Color Consistency in Provincial Logos on the Island of Java with Use of Color Code

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Abstract. Indonesia has 34 provinces, 98 cities and 416 districts. Each Province, City and Regency has a local government to manage the community as representatives of the central government. Each provincial government has a regional logo. Regional logos reflect cultural symbols such as regional peculiarities, regional identities, which is contained in the graphic elements of regional logos such as images, colors and text. The use of color in regional logos is tied to images as symbols. In the regional regulations regarding color, there are meanings and provisions for color types. However, in that regulations, there is no Hex codes. Hex codes which refer to the colors of regional logos are important to know for the use of original colors according to those contained in regional regulations and to maintain the consistency of the logo color . Based on this, the purpose of this study is to determine the type of color and to know the Hex code which refers to the color contained in the logos of provinces such as Banten, West Java, Central Java, East Java, DKI Jakarta and DI Yogyakarta. The method used is descriptive, statistical and using feature color picker, Hex and color name finder. Data were collected through literature and observation. The results showed the colors in the regional logos were dominated by primary colors. Hex code was found. Found a more appropriate color name. The colors on the six regional logos match the Hex code and color names.

Keywords: Color, Hex Code, Color Name, Regional Logo.

1. Introduction

The State of Indonesia has a population based on Population Administration (Direktorat Jenderal Kependudukan dan Pencatatan Sipil) data as of June 2021, as many as 272,229,372 (272 million people) [1]. The population as a society, social welfare is guaranteed by the government as stated in the fifth principle of Pancasila and the 1945 Constitution, which emphasizes that the principle of social justice mandates the responsibility of the government in the development of social welfare [2]. To improve the welfare of the community, the government in carrying out its duties and functions needs to use guidelines. The government makes regulations to regulate programs that are held regarding the

provision of public services for the lives of many people. In this regard, the existence of the government is aimed at realizing the goal of the state, namely creating a just and prosperous society, the Indonesian Government was drafted as a Unitary State which has 2 forms of government, namely central government and regional government [3]. Regional government is the administration of government affairs by the regional government and DPRD according to the principle of autonomy and assistance tasks with the principle of autonomy as wide as possible in the system and principles of the Unitary State of the Republic of Indonesia as referred to in the 1945 Constitution of the Republic of Indonesia. The Unitary State of the Republic of Indonesia is divided into provincial areas and provincial areas are divided into regencies and cities, where each province, district and city has a regional government, which is regulated by law [4]. Regional government is the Governor, Regent, or Mayor, and regional apparatus as elements of regional government administration [5].

The Unitary State of the Republic of Indonesia is divided into 34 provincial regions led by governors as representatives of the central government. Provinces are then subdivided into districts or cities. The district is led by a regent and the city is led by a mayor [6]. The establishment of the regional government itself aims to accelerate the realization of community welfare through improvement, service, empowerment, and community participation, as well as increasing regional competitiveness by paying attention to the principles of democracy, equity, justice, privilege and specificity of a region in the system of the Unitary State of the Republic of Indonesia [3]. Regional governments in carrying out their government which aims to prosper the community use regional apparatus organizations as elements of regional government administration. This is stated in Law No. 32. Chapter IV Article 128 paragraph 2, namely the control of regional apparatus organizations as referred to in paragraph (1) is carried out by the Government for the Province and by the Governor for the Regency/City by referring to the Government Regulation [5]. Regional apparatus organizations consist of the Regional Secretariat (Sekretariat Daerah), Regional Offices (Dinas Daerah) and Regional Technical Institutions (Lembaga Teknis Daerah) [7].

Regional office Is the implementing element of regional autonomy. The head of the regional office (Kepala Dinas Daerah) is responsible to the regional head (Kepala Daerah) through the regional secretary. Regional technical institutions are elements that support the task of regional heads in formulating and implementing specific regional policies in the form of agencies, offices, or regional general hospitals. In relation to regional technical institutions as elements of regional apparatus organizations as well as supporting factors for regional apparatus organizations, namely factors of work area, geographical conditions, population, and regional potential [7], Regional Governments who work in work areas and offices as work infrastructure facilities determined by government regulations through laws as described above, local governments in each region need to have their regional government symbol as the identity of the autonomous region. Regional symbols are regulated in Government Regulation of the Republic of Indonesia Number 77 of 2007 concerning Regional Emblems, namely that in implementing regional autonomy, provincial governments and district/city governments can form regional symbols [8]. In the regulation, specific matters relating to logos as regional symbols are stipulated, namely in Article 1 paragraph 4 in Chapter I concerning General Provisions, in Article 2 in Chapter II concerning Types of Regional Emblems, in Article 3 paragraph 1 in Chapter III concerning the Position and Functions, and in article 6 in Chapter IV concerning Regional Emblem Design.

Logos as regional symbols and as regional government identities must follow government regulations by fulfilling the following points, namely the Red and White State Flag, Garuda Pancasila, Bhineka Tunggal Ika, cultural symbols and regional uniqueness. Local government logos not only comply with government regulations, but logos are the identity of local government organizations in an area, for that the local government logo needs to be recognized, regarding this Dobrescu, Adir and Adir stated The identity of an organization is a main element of a communication strategy. Into this strategy an important place is logo, because the company has to be understood by the public through a graphic symbol [9]. The logo as the identity of the regional government also needs to consider the elements in the logo as a communication strategy, from the beginning is necessary to classify logos.

That means to have some elements to realize a classification about the logo design concerning signs, symbols, geometric shapes, words etc [9]. In this regard, regional logos need to include regional emblem regulations in this case the logo as one of the elements of regional symbols and also follow the rules of making logos so that the identity of the area is easily recognized by the public.

Local government in Indonesia consists of 34 provinces, 98 cities, and 416 districts. Java Island in particular is the most densely populated island in Indonesia. The island is administratively divided into four provinces, namely West Java, Central Java, East Java, and Banten; and two special areas, namely DKI Jakarta and DI Yogyakarta [10]. The province is divided into 119 regencies and cities, each provincial government has a regional logo. The provincial logos on the island of Java generally contain the identity of each region, especially the cultural symbols and regional peculiarities contained in logo elements such as images, colors, and text. However, because it is bound by local government regulations, regional logos are visually different from logos on private institutions or companies, regional logos in general have complexity in shape and color so that they are visually unattractive. Henderson and Cote in Byrom and Lehman states, The logo is one of the most obvious representations of Corporate Visual Identity and brand identity used by organisations, but under some circumstances the desired consumer responses may not be occurring. Firstly, the logo may be difficult to store in memory, due to it being overly complicated, for example. Secondly, it may simply not be 'liked' by the consumer, in as much as it might not be 'pleasing to the eye'. Finally, a logo may fail to create any sense of meaning, because it is made up of irrelevant design elements, or perhaps elements that do not connect to the market [11].

There are so many interesting things about regional logos, their relation to regional regulations and to the theory of logos. Especially how regional logos can accommodate regional regulations, including the principles of logo design in theory. Based on this, the researcher sees that there are visual elements, especially color elements that need to be researched in relation to whether the regional logo on the regional government in the Java Island region, especially the provincial government, meets local government regulations regarding the use of colors in regional logos and what types of colors are used found on the logo of the province on the island of Java. Apart from that, does the local government have a regional logo design guideline. This study aims to determine whether there is inclusion of color codes in the regional logo design rules for color consistency determined by these rules. To find out the types of colors used in the regional logos of the provincial government on the island of Java. Besides that, it is also to see the suitability of the colors listed in the regional regulations regarding logos with Hex codes or color codes and the color name in graphic features. Most local government regulations regarding color do not include color codes and the corect name for the color in the rules.

2. Method

The method used in researching colors and Hex codes on regional logos is descriptive, also uses statistics and a color picker. This method is used to answer questions about the colors contained in each provincial logo on the island of Java. The purpose of using the descriptive method is to identify and describe the regional color variations contained in the logo. Descriptive analysis characterizes the world or a phenomenon identifying patterns in the data to answer questions about who, what, where, when, and to what extent. Description plays a critical role in the scientific process in general and education research in particular [12]. The research stage is that regional logos are collected by province (see figure1 below), located on the island of Java, then the colors are identified and adjusted to the color hex code on the color picker feature and the hex code adjust to color name finder for finding a corect name for the colors. Collecting data through literature and observation.
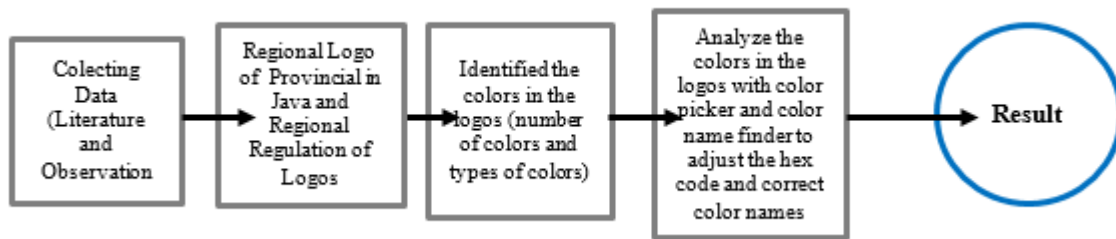
Figure 1. Analysis stage of colors on regional logos.

3. Results and Disscusion

3.1. Regional Logos in Government Regulations and Its Relation to Logo Theory.

The Regional Government in carrying out its duties and functions is to improve the welfare of the community, through services, empowerment and improvement of regional competitiveness, using regional apparatus organizations such as regional government institutions and work areas and facilities and infrastructure. As a regional government institution, to support the functions and duties of local governments in certain work areas, there is the use of logos as regional symbols that contain cultural symbols and regional characteristics and regional identities. In this regard, the provisions for regional symbols are regulated in the legislation concerning Government Regulation of the Republic of Indonesia Number 77 of 2007 concerning Regional Emblems in Chapter I concerning General Provisions, in article 1 paragraph 4, "Regional symbols are banners of greatness and cultural symbols for local community that reflects the uniqueness of the region within the Unitary State of the Republic of Indonesia". Regarding regional symbols, it is found in Chapter II regarding the Types of Regional Emblems in Article 2, "Regional symbols include logos, flags, regional head office flags and hymns", and in Chapter III concerning Position and Functions, in Article 3 paragraph 1, "Regional symbols are domiciled in as a sign of regional identity", and in Chapter IV concerning Regional Emblem Design in Article 6, "The design of regional logos is adjusted to the contents of the logo that describes the potential of the region, the expectations of the regional community, and the motto to realize these expectations" [8]. In addition, the use and placement of logos as regional symbols is also regulated in Chapter V in article 9, article 13, article 14, and article 16, which broadly includes the placement of logos outside and inside buildings, in stationery or office stationery such as letterheads, etc., and use on regional official clothing [8].

In relation to the regional emblem regulation law in Chapter 1 article 1, especially in the sentence "The banner of greatness and cultural symbols for regional communities that reflect the uniqueness of the region", and in chapter 4 article 6 paragraph 2, "The design of regional logos is adjusted to the contents of the logo depicting the potential of the area, the expectations of the local community and the motto to realize these hopes. Regional cultural symbols and regional peculiarities referred to in the regulation are contained in graphic elements in the logo as stated by Adir, Adir and Pascu, A logo means a graphic and visual representation in a desired original concept. Elements as images, words, shapes or colours, make possible a logo in a harmonious combination which may convey the attitudes and values of the company[13]. Design elements and design principles are manifested in graphic elements in logos, in this case Bosch, Jong and Elving menyatakan, Corporate Visual Identity includes various constituent parts, including the logo, colour and typeface, company name, and tagline[11]. Graphic elements that contain regional uniqueness and regional potential as shown in Figure 2, namely the image elements using local traditional regional buildings, there is a Jurung (a typical barn of the Lamandau Regency community), an image of a mountain as a symbol of regional potential and the regional motto of *Bahaum Bakuba* (always deliberation or consultation/agree).

Figure 2. Logo of the Local Government of Lamandau Regency.
Source: https://portal.lamandaukab.go.id/lambang-area/

In this regard, regional logos are very important to support the organization of government institutions. Logo as stated by Adir, Adir and Elisabeta, It is a symbol, a graphic and visual sign which plays an important role into the communication structure of a company. A logo is a clear graphic element which make possible to distinct between companies [14]. Regional logos as banners of greatness, cultural symbols and regional peculiarities, as well as identities used in local government activities at the National and International levels, must have strong visual elements, in this case Bromley stated, Corporate visual identity has been recognised as important in business, representing as it does the organisation's attempts to communicate with its broader publics, related to this Riel and Balmer, state, three components of the corporate identity mix are believed to influence image and reputation: organisational behaviour, communication and symbolism [11]. The use of graphic elements in a logo that is formulated with considerations of design rules will produce a logo design that successfully creates a visual appeal to the public as an audience. Attention to the various elements of Corporate Visual Identity can be expected to assist the organisation in communicating effectively, and through standardisation, a clearer message may well be conveyed. This requires that firms pay attention to how identity is represented and reproduced [11]. A logo is an easily recognizable graphic symbol that identifies a company, a commercial product, or any public or private entity. It is one of the ways to distinguish a brand in a competitive world, full of graphic elements that try to attract our attention every day. Regarding to the graphic elements intended in the logo, Marion stated, A logo is generally a combination of typographies, graphics/symbols, and colors. It is a graphic element that is part of the visual identity of a brand [15].

3.2. Logo of the Province of Java

Regional Governments, especially those in Java, include the Provinces of West Java, Central Java, East Java, and Banten; as well as two special areas, namely DKI Jakarta and DI Yogyakarta, as well as regencies and cities contained in each of these provinces such as Banten Province (consisting of 4 Regencies and 3 Cities), West Java Province (consisting of 18 Regencies and 9 Cities), DKI Jakarta (1 Regency and 5 Cities), Central Java (29 Regencies and 6 Cities), East Java (29 Regencies and 9 Cities), and DI Yogyakarta (4 Regencies and 1 City) [16]. Java Island and each Provincial, Regency and City Government has a regional logo.

Table 1. List of Regencies and Cities in Provinces on the Island of Java [16].

Province	District			City
Banten	Lebak			Serang
	Pandeglang			Tangerang
	Serang			Tangerang
	Tangerang			Selatan
Jawa Barat	Bandung	Cirebon	Pangandaran	Bandung

(West Java)	Bandung Barat Bekasi Bogor Ciamis Cianjur	Garut Indramayu Karawang Kuningan Majalengka	Purwakarta Subang Sukabumi Sumedang Tasikmalaya	Banjar Bekasi Bogor Cimahi Cirebon Depok Sukabumi Tasikmalaya
Special for the capital city of Jakarta	Kepulauan Seribu			Jakarta Barat Jakarta Pusat Jakarta Selatan Jakarta Timur Jakarta Utara
Jawa Tengah (Central Java)	Banjar negara Banyumas Batang Blora Boyolali Brebes Cilacap Demak Grobogan	Jepara Karanganayar Kebumen Kendal Klaten Kudus Magelang Pati Pekalongan Pemalang	Purbalingga Purworejo Rembang Semarang Sragen Sukoharjo Tegal Temanggung Wonogiri Wonosobo	Magelang Pekalongan Salatiga Semarang Surakarta Tegal
Special Region of Yogyakarta	Bantul Gunung Kidul Kulon Progo Sleman			Yogyakarta
Jawa Timur (East Java)	Bangkalan Banyuwangi Blitar Bojonegoro Bondowoso Gresik Jember Jombang Kediri	Lamongan Lumajang Madiun Magetan Malang Mojokerto Nganjuk Ngawi Pacitan Pamekasan	Pasuruan Ponorogo Probolinggo Sampang Sidoarjo Situbondo Sumenep Trenggalek Tuban Tulungagung	Batu Blitar Kediri Madiun Malang Mojokerto Pasuruan Probolinggo Surabaya

Each region has a different culture, potential and motto that characterizes each region, which is reflected in each regional logo contained in the Government Regulation of the Republic of Indonesia Number 77 of 2007 concerning the Regional Emblem, the points relating to reflect the uniqueness of the region. referred to in the government regulations can be seen in table 2 as follows.

Table 2. Government Regulation of the Republic of Indonesia Number 77 of 2007 concerning Regional Emblems Related to Regional Logo

CHAPTER	Main Points
Chapter I General Provisions, Article 1 Paragraph 4	Great Banner Cultural Symbol Regional Specialties
Chapter III Position and Function, Article 3 Paragraph 2	Regional Identity Sign Binding of Regional Community Socio-Cultural

	Units
Chapter IV Regional Emblem Design, Article 6 Paragraph 2	Describing Regional Potential Community Hope The motto for realizing these hopes.

The main points are found in the graphic elements in the regional logo. Provincial logos on the island of Java consist of regional logos for the provinces of West Java, Central Java, East Java, and Banten; as well as two special areas, namely DKI Jakarta and DI Yogyakarta, as shown in table 3. The graphic elements contained in the provincial logo on the island of Java consist of images, text, shapes and colors that reflect the points main cultural symbol. The regional logo contains the meaning of the symbol, the meaning of the colors and the regional motto. In this regard, Pittard in Kornberg states, A logo consists of the graphical elements icon, color and sometimes also brand name (typography) [17].

Table 3. Regional Logos of Provincial Governments on the Island of Java

West Java province	Central Java	East Java
Banten	Special for the capital city of Jakarta	Special Region of Yogyakarta

3.3. Color on the Logo of the Provincial Government on the Island of Java

Color is part of the graphic element, but the use of color in regional logos as cultural symbols has an important meaning. The meaning of the color in the regional logo reflects the message in the items in table 2. Color is a form of non verbal communication, each color has many aspects to it [17]. The colors in the regional logo have meanings that contain regional characteristics, regional identity, binding the socio-cultural unity of the regional community, regional potential, regional hopes and mottos. Each regional logo reflects these things according to the potential and uniqueness of the region. Meghamala, Tavaragi and Sushma stated, The meaning of colors can vary depending on culture and circumstances. The physiological and emotional effect of color in each person is influenced by several factors such as past experiences, culture, religion, natural environment, gender, race, and nationality [18]. The color on the logo can affect the perception of the public. Colors in regional logos cannot be separated from form elements as symbols that have meaning. Colors and shapes are two of the key graphic elements in the logo, and the associations that these elements evoke are essential for how different perceptions of brand personality originate [17].

The color on the regional logo is determined by each regional government which is regulated in the Provincial Government Regulation (Perda) following the provisions of Government Regulation no. 77

of 2007. Each color in the regional logo is bound with an image and shape as a regional symbol. Regarding color, in the regional regulation, there are colors used, the meaning of colors and the use of colors. The regulations for the use of colors on the Regional Logo are contained in regional regulations regulated by each regional government. The regulations for the use of colors in the Regional Logo for the Provincial Government are as follows;

1.   Regional Regulation of Banten Province No.10 concerning Regional Emblems of 2002 Chapter II concerning the shape, size and meaning of symbols, in Article 12 concerning the meaning of the shapes and colors of regional logos [19].

2.   Regional Regulation , Level I Region of West Java in 1961 concerning the Use of Regional Emblems, in Chapter II regarding the use and method of use, shape, size and color, in Article 2 concerning the shape and color of the Regional Emblem as referred to in paragraph (1) must be in accordance with the form /colors that have been determined in the regional regulations concerning Regional Emblems. In Article 4 paragraph 2, the color of the Regional Emblem as referred to in paragraph (1) can be used in one color. And in Article 5 paragraph 2, the method of using the Regional Emblem in the form of a badge, the size of the color and the balance is regulated in the decision of the Regional Head [20].

3.   Regional Regulation of the Province of Central Java Number 9 of 1984 concerning the Regional Emblem of the Province of Central Java, in Chapter VI concerning the Meaning of Colors in Article 5 concerning the Meaning of Colors. In Chapter V regarding the Use in Article 9 paragraph 1 point a, the Regional Emblem can be used in its original colors as stated in Article 3. In paragraph 4 point b, In one color in the form of a line drawing (lijntekening) in point c, In the form of relief with original colors or with one color. In paragraph 4 point 2, the comparative measures in the use of paragraph (1) must not deviate from the comparative measures as stated in Article 3 paragraph (4). Article 10 Use of Regional Coat of Arms in original colors. In Chapter III regarding the Form, Content and Color in Article 3 paragraph 4 regarding the shape, color and size of the Regional Emblem as listed in Attachments I and II of this Regional Regulation [21].

4.   Regional Regulation of East Java Province concerning the Determination and Use of the Regional Emblem of East Java Province in 1968, in Chapter I concerning Regional Emblems in Article 4, regarding the meaning of the colors used [22].

5.   Regulation of the Special Region of Yogyakarta (Perda DIY) Number 3 of 1969 (3/1969) Regarding the regional symbol of the Special Region of Yogyakarta, in Chapter I, General Provisions in Article 1 regarding the color shape and size comparison of the Regional Emblem of the Special Region of Yogyakarta, in Chapter I IV regarding Colors and their meaning, in Article 4, regarding the colors used [23].

6.   Regional Regulation for Establishing the Special Regional Emblem for the Capital City of Jakarta in 1963 No. 6., contained in Article 1 Regarding the Special Regional Emblem of the Capital City of Jakarta and article 2 regarding its use. An explanation of the meaning and color is in the appendix [24].

Table 4. Colors and Meanings on the Provincial Logo on the Island of Java.

Logo Region	Colors Used (Regional Regulation)	Colors Meaning
Banten Province (Provinsi Banten)	Merah (Red)	symbolizes courage based on truth.
	Putih (White)	symbolizes purity, wisdom and wisdom.
	Kuning (Yellow)	symbolizes glory, the color of the soul, a symbol of

BANTEN		light and happiness, a symbol of glory and nobility.
	Hitam (Black)	symbolizes determination, strength and fortitude.
	Abu-abu (Gray)	symbolizes fortitude.
	Biru (Blue)	symbolizes clarity, the color of the sea symbolizes peace, tranquility.
	Hijau (Green)	symbolizes fertility.
	Coklat (Brown)	symbolizes prosperity [19].
West Java Province (Provinsi Jawa Barat)	Kuning	symbolizes the fertility and prosperity of the land of West Java.
	(Yellow)	symbolizes majesty, glory and wealth.
	Hitam (Black)	symbolizes constancy and immortality.
	Biru (Blue)	symbolizes tranquility or peace.
	Merah (Red)	symbolizes courage.
	Putih (White)	symbolizes purity, chastity or honesty [20].
Central Java Province (Provinsi Jawa Tengah)	Putih (White)	means honesty/holiness
	Kuning (Yellow)	means nobility/majesty/glory/wealth
	Merah (Red)	means courage
	Hijau (Green)	means prosperity
	Biru (Blue)	means peace
	Hitam (Black)	means immortality/steadiness [21].
East Java Province (Provinsi Jawa Timur)	Biru (Blue)	the sky means peace, serenity.
	Kuning Emas (Yellow gold)	means nobility / majesty / glory.
	Abu-abu (Gray)	means success.
	Hitam (Black)	means immortality/steadiness.
	Hijau (Green)	means prosperity.
	Putih (White)	means honesty/holiness [22].
Special Regional The Capital City of Jakarta (Provinsi DKI Jakarta)	Emas (Gold)	symbol of the glory of Pancasila.
	Merah (Red)	symbol of heroism.
	Kuning (Yellow)	symbols of Prosperity and Justice.
	Hijau (Green)	symbols of Prosperity and Justice.
	Putih (White)	symbols of Prosperity and Justice. symbol of Holiness symbol of the love of the sea world [24].
	Biru (Blue)	symbol of free and wide space.
Special Region of	Kuning Emas (Yellow	Yellow gold / dark yellow: which means nobility,

Yogyakarta (Provinsi DI Yogyakarta)	gold)	majesty and fame.
	Merah (Red)	Red: courage.
	Putih (White)	White: purity.
	Hijau (Green)	Dark green/ Light green: fertility and hope.
	Hitam (Black)	Black: immortality [23].

3.4. Color Analysis on the Logo of the Provincial Government on the Island of Java

Color in a logo has a very important role as an element that is noticed first by the seeing eye as stated by Goethe, Thus, in the first instance, we considered colours, as far as they may be said to belong to the eye itself, and to depend on an action and re-action of the organ; next, they attracted our attention as perceived in, or by means of, colourless mediums; and lastly, where we could consider them as belonging to particular substances [25].

Color has a relationship with meaning, perception, communication, psychology, culture and others. Color as a graphic element in a logo is a language and a means of communication. To understand color, it is necessary to study color theories. Color consists of several color groups, such as primary, secondary and tertiary. In this case Sarapik stated, For exact definition of a certain colour at least three characteristics are necessary: hue, saturation or chroma (colorfulness), and lightness or value. Therefore all colour models and systems are three-dimensional, because two dimensions simply cannot comprise all different hues [26]. Colors have groups that can be collected based on the proximity of their colors, color groups are called color schemes. In addition to color groups, colors also have names, colour domain occupies all colours for which we can use that particular colour name. So we can speak about yellow, red, etc., colour domain. For example, we can say red brick, ochre, flag, sky, cow, flame, hair, although we perceive the colour of all these objects as quite different [26].

The colors that tend to be used as elements of regional logos mostly use basic or primary colors, based on the colors listed on the logo, the dominant basic colors are found in the 6 regional logos, namely, white, green, red, blue. and black (see table 5).

Tabel 5. The basic color is found in the provincial logo on the island of Java

Basic Colors on Provincial Logos on the Island of Java	Number of Basic Colors
White	6
Green	6
Red	5
Black	5
Blue	5
Yellow	3
Yellow gold	3
Gray	2
Chocolate	1

In color theory, colors are organized on a color wheel and grouped into 3 categories: primary colors, secondary colors and tertiary [27]. Colors by source type consist of light and pigment or RGB and CMYK for use in screen and print media. Red, green, and blue (RGB as Additive color) are the primary colors of light. Cyan, magenta, yellow and black (CMYK as Subtractive color) are the

primary colors of printing [28]. Based on this, green in color theory is included in the secondary color category, but based on color theory based on its source and use in media it is included in primary colors. Likewise, white and black in theory RGB and CMYK are included in the primary color category (see figure 3). In this case the green, white and black colors contained in the regional logo can be grouped into primary colors.
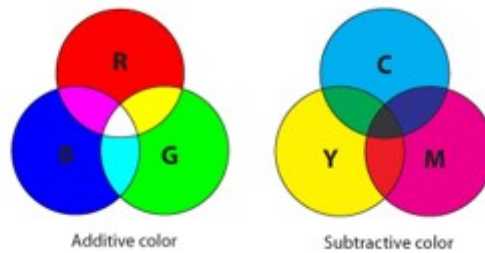

Figure 3. RGB and CMYK Basic Color Schemes
Source: https://www.castlepress.com/page/rgbcmyk

Colors in the Computer feature are RGB and CMYK and use color Hex to code each color (see figure 4). Color codes are used to distinguish specific saturations of different colors, making it easier for color users to use colors. Definition of the Hex code is A color hex code is a hexadecimal way to represent a color in RGB format by combining three values – the amounts of red, green and blue in a particular shade of color. These color hex codes have been an integral part of HTML for web design, and remain a key way of representing color formats digitally [29].

HEX is a way of representing colors from various color models through hexadecimal values. A hexadecimal color follows the #RRGGBB format where RR is red or red, GG is green or green, and BB is blue or blue. The format can also be followed by a number in the range of 00 to FF to determine the intensity of the color. An example is #FF0000 which is a pure red color because the red component has a maximum value of FF. Meanwhile, the green and blue components have the lowest value, namely 00 [30].
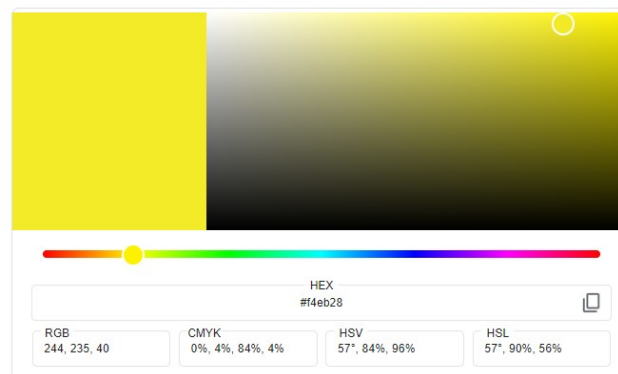
Figure 4. Hex of #F4EB28
Source: Google.com

The colors in the regional logos in their use are regulated in regional regulations set by each regional government, namely the colors must be used according to the original. However, there are no technical rules regarding the use of color codes (Hex Codes) and color names that maintain the authenticity of the colors used in the regional logo. This research is not only looking at the colors used in the provincial logos on the island of Java but also to see what color codes (Hex) should be used and to find the corect name for the colors. The existence of color is very important in regional logos, Wheeler menyatakan Logos are considered the most visible and frequent reminders of what a brand

stands for [17]. The following are the results of data analysis (see table 5) regarding the color of the regional logo and those listed in regional regulations. The color is taken from the regional logo using the color picker through the picpick to find out the hex code, then adjusted to the hex finder on google, after that the hex code is entered in the color name finder feature using the artyclick feature on https://colors.artyclick.com/color-name-finder/ (see figure 5).
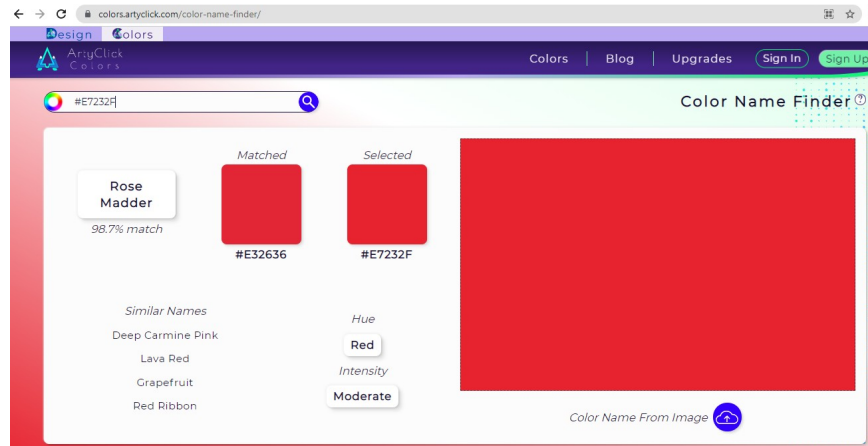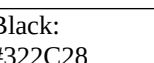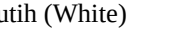

Figure 5. Color Name Finder with Hex Code Fiture
Source: https://colors.artyclick.com/color-name-finder/
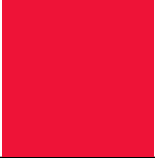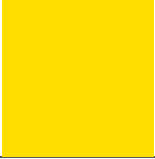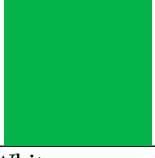
Table 5. Analysis of Color Hex Codes on Provincial Logos on Java Island

Logo Region	Color used	Hex Code	Colors Names	Description
Banten Province (Provinsi Banten)	Merah (Red)	Red: #E7232F	(98.7% Match) Rose Madder	Hex codes and color names match to the intended color.
	Putih (White)	White: #FFFEFE	(99.8% Match) Romance	
	Kuning (Yellow)	Yellow: #F4EB28	(96.1% Match) Banana Yellow	
	Hitam (Black)	Black: #322C28	(98.9% Match)	

			Thunder	
	Abu-abu (Grey)	Grey: #A8A9A8	(98.4% Match) Silver Chalice	
	Biru (Blue)	Blue: #2E358A	(96% Match) Cobalt	
	Hijau (Green)	Green: #0B9859	(97.4% Match) Shamrock Green	
	Coklat (Brown)	Brown: #653E30	(98.2% Match) Irish Coffee	
West Java Province (Provinsi Jawa Barat)	Hijau (Green)	Green: #0D7033	(98% Match) La Salle Green	Hex codes and color names match to the intended color.
	Kuning (Yellow)	Yellow: #F7E515	(97.2% Match) Sun Yellow	
	Hitam (Black)	Black: #000000	(100% Match) Black	

	Biru (Blue)	Blue: #203C88	(97.6% Match) Cobalt	
	Merah (Red)	Red: #D81E17	(97.5% Match) Lava Red	
	Putih (White)	White: #FFFFFF	(100% Match) White	
Central Java Province (Provinsi Jawa Tengah)	Putih (White)	White: #FFFFFF	(100% Match) White	Hex codes and color names match to the intended color.
	Kuning (Yellow)	Yellow: #FFD72D	(97.2% Match) Bright Sun	
	Merah (Red)	Red: #D30218	(97.8% Match) Venetian Red	
	Hijau (Green)	Green: #009B4C	(96.8%) Shamrock Green	
	Biru (Blue)	Blue:		

		#3A89C9	(98.6% Match) Glacial Blue Ice	
	Hitam (Black)	Black: #000000	(100% Match) Black	
East Java Province (Provinsi Jawa Timur)	Biru (Blue)	Light blue: #259EDA	(97.1% Match) Curious Blue	Hex codes and color names match to the intended color. Grey Color Hex code cannot be identified, more than one Hex code.
	Kuning Emas (Yellow gold)	Yellow #F8EA20	(95.9% Match) Sun Yellow	
	Grey	Hex code cannot be identified, more than one Hex code		
	Hitam (Black)	Black: #1D191A	(98.7% Match) Rangoon Green	
	Hijau (Green)	Green: #14994B	(95.4% Matched) Shamrock Green	
	Putih (White)	White: #FEFEFE	(99.8%	

			Matched) Romance	
Special Regional The Capital City of Jakarta (Provinsi DKI Jakarta)	Emas (Gold)	Gold: there is not any		Hex codes and color names match to the intended color. There is no gold color on the logo.
	Merah (Red)	Red: #EE1337	(98.2% Matched) Red Ribbon	
	Kuning (Yellow)	Yellow: #FFDE00	(99.6% Matched) Golden Yellow	
	Hijau (Green)	Green: #04B34A	(93.4% Matched) Green Haze	
	Putih (White)	White: #FFFFFF	(100% Matched) White	
	Biru (Blue)	Blue: #034EA2	(98.2% Matched) Medium Electric Blue	
Special Region of Yogyakarta (Provinsi DI Yogyakarta)	Kuning Emas (Yellow gold)	Kuning Emas (Yellow Gold): #CC9933	(97.7% Match) Satin Sheen Gold	Hex Code According To The Intended Color.

		Kuning Tua (Dark Yellow): #FFCc00	(98.8% Match) Supernova	
	Hijau (Green)	Dark Green: #6CBE46	(98.1% Match) Green Snake	
		Light Green: #CCDB2C	(96.3% Match) Pear	
	Merah (Red)	Red: #EC2727	(97.2% Match) Rose Madder	
	Putih (White)	White: #FFFFFF	(100% Match) White	
	Hitam (Black)	Black: #000000	(100% Match) Black	

From the six regional logos province, the color hex code was found. A more appropriate name was found used color name finder. Hex codes and color names match to the intended color. Grey Color Hex code cannot be identified on East Java Province (Provinsi Jawa Timur) regional logo. No gold color on the logo on Special Regional The Capital City of Jakarta (Provinsi DKI Jakarta).

4. Conclusion

The results of the colors analysis of the provincial logos on the island of Java show,

1). There are provisions for regional symbols which are regulated in the legislation concerning Government Regulation of the Republic of Indonesia Number 77 of 2007 concerning Regional Emblems in Chapter I concerning General Provisions, in Article 1 paragraph 4, concerning regional symbols are contained in Chapter II concerning Types of Regional Emblems in Article 2, Chapter III concerning the Position and Functions, in Article 3 paragraph 1, Chapter IV concerning the Design of Regional Emblems in Article 6, in Chapter V regarding the use and placement of logos as regional symbols, in Article 9, Article 13, Article 14, and Article 16.

2). The Provincial Logos located on the island of Java, which consist of the provinces of Banten, West Java, Central Java, East Java, DKI Jakarta and DI Yogyakarta, all comply with Government regulations regarding Regional Emblems, and the use of colors in their respective regional regulations.

3). There are main points in the regulation, such as the Greatness Banner, Cultural Symbols, Regional Distinctiveness, Regional Identity Signs, Binding of Regional Community Socio-Cultural Units, Describing Regional Potential, Community Expectations, Motto to realize these expectations.

4). The dominant colors found in the provincial logo on the island of Java are primary colors such as white, green, red, blue and black.

5). Hex code was found. Found a more appropriate color name used color name finder. Hex codes and color names match to the intended color. Hex code for Grey cannot be identified on East Java Province logo. Gold color cannot be identified on the logo on Special Regional The Capital City of Jakarta (Provinsi DKI Jakarta).

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