

The Diversity of Makeup Shades.

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Background

- The Pudding essay Beauty Brawl published in June 2018 to discover how inclusive were beauty brands around the world
- Collected a list of beauty brands in the United States, Nigeria, India, and Japan that were considered “best sellers” by several sources
- Visited each brand’s website, recorded the hex values for each of the colored swatches shown for the product(s)
- Used Adobe Photoshop to extract the lightness value of each color using the CIE Lab color

Why?

Through research, the Pudding decided what brands/products to sample based on the bestselling foundations according to sources that included...

US bestseller lists: [POPSUGAR](#), [Amazon](#), [StyleCaster](#), [Refinery29](#), [Statista](#), [BEAUTY/crew](#)

Articles recommending beauty products to people of color: [VIBE](#), [Byrdie](#), [The FADER](#), [Allure](#), [Glamour](#), [Fast Company](#), [THE CUT](#), [Bustle](#), [HuffPost](#), [more.com](#), [BuzzFeed](#), [Refinery29](#)

Articles recommending Nigerian beauty products: [BeautyInLagos](#), [Beauty Geek](#), [Lux Afrique](#), [Zikel Cosmetics](#), [Pulse.ng](#) [Pulse.ng](#) again, [Information Nigeria Women](#), [Girly Essentials](#), [Winnie The Make-Up Artist](#), [Jumia Travel](#)

Column Descriptions

- **brand** - full name of the brand(s) that creates the foundation shade
- **brand_short** - an abbreviated version of the brand(s)' name without special characters or spaces
- **product** - full name of the foundation product that was sampled
- **product_short** - a 2 to 3 character string that is unique to a particular product
- **hex** - the hexadecimal color code for a particular shade
- **H** - the hue value from the HSB or HSV color space
- **S** - the saturation value from the HSB or HSV color space
- **V** - the value (sometimes known as the brightness) from the HSB/HSV
- **L** - the lightness value from the CIE Lab color space
- **group** - each product belongs to one group, there were 7 groups used

[1]: `import pandas`

[2]: `df = pandas.read_csv('shades.csv')`

[5]: `df`

	Unnamed: 0	brand	brand_short	product	product_short	hex	H	S	V	L	group
0	0	Maybelline	mb	Fit Me	fmf	f3cfb3	26.0	0.26	0.95	86	2
1	1	Maybelline	mb	Fit Me	fmf	ffe3c2	32.0	0.24	1.00	92	2
2	2	Maybelline	mb	Fit Me	fmf	ffe0cd	23.0	0.20	1.00	91	2
3	3	Maybelline	mb	Fit Me	fmf	ffd3be	19.0	0.25	1.00	88	2
4	4	Maybelline	mb	Fit Me	fmf	bd9584	18.0	0.30	0.74	65	2
...
620	620	L'Oréal	lo	True Match	tms	eecfba	24.0	0.22	0.93	85	7
621	621	L'Oréal	lo	True Match	tms	e8c7b8	19.0	0.21	0.91	83	7
622	622	L'Oréal	lo	True Match	tms	f0cbb9	20.0	0.23	0.94	85	7
623	623	L'Oréal	lo	True Match	tms	e9c4b1	20.0	0.24	0.91	82	7
624	624	L'Oréal	lo	True Match	tms	eabea1	24.0	0.31	0.92	80	7

625 rows x 11 columns

▷ `print("Random ten rows")`
`print(df.sample(n=10))`

[199]

... Random ten rows

	Unnamed: 0	brand	brand_short	product	product_short	\
134	134	L'Oréal	lo	Infalliable	ipm	
8	8	Maybelline	mb	Fit Me	fmf	
174	174	Fenty	fe	PRO FILT'R	pf	
560	560	NARS	na	Velvet Matte	vm	
407	407	Make Up For Ever	mu	Ultra HD	uhd	
41	41	bareMinerals	bm	barePRO	pro	
167	167	Fenty	fe	PRO FILT'R	pf	
607	607	Maybelline	mb	Fit Me Matte	fmm	
400	400	Bobbi Brown	br	Skin Long-Wear	slw	
518	518	Addiction	ad	The Foundation	tf	

▷ `print("First ten rows")`
`print(df.head(10))`

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... First ten rows

	Unnamed: 0	brand	brand_short	product	product_short	hex	H	\
0	0	Maybelline	mb	Fit Me	fmf	f3cfb3	26.0	
1	1	Maybelline	mb	Fit Me	fmf	ffe3c2	32.0	
2	2	Maybelline	mb	Fit Me	fmf	ffe0cd	23.0	
3	3	Maybelline	mb	Fit Me	fmf	ffd3be	19.0	
4	4	Maybelline	mb	Fit Me	fmf	bd9584	18.0	
5	5	Maybelline	mb	Fit Me	fmf	eabda6	20.0	
6	6	Maybelline	mb	Fit Me	fmf	fbd2ad	28.0	
7	7	Maybelline	mb	Fit Me	fmf	e2b597	24.0	
8	8	Maybelline	mb	Fit Me	fmf	e4b38e	26.0	
9	9	Maybelline	mb	Fit Me	fmf	b2856f	20.0	

▷ `print("Last ten rows")`
`print(df.tail(10))`

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... Last ten rows

	Unnamed: 0	brand	brand_short	product	product_short	hex	H	\
615	615	L'Oréal	lo	True Match	tms	ddb496	25.0	
616	616	L'Oréal	lo	True Match	tms	eebfa3	22.0	
617	617	L'Oréal	lo	True Match	tms	e7cbb5	26.0	
618	618	L'Oréal	lo	True Match	tms	dcbb29a	22.0	
619	619	L'Oréal	lo	True Match	tms	f0c7b3	20.0	
620	620	L'Oréal	lo	True Match	tms	eecfba	24.0	
621	621	L'Oréal	lo	True Match	tms	e8c7b8	19.0	
622	622	L'Oréal	lo	True Match	tms	f0cbb9	20.0	
623	623	L'Oréal	lo	True Match	tms	e9c4b1	20.0	
624	624	L'Oréal	lo	True Match	tms	eabea1	24.0	

Observations

- It contains 625 rows and 11 columns.
- In the dataset, the mean (average) is 3.472 and the median is 3.0
- For the column **brand**, the most occurring name is Maybelline which appears 54 times.
- For the column **product**, the most occurring product is the Fit Me Matte foundation which appears 54 times.

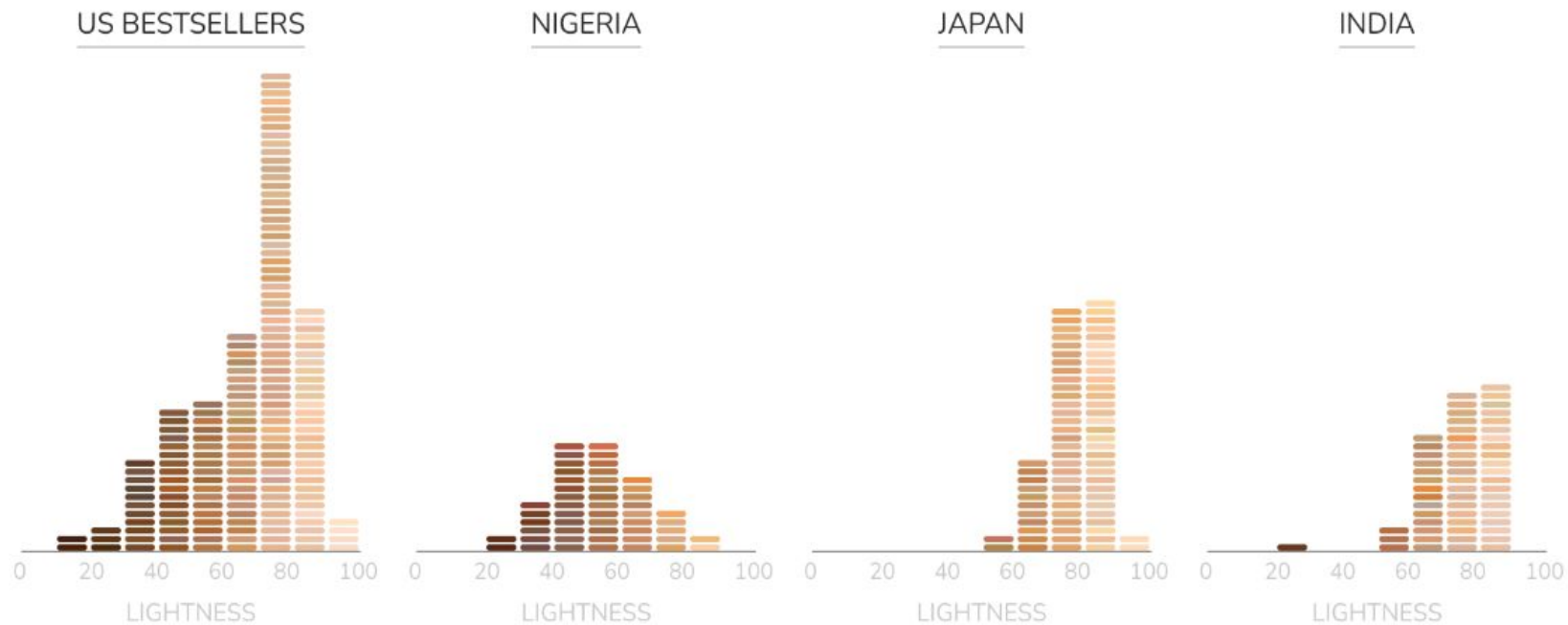
MAYBELLINE
NEW YORK



Findings

- The dataset contains 625 products, 7 groups
- Brands include:
 - Maybelline (brand) → mb (brand_short)
 - Laws of Nature (brand) → ln (brand_short)
 - NARS (brand) → na (brand_short)
 - Shiseido (brand) → sh (brand_short)
- Products include:
 - Fit Me (brand) → fmf (brand_short)
 - Foxy Finish (brand) → ff (brand_short)
 - Velvet Matte (brand) → vm (brand_short)
 - Synchro Skin (brand) → ss (brand_short)

Foundation Lightness Around the World



Visual Representation of the Dataset Findings

Conclusion

- Overall, the U.S. has the largest number of shades despite being more catered to lighter shades when it comes to foundation.
- Nigeria focuses more on darker foundation shades.
- Both India and Japan cater more to the lighter shades either having none or few darker foundation shades.
- The dataset helps identify what beauty brands around the world are inclusive or just claim to be inclusive.

Sources

- <https://pudding.cool/2018/06/makeup-shades/>
- <https://github.com/the-pudding/data/blob/master/makeup-shades/shades.csv>

THANK YOU!

