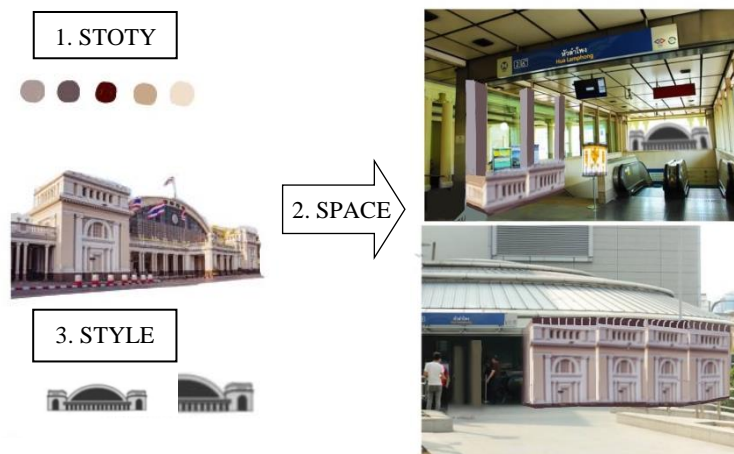


Figure 11 3S to apply designing the station's identity

5.3 Benefits for Public and passengers

The study of the physical environment of the station can be built on the design identity of the station since the perception towards the identity of the station can increase the value to the stations. For instance, the passengers were able to recognize the station by its identity and uniqueness. Furthermore, based on the passenger travel' behavior, the passengers have to study the travel plan, the routes, interchange stations and nearby public transportation systems to shorten travel time to terminal stations. To satisfy the passenger's needs, apart from the perception towards the entrances and exits sign at both inside and outside the station, the station identity plays a significant role in the passenger's perception. Thus, it is important to involve the physical environment around the station to represent the station's uniqueness since the passengers effortlessly engage in visual images.

5.4 Benefits of Public and private sectors and associations

We can conclude that the State Railway of Thailand and the Ministry of Transport should promote the physical environment identity in the station since the result indicated that the area of least passenger perception in the physical environment were the interchange stations and the Skywalk. Consequently, the reinforcement of the station's identity should be comprised of social and cultural aspects as well as the uniqueness of the surrounding community to set the guideline for creating the identity. As a result, it can be used for further commercial real estate, commerce, industry, and employment opportunities around the station.

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7. References

- Alman, I. (1976). A Conceptual Analysis. *Environment and Behavior*, 8(1), 7 - 29.
<https://doi.org/10.1177/001391657600800102>.
- Ames, A. (1949). *Nature and Origins of Perceptions*. Windsor, UK: Hanover Institute.
- Balmer, J. M. T., & Greyser, S. A. (2006). Corporate marketing: Integrating corporate identity, corporate branding, corporate communications, corporate image and corporate reputation. *European Journal of Marketing*, 40(7/8), 730-741. <https://doi.org/10.1108/03090560610669964>
- Clark, J. (2021). *Bangkok Urban Rail Transit Update – 2021 Edition*. Retrieved from <https://futuresoutheastasia.com/bangkok-urban-rail-transit-2021/>
- Douglas, G. C. (2010). Rail transit identification and neighbourhood identity. Exploring the potential for ‘community-supportive transit’. *Journal of Urban Design*, 15(2), 175-193.
<https://doi.org/10.1080/13574801003638020>
- Duxbury, N., & Jeannotte, M. S. (2011). Introduction: culture and sustainable communities. *Culture and Local Governance*, 3(1-2), 1-10. <https://doi.org/10.18192/clg-cgl.v3i1.181>
- Glăveanu, V. P., & Tanggaard, L. (2014). Creativity, identity, and representation: Towards a socio-cultural theory of creative identity. *New Ideas in Psychology*, 34, 12-21.
<https://doi.org/10.1016/j.newideapsych.2014.02.002>
- Gray, E. R., & Balmer, J. M. (1998). Managing corporate image and corporate reputation. *Long range planning*, 31(5), 695-702. [https://doi.org/10.1016/S0024-6301\(98\)00074-0](https://doi.org/10.1016/S0024-6301(98)00074-0)
- Horrayangkurl, V. (2013). *Environmental Psychology A Basic for Creation and Management of Livable Environment*. Bangkok, Thailand: GBP Centre Co., Ltd.
- Mindrut, S., Manolica, A., & Roman, C. T. (2015). Building brands identity. *Procedia Economics and Finance*, 20, 393-403. [https://doi.org/10.1016/S2212-5671\(15\)00088-X](https://doi.org/10.1016/S2212-5671(15)00088-X)
- Novakova, M., & Foltinova, E. (2014). The ordinary–everyday–commonplace as a reference of cultural identity. *Procedia-Social and Behavioral Sciences*, 122, 114-118.
<https://doi.org/10.1016/j.sbspro.2014.01.1312>
- Puttipakorn, P., & Upala, P. (2018). Comparative Analysis of Environmental Graphic Design for Wayfinding on the Exit Patterns of Mass Transit Stations. *The Open Transportation Journal*, 12(1), 150-166. <https://doi.org/10.2174/18744478018120100150>
- Seangsuk, O. & Upala, P. (2020). Factors Affecting of Physical Environment for Identifying Aesthetics and Spatial Perception at The MRT Blue Line, Transportation for A Better Life: Digital Transformation in Transportation & Logistics Post COVID-19 Era (pp 152-160). In *13th Atrans Annual Conference*, Bangkok, Thailand.
- Sirijansawang, T., & Upala, P. (2018). Understanding Corporate Identity in the Office of Automotive Business in Bangkok through Building Users and Design Professionals. *Asian Journal of Quality of Life*, 3(12), 177-193. <https://doi.org/10.21834/ajqol.v3i12.154>
- Tork, H. A., Elgohary, A. F., & Dewidar, K. D. (2019). Train Station’s Identity Through Image-Based Element. *International Journal of Current Research*, 11(11), 8370-8374.
<https://doi.org/10.24941/ijcr.37182.11.2019>
- Travel happy. (2023). Bangkok BTS And MRT Map 2023. Retrieved from <https://travelhappy.info/bangkok-bts-and-mrt-map>
- Worasit, Y., & Choonhachatrachai, A. (2016). Factor of Service Quality and Passenger Behavior Effecting to Attitudes of Consumers in Bangkok Metropolitan. *MUT Journal of Business Administration*, 13(1), 24-42.
- Ye-Kyeong, S., & Hye-Jin, J. (2015). New spatial possibilities of railway station: everyday heritage, enjoyable landscape. *Procedia engineering*, 118, 377-383.
<https://doi.org/10.1016/j.proeng.2015.08.437>

An Application of “Wabi Sabi” Philosophy in Fashion Design “Nature: Impermanence”

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Abstract

This research aimed at studying and analyzing the “Wabi-Sabi” philosophy. Its root was in Buddhism, which has an important saying that “Everything in the world is vain” or impermanent, including the absence of a self or the feeling of emptiness. The “Impermanence” was used for the subject of this research. The other concepts were found which related to the “impermanence”. The evidence of discovered aesthetics was derived from literature, poetry, and tea ceremonies, as well as architecture including art techniques that involved the use of symbolism. The information obtained from the study was used to create high fashion designs. The final purpose is to design 5 high fashion apparels as follows.

The “Impermanent” concept was interpreted from nature. It was used for story-telling along with other concepts such as simplicity which were used for main looks. As stated in the history of aesthetics, nature represented asymmetrical, unfinished, and incomplete things. All of them were incorporated to use in the creation. In addition, “Contradictions of thoughts” and “Emergence” that come from the history of aesthetics provide some conclusion. “Shibusa” or “Nature”, “Confusion”, “Simplicity” were used in the creation of the apparels as well. Considering the apparels’ design, the simplicity or minimal look was applied by using “Kiri” a technique through the design method of cutting out unnecessary things to a minimum in “Wabi” appreciation. The purpose of “Iki” (new style with subtle sex appreciation in Edo period) was to apply the “Emergence” concept. In this collection, hand-woven fabrics with natural color were used together with fabrics dyed with natural colors, such as indigo and ebony. They represented “Wabi-Sabi” just as Rikyu’s teacup concept which was simple and homegrown. The important “Symbolism” found in Heian period was used for design practice in this research.

Research feedback from two focus groups; the first group, focused on an overview of suitable production which natural fiber handwoven fabrics were used in haute couture design. Cotton fabrics was seen too heavy. In addition, hemp and linen fabrics were too easy to crumble. Especially, pineapple fibers because they are too short, it was not suitable to be spun by hand. Moreover, hand weaving was seen as not tight enough and made the shape unstable. Therefore, the selected handwoven fabrics are seen moderately suitable. The overall looks were good. The second focus group focused on research and creative design which was seen good to very good. The outcome would be used to be a prototype in product development in the village in Lampang Province, Thailand.

Keywords: *Wabi-Sabi, High Fashion, Impermanence, Simplicity, Symbolism*

1. Introduction

There is lack of confidence in understanding how Japanese designers such Rei Kawakubo (Talon, 2017; Borrelli, 2017) and Yoji Yamamoto (Verner, 2014) present their creative works to distinguish from the styles of Western designers (Mower, 2016). It is also questionable if their story-telling as told through the previous collection design about the truth of life, from birth to death are believable as well. It is also doubtful whether the philosophy, society, background, atmosphere and life influenced the two designers as well as their education. They accept the beauty that has passed through time that are shown in some collections. It is the proposition in aesthetics that is unexceptional by Western standards (The-D-Lover, 2012). In which western fashion critics criticize the work in doubtful ways as well. Koren (2008) has compared the difference of Modernism and Wabi-Sabi significantly. Most of Kawakubo and Yamamoto designs express various ideas (Borrelli, 2017; Verner, 2014) until now. There are many collections which can be interpreted in many ways.

In order to understand Japanese designers, it is imperative to research the Japanese aesthetics. Then, it becomes the core of the research on the use of “Impermanence” concept from “Wabi-Sabi” philosophy for High Fashion or Haute Couture which is an attempt to design apparels in a new perspective. According to the philosophy, it is related to nature and rooted on the teachings of Buddhism and the spirit of the Japanese people who try to find their own aesthetics by studying nature and discover the truth by themselves. The important concept of “Impermanence” led the history of aesthetic studies from the Heian period to the early Edo period which was used in this research.

At the beginning of the pursuit of aesthetics, Japanese people were influenced by Buddhist teachings related to the saying "Everything in the world is vain" or impermanent, including the absence of a self or the feeling of emptiness. That is the concept of the research title. The evidence of discovered aesthetics was derived from literature, poetry, and tea ceremonies, as well as architecture including the art techniques that involved symbolism. The information obtained from the study was used to create high fashion designs.

The hypothesis is as follow 1. Wabi-Sabi aesthetics are interpreted to concepts, such as naturalness, impermanence, imperfection, etc. Can Wabi-Sabi concepts really be applied into high fashion? 2. Is it possible to apply natural dyed hand-woven fabrics produced in the country for high fashion

2. Objectives

- 1 To study and analyze Wabi-Sabi philosophy and collect concepts.
- 2 To apply the concept of Wabi-sabi Philosophy in fashion design titled “Nature: Impermanence”
- 3 To experiment with woven fabrics from natural fibers in Thailand in high fashion design and sewing.

3. Materials and Methods

3.1 Woven fabrics from natural materials in Lampang province

Having an opportunity to survey the weaving site, a community enterprise is found. Its name is Baan Tuup Kaew Ma, Natural Color Hand-spun Cotton Weaving Group at Nadoa village, Serm Ngam District, Lampang Province. The housewives are gathered to weave and produce lifestyle products in the village. Natural yarn is used in weaving and dyed with natural colors such as Indigo (*Indigofera Tinctorial*) to be blue, Shellac to be dark pink. Takhian Nu (*Anogeissus Acuminata*) leaves turn yellow. Ebony turns brown, gray or black, etc. In addition, dyes are mixed to obtain more colors such as purple, green, light pink, etc. Cotton is grown in the village with organic standards, non-toxic. Normally in northern part of Thailand the Hom (*Strobilanthes*) is dyed to be blue color. Currently, Hom is found difficult to grow in this area. So, the Indigo is ordered from some provinces in North-Eastern part of Thailand. However, the indigo color procedure is created by the villagers. All of the fabrics are woven and spun and also winded by hands with the looms and antique bobbins.

Materials which are mostly used in this research are natural color cotton fabrics in off white color and natural brown color. Some Pineapple yarns in natural color are spun, winded and woven in the village. Later, because of its short yarn, some problems are occurred in the weaving process. So, in the future some longer yarn will be ordered, of which are spun and winded by machine from Prachuap Khiri Khan Province. Hemp yarn with natural color are also ordered from nearby provinces, for instant Chiang Mai Province and Mae Hon Son Province, they are dyed in dark indigo in Nadoa village. Moreover, the Linen yarn with natural color is imported from foreign country. they are ordered from some distributors in Thailand However, the yarn was dyed in blue in the village.

3.2 Analysis

Wabi-Sabi Philosophy

Aesthetics in Japan (Wikipedia, 2019) derives from the influence of Zen Buddhism that spread around the year 500-1000 A.D. Zen spread from China and, later, arrived in Japan. However, there were obstacles in building Zen faith due to the original Japanese spiritual beliefs at that time. Some Japanese studied Buddhism, strictly and the by-products. Those interested in art create some poems while studying Dharma. Later, it became the evidence of Japanese beauty or aesthetics and could be found in poetry in early literature. Japanese artists need to create art with their own identity, because, in the ancient time, they created

art (interactiongreen.com. n.d. (a)) on which influence came from China (Yurt, & Basarir, 2020) Wabi-Sabi happened around 14th and 15th century (Kobayashi, 2019)

The Impermanence

In the 19th century, Japanese aesthetics or "Japonism" became popular and influential in Western art. Some groups of artists, designers, and writers were inspired by Japonism. Japanese art and aesthetics widely spread and also appeared in research and writings on the Wabi-Sabi philosophy by many foreigners until now. They summarized the meaning of the Wabi-Sabi philosophy stated in writings, such as Koren (1994) Wikipedia (2019); interactiongreen.com 2019b, Nov.21.); Lafayette (2006); Kempton (2018); Parkes (2018); Kobayashi (2019)

Some Japanese terms like Mujo (unsustainability or vanity) and Utsurou (emptiness) are related to religious ideas from Buddhism. Some Japanese people who are interested discovered spiritual answers by themselves. Since the Heian Period, Japanese people also created both poetry and literature from the truth that believe that nothing was uncertain. Thus, they used the word "Mujo" (interactiongreen.com. 2019 Nov. 11) or "Impermanence" (Kempton, 2018) from Buddhism insight, meaning that everything in the world was vain. Nothing lasts and of course, no one should be attached to the surrounding things such as money, wealth, rank, and everything including love and happiness because one thing could happen, exist, and be gone (interactiongreen.com, 2019b, Nov. 21)

In accordance with the study, it was found that the Heian period (794-1185) was the beginning of the propagation of Buddhism which was the opposite of the idea of spirituality including God in the invisible nature. It is inexplicable to the ancient Japanese. Buddhism is therefore a belief and a foundation of understanding that is contrary to traditional thinking. The "Emptiness" or "Ku" in Buddhism is difficult to believe.

In interactiongreen.com. (2019b Nov. 21) Parkes (2018) and Kempton (2018) the novel "Genji," another novel considering the culmination of "Mono no Aware" was also mentioned. "The Tale of Genji" is a novel written in 1008 (interactiongreen.com. 2019 (a) Nov. 21). It is considered an old novel and the last copy was written by Murasaki Shikibu. In one part of the novel, she described Genji's loss and his need for a relationship with one working woman whom he was in love. Shikibu interpreted "empty", and then she used the symbol of a robe to show her decision. It means 'no' ("empty" or "Ku" in Buddhism) which was symbolized by the robe that she left behind

That is to say, things are transient. There is no absolute of the love of a woman or to name a lasting relationship. In the interpretation of "Wabi-Sabi" it is a display of calmness and humble beauty expressed in literature and most of the authors also use symbolic signs. It does not adhere to Western stereotypes. "Wabi" means simple and has little detail. It is similar to Minimalism (less is more), which is the key identity of "Wabi-Sabi" which also appreciates natural beauty. In addition to its simplicity, "Wabi" also has humility and naturalness. In essence, Sabi means loneliness and admiration of things that have changed over time and that changes cannot control the natural process of change (Yurt, & Basarir, 2020) Overall, Japanese arts clearly emphasized rough, simple, aged things as the image of Wabi-Sabi aesthetics.

Yurt and Basarir (2020); Kobayashi (2018) mentioned about things connected with reality, understanding, and the value of emptiness and that nothing was perfect. According to the principle of nature in Buddhism, even in every universe or in every particle, human beings are not real while aesthetics emphasizes the idea of the beauty of what is present. Some Japanese works of art were also created with some stages of imperfection The impermanence is natural, but it is sustainable and conveys completeness for Japanese art. In other words, it is a kind of beauty that each word is expressed differently which can be described as an obscure beauty (Green Milly, 2017).

The important aesthetics that can be explained often arise from culture, traditions and way of life. The appreciation of art in Japan has different feelings towards beauty appraisal, or artistic beauty. "Mono no Aware" is one of Japanese aesthetics aspects in accepting beauty. That is to say, beauty just like the word 'excellence' should show emotion to the audience or readers. It is interpreted to an exclamation of "oh" or "ah" during a feeling of joy, excitement, sympathy, sadness, or an unbearable expression of emotion. For "Mono no", it means "things or events that" can connect and relate feelings of "Aware" (means being impressed) to the audience. Therefore, "Mono no Aware" is a phrase that arises from surprise with the intrinsic or the essence that appears in things or events (interactiongreen.com. 2019a, Nov. 21)

In other words, Mono no Aware in Japan is a feeling of emotion that allows the audience to connect and access to authors' or artists' thoughts. The audience is programmed to appreciate art; therefore, any art presented has the power to stimulate that feeling just as aesthetically pleasing (interactiongreen.com n.d. (b)) "Wabi" means lessening or cutting principled beauty while "Sabi" refers to something plain, rustic, coarse, like hand-spun thread or a surface layer that has developed over time as a stain. "Yugen" means mysterious, profound, and so, deeply concealed. "Iki" refers to a refined, or new idea of painting (hiding some erotic representation). Kire or elimination (Parkes, 2018) There are also different forms of beauty, such as "Shibui", which means astringent or raw, simple, and straightforward. The beauty of "Shibui" is the beauty that manifests in complete harmony with nature, and there is an image that affects the viewer's perception. "Shibui" and "Wabi-Sabi" are the fundamental themes of Japanese traditional culture as well as philosophy, emotion, spirit, and mindset. (Kaygi, 2020).

De Monte summarizes some key words in "Wabi-Sabi" philosophy for designers, such as "Simplicity or Honshitsu" "Kire" means cutting out until it becomes really necessary or showing the essence of quality. "Seizui" means the same as "Kire" which may be translated to purity or concentration or essence of things. "Shizenbi" means "natural beauty" or having the spirit of nature. "Wa" means "law of the land is harmony." "Heisei" means peace of mind or tranquility. "Iki" means the emergence of a new form of artistic creation. Yugen is mentioned as well. It means a mysterious feeling and what is hidden in the dark. (Lafayette, 2006)

Cutting or "Kire" means leaving only the necessity or essence of things. Emotions and feelings are distilled from their essence into seeds that grow into leafless trees. As a result of Buddhism insight, people should practice until they find the "Enlightenment"

Moreover, Kempton (2018) concluded that the terms most commonly used in "Wabi-Sabi" included, asymmetrical, atmospheric, flawed beauty, humble, imperfect, irregular, marks of passage of time, modest, natural, nostalgic, raw, rough, simple, serene, soulful, subtle, etc.

Such important aesthetics arise from evidence from life, way of life, living, and behaviors. Then, it appears in poetry, literature, tea ceremony and equipment, architecture, painting, performing arts, etc. All the aesthetics as previously mentioned led to a research study which analyzed data to create "Nature: Impermanence" in fashion design. The symbolism technique of creating things in literature and the idea of architecture were used as well.

Haute Couture Design

Fashion products lead the way in shapes, forms, colors, materials and details. Designs are changed every season to develop fresh images for customers. Seasonal introduction of designs are popular to customers. Fashion without a plan can be a sham, and a creation for the target group or consumers is preferable. However, fashion clothing is particularly complex, it is a kind of art from the soul more than the look. Designers have to work in relation to consumer needs, both beauty and the mood of the atmosphere at that time. According to the concept of the design, it is often criticized and debated by fashion critics. Fashion apparels are also often featured on catwalks and media such as magazines, electronic media, etc. Fashion design also depends on as the climate of politics, economy, and technology.

The so-called fashion segmentation, Haute Couture or High Fashion, is grouped by taste, budget and occasion (e.g. daywear, evening gown). The word Haute Couture is derived from French; "Haute" mean high, fine and exquisite. Couture means luxury clothes, dress and so on. It has become a business that is special in designing, sewing and selling to consumers. Luxury fashion makes the price high. Most of them are sewn by hand and they are the most expensive apparels in the fashion design range (Matharu, 2010). In Thailand, the term "High Fashion" is mainly used to create designs, sewing, or hand embroidery. It has different principles as compared to France which is not applicable to high fashion.

High Fashion apparels are often made of fabrics with high quality, sometimes having bright and shiny surfaces that are created by machines and using high technology in production. They always present a luxurious appearance and using expensive materials such as silk woven by machines and desired patterns. This research used the concept of "Nature: Impermanence" to show a new design perspective, and it causes controversy in High Fashion of Western standards. For instance, highlighting the possibility of using hand-woven fabrics from natural fibers for high-fashion apparels which expresses nature from the concept of "Impermanence" that tells the story of the search for Japanese aesthetics history. There should be an

agreement of the fine and neat stitching in measuring as tailor specified, and tryouts on the wearer. For typical High Fashion designs, the inspiration is most unclear. It is more of a creative approach to art. Clothing is created and approached in a simple and elegant way, in accordance with the Wabi Sabi philosophy.

“Wabi-Sabi” philosophy in design research

In conclusion, Wabi-Sabi philosophy is the aesthetics that linked to Zen by considering things from Buddhism insight about the impermanence of nature, life and daily living. There is no absolute permanence and no ending existence. All lives and things are in the circle of birth, old age, sickness, and death, and others even believe in another next life. Beauty shows the origin and where it goes (birth, old age, sickness, and death). It shows the beauty of lives and things that would change. It is impermanent, uncertain, incomplete, imperfect or unfinished etc. What has happened is not permanent. Therefore, the following are the points of conclusion of “Wabi-Sabi” in this research.

1. According to "The Tale of Genji" which is a novel written by Murasaki Shikibu in 1008, is considered an old novel and the only remaining copy. In one part of the book, Shikibu interprets the answer 'no' and uses symbolism of the robe that has been left behind. ("Empty" or "Ku" in Buddhism (interactiongreen.com. 2019a Nov. 21; Parkes, 2018) The idea of practicing “Symbolism” is applied in the whole collection.
2. Due to the images of the Golden Pavilion and the Silver Pavilion, which exemplify the evolution of the Wabi-Sabi aesthetics in early Muromachi and late Muromachi periods (interactiongreen.com. 2019a Nov. 24; Parkes, 2018) apparently showed conflicts of thoughts and create conflict to the ideas presented. It is the same concept as Mujo and Utsuro, meaning “Impermanence”, sometime, it means emptiness. The “Impermanence” concept is applied in the whole collection.
3. Shibusa is an aesthetic attitude. Its key elements of naturalness include an unusual shape, simplicity, subtle delicacy, naturalness, peace, tranquility, normality, plainness, etc. in everyday life. It is especially blended with different elements to create a timeless beauty (Casebier, 2006, p. 227-230 as cited in Parkes, 2018), and these concepts were used in design no. 1-3
4. Wabi is the beauty of simplicity (Kempton, 2018; Kobayashi, 2018; Ray, 2018). In other word, beauty which has limitations, sometime looks rigid. The most important thing of “Wabi” is the beauty that reduces or cuts the unnecessary (Kire) until it only shows simplicity. “Sabi” refers to a rough surface, homegrown, loneliness, despair, with the appreciation of the possibilities of things that passed through time (Parkes, 2018.(n.p.)). Natural fibers spun and woven by hand fabric were chosen to be used in all designs. Moreover, it emphasized the beauty of simplicity in design no. 4
5. “Kire” is found in cutting out words which is the art of Haiku poetry that means cutting out some words, and it is connected to the next lines of the poem. That is found in the anthology written by Matsuo Basho. This technique is used of cutting or reducing the entire poetry collection, and the concept of “Simplicity” which unfolds from design no.1-5 was used.
6. “Kintsugi” (Repairing the broken things especially pottery. Fixing the broken parts together by using gold, silver or platinum powder) is applied. The repair is the evidence that each poetry repair is treated with pleasure to see what actually happened in history. (Richman-Abdou, 2019). It was applied in design no.5.
7. The concept of changing style to new level, called “Iki” (interactiongreen.com. 2019b Nov. 24; 2019 Dec. 6) in the history of early “Edo” period (with some imprinted meanings of sex) was also applied in design no.5.
8. Storytelling about evolution of aesthetics from the Heian period to the early Edo period is applied in the whole collection.

In conclusion, symbolism technique has been practiced in design, complete with storytelling about the impermanence of things and life. “Kire” (The cutting-off technique) is used in order to show “Simplicity” from nature as much as possible. Kintsugi (the repairing technique), represents connection with new “Wabi-Sabi”. Some concepts in “Wabi-Sabi” philosophy are used as well.

Story Telling in the Collection

It all begins from Buddhist insight, which is the matter of “Impermanence” to study and to learn naturally from nature. Some of the pilgrims understood the meaning of impermanence, the simplicity of things, and true appreciation of what had passed through time.

Evolution of Japanese’s search for Wabi-Sabi aesthetics is supposed to have happen in the Heian period, during the peak of Shogun's power. Wealthy merchants who traded with China and always used Chinese expensive products also appreciated Chinese arts, collected the valuable Chinese potteries, and competed among themselves. At the same time, there was a movement of pursuing Japanese aesthetics identity. It appears in groups seeking aesthetics, such as sages, ascetics, soldiers and villagers who were interested in searching for Japanese aesthetics. Starting from Buddhist insight which is the matter of unsustainability or impermanence study and learn naturally from nature, some of them such as pilgrims found the meaning of impermanence, the simplicity of things, true appreciation of what had passed through time.

Furthermore, Japanese writers also use symbolism, producing excellent works of art (Mono no Aware). In the pursuit of power, people who engaged in war suffered from poverty and loss which was clearly expressed in “Onin,” the uncertainty of things. It clearly influenced the concept of “Wabi-Sabi” aesthetics. It can be said that, the idea of “Simplicity” was likely to arise from poverty. The people who lived in poverty admired the beauty of “Simplicity” and “Naturalness”.

Consideration

The creative research results are reviewed in 2 ways and divided into 2 groups: 1. The use of natural materials in high fashion design and sewing is reviewed by 3 experts; marketers, designers and academics. 2. Creative design research is reviewed by The Committee of 10th International Design Symposium “Work in Progress: Clean Design”, College of Design, Rangsit University, of 5 experts; namely artists and designers.

4. Results



Figure 1 1st Design

Storytelling: It started in the early Muromachi period with a group of wealthy and extravagant shoguns who showed conflicting ideas against the Wabi-Sabi concept group. The lavishness of the Shogun and other wealthy people preferred art that come from China. In the late Muromachi period, the Shogun who pursued identity of Japanese aesthetics, and people accepted the idea of “Wabi-Sabi” showed “Simplicity”. Thus, in this age of Muromachi, it appeared that the unsustainability or conflicted ideas changed, and found entirely the concept of impermanence in the architectural concept of the Golden pavilion and the Silver Pavilion.

Concept: “Conflict of thought”

Design Process: The imperfect long and short dress represents the controversial of ideas between shoguns in the area of architecture. A long dress with an overcoat represents extravagance and luxury was used to symbolize the “Conflict of thoughts.”. “Impermanence” is gradually becoming apparent. The technique of cutting out or "Kire" was used, and letting some parts of dress hang loose presented naturalness. Moreover, the use of folk textile materials with spinning and weaving and the use of natural dyes, e.g. indigo and ebony, are the examples of “Wabi-Sabi” mood.



Figure 2 2nd Design

Storytelling: Expressing the idea of the “Impermanence” inherent in the nature of life, such as the losses in wars. It gives a feeling of scarcity, survival, and the spontaneity of power and loss.

Concept: “Shibusa” or naturalness is an aesthetic attitude with key elements of an unusual shape, simplicity and, subtle delicacy.

Design process: Natural shapes that were unusual, incomplete, blending different designs with a long dress inside and also the ornamental outer dress that was partially cut off symbolized and represented the “Natural” concept. Cutting off technique or "Kire" showed asymmetry and represent “Naturalness”. Folk textile materials with spun yarn and hand-woven natural colors represented “Simplicity” as well. A combination of nature, peace, tranquility, normalcy, normal everyday life, especially blending with different elements showed a timeless beauty (Casebier, 2006, p. 227-230).



Figure 3 3rd Design

Storytelling: The quest for aesthetics of Japanese design continued, sometimes confusing. It is like the creation of Chashitsu in various designs crafted for tea ceremony. The creation of a tea room of Rikyu is very small showing simplicity with different objectives. It may contribute to the solemnity of the ceremonial leaders and attendees or for the participants to indulge in the aesthetics or beauty of gestures, atmosphere and equipment, etc.

Concept: The pursuit of “Wabi-Sabi” aesthetics were confused along the way. The interpretation of the “Confusion” concept was conducted to create a work that showed both confusion and simplicity. Creating with beauty that is limited looks strict. The most importance of “Wabi” is the beauty that has been reduced to what is not necessary or it is cut (Kire) until only what is necessary is retained. “Sabi” is rough texture which expresses loneliness, despair, and limited time.

Design Process: The dress is white and a long cloth is folded back and forth, the hand-woven material with rough-textured cotton, symbolized the concept of “Confusion” and “Simplicity”. It also represented the confusing path of seeking Wabi-Sabi beauty. Nevertheless, this work also showed a cut that is not yet at its core.



Figure 4 4th design

Storytelling: “Kire” was found in cutting words and appeared in the art of Haiku poetry. It is the elimination of descriptions. Meanwhile, the meaning is connected to the next line of the poem. Such an anthology written by Basho, Sen no Rikyu's teacups and vases are simple, vases are simple. The story of "Genji" by Matsuo Shikibu also cut out the explanation, and she used the symbol instead. The story of "Genji" by Matsuo Shikibu also cut out the explanation, and she used the symbol instead.

Concept: “Simplicity” using cutting off, or “Kirei” technique was applied. Cutting it off to become a leafless sapling.

Design Process: A single piece of fabric symbolized and represented “Simplicity”. It was cutting out an unnecessary thing to the core or sapling without leaves. It also represented peace, happiness, humility, and desolation. “Wa-Sabi” in the Muromachi era was interpreted like teacups and vases of Rikyu's tea ceremony



Figure 5 5th design

Storytelling: After Muromachi, “Wabi-Sabi” is supposed to be clear. Japanese aesthetics have evolved and extended their identity in many directions. At the same time, it has spread and has been developed all over the world. However, the pursuit of simplicity as part of Japanese identity in the modern time has evolved from “Iki” style in early Edo period until now.

Concept: “Emergence”; the pursuit of simplicity

Design Process: In the pursuit of simplicity of Wabi-Sabi from the Muromachi era to the present, a simple square shape and patchwork technique in different colors at the back of the dress or Kintsugi technique represented “Emergence” concept. The design was attempted to demonstrate a new development idea of Wabi-Sabi as new “Simplicity”. As the result of “Iki”, the creation of a painting style that implied a new style in the early Edo period was also imprinted in the “Emergence” concept. Hand-woven fabrics from pineapple fibers were represented as simple, homegrown and interpreted to represent “Wabi-Sabi”.

5. Discussion

The one who is interested in “Wabi-Sabi” philosophy must be suspicious as to why Japanese people express their mystery in terms of ideas currently used in Manga, sushi, cosplay, Japanese street style (subculture), anime, robots, etc. However, “Simplicity” is the most recognizable identity of Japanese aesthetics. Nevertheless, the relentless pursuit of simplicity in design has never stopped, showing the unsustainability of things and new concepts come along with time. Many designers and artists around the world extend the idea of Japonism. It is applied to new and original creations by famous artists, such as Frank Lloyd Wright, the father of Minimalism and Le Corbusier, who cut the wall in a box shape and let the lights get into the room as Japanese architecture designers do etc.

Until today, the experiment in simplicity, less is more, is dramatically famous all over the world. In parts, designers just want to expand their ideas influenced by Wabi-Sabi philosophy. Many Japanese product designers, such as Oki Sato, create their works based on the philosophy of “Wabi-Sabi”. At present, designers with their DNA “Wabi-Sabi” present new creative works, and the audience can see the movement of those works. It is not significant to report that Japanese fashion designers, Rei Kawakubo and Yohji Yamamoto, used “Wabi-Sabi” philosophy as only as remarkable consideration. However, they have various concepts without using the concrete of Japanese style in the international arena anymore. They dare to create their works with original ideas that are different from each other. According to the Japanese aesthetics, the “Wabi-Sabi” philosophy was widespread in the western world in the 1900s.

In studying the history of Wabi-Sabi from the Heian period to the early Edo period found such philosophy. It's a part of the Japanese aesthetics which is caused by changes in society, culture, living from prosperity to the hardships of people in society. Along with the desire to pursue a unique beauty, aesthetics was created by Japanese people themselves. "Everything in the world is vain" or impermanent is the main focus of the research. Evidence of discovered aesthetics are derived from literature, poetry, and tea ceremonies, as well as architecture. Some techniques in art that involved the use of symbolism were also included. The information obtained from the study was used to create High Fashion.

For “Simplicity” concept, it should be clearer that the works were designed simply as “Wabi-Sabi” concept. Things that passed the time might influence the ‘Simplicity’ concept. Therefore, the work had to be eliminated to be simply in this research. However, the idea of things that passed the time could be applied as the imitation of mending things with neat and clean would result in further research. Moreover, in this research, it was difficult to sew neatly by hand because of the flexible woven fabrics which was not tight enough. Therefore, it could be only done trying out to fit the wearer. However, there were some parts that needed to be sewn by hand.

In order to use cotton and pineapple hand-woven fabrics, one should be careful; (1) Hand woven from natural brown cotton have a rough texture. They should be damped and keep in plastic bag for a while before ironing otherwise the fabric will be rough and unusable (2) Hand-woven fabric from pineapple fibers, one must understand that Pineapples have short fibers. Therefore, it must be spun with cotton before weaving. It has a rough texture and is easy to tear. It must be preserved in order to be used for a long time. In addition, hand-woven cotton, linen and hemp soften after washing.

6. Conclusion

The study of “Wabi-Sabi” philosophy will be more understandable if the reader has basic information in Buddhist teachings. There is some more knowledge of important Buddhist insight involving the enlightened principles which are "Trilak" (three characteristics), consisting of teachings on the subject of Anicca (impermanence/ transiency) Dukkha (state of suffering), Anatta (non-self).

In conclusion, all experiences combining with the study of “Wabi-Sabi” were analyzed to be the body of knowledge which would be successful in some level to finish the research. It is the application of “Wabi-Sabi” philosophy to create the apparel designs, “Nature: Impermanence”. Symbolism, simplicity and some inspirations were applied added to the diversion of the concept of Wabi-Sabi. The interpretation of “Wabi” concepts was in the main designs while “Sabi” was in minor designs in this research. The focus group gave some feedback for the research outcome, identifying that using natural fibers and hand-woven fabrics for high fashion produced average or fair quality products. The designs were satisfactory. The outcome of the study could be used as an example in product development at Nadao village, Lampang Province in Thailand.

Reviewers’ opinion are as follows

(1) Focus group, who considers the use of natural materials in high fashion design and sewing, has commented that hand-woven cotton may only be used moderately in haute couture. Creativity is average to good and overall is good

(2) The Committee of international Symposium “Working in Progress” No. 10, College of Design, Rangsit University, creative works reviewer who has commented on the creative design that overall is good to very good.

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8. References

- Borrelli, L. (2017). *Comme des Garçon fall 1994 ready to wear*. Vogue. Retrieved from <https://www.vogue.com/fashion-shows/fall-1994-ready-to-wear/comme-des-garcons>
- Green Milly (2017 September 29). “*Authentic Japanese Boro, Boro Mending and Boro Inspired Patchwork*”. Retrieved from <https://www.sewingmachinesplus.com/sewblog/authentic-japanese-boro-boro-mending-boro-inspired-patchwork/>
- interactiongreen.com. (2019 November 11). *History of Japanese aesthetics (2): Kamakura Mujo*. Retrieved from <https://www.interactiongreen.com/history-of-japanese-aesthetics-kamakura-mujo/>
- interactiongreen.com. (2019a November 24). *History of Japanese Aesthetics (3): Muromachi Wabi-Sabi*. Retrieved from <https://www.interactiongreen.com/history-of-japanese-aesthetics-muromachi-wabi-sabi/>
- interactiongreen.com. (2019b November 24). *History of Japanese Aesthetics (4): Edo and IKI- Part I*. Retrieved from <https://www.interactiongreen.com/history-of-japanese-aesthetics-4-edo-period-and-iki-genroku/>
- interactiongreen.com. (2019 December 6). *History of Japanese Aesthetics (4): Edo and IKI- Part II*. Retrieved from <https://www.interactiongreen.com/history-of-japanese-aesthetics-4-edo-period-and-iki-kasei/>
- interactiongreen.com. (2019a November 21). *History of Japanese Aesthetics*. Retrieved from <https://www.interactiongreen.com/japanese-aesthetics-history/>
- interactiongreen.com. (2019b November 21). *History of Japanese Aesthetics (1): Heian and Mono No Aware*. Retrieved from <https://www.interactiongreen.com/history-japanese-aesthetics-1-heian-mono-mono-no-aware/>
- interactiongreen.com (n.d. a). *Wabi-Sabi 101: What Does “Japanese Aesthetics of Imperfection” Really Mean?*. Retrieved from <https://www.interactiongreen.com/wabi-sabi-101/>
- interactiongreen.com (n.d. b). *What Does Wabi-Sabi Mean? – It’s The Japanese, Subdued Version of “Shabby Chic”* Retrieved from <https://www.interactiongreen.com/wabi-sabi-meaning/>
- Kempton, B. (2018). *Wabi Sabi: Japanese wisdom for a perfectly imperfect life*. London, UK: Piatkus.
- Kobayashi, H. (2019). *Wabi-sabi: learning the ancient Japanese art of imperfection with thoughtfulness and peacefulness. Conceptual art and minimalism*. Independently published.
- Koren, L. (2008). *Wabi-sabi for artists, designers, poets & philosophers*. Point Reyes, US: Imperfect Publishing.
- Lafayette, B. D. M. (2006). *Elements of Japanese Design: Key Terms for Understanding & Using Japan's Classic Wabi-sabi-shibui Concepts*. North Clarendon, US: Tuttle Publishing.
- Matharu, G. (2010). *What is fashion Design: essential Hand Book*. Beverly, US: Rockport Publishers.
- Mower, Sarah (2016 March 5). *Comme des Garçon fall 2016 ready to wear*. Vogue. Retrieved from <https://www.vogue.com/fashion-shows/fall-2016-ready-to-wear/comme-des-garcons>
- Parkes, G. (2018). *Japanese Aesthetics*. Retrieved from <https://plato.stanford.edu/entries/japanese-aesthetics/>
- Ray, M. (2018 March 17). *Sen Rikyū*. Retrieved from <https://www.britannica.com/biography/Sen-Rikyu>.
- Richman-Abdou, K. (2019). *Kintsugi: The Centuries-Old Art of Repairing Broken Pottery with Gold*. Retrieved from <https://mymodernmet.com/kintsugi-kintsukuroi/>
- Talon, K. (2017). *Six times Rei Kawakubo anticipated fashion*. Retrieved from <https://www.nssmag.com/en/search/Six%20times%20Rei%20Kawakubo%20anticipated%20fashion>
- The-D-Lover. (2012 September 14). *From Chaos to Couture/Commes des Garçon*. Retrieved from <http://www.the-d-lover.com/en/2012/09/14/from-chaos-to-couture/Commes des Garçon>
- Verner, A. (2014). *Yohji-Yamamoto spring 2015 ready to wear*. Vogue. Retrieved from <https://www.vogue.com/fashion-shows/spring-2015-ready-to-wear/yohji-yamamoto>
- Wikipedia (2019). *Wabi-Sabi*. Retrieved from <https://en.wikipedia.org/wiki/Wabi-sabi>

Yurt, E., & Başarır, S. B. (2020). Aesthetics of an aesthetics: Western postmodern attitude and Japanese Wabi-Sabi. *Kaygı. Uludağ Üniversitesi Fen-Edebiyat Fakültesi Felsefe Dergisi*, 19(2), 665-696.
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APPENDIX A

JOURNAL OF CONTEMPORARY SOCIAL SCIENCES AND HUMANITIES

(Formerly RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES)

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Normah Omar, *Universiti Teknologi MARA, Malaysia*
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Omar Al Farooque, *University of New England, Australia*
Onjaree Natakatoong, *Kasem Bundit University, Thailand*

Orlando Dela Cruz Canonoy, *Rangsit University, Thailand*
Pacharin Sumsiripong, *Mahidol University, Thailand*
Patrawadee Makmee, *Burapha University, Thailand*
Paul Joseph Bradley, *University of Thai Chamber of Commerce, Thailand*
Pawarisorn Somsin, *Rangsit University, Thailand*
Peeradorn Kaewlai, *Thammasat University, Thailand*
Peter Duff, *University of Aberdeen, UK*
Pirom Thantaworn, *Rangsit University, Thailand*
Pisrapai Sarasalin, *Rangsit University, Thailand*
Piyasuda Mawai, *Rangsit University, Thailand*
Pattanant Phechedchoo, *Dhurakij Pundit University, Thailand*
Polwat Lerskullawat, *Kasetsart University, Thailand*
Pongjan Yoopat, *Rangsit University, Thailand*
Ponn Virulrak, *Chulalongkorn University, Thailand*
Pornchai Tarkulwaranont, *Thammasat University, Thailand*
Pornsook Tantrarungroj, *Chulalongkorn University, Thailand*
Phaituraya Dassé, *Thammasat University, Thailand*
Prapaporn Chukumnerd, *Prince of Sonkla University, Thailand*
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Praveen Nahar, *National Institute of Design, India*
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Sompong Sucharitkul, *Rangsit University, Thailand*
Somsak Tambunlertchai, *Thammasat University, Thailand*
Srisombat Chokprajakchat, *Mahidol University, Thailand*
Sukanya Buranadechachai, *Burapha University, Thailand*
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Sunee Kanyajit, *Mahidol University, Thailand*
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Vilawan Mangklatanakul, *Ministry of Foreign Affairs, Thailand*
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Wararak Chalermputusak, *Sukhothai Thammathirat, Thailand*
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Witsanuphong Suksakhon, *Rangsit University, Thailand*
Worachat Churdchomjan, *Rangsit University, Thailand*
Yunlin Yang, *Rangsit University, Thailand*



APPENDIX B

JOURNAL OF CONTEMPORARY SOCIAL SCIENCES AND HUMANITIES

(Formerly RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES)

NOTE FOR AUTHORS

1. Aims and Scope

Journal of Contemporary Social Sciences and Humanities (JCSH) aims to provide a high profile vehicle for publication of various new issues in different academic areas in Humanities and Social Sciences. *JCSH* invites scholars, researchers, professionals and academicians to publish their manuscripts in the journal. The scope of the Journal encompasses, the author(s) can submit their manuscript covering, but not limited to Interdisciplinary Studies in Humanities and Social Sciences, any of the following areas:

Social Science

Anthropology
Criminology & Criminal Justice
Economics
Political Science
Sociology

Humanity

History
Linguistics
Philosophy (inc. Arts & Design)

2. Submission Deadline

Submissions are to be permanently open. A manuscript submitted between July 1st and December 31st will be considered for publication in the January-June Issue of the subsequent year whereas a manuscript submitted between January 1st and June 30th will be considered for publication in the July-December Issue.

3. Categories of Articles

The *Journal* accepts the following types of articles:

1. **Research Articles:** A research article is a regular quantitative or qualitative article which aims to present new findings or interpretations.
2. **Review Articles:** A **review article** or survey articles, also called a literature review, is an article that survey of previously published research on a topic and summarizes the current state of understanding on a topic. It should give an overview of current thinking on the theme and, unlike an original research article, won't present new experimental results. By analyzing a large body of data from existing studies, some systematic reviews can come to new conclusions. Review articles can also provide recommendations for potential research areas to explore next. Moreover, a review article surveys and summarizes previously published studies, rather than reporting new facts or analysis.
3. **Innovations:** An innovation is an article that aims to present creative arts and designs, procedures or devices.

Research articles, review articles, and innovations should not exceed 15 pages of standard A4 paper using *JCSH* format. The manuscript template is available at <https://JCSH.rsu.ac.th>. All categories of articles must coincide with manuscript preparation instruction (see Manuscript Preparation Section).

4. Editorial Policies

JCSH accepts only the original work that has not been previously published, nor is it a dual submission. The submission also implies that the authors have already obtained all necessary permissions for the inclusion of copyrighted materials, such as figures and tables from other publications. Submitting a copied piece of writing as one's own original work is considered plagiarism. The *Journal* is published by Rangsit University Press, Thailand. Contributions are in English. Copyright is by the publisher and the authors.

Authorship: *JCSH* expects that all of the authors listed on a manuscript have contributed substantially to the submitted paper. By submission of the manuscript, cover letter, and Copyright Transfer Agreement (CTA), the corresponding author affirms that all named authors have agreed to be listed as authors of the paper. Furthermore, by their signatures on the CTA, all authors affirm that they have both read and approved the manuscript, and that they take full responsibility for the content of the article.

Review Process: *JCSH* assumes responsibility for insuring that submitted manuscripts receive expert and unbiased reviews. *JCSH* strives to complete a peer review of all submitted papers and the publication of accepted manuscripts in a timely manner and to keep the authors informed of any problems with their manuscript. All submitted manuscripts are initially evaluated by the Editor-in-Chief in consultation with members of the Editorial Board before being sent for double-blind review. *JCSH* is under no obligation to submit every manuscript to formal peer review. Manuscripts that are judged by the editors to be inferior or inappropriate for publication in the *Journal* may, at the discretion of the Editor-in-Chief, be rejected without formal written reviews by referees. *JCSH* attempts to obtain at least two written reviews for each manuscript that is entered into the peer review process, although the Editor-in-Chief has the discretion to make final decisions about the disposition of a manuscript with fewer than two reviews. The reviewers' evaluations will be used by the editors to decide whether the paper should be accepted, revised or rejected. A copy of the referees' comments will be sent to the corresponding authors whose paper needs revision. All reviewers serve anonymously and their identities are protected by the confidentiality policy of *JCSH*.

Confidentiality: As is customary for the peer review process, *JCSH* holds the identity of authors and the contents of all submitted manuscripts in confidence until such time as the papers are published. This confidentiality extends to the comments of editors and reviewers that have evaluated the paper; these comments and reviews are released only to the corresponding author. Co-authors may have access to these documents either by obtaining them directly from the corresponding author or by submitting to *JCSH* a letter of request that has been signed by the corresponding author. Similarly, *JCSH* expects that editors and reviewers will maintain strict confidentiality of the authors' identities and the contents of manuscripts that they examine during the review process, and furthermore, will never disclose the contents (either orally or in writing) of documents related to the peer review of a manuscript. A violation of this policy is considered a serious breach of trust.

Research Involving Animals or Humans: Authors must state in the manuscript that the work was approved by, at least, their institutional ethical review board for any research involving human and animal subjects. These approvals are required for publication in *JCSH*.

5. Manuscript Preparation

General Instruction: Submit your manuscript in both PDF and MS word formats. Manuscripts are acceptable in both US and UK English, but the use of either must be consistent throughout the manuscript. Please note that the editors reserve the right to adjust style to certain standards of uniformity.

Format: Unless specified, type text with 10-point Times New Roman font on 12-point line spacing, with a 1.25 inch left margin, 1 inch bottom and right margin, 2 inch top margin, 1.2 inch header, and 0.6 inch footer. Main text is set in single column. First lines of paragraphs are indented 0.5 inch. For hard copy, use standard A4 paper, one side only. Use ordinary upper- and lower-case letters throughout, except where italics are required. For titles, section headings and subheadings, tables, figure captions, and authors' names in the text and reference list: use ordinary upper- and lower-case letters throughout. Start headings at the left margin. If you wish, you may indicate ranking of complicated section headings and subheadings with numerals (1, 1.1, 1.1.1). Try not to exceed three ranks. All pages must be numbered in the top right-hand corner.

Title: Use 11-point bold font on 12-point line spacing. The length of the title of the article must not exceed 2 lines. A title should be concise and informative. The alignment of the title is centered.

Author Names: Use 10-point font on 11-point line spacing. Centered alignment and leave one line space below the title of the article. Begin with the first name of the author followed by the last name. For more than one author, separate each name by a comma (,), and identify each author's affiliation by superscript numbers at the end of the author's last name.

Author Affiliations: Use 9-point font on 10-point line spacing. Centered alignment and leave one line space below the author names. Include institutional and e-mail addresses for all authors. Place superscript numbers at the beginning of each affiliation accordingly.

Abstract: Use 10-point font on 11-point line spacing for heading and 9-point font on 11-point line spacing for abstract content. An abstract of up to 250 words must be included as and when appropriate. For research papers; the purpose and setting of the research, the principal findings and major conclusions, and the paper's contribution to knowledge should be briefly stated. For empirical papers the locations of the study should be clearly stated, as should the methods and nature of the sample, and a summary of the findings and conclusion. Please note that excessive statistical details should be avoided, abbreviations/acronyms used only if essential or firmly established.

Keywords: List up to 6 keywords and separate each keyword by a comma (,). The keywords should accurately reflect the content of the article. The keywords will be used for indexing purposes.

Main Text: Use 10-point font on 12-point line spacing. In the main body of the submitted manuscript the following order should be adhered to: introduction, methodology, results (if any), discussion (if any), conclusion, acknowledgements, and references. Please note that some article categories may not contain all components above. Tables or figures must be included in the text for the reviewing process. In addition, tables and figures must also be submitted individually in separate files. Refer in the text to each table or illustration included, and cite them in numerical order, checking before submission that all are cited and in correct sequence.

References in the Text: To insert a citation in the text use the author-year system, i.e., the author's last name and year of publication. Examples are as follows: "Since Johnson (2008) has shown that..." or "This is in agreement with results obtained later (Benjamin, 2010)". For 2-3 authors; all authors are to be listed, with "and" separating the last two authors, for more than three authors, list the first author followed by et al. The list of references should be arranged alphabetically by authors' names. All in-text citation must be appeared in the reference list. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list. Responsibility for the accuracy of bibliographic citations lies entirely with the author(s). Citation of a reference as "in press" implies that the item has been accepted for publication. Authors are responsible for the accuracy of the content of the references.

List of References: JCSH uses the American Psychological Association (APA) referencing style, details of which can be found at <http://www.apastyle.org/>. References should be listed at the end of article, arranged alphabetically according to the last names of the authors and then chronologically. The following are examples of the APA referencing style. All in-text citation must be appeared in the reference list and all publications in the reference list must correspond to the in-text citation. Please delete the listed publications which are not appeared in the context.

Abstracts

Author./ (Year of publication)./Title of Abstract (abstract)./Journal Title,/Volume(Issue),/Page number.

Example:

Clark, D. V., Hausen, P. H., & Mammen, M. P. (2002). Impact of dengue in Thailand at the family and population levels (abstract).*Am J Trop Med Hyg*, 67(2 Suppl), 239.

Books

Author./ (Year of publication)./ *Book Title*:/ *Capital letter also for subtitle*./ Edition (if any)./ Location./ Country :/ Publisher.

Example:

Cochrane, A. (2007). *Understanding urban policy: A critical approach*. Malden, MA: Blackwell Publishing.

Palmer, G. R., & Short, S. D. (2010). *Health care and public policy: An Australian analysis* (4th ed.). South Yarra, VIC: Palgrave Macmillan.

Bulliet, R. W., Crossley, P. K., Headrick, D. R., Hirsch, S. W., Johnson, L. L., & Northrup, D. (2011). *The earth and its peoples: A global history* (5th ed.). Boston, MA: Wadsworth.

Chapter in edited book

Richards, K. C. (1997). Views on globalization. In H. L. Vivaldi (Ed.), *Australia in a global world* (pp. 29-43). North Ryde, Australia: Century.

Article or Chapter in an Edited Book

Author./ (Year of publication)./ Title of chapter./ In/ Editor/ (Ed.)./ *Book Title*/(pages of chapter)./ Location:/ Publisher.

Example:

O'Neil, J. M., & Egan, J. (1992). Men's and women's gender role journeys: A metaphor for healing, transition, and transformation. In B. R. Wainrib (Ed.), *Gender issues across the life cycle* (pp. 107-123). New York, NY: Springer.

Conference and Seminar Proceedings

To cite proceedings that are published regularly, use the same format as for a journal article. To cite proceedings that are published in book form, use the same format as for an article in a book.

Example:

Tester, J. W. (2008). The future of geothermal energy as a major global energy supplier. *Proceedings of the Sir Mark Oliphant International Frontiers of Science and Technology Australian Geothermal Energy Conference*, Canberra, Australia: Geoscience Australia. Retrieved from http://www.ga.gov.au/image_cache/GA11825.pdf

Dissertation or Thesis

Author./ (Year of publication)./ *Title of dissertation or thesis* / (Doctoral dissertation or Master's thesis)./ Awarding Institution.

Example:

Norasingha, A. (2009). *Expression and distribution of mucorinic receptors in hepatic composite of the cirrhotic rat* (Master's thesis). Rangsit University, Pathum Thani.

Editorials

Author./ (Year of publication)./ Title of Editorial (editorial)./ *Journal Title*./ Volume(Issue)./ Page numbers.

Example:

Fisher, R. I. (2003). Immunotherapy in Non-Hodgkin's lymphoma: Treatment advances (editorial). *Semin Oncol*, 30(2Suppl 4), 1-2.

Journal Articles

Author./ (Year of publication)./ Article Title./ *Journal Title*./ Volume(Issue)./ Page numbers.

Example:

Leelawat, S., Leelawat, K., Narong, S., & Matangkasombut, O. (2010). The dual effects of delta 9-tetrahydrocannabinol on cholangiocarcinoma cells: Anti-invasion activity at low concentration and apoptosis induction at high concentration. *Cancer Investigation*, 28(4), 357-363.

- Polk, A., Amsden, B., Scarrtt, D., Gonzal, A., Oknamefe, O., & Goosen, M. (1994). Oral delivery in aquaculture. *Aquacult. Eng*, 13, 311-323.
- Seals, D. R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Advances in Physiology Education*, 23(1), 52-58.
- Srichandum, S. & Rujirayanyong, T. (2010). Production scheduling for dispatching ready mixed concrete trucks using bee colony optimization. *American J. of Engineering and Applied Sciences*, 3(1), 823-830.

Letters

Author./ (Year of publication)/ Title of Letter./ *Journal Title*./ Volume(Issue),/ Page number.

Example:

Enzensberger, W., & Fisher, P. A. (1996). Metronome in Parkinson's disease (letter). *Lancet*, 347, 1337.

Notes

Author./ (Year of publication)/ Title of Note./ *Journal Title*./ Volume(Issue),/ Page number.

Example:

Haier, R. J., Schroeder, D. H., Tang, C., Head, K., & Colom, R. (2010). Gray matter correlates of cognitive ability tests used for vocational guidance. *Biomed Central*, 3, 206.

Unpublished/In Press Articles

Author./ (In press Year)/ Article Title./ *Journal Title*./ (in press).

Example:

Veena, B. (2004). Economic pursuits and strategies of survival among Damor of Rajasthan. *J Hum Ecol*. (in press).

Internet periodicals

Author./ (Year of publication)/ Article Title./ *Journal Title*./ Volume(issue),/ page numbers./ Retrieved mm dd, year, from the full URL of the web page

Example:

Adams, P. J. (2000). Australian economic history. *Journal of Australian Economics*, 5(2), 117-132. Retrieved June 12, 2001, from <http://jae.org/articles.html>

Internet non-periodicals

Author./ (Year of publication)/ Article Title./ Retrieved mm dd, year, from the full URL of the web page

Example:

Lemire, D. (n.d.). *Write good papers*. Retrieved July 1, 2010, from <http://www.daniel-lemire.com/blog/rules-to-write-a-good-research-paper>

Newspaper retrieved from a database

Article – with an author

Author./ (mm dd, Year)/ Article Title./ *News agency*./ Retrieved from the full URL of the web page

Example:

Darby, A. (August 20, 2002). Rarest tiger skin a rugged survivor. *Sydney Morning Herald*. Retrieved from <http://www.smh.com.au>

Article – without an author

Article Title./ (mm dd, Year)/ *News agency*./ Retrieved from the full URL of the web page

Example:

Rarest tiger skin a rugged survivor. (August 20, 2002). *Sydney Morning Herald*. Retrieved from <http://www.smh.com.au>

Illustrations and Figures: All illustrations should be provided in a file format and resolution suitable for reproduction, e.g., EPS, JPEG or TIFF formats, without retouching. Photographs, charts and diagrams should be referred to as "Figure(s)" and should be numbered consecutively in the order to which they are referred. In addition to placing figures with figure captions into the main text, **submit each figure individually as a separate file.**

Line Drawings: All lettering, graph lines and points on graphs should be sufficiently large and bold to permit reproduction when the diagram has been reduced to a size suitable for inclusion in the journal. Do not use any type of shading on computer-generated illustrations.

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Tables: Tables must be cell-based without vertical lines. They should be produced in a spreadsheet program such as Microsoft Excel or in Microsoft Word. Type all text in tables using 9-point font or less. Type the caption above the table to the same width as the table. Insert tables and table captions into the main text. Tables should be numbered consecutively. Footnotes to tables should be typed below the table and should be referred to by superscript numbers. Submit separate files of tables in their original file format and not as graphic files in addition to incorporating in the main text. Tables should not duplicate results presented elsewhere in the manuscript (e.g., in graphs).

Proofs: Proofs will be sent to the corresponding author by PDF wherever possible and should be returned within 1 week of receipt, preferably by e-mail. Corrections must be restricted to typesetting errors. It is important to ensure that all of your corrections are returned to us in one all-inclusive e-mail or fax. Proofreading is solely the responsibility of the author(s). Note that *JCSH* may proceed with the publication of your article if no response is received in time.

Reprints: Authors will receive free copy of the journal in which their work appears.

English Language Editing before Submission: Authors for whom English is a second language may choose to have their manuscript professionally edited before submission.

6. Manuscript Submission

Manuscripts should be submitted electronically to the Editor-in-Chief as an attachment via the *JCSH* submission system, in word processing format. The *JCSH* submission form must be completed. Included in the submission form are (a) the title and authors, (b) complete contact information for the corresponding author (mailing address, e-mail address, and telephone and fax numbers), (c) confirmation of the originality of the reported work, (d) approval of the submitted version of the manuscript by all authors, and (e) the authors' consent for publication in *JCSH*, if accepted. The submission form is available at <https://JCSH.rsu.ac.th>.

7. Manuscript Revision and Re-submission

There are four editorial decisions: Accept, Accept with Minor Revision, Resubmit with Major Revision, and Reject. A Reject decision is definitive and authors may not submit a new version of the manuscript to the *JCSH*. A Resubmit with Major Revision requires a major re-write of the manuscript and/or inclusion of significant new data, and thus the creation of a new manuscript, which will thus be assigned a new submission date. An Accept with Minor Revision decision implies that the paper can, in principle, attain the required

standard of the *Journal* without major change. Editors may or may not have a revised manuscript reviewed (generally, by the original reviewers), in order to ascertain whether changes to the original manuscript adequately responded to the criticisms. If changes made do not result in a paper of the required standard, the revised manuscript will be definitively rejected. If a revised manuscript of "Accept with Minor Revision" is accepted, the original submission date will be retained.

8. Copyright Agreement

Once a manuscript is accepted for publication, authors will be required to sign a Copyright Transfer Agreement form (CTA). CTA is available at <https://JCSH.rsu.ac.th>. Signature of the CTA is a condition of publication and papers will not be passed for production unless a signed form has been received. Please note that signature of the Copyright Transfer Agreement does not affect ownership of copyright in the material. Please submit the completed form with the final version of the manuscript back to the *JCSH* submission system.

9. Further Reading

The following resources will provide valuable guidelines for the preparation of manuscripts.

- Anonymous. (n.d.). How to write abstract. Retrieved January 17, 2011, from http://www.journal.au.edu/au techno/2006/jan06/vol9num3_howto.pdf
- Anonymous. (n.d.). How to write an abstract: Links and tips. Retrieved January 17, 2011, from <http://research.berkeley.edu/ucday/abstract.html>
- Koopman, P. (n.d.). How to write an abstract. Retrieved January 17, 2011, from <http://www.ece.cmu.edu/~koopman/essays/abstract.html>
- Lemire, D. (n.d.). Write good papers. Retrieved January 17, 2011, from <http://lemire.me/blog/rules-to-write-a-good-research-paper/>
- Plonsky, M. (n.d.). Psychology with style: A hypertext writing guide. Retrieved January 17, 2011, from <http://www.uwsp.edu/psych/apa4b.htm>
- Seals, D. R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Advances in Physiology Education*, 23(1), 52-58.
- Jones, A., & Pham, H. (n.d.). Basic Referencing using the APA System, Teaching and learning unit, Faculty of Economics and Commerce, The University of Melbourne. Retrieved February 15, 2011, from <http://www.scribd.com/doc/57603066/A-Pa-Style>



APPENDIX C

JOURNAL OF CONTEMPORARY SOCIAL SCIENCES AND HUMANITIES

Research Article Single-Column Template

Please note that the paper size is standard A4 size (approx 8.27 x 11.69 in)

**Type your title here using 11-point Times New Roman bold font on 12-point line spacing.
The length of the title of the article must not exceed 2 lines.**

Author Names (Use 10-point Times New Roman font on 11-point line spacing.

Begin with the first name of the author followed by the last name. For more than one author, type 'and' before the last author's name. For more than two authors, also separate each name by a comma (,).

Identify each author's affiliation by superscript numbers at the end of the author's last name.)

Author Affiliations (Use 9-point Times New Roman font on 10-point line spacing.

Include institutional and e-mail addresses for all authors. Place superscript number in front of author's affiliation corresponding to author's name.)

Received date month year / Revised date month year / Accepted date month year / Publish Online date month year

Abstract (10-point bold font on 11-point line spacing)

For abstract content, use 9-point Times New Roman font on 11-point line spacing. First line is indented 0.5 inch. An abstract of up to 250 words must be included. Include your major findings in a useful and concise manner. Include a problem statement, objectives, brief methods, results, and the significance of your findings.

Keywords: List up to 6 keywords and separate each keyword by a comma (,). The keywords should accurately reflect the content of the article. The keywords will be used for indexing purposes.

1. Introduction

The actual manuscript will be published in a single-column style in the JCSH journal. This single column template is adopted as a user friendly format. Thus, with this template, the main text is set in a single column. Type text with 10 point Times New Roman font on 12 point line spacing, with a 1.25 inch left margin, 1 inch bottom and right margin, 2 inch top margin, 1.2 inch header, and 0.6 inch footer. First lines of paragraphs are indented 0.5 inch. Please note that the paper size is standard A4 size (approx 8.27 x 11.69 in). In MS Word, select "Page Layout" from the menu bar, and under Paper Size select A4 Size.

The introduction should put the focus of the manuscript into a broader context. As you compose the introduction, think of readers who are not experts in this field. Include a brief review of the key literature. If there are relevant controversies or disagreements in the field, they should be mentioned so that a non-expert reader can find out about these issues further. The introduction should conclude with a brief statement of the overall aim of the experiments.

To insert a citation in the text use the author-year system, i.e., the author's last name and year of publication. Examples are as follows: "Since Johnson (2008) has shown that..." or "This is in agreement with results obtained later (Benjamin, 2010)". For 2-3 authors; all authors are to be listed, with "and" separating the last two authors, for more than three authors, list the first author followed by et al. The list of references should be arranged alphabetically by authors' names. All publications cited in the text should be presented in a list of references following the text of the manuscript. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list. Responsibility for the accuracy of bibliographic citations lies entirely with the author(s). Citation of a reference as "in press" implies that the item has been accepted for publication. Authors are responsible for the accuracy of the content of the references.

2. Objectives

The objectives of the study should be specified explicitly.

3. Materials and Methods

This section should provide enough detail to allow full replication of the study by suitably skilled investigators. Protocols for new methods should be included, but well-established protocols may simply be referenced.

4. Results

The results section should provide details of all of the experiments that are required to support the conclusions of the paper. There is no specific word limit for this section. The section may be divided into subsections, each with a concise subheading. The results section should be written in past tense.

Tables must be cell-based without vertical lines. They should be produced in a spreadsheet program such as Microsoft Excel or in Microsoft Word. Type all text in tables using 9-point font on 10-points line spacing. Type the caption above the table to the same width as the table.

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Table 1 Table caption

C1	C2	C3	C4
R1			
R2			
R3			
R4			
R5			
R6			

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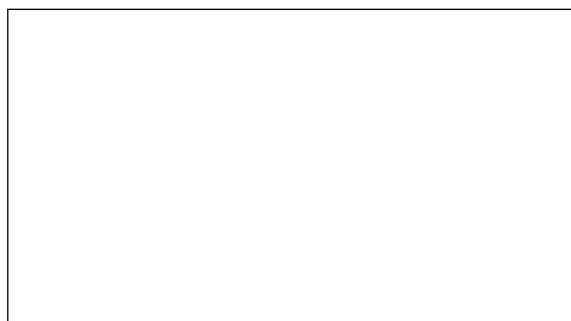
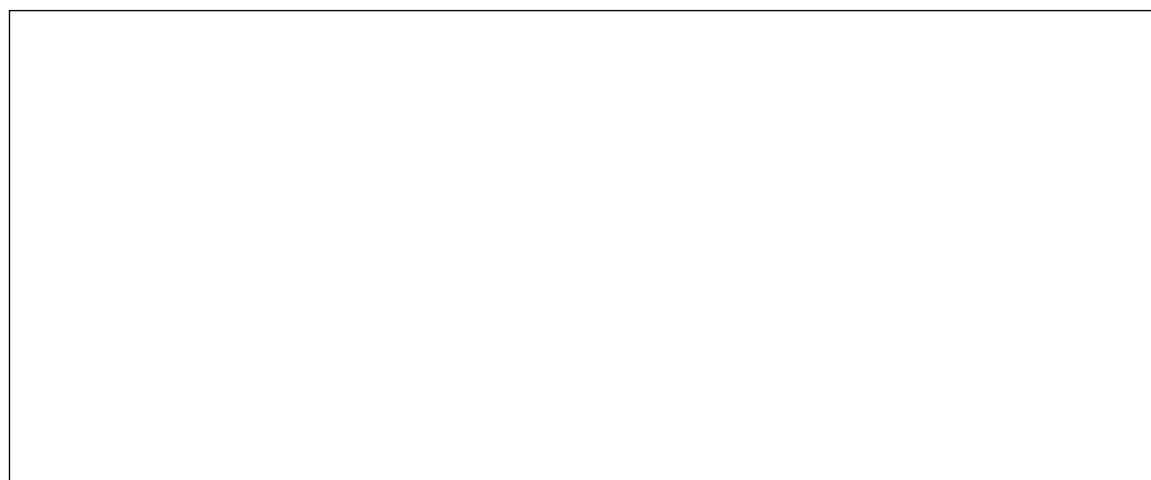


Figure 1 Figure caption

Table 2 Table caption

C1	C2	C3	C4	C5	C6	C7
R1						
R2						
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R5						
R6						
R7						
R8						
R9						
R10						

**Figure 2** Figure caption

5. Discussion

The discussion should spell out the major conclusions of the work along with some explanation or speculation on the significance of these conclusions. How do the conclusions affect the existing assumptions and models in the field? How can future research build on these observations? What are the key experiments that must be done? The discussion should be concise and tightly argued. Conclusions firmly established by the presented data, hypotheses supported by the presented data, and speculations suggested by the presented data should be clearly identified as such. The results and discussion may be combined into one section, if desired.

6. Conclusion

The Conclusion section restates the major findings and suggests further research.

7. Acknowledgements

People who contributed to the work but do not fit criteria for authorship should be listed in the Acknowledgments, along with their contributions. It is the authors' responsibility to ensure that anyone named in the acknowledgments agrees to being so named. The funding sources that have supported the work should be included in the acknowledgments.

8. References

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APPENDIX D

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