

Analisis Produk, Brand, Deskripsi

Data GoFood from kaggle



Business Understanding



Variabel

```
merchant_name  
merchant_area  
category  
display  
product  
price  
discount_price  
isDiscount  
description
```

sales order adalah dokumen penawaran penjualan tertulis yang mengonfirmasi penjualan atas suatu barang/jasa. Informasi tersebut berupa nama produk, jenis produk, harga produk, potongan harga jika ada, tampilan produk, deskripsi produk, serta informasi lain yang berkaitan dengan transaksi tersebut.

GOALS

- 1 Kuantitas Brand Order
- 2 Kuantitas Order / Kategori Produk
- 3 Kuantitas Order / Diskon-Area-Brand
- 4 Analisis Area, Brand dan Diskon
- 5 Analisis Deskripsi Produk
- 6 Klaster Produk

Data Understanding

type data variabel

#	Column	Non-Null Count	Dtype
0	merchant_name	45195 non-null	object
1	merchant_area	45195 non-null	object
2	category	45195 non-null	object
3	display	45195 non-null	object
4	product	45195 non-null	object
5	price	45195 non-null	float64
6	discount_price	2738 non-null	float64
7	isDiscount	45195 non-null	int64
8	description	21720 non-null	object

dtypes: float64(2), int64(1), object(6)
memory usage: 3.1+ MB

missing value (persen)

discount_price	93.941808
description	51.941586
merchant_name	0.000000
merchant_area	0.000000
category	0.000000
display	0.000000
product	0.000000
price	0.000000
isDiscount	0.000000

variasi variabel

V merchant_name sebanyak 687
V merchant_area sebanyak 3
V category sebanyak 333
V display sebanyak 2986
V product sebanyak 23917
V price sebanyak 1769
V discount_price sebanyak 553
V isDiscount sebanyak 2
V description sebanyak 12362

Data Preprocessing

1. filter data untuk data diskon dan data deskripsi

```
data_with_desc_disc = data.copy()
discprice = data_with_desc_disc[data_with_desc_disc.discount_price.notnull()]
datadesc = data_with_desc_disc[data_with_desc_disc.description.notnull()]
```

2. split variabel , hapus missing value

```
data[['Brand', 'Lokasi']] = data['merchant_name'].str.split(',', expand=True, n=2)
data.drop(['discount_price', 'description'], axis=1, inplace=True)
data.head()
```

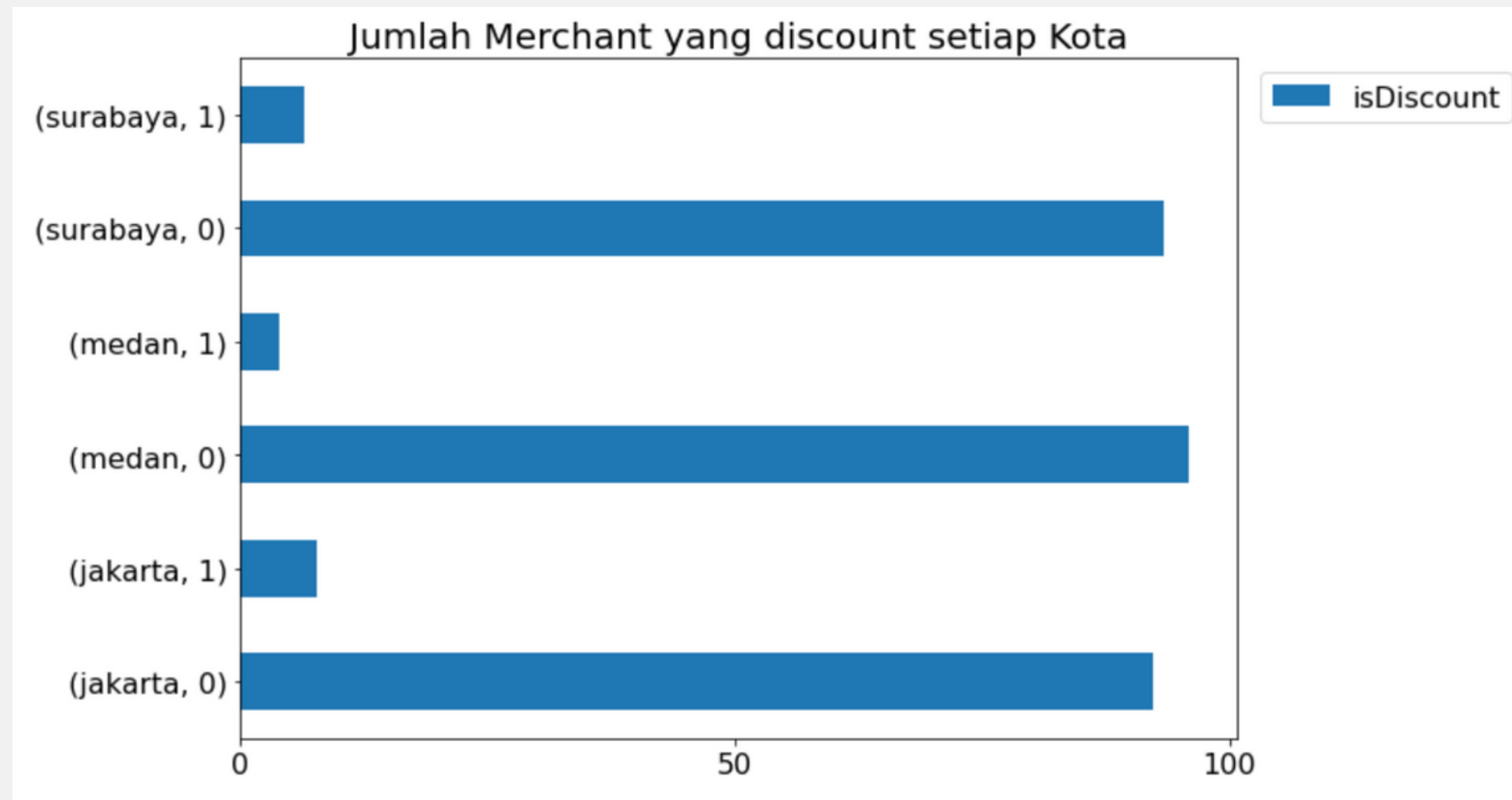
3.

```
#membuat Lowercase
data = data.apply(lambda x: x.astype(str).str.lower())

#hapus tanda baca
data['Brand'] = data['Brand'].str.replace(r'[^\\w\\s]+', '')
data['display'] = data['display'].str.replace(r'[^\\w\\s]+', '')

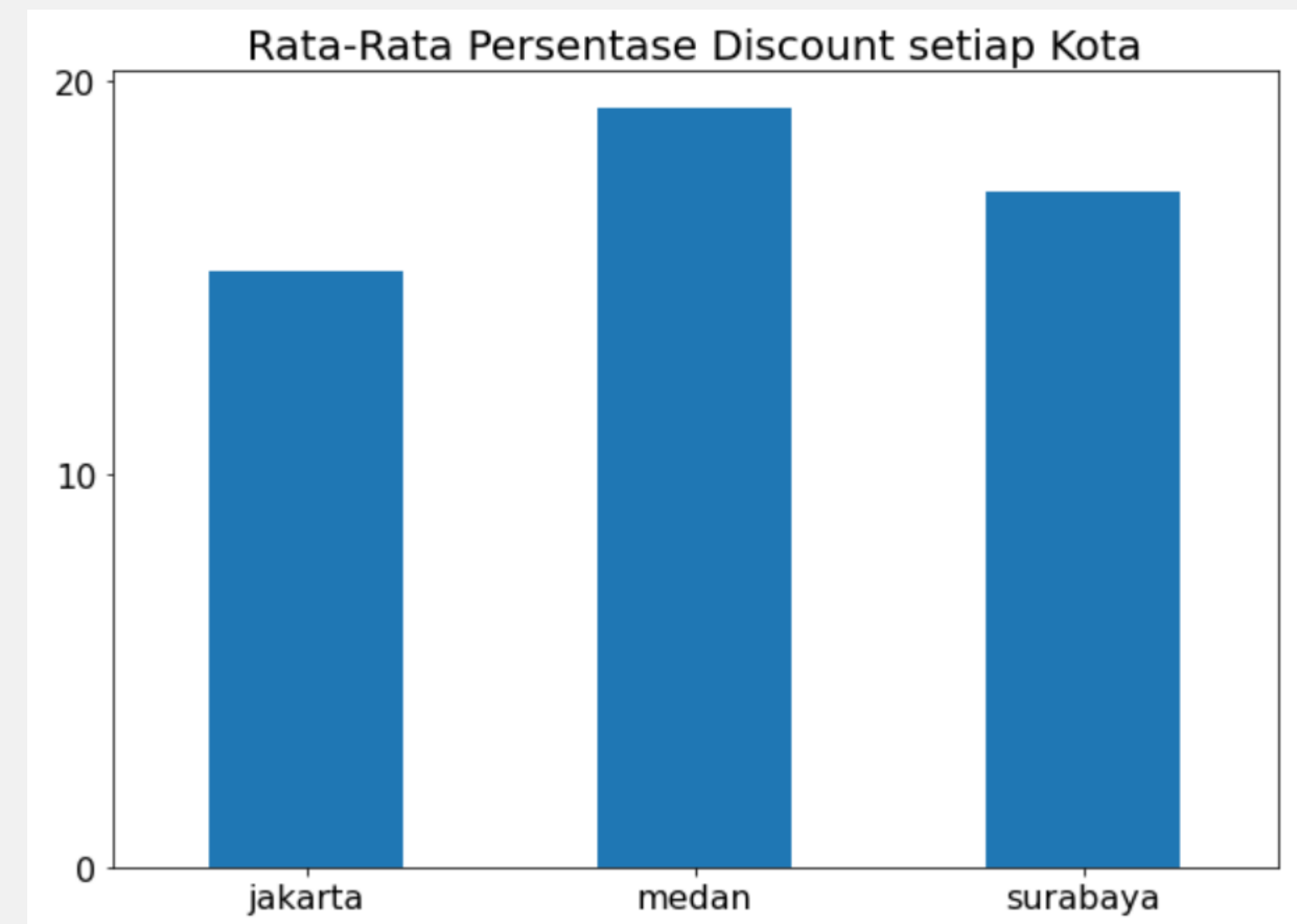
#hapus whitespace
data = data.apply(lambda x: x.astype(str).str.strip())
```

EDA-1



- jumlah merchant jakarta lebih banyak **mengadakan diskon** dibanding kota medan dan surabaya
- jumlah merchant medan lebih banyak **memberikan harga normal** dibanding kota jakarta dan surabaya

- **rata-rata persentase diskon di medan lebih besar** dibandingkan surabaya dan jakarta



Rata-rata persentase diskon Brand tertinggi

Jakarta

Brand	perc_disc
Starbucks	35.654214
XXI Cafe	34.242424
Cinepolis	31.250000
Golden Lamian	30.769231
Xi Bo Ba	30.555556
XIBOBA	30.555556
FamilyMart	28.512657
Murabae Bento	27.914286
Corndog Doona	25.921414
Sosis Bakar Gangan	23.529412

mean = 15.17%
min = 0.72%
max = 56.14%

Medan

Brand	perc_disc
Ahmeds Kitchen	39.460069
Starbucks	35.654214
Grand Liberty Restaurant	34.993939
Bolen Quemami Bakery	33.173363
Shawarma Sultan	32.071980
Warung Jivano	29.435631
Xi Bo Ba	26.829268
Siomay Podomoro	24.935931
Kokumi	22.981920
Sushi Yay	22.668969

mean = 19.27%
min = 2.29%
max = 68.18%

Surabaya

Brand	perc_disc
Wingstop	33.302453
KOKUMI	32.857143
Lapis Srikandi	31.919192
XIBOBA	30.555556
Kedai Es Juragan	28.897357
Cosmic Coffee	27.157895
Boga Kitchen	26.086406
Toby's	26.042194
Subsidi	25.454897
KEBULI JORDAN SURABAYA	25.000000

mean = 17.18%
min = 1.78%
max = 52.72%

MOST BRAND REPEAT ORDER

merchant_area	jakarta	medan	surabaya
Brand			
lawson	1795	0	0
mcdonalds	905	125	250
dapur coklat	549	0	0
michelle bakery	474	0	0
kfc	393	400	63

JAKARTA

merchant_area	jakarta	medan	surabaya
Brand			
choco bakery	0	592	0
bika ambon zulaikha	0	435	0
zeribowl	0	426	0
kfc	393	400	63
chicken crush	0	400	0

MEDAN

merchant_area	jakarta	medan	surabaya
Brand			
holland bakery	240	0	594
kampoeng roti	0	0	331
haus	0	0	273
satria roti	0	0	257
warung pindo	0	0	254

SURABAYA

merchant_area	jakarta	medan	surabaya
Brand			
mcdonalds	905	125	250
kfc	393	400	63
menantea	280	40	116
burger bros	229	69	69
dear butter	26	26	54

JKT-MDN-SBY

MOST BRAND
MERCHANT

merchant_area	jakarta	medan	surabaya
Brand			
lawson	8	0	0
keikpop	7	0	1
menantea	7	1	2
kfc	5	4	1
mcdonalds	4	1	1

JAKARTA

merchant_area	jakarta	medan	surabaya
Brand			
haus	0	0	3
suweger	0	0	3
xiboba	3	0	3
kampoeng roti	0	0	3
satria roti	0	0	2

SURABAYA

merchant_area	jakarta	medan	surabaya
Brand			
kfc	5	4	1
zeribowl	0	3	0
qiuqiunian	0	3	0
sippin	0	3	0
chicken crush	0	3	0

MEDAN

merchant_area	jakarta	medan	surabaya
Brand			
menantea	7	1	2
kfc	5	4	1
mcdonalds	4	1	1
burger bros	2	1	1
dear butter	1	1	1

JKT-MDN-SBY

Kota	Kategori	jumlah merchant
jakarta	minuman	35
jakarta	jajanan	32
jakarta	cepat saji	24
jakarta	sweets	21
jakarta	aneka nasi	20

Kota	Kategori	jumlah merchant
surabaya	minuman	56
surabaya	jajanan	46
surabaya	aneka nasi	35
surabaya	cepat saji	21
surabaya	roti	20

Most Merchant Category

Kota	Kategori	jumlah merchant
medan	jajanan	43
medan	minuman	41
medan	aneka nasi	30
medan	cepat saji	24
medan	kopi	19

FILTER FOR DESCRIPTION ANALYSIS ;

'MINUMAN','JAJANAN','ANEKA NASI','CEPAT SAJI','ROTI','KOPI'

Kota	Kategori	Brand
jakarta	minuman	[lawson, kancha, menantea]
jakarta	jajanan	[lawson, chateraise, menantea]
jakarta	aneka nasi	[lawson, restoran sederhana, mie djoedes]
jakarta	cepat saji	[mcdonalds, kfc, pancong lumer]
jakarta	roti	[michelle bakery, bunga bakery, bakerman]
jakarta	bakmie	[kaka udon, golden lamian, bakmi lopui 93]
jakarta	kopi	[familymart, starbucks, have a treat]
jakarta	jepang	[lawson, hokben, ramen giant]

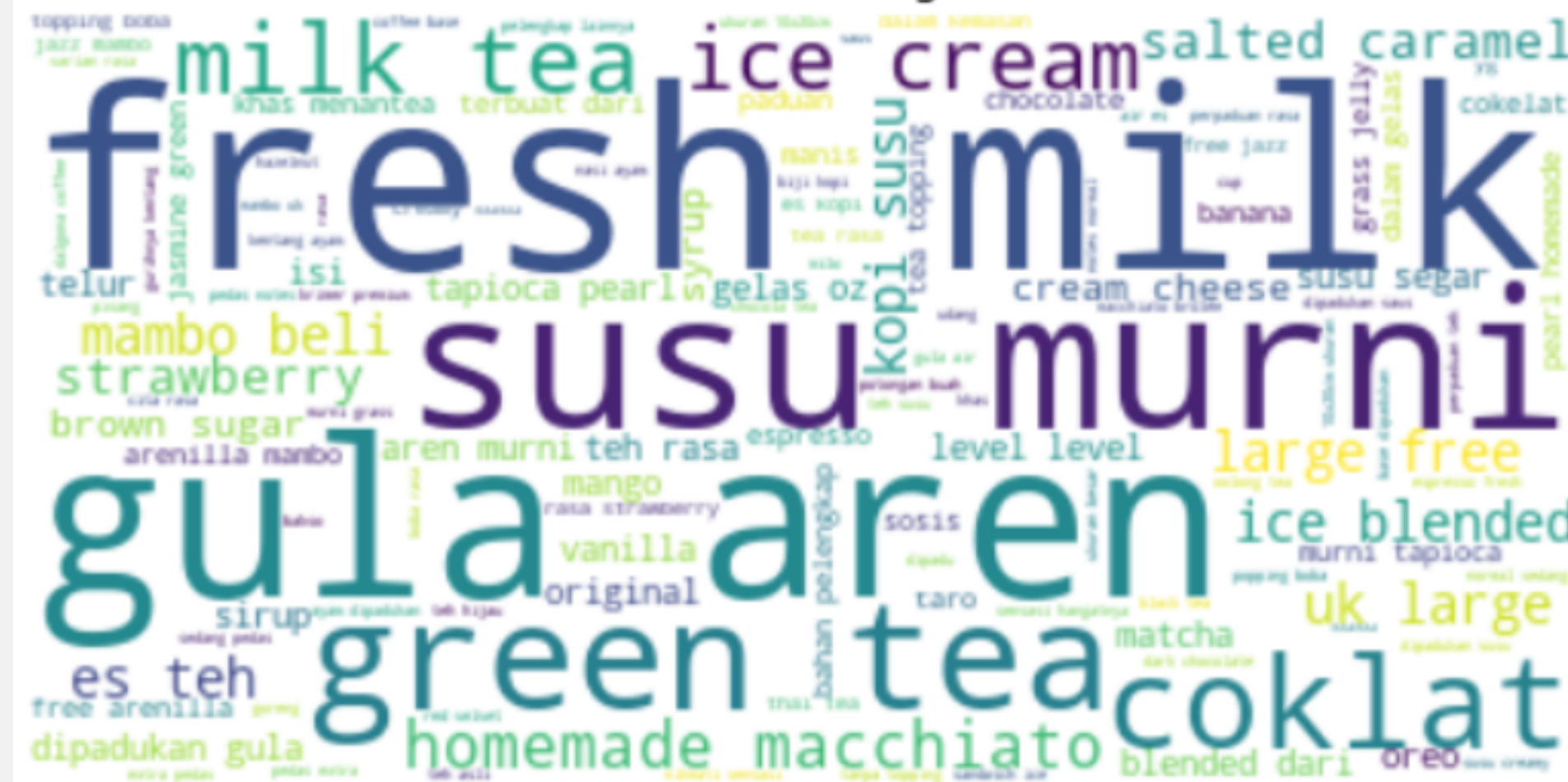
Most Brand Category Order

Kota	Kategori	Brand
medan	minuman	[rumah ide coffee, sippin, taman bakso dangdut]
medan	jajanan	[bika ambon zulaikha, zeribowl, k3 mart]
medan	aneka nasi	[sobat, restaurant miramar, copa coffee]
medan	cepat saji	[kfc, chicken crush, mcdonalds]
medan	roti	[choco bakery, suans bakery, raihan bakery]
medan	bakmie	[mie aceh jal, bakmie sedap siantar, bakmie ke...]
medan	kopi	[starbucks, hrd coffee shop, the cups]
medan	jepang	[sushi mentai, sushi yay, zenbu]

Jakarta Medan Surabaya

Kota	Kategori	Brand
surabaya	minuman	[haus, kedai refftwo, suweger]
surabaya	jajanan	[kebab bosman, mcdonalds, stepup donut]
surabaya	aneka nasi	[warung pindo, order sekaligus aiola canteen ...]
surabaya	cepat saji	[tobys, mcdonalds, burger king]
surabaya	roti	[holland bakery, kampoeng roti, satria roti]
surabaya	bakmie	[colours cafe cc, markas ranjau, post kuliner]
surabaya	kopi	[pabrik kopi, belikopi, belikopi ponti]
surabaya	jepang	[sushikun, boga kitchen, hokben]

Word Cloud Untuk Kategori minuman



Word Cloud Untuk Kategori jajanan



Word Cloud Untuk Kategori aneka nasi



Word Cloud Untuk Kategori cepat saji



WordCloud for all product order



Cluster for all product order

chicken, ice, cheese, tea,
milk, paket, chocolate,
coffee, latte, burger

Produk klaster 1

Produk klaster 2

rice, goreng, chicken, egg,
fried, mie, bakar, geprek,
putih, paket

Product Cluster

chicken, rice, goreng, tea,
ice, cheese, chocolate, egg,
latte, coffee

Medan
klaster
1

Medan
klaster
2

milk, tea, coffee, brown,
sugar, boba, ice, fresh,
bubble, cheese

chicken, cheese, tea,
chocolate, rice, milk, burger,
sapi, paket, medium

Jakarta
klaster
1

Jakarta
klaster
2

ice, latte, coffee, tea, milk,
matcha, caramel, vanilla,
sandwich, mocha

ice, tea, chocolate, cheese,
roti, rice, milk, goreng,
paket, coffee

Surabaya
klaster
1

Surabaya
klaster
2

chicken, rice, goreng,
geprek, burger, wings,
crispy, mie, truffle, paket