COVID-19 REPORT

by ❁PPA

2020 June

Data Source Specification
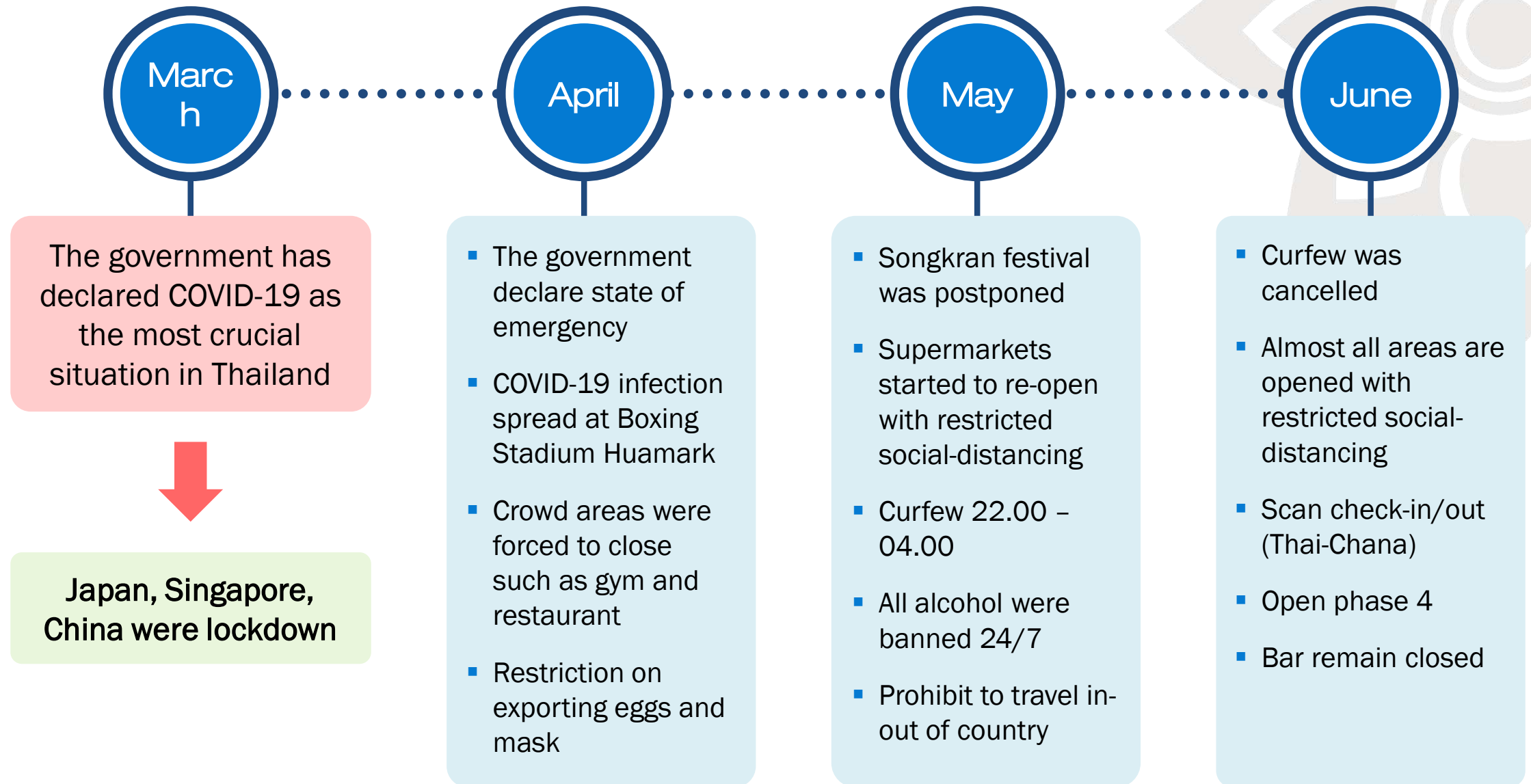
Media :
All OPPA Publishers Websites

Data Duration :
1st February ~ 31st May 2020

Data Volume :
289.21 millions unique cookies in total

Big Events Related to COVID-19 in Thailand

March

The government has declared COVID-19 as the most crucial situation in Thailand

↓

Japan, Singapore, China were lockdown

April

- The government declare state of emergency
- COVID-19 infection spread at Boxing Stadium Huamark
- Crowd areas were forced to close such as gym and restaurant
- Restriction on exporting eggs and mask

May

- Songkran festival was postponed
- Supermarkets started to re-open with restricted social-distancing
- Curfew 22.00 – 04.00
- All alcohol were banned 24/7
- Prohibit to travel in-out of country

June

- Curfew was cancelled
- Almost all areas are opened with restricted social-distancing
- Scan check-in/out (Thai-Chana)
- Open phase 4
- Bar remain closed

COVID-19 Report Methodology

This report represent the data along with situation that occurred during February to May in Thailand. There are 9 main category to discuss in this report

Research Goal: To Find the effect of Covid-19 deprivation on several events in Thailand

Analysis : We found support for the hypothesis that the pandemic situation of COVID -19 would significantly impact the business in Thailand when compared to no events

Data Collection Method;

1. The people's browsing history in OPPA websites has been collected since February 1 to May 31, 2020.
2. Also OPPA online contents are categorized into 450+ Interest categories.
3. Thus we can calculate traffic volume (unique cookie volume), and Pageview volume to each Interest categories.

Data Analysis Methods in this report;

1. Increased/Decreased Ranking by month : By comparing monthly traffic unique cookie volume of each Interest category contents, we listed top increased/decreased categories to oversee the change during Covid period.
2. Daily PV in time series : Graphs showing daily pageview volume to each interest categories in timeseries during Covid period along with big events related to Covid-19 to see how the events effected to people's behaviour.

To the data analysis results showing what actually happened to people's online behaviour in the OPPA websites from data analysis perspective based on 2 above analysis methods, we also added the insights summary and speculated possible reasons to explain why & how those behaviour changes happened.

Traffic Report

Top 20 Traffic-Increased Sub Categories

- Portal News & Health category increase which might cause by that many people started to search about COVID-19 news.
- Finance categories started to increase in March which might be due to people's financial situation.
- Entertainment categories such as Anime, Cartoon, TV program grew which might caused by Stay-Home trend.
- Travel categories ranked in May as many people re-started searching on travel topics as COVID-19 issue in Thailand was being settled down.
- Job Opening category grew which might be because many people lost their job.

※ "**volume**" indicates volume of unique cookie who were interested into each interest categorised listed under the correspond month.

※ "**Growth x**" is calculated by = target month volume / compared month volume
(ex. February VS March Growth x = March(target month) volume / February (compared month) volume)

※ Only auto categories with cookie volume ≧ 10,000 in compared month are selected.
(= categories which had big cookie volume ≧ 10,000 in the first month, but volume dropped a lot in the next month)

February VS March

	interest category	Feb volume	March volume	Growth x
1	Business > BtoB > Energy	15,604	111,039	7.12
2	Travel > Travel to Middle East, Africa	60,676	325,719	5.37
3	Health & Fitness > Heart disease	57,136	189,761	3.32
4	Portal News > Local news	535,616	799,253	1.49
5	Shopping > Gifts	145,955	214,914	1.47
6	Education > Science > Chemistry	126,655	183,517	1.45
7	Finance > Insurance > Life insurance	102,075	135,080	1.32
8	Game > PC Games	84,203	109,242	1.30
9	Business > BtoB	283,560	366,054	1.29
10	Portal News > Society	393,824	494,569	1.26
11	Game > online game	108,051	130,715	1.21
12	Entertainment > hobby > Anime	595,603	715,337	1.20
13	Finance > Investment > Stock, NISA	220,127	263,759	1.20
14	Consumer electronics / PC / Mobile > PC > Laptop	103,165	123,163	1.19
15	Entertainment > hobby > Cartoon	306,863	360,297	1.17
16	Finance > Bank > Internet bank	420,360	491,686	1.17
17	Finance > Bank	1,392,564	1,622,247	1.16
18	Health & Fitness > Cold & Flu	641,875	744,308	1.16
19	Entertainment > TV program	1,634,163	1,869,484	1.14
20	Game > Mobile game	114,995	130,895	1.14

March VS April

interest category	March volume	April volume	Growth x
Finance > Credit, loan > Auto loans	218,405	613,030	2.81
Gourmet food information > Confectionery and dessert	769,928	1,346,785	1.75
Gourmet food information > Recipe	1,142,111	1,885,012	1.65
Gourmet food information > Cooking	684,895	1,025,025	1.50
Finance > Credit, loan	1,214,116	1,807,931	1.49
Game > PC Games	109,242	161,496	1.48
Gourmet food information > Fast food	88,279	127,619	1.45
Real estate > Housing loan	118,529	170,190	1.44
Life and living > furniture	127,763	180,733	1.41
Finance > Credit, loan > Debt	476,442	673,933	1.41
Shopping > Online Mall	147,025	206,585	1.41
Game > online game	130,715	181,426	1.39
IT / Technology > Internet service > Network and Communications	128,686	176,478	1.37
IT / Technology > Programming and development	79,917	108,671	1.36
Communication > Internet Service Providers	192,725	257,861	1.34
Sports > Fitness	204,347	270,136	1.32
Automobile, vehicle > manufacturer (car) > Hyundai	89,044	117,214	1.32
Education > Exam preparation	183,373	240,125	1.31
Consumer electronics / PC / Mobile > Consumer electronics > TV	95,073	124,179	1.31
Real estate > Detached house	702,988	898,576	1.28

April VS May

interest category	April volume	May volume	Growth x
Job openings > Temporary staffing	288,633	656,184	2.27
Travel > Hotels, Lodging > Hotels (1 star, 2-star hotel)	99,890	194,779	1.95
Travel > Hotels, Lodging	182,620	325,240	1.78
Travel > Travel to Europe	117,438	193,767	1.65
Finance > Credit, loan > Cashing, consumer finance	160,384	250,995	1.56
Real estate > Reform	299,652	450,224	1.50
Entertainment > Event, Leisure, Outing > Domestic trip	214,443	297,285	1.39
Automobile, vehicle > manufacturer (car) > Hyundai	117,214	155,635	1.33
Sports > Football	287,197	379,849	1.32
Automobile, vehicle > type > Micro car, sub-compact car	125,758	165,219	1.31
IT / Technology > Internet service > Free service	516,240	674,866	1.31
Portal News > Royal news	334,991	435,819	1.30
Entertainment > Event, Leisure, Outing > Transportation information	140,769	180,865	1.28
Real estate > Apartment	176,132	216,923	1.23
Automobile, vehicle > manufacturer (car) > Ford	107,360	131,866	1.23
Automobile, vehicle > others > Auto Repair, maintenance	486,978	597,269	1.23
IT / Technology > Internet service > Wiki	141,616	171,814	1.21
Life and living > House, household goods	1,832,015	2,205,169	1.20
Real estate > Custom home	437,467	525,258	1.20
Automobile, vehicle > others	544,353	651,732	1.20

Finance	Shopping	Gourmet & Food	Travel	Portal News	Health & Fitness	Real Estate	Entertainment

Top 20 Traffic-Decreased Sub Categories

▪ Many categories from Travel & Outing categories are dramatically decreased its cookie volume.

February VS March

	interest category	Feb volume	March volume	Growth x
1	Entertainment > Event, Leisure, Outing > Ticket	108,210	26,638	0.25
2	Travel > Travel to APAC region > Travel to Japan	104,831	30,021	0.29
3	Travel > Travel to Europe > Travel to Rome	106,207	38,885	0.37
4	Travel > Travel to Europe > Travel to Croatia	171,094	69,416	0.41
5	Entertainment > Event, Leisure, Outing > Overseas trip	427,747	194,836	0.46
6	Travel > Travel to Europe	471,569	226,116	0.48
7	Travel > Hotels, Lodging > Hotels (1 star, 2-star hotel)	502,510	246,440	0.49
8	Travel > Travel to APAC region	414,525	218,902	0.53
9	Travel > Hotels, Lodging	808,551	434,418	0.54
10	IT / Technology > Internet service > Free service	981,352	565,586	0.58
11	Entertainment > Event, Leisure, Outing > Transportation information	484,764	282,810	0.58
12	Entertainment > Event, Leisure, Outing > Domestic trip	751,311	440,430	0.59
13	IT / Technology > Internet service > Wiki	299,191	175,839	0.59
14	Politics > Elections	508,186	299,474	0.59
15	Automobile, vehicle > type > SUV	111,071	70,504	0.63
16	Fashion and beauty > Beauty & Makeup > Body care	216,223	137,944	0.64
17	Entertainment > Event, Leisure, Outing > New Year	164,619	107,684	0.65
18	Entertainment > Event, Leisure, Outing > Transportation	595,756	400,797	0.67
19	Entertainment > Event, Leisure, Outing	2,629,443	1,798,984	0.68
20	Fashion and beauty > Fashion > Watch	114,502	78,473	0.69

March VS April

interest category	March volume	April volume	Growth x
Entertainment > Event, Leisure, Outing > New Year	107,684	43,029	0.40
Travel > Hotels, Lodging > Hotels (1 star, 2-star hotel)	246,440	99,890	0.41
Travel > Hotels, Lodging	434,418	182,620	0.42
Sports > Football	660,622	287,197	0.43
Health & Fitness > Heart disease	189,761	91,209	0.48
Entertainment > Event, Leisure, Outing > Domestic trip	440,430	214,443	0.49
Entertainment > Event, Leisure, Outing > Transportation information	282,810	140,769	0.50
Travel > Air Travel	192,699	96,934	0.50
Travel > Travel to Europe	226,116	117,438	0.52
Portal News > Local news	799,253	423,890	0.53
Portal News > Society	494,569	283,071	0.57
Entertainment > Event, Leisure, Outing > Transportation	400,797	251,153	0.63
Entertainment > Event, Leisure, Outing	1,798,984	1,307,052	0.73
Travel > Travel to Middle East, Africa	325,719	239,441	0.74
Entertainment > Event, Leisure, Outing > Overseas trip	194,836	143,953	0.74
Entertainment > hobby > Photography	235,767	175,582	0.74
Job openings > Job change	230,911	177,732	0.77
Business > BtoB > Energy	111,039	87,328	0.79
Gamble > Lottery	2,379,591	1,885,529	0.79
Health & Fitness > Allergies	473,712	379,287	0.80

April VS May

| interest category	April volume	May volume	Growth x
Travel > Travel to Middle East, Africa	239,441	83,537	0.35
Finance > Credit, loan > Auto loans	613,030	368,995	0.60
Shopping > Gifts	193,249	140,414	0.73
IT / Technology > Programming and development	108,671	81,236	0.75
IT / Technology > Internet service > Homepage	104,395	79,784	0.76
Entertainment > Show business	211,467	165,069	0.78
Adult > sex	138,910	108,444	0.78
Education > Exam preparation	240,125	190,513	0.79
Life stage > Relationship counseling	1,284,535	1,041,249	0.81
Life stage > Marriage	1,364,542	1,124,747	0.82
Life stage > Encounter	122,167	101,067	0.83
Business > BtoB	421,022	348,806	0.83
Education > Science > Chemistry	146,971	123,222	0.84
Communication > Mobile phone company	1,807,963	1,522,740	0.84
Entertainment > TV program	2,200,020	1,860,870	0.85
Finance > Bank > Internet bank	572,455	487,457	0.85
Game > Mobile game	161,350	138,143	0.86
Consumer electronics / PC / Mobile > Mobile & Smartphone > App	552,923	478,118	0.86
Entertainment > Movies	2,162,246	1,886,941	0.87
Gourmet food information > Cooking	1,025,025	897,518	0.88

Finance	Shopping	Gourmet & Food	Travel	Portal News	Health & Fitness	Real Estate	Entertainment

OPPA Total Daily PV in Time Series
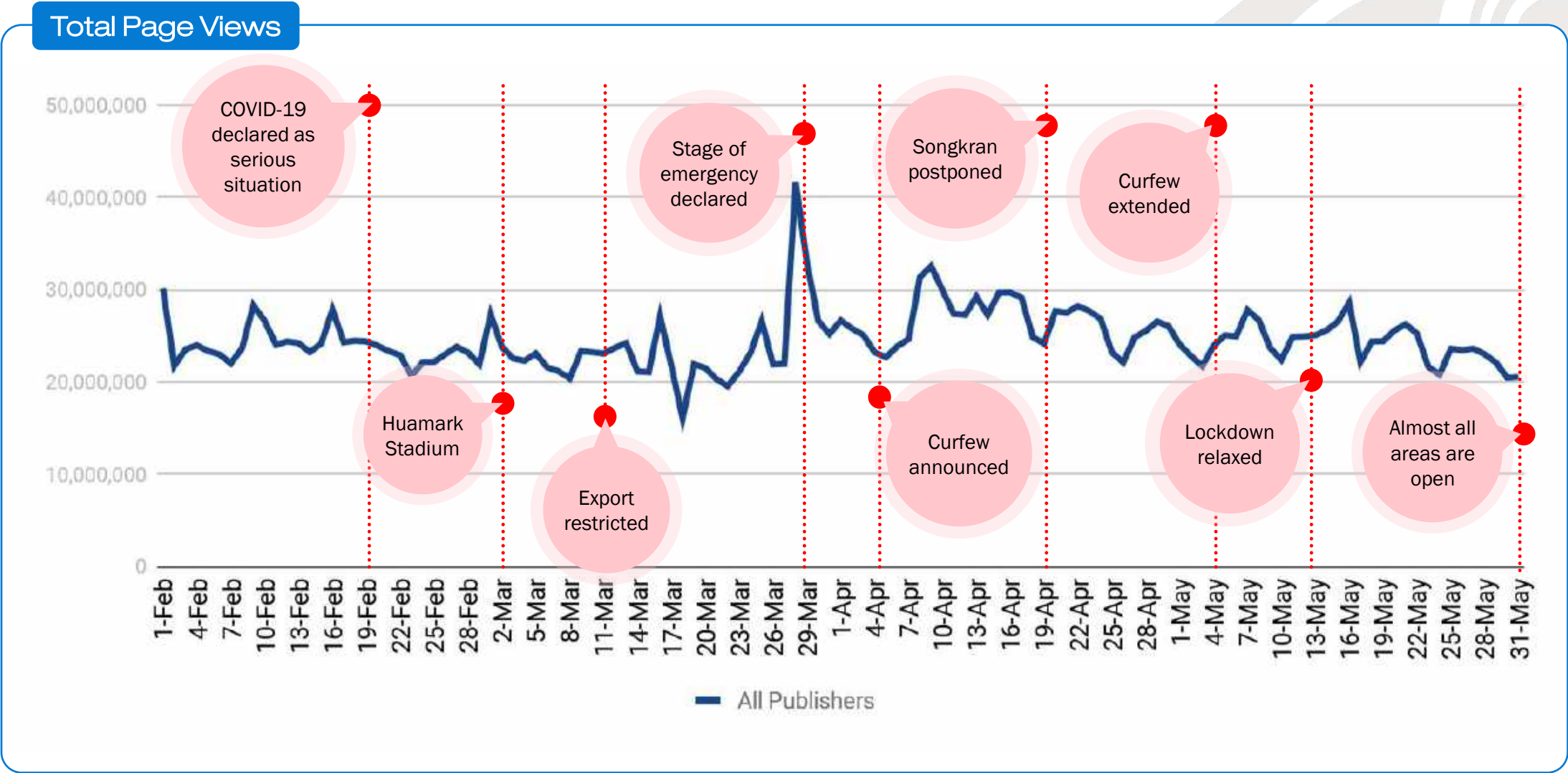
Daily PV in Time Series by Category
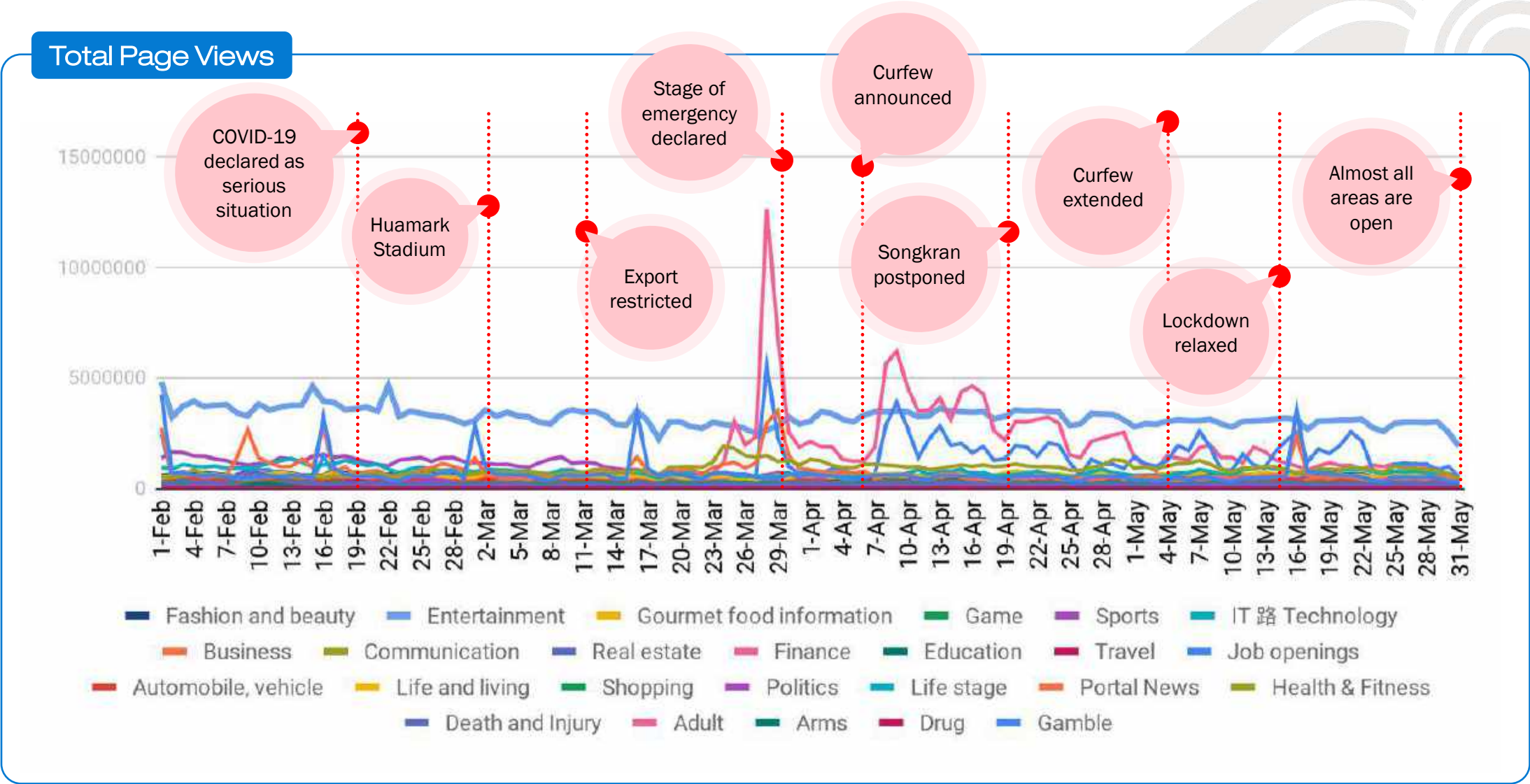
Insight Total PV Analysis Summary

There are 25 main categories being collected between Feb 1 to May 30, 2020
(reference: https://console.treasuredata.com/app/jobs/758406243)

Some vital situations occurred during the period . . .

- The graph shown that most categories was peak in March 29 especially Finance and Entertainment respectively

- The highest PV of finance was cause by the restriction of exporting mask and eggs

- Due to the restrict of exporting, the government was stimulate people by given 500 Baht per household which may led to a higher financial situation (PV increased)

- As when curfew was announced in the beginning of April, graph was slightly increased but still in Finance and Entertainment categories. This might be because the stay-home trend.

- The lockdown period along with Songkran postponed, the PV was dramatically dropped as the situation was forced people to stay at home.

Real case situation happen in Thailand during COVID-19

1. Songkran postponed : The Centre for Covid-19 Situation Administration demanded no water splashing and threatened violators with harsh punishment, amid worries the festival could give fresh impetus to the Covid-19 outbreak *(Source: Bangkok post)*

2. Export restriction : Building on our annual Monitoring and Evaluation of Agricultural Policies we are tracking and assessing the impact of country measures in relation to agri-food production and trade in response to COVID-19 *(Source: OECD Policy response to Coronavirus)*

3. Curfew announced : The government enforced the state of emergency on March 26 until April 30 and imposed a 10pm to 4am curfew on April 3 *(Source: Thailand Business News)*

Daily PV in Time Series by Category
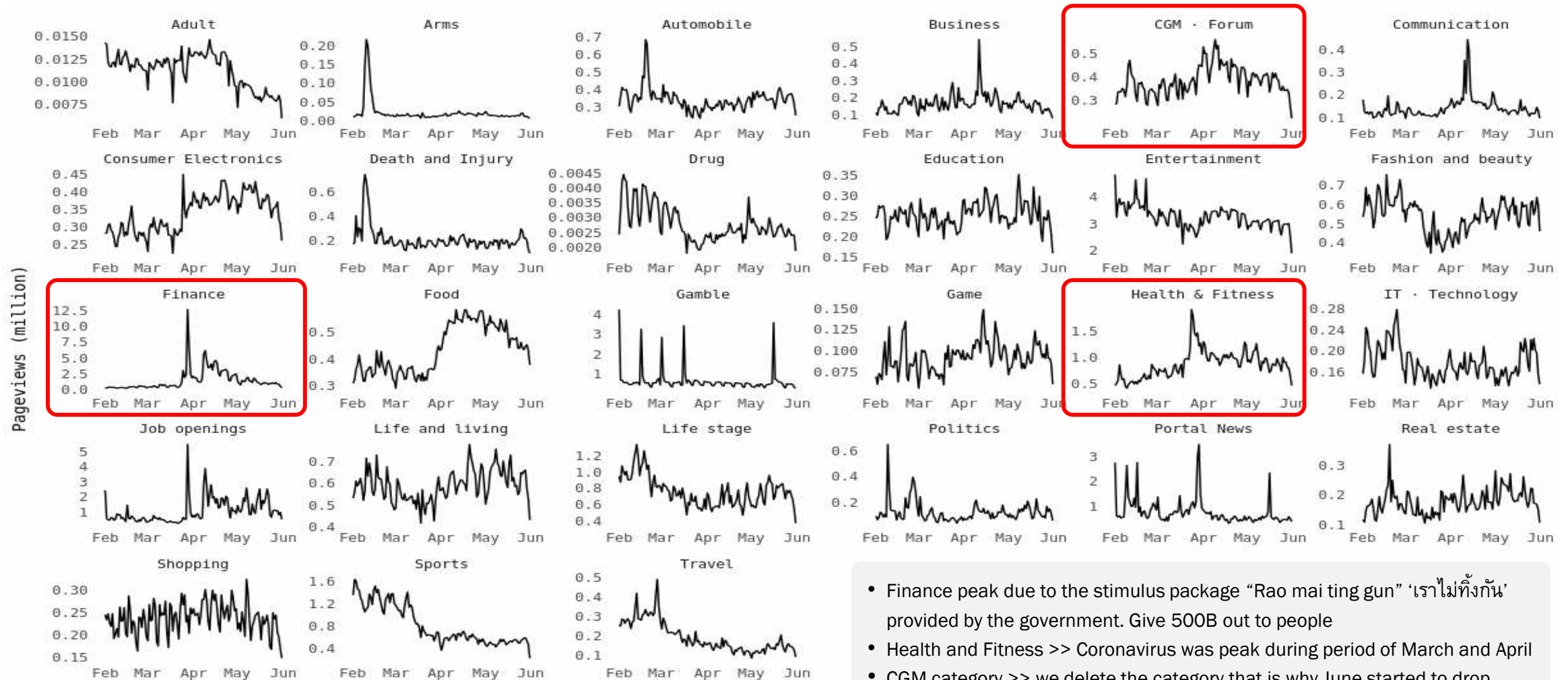
- Finance peak due to the stimulus package "Rao mai ting gun" 'เราไม่ทิ้งกัน' provided by the government. Give 500B out to people
- Health and Fitness >> Coronavirus was peak during period of March and April
- CGM category >> we delete the category that is why June started to drop dramatically.

Appendix :
Auto Category

Top Traffic-Increased (less-decreased) Auto Categories

- Overall, automobile category decreased in March & April, and started to increase its user volume from May.
- Hyundai kept/increased its user volume in all period.
- Motorcycle categories are ranked in.
- Accessories & repair / maintenance categories are ranked which might because many people tended to keep their current car rather than buying new car.

※ "**volume**" indicates volume of unique cookie who were interested into each interest categorised listed under the correspond month.

※ "**Growth x**" is calculated by = target month volume / compared month volume
(ex. February VS March Growth x = March(target month) volume / February (compared month) volume)

※ Only auto categories with cookie volume ≧ 10,000 in compared month are selected.
(= categories which had big cookie volume ≧ 10,000 in the first month, but volume dropped a lot in the next month)

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	Automobile, vehicle	3,104,098	2,738,986	0.88
1	Automobile, vehicle > manufacturer (car) > Suzuki	49,484	46,337	0.94
2	Automobile, vehicle > type > Motorcycle	520,743	481,003	0.92
3	Automobile, vehicle > manufacturer (car) > Hyundai	97,751	89,044	0.91
4	Automobile, vehicle > others > Auto parts, accessories	469,798	425,472	0.91
5	Automobile, vehicle > manufacuturer (motorbike) > Honda	69,070	61,883	0.90
6	Automobile, vehicle > type > Gas soline	97,414	86,781	0.89
7	Automobile, vehicle > manufacturer (car) > Ford	115,479	102,284	0.89
8	Automobile, vehicle > manufacturer (car) > Isuzu	76,158	66,869	0.88
9	Automobile, vehicle > manufacuturer (motorbike) > Yamaha	35,634	31,078	0.87
10	Automobile, vehicle > manufacturer (car) > BMW	30,899	26,886	0.87
11	Automobile, vehicle > type > Pick-up truck	264,212	229,538	0.87
12	Automobile, vehicle > others > Auto Repair, maintenance	653,280	558,168	0.85
13	Automobile, vehicle > manufacturer (car) > Mazda	95,597	81,558	0.85
14	Automobile, vehicle > type > Crossover	12,634	10,737	0.85
15	Automobile, vehicle > manufacturer (car) > Smart	15,319	12,996	0.85
16	Automobile, vehicle > others	729,962	616,280	0.84
17	Automobile, vehicle > type > Classic Car	24,748	20,810	0.84
18	Automobile, vehicle > manufacturer (car) > Mercedes-Benz	36,523	30,685	0.84

March VS April

interest category	March volume	April volume	Growth x
Automobile, vehicle	2,738,986	2,567,773	0.94
Automobile, vehicle > manufacturer (car) > Hyundai	89,044	117,214	1.32
Automobile, vehicle > type > Luxury car	12,729	14,213	1.12
Automobile, vehicle > manufacturer (car) > BMW	26,886	28,696	1.07
Automobile, vehicle > type > Classic Car	20,810	22,098	1.06
Automobile, vehicle > manufacturer (car) > Ford	102,284	107,360	1.05
Automobile, vehicle > type > Diesel vehicles	35,389	36,274	1.03
Automobile, vehicle > type > Coupe	10,963	11,204	1.02
Automobile, vehicle > manufacuturer (motorbike)	94,553	95,531	1.01
Automobile, vehicle > manufacuturer (motorbike) > Yamaha	31,078	31,259	1.01
Automobile, vehicle > manufacturer (car) > Isuzu	66,869	66,458	0.99
Automobile, vehicle > manufacuturer (motorbike) > Honda	61,883	61,375	0.99
Automobile, vehicle > type > Sedan	33,501	33,161	0.99
Automobile, vehicle > manufacturer (car) > Toyota	232,421	225,525	0.97
Automobile, vehicle > type > Sports car	57,642	55,064	0.96
Automobile, vehicle > manufacturer (car)	902,543	860,738	0.95
Automobile, vehicle > others > Auto parts, accessories	425,472	404,092	0.95
Automobile, vehicle > type > Motorcycle	481,003	454,669	0.95
Automobile, vehicle > manufacturer (car) > Mercedes-Benz	30,685	28,944	0.94

April VS May

interest category	April volume	May volume	Growth x
Automobile, vehicle	2,567,773	2,867,486	1.12
Automobile, vehicle > manufacturer (car) > Nissan	70,876	99,449	1.40
Automobile, vehicle > type > Vans, minivans	18,801	25,563	1.36
Automobile, vehicle > manufacturer (car) > Hyundai	117,214	155,635	1.33
Automobile, vehicle > type > Micro car, sub-compact car	125,758	165,219	1.31
Automobile, vehicle > type > SUV	65,506	82,341	1.26
Automobile, vehicle > type > Hatchback	8,239	10,316	1.25
Automobile, vehicle > type > Hybrid vehicles, alternative fuel vehicles	49,971	62,473	1.25
Automobile, vehicle > type > Eco car	27,512	34,075	1.24
Automobile, vehicle > type > Sports car	55,064	67,778	1.23
Automobile, vehicle > manufacturer (car) > Ford	107,360	131,866	1.23
Automobile, vehicle > others > Auto Repair, maintenance	486,978	597,269	1.23
Automobile, vehicle > manufacturer (car) > MG	27,065	32,679	1.21
Automobile, vehicle > manufacturer (car) > Mitsubishi	49,601	59,811	1.21
Automobile, vehicle > type > City car	23,225	27,721	1.19
Automobile, vehicle > type > Gas soline	81,252	96,829	1.19
Automobile, vehicle > manufacturer (car) > Mercedes-Benz	28,944	34,328	1.19
Automobile, vehicle > type > Pick-up truck	213,336	249,944	1.17
Automobile, vehicle > manufacturer (car) > Honda	243,550	283,711	1.16

Top Traffic-Decreased (less-increased) Auto Categories

- Overall, automobile category decreased in March & April, and started to increase its user volume from May.
- Chevrolet decreased its volume a lot as its peak was in February when they announced their business closure in Thailand.

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	Automobile, vehicle	3,104,098	2,738,986	0.88
1	Automobile, vehicle > manufacturer (car) > Chevrolet	71,087	37,276	0.52
2	Automobile, vehicle > type > City car	44,510	27,521	0.62
3	Automobile, vehicle > type > SUV	111,071	70,504	0.63
4	Automobile, vehicle > type > Eco car	51,874	35,505	0.68
5	Automobile, vehicle > manufacturer (car) > MG	45,812	31,362	0.68
6	Automobile, vehicle > type > Vans, minivans	37,091	25,549	0.69
7	Automobile, vehicle > type > Hybrid vehicles, alternative fuel vehicles	74,378	54,093	0.73
8	Automobile, vehicle > type > Sedan	44,659	33,501	0.75
9	Automobile, vehicle > manufacturer (car) > Mitsubishi	72,040	55,521	0.77
10	Automobile, vehicle > type > Micro car, sub-compact car	177,057	138,436	0.78
11	Automobile, vehicle > manufacturer (car) > Nissan	95,253	75,154	0.79
12	Automobile, vehicle > manufacturer (car) > Honda	346,936	277,280	0.80
13	Automobile, vehicle > type > Bigbike	43,599	35,013	0.80
14	Automobile, vehicle > type > Luxury car	15,826	12,729	0.80
15	Automobile, vehicle > type > Diesel vehicles	43,972	35,389	0.80
16	Automobile, vehicle > type > Sports car	71,470	57,642	0.81
17	Automobile, vehicle > manufacturer (car) > Toyota	286,535	232,421	0.81
18	Automobile, vehicle > type > Coupe	13,123	10,963	0.84

March VS April

	interest category	March volume	April volume	Growth x
TOTAL	Automobile, vehicle	2,738,986	2,567,773	0.94
1	Automobile, vehicle > type > Vans, minivans	25,549	18,801	0.74
2	Automobile, vehicle > manufacturer (car) > Chevrolet	37,276	28,700	0.77
3	Automobile, vehicle > type > Eco car	35,505	27,512	0.77
4	Automobile, vehicle > manufacturer (car) > Suzuki	46,337	38,063	0.82
5	Automobile, vehicle > type > City car	27,521	23,225	0.84
6	Automobile, vehicle > manufacturer (car) > MG	31,362	27,065	0.86
7	Automobile, vehicle > others > Auto Repair, maintenance	558,168	486,978	0.87
8	Automobile, vehicle > manufacturer (car) > Mazda	81,558	71,624	0.88
9	Automobile, vehicle > manufacturer (car) > Honda	277,280	243,550	0.88
10	Automobile, vehicle > manufacturer (car) > Mitsubishi	55,521	49,601	0.89
11	Automobile, vehicle > type > Micro car, sub-compact car	138,436	125,758	0.91
12	Automobile, vehicle > type > Hybrid vehicles, alternative fuel vehicles	54,093	49,971	0.92
13	Automobile, vehicle > type > Bigbike	35,013	32,511	0.93
14	Automobile, vehicle > type > SUV	70,504	65,506	0.93
15	Automobile, vehicle > type > Pick-up truck	229,538	213,336	0.93
16	Automobile, vehicle > type > Gas soline	86,781	81,252	0.94
17	Automobile, vehicle > manufacturer (car) > Nissan	75,154	70,876	0.94

April VS May

|	interest category	April volume	May volume	Growth x
TOTAL	Automobile, vehicle	2,567,773	2,867,486	1.12
1	Automobile, vehicle > type > Motorcycle	454,669	453,689	1.00
2	Automobile, vehicle > manufacturer (car) > BMW	28,696	30,585	1.07
3	Automobile, vehicle > manufacuturer (motorbike) > Yamaha	31,259	33,606	1.08
4	Automobile, vehicle > type > Diesel vehicles	36,274	39,289	1.08
5	Automobile, vehicle > manufacuturer (motorbike)	95,531	103,533	1.08
6	Automobile, vehicle > type > Coupe	11,204	12,178	1.09
7	Automobile, vehicle > type > Classic Car	22,098	24,111	1.09
8	Automobile, vehicle > manufacuturer (motorbike) > Honda	61,375	67,696	1.10
9	Automobile, vehicle > others > Auto parts, accessories	404,092	451,026	1.12
10	Automobile, vehicle > type > Bigbike	32,511	36,415	1.12
11	Automobile, vehicle > manufacturer (car) > Mazda	71,624	80,955	1.13
12	Automobile, vehicle > manufacturer (car) > Chevrolet	28,700	32,607	1.14
13	Automobile, vehicle > type > Luxury car	14,213	16,176	1.14
14	Automobile, vehicle > type > Sedan	33,161	38,076	1.15
15	Automobile, vehicle > manufacturer (car) > Isuzu	66,458	76,819	1.16
16	Automobile, vehicle > manufacturer (car) > Suzuki	38,063	44,157	1.16
17	Automobile, vehicle > manufacturer (car) > Toyota	225,525	261,739	1.16
18	Automobile, vehicle > manufacturer (car) > Honda	243,550	283,711	1.16

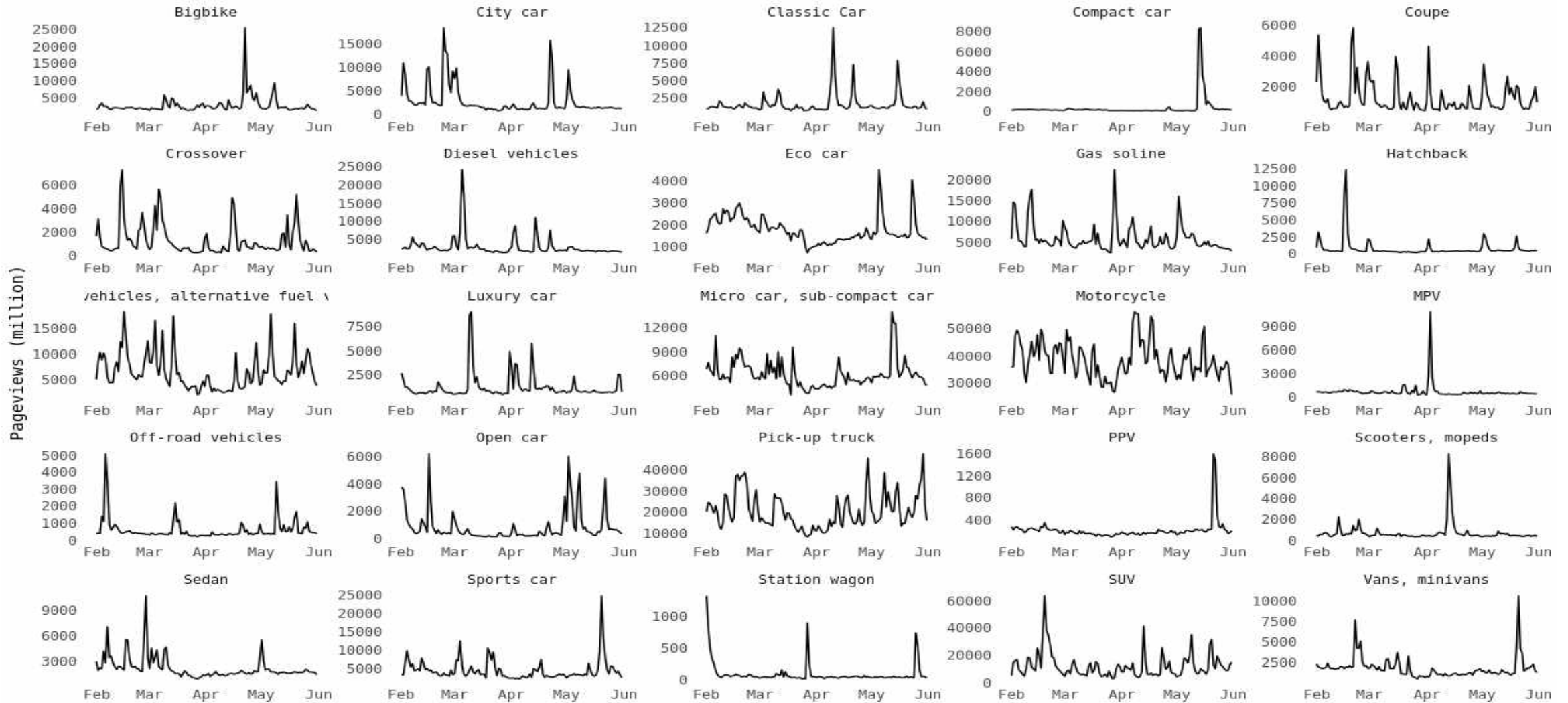# Daily PV in Time Series for Auto Categories
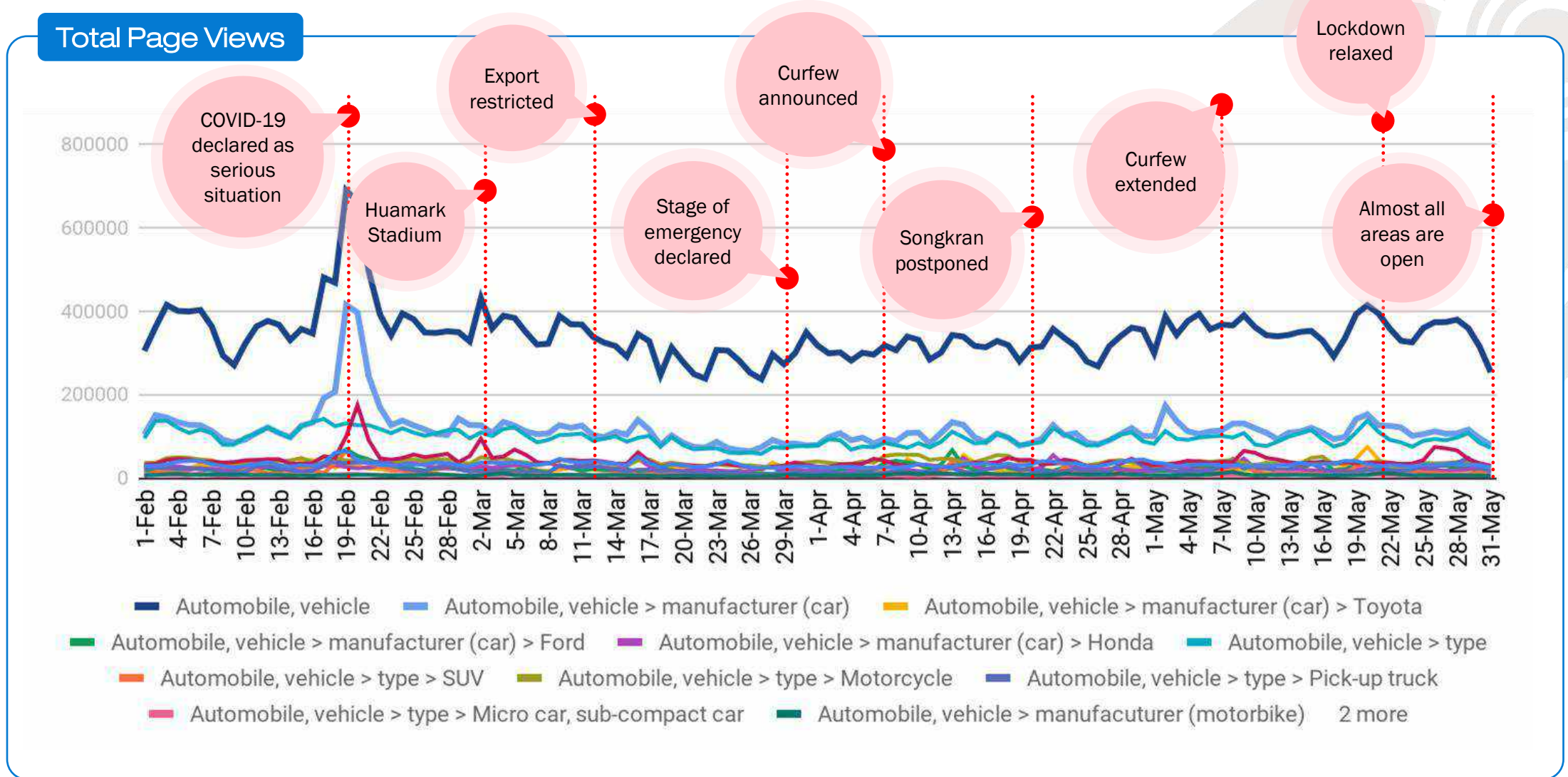
Daily PV in Time Series for Auto Categories (By Bike Brand)
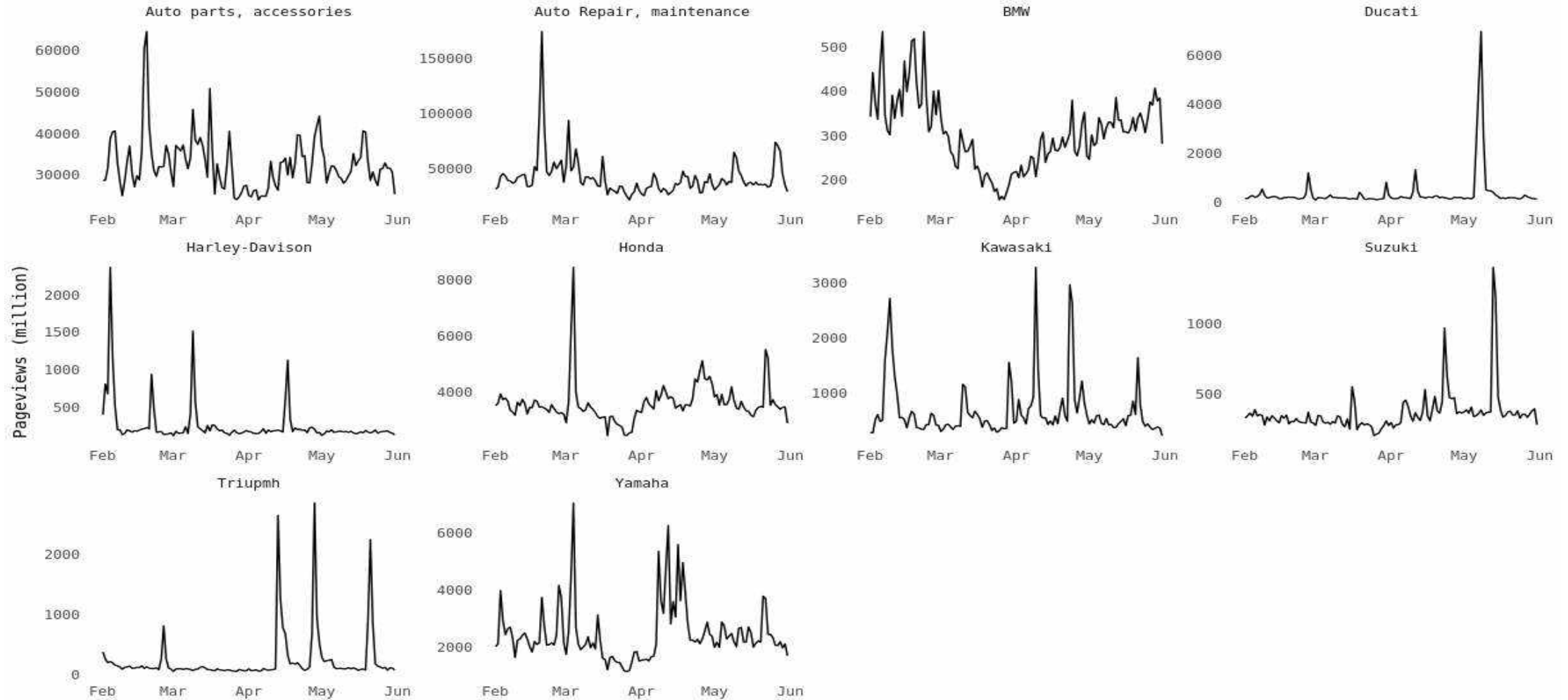
Daily PV in Time Series for Auto Categories (By Car Brand)

add total pageview volume /period
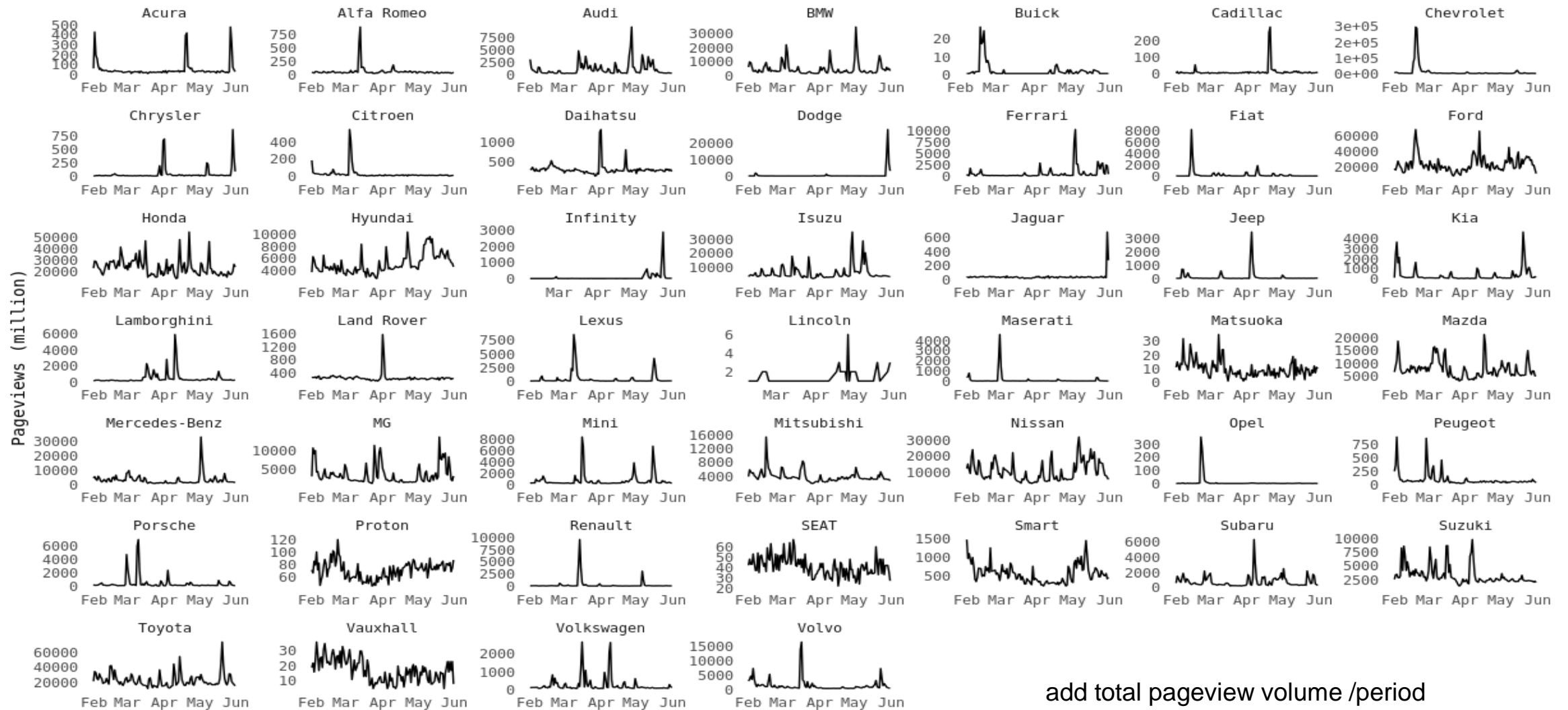
Daily PV in Time Series for Auto Categories (By Car Type)

Appendix :
Travel Category

Top Traffic-Increased Travel Categories

- Overall, Travel Categories were in decreasing trend in March & April, then started to get its volume back from May.
- Even most travel categories decreased in March, Africa categories increased its volume.
- Taipei & Hong Kong increased those use volume in April, which might because they were handling the COVID-19 issue better than the other countries in the world.

※ *"volume"* indicates volume of unique cookie who were interested into each interest categorised listed under the correspond month.

※ *"Growth x"* is calculated by = target month volume / compared month volume
(ex. February VS March Growth x = March(target month) volume / February (compared month) volume)

※ Only auto categories with cookie volume ≧ 10,000 in compared month are selected.
(= categories which had big cookie volume ≧ 10,000 in the first month, but volume dropped a lot in the next month)

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	Travel	2,361,315	1,696,086	0.72
1	Travel > Travel to Middle East, Africa	60,676	325,719	5.37
2	Travel > Travel to Middle East, Africa > Travel to South Africa	24,181	66,452	2.75
3	Travel > Travel to Europe > Travel to Ireland	11,330	17,649	1.56
4	Travel > Travel to APAC region > Travel to Shanghai	24,584	33,622	1.37
5	Travel > Travel to APAC region > Travel to Seoul	71,394	53,382	0.75
6	Travel > Air Travel	260,123	192,699	0.74
7	Travel > Travel to Europe > Travel to United Kingdom, London	16,307	10,775	0.66
8	Travel > Travel to Latin America	46,120	29,496	0.64
9	Travel > Travel to North America > Travel to USA	18,897	11,675	0.62
10	Travel > Travel to APAC region > Travel to New Zealand	47,040	27,332	0.58
11	Travel > Travel to Europe > Travel to Turkey	29,887	17,257	0.58
12	Travel > Travel to Latin America > Travel to Costa Rica	13,773	7,876	0.57
13	Travel > Travel to Europe > Travel to Greece	27,082	14,907	0.55
14	Travel > Hotels, Lodging	808,551	434,418	0.54
15	Travel > Travel to Europe > Travel to Moscow	13,639	7,310	0.54
16	Travel > Travel to APAC region > Travel to India	13,996	7,449	0.53

March VS April

	interest category	March volume	April volume	Growth x
TOTAL	Travel	1,696,086	1,085,059	0.64
1	Travel > Travel to APAC region > Travel to Taipei	8,856	13,811	1.56
2	Travel > Travel to APAC region > Travel to Hong Kong	3,643	5,294	1.45
3	Travel > Travel to APAC region > Travel to Seoul	53,382	63,480	1.19
4	Travel > Travel to North America > Travel to USA	11,675	12,220	1.05
5	Travel > Travel to APAC region > Travel to Vietnam	9,734	9,235	0.95
6	Travel > Travel to Latin America > Travel to Costa Rica	7,876	7,420	0.94
7	Travel > Travel to Europe > Travel to Moscow	7,310	6,840	0.94
8	Travel > Travel to North America	25,524	23,465	0.92
9	Travel > Travel to Europe > Travel to United Kingdom, London	10,775	9,884	0.92
10	Travel > Travel to Europe > Travel to Turkey	17,257	15,224	0.88
11	Travel > Travel to APAC region > Travel to Shanghai	33,622	28,553	0.85
12	Travel > Travel to APAC region	218,902	183,079	0.84
13	Travel > Travel to Latin America	29,496	24,517	0.83
14	Travel > Travel to APAC region > Travel to Japan	30,021	24,564	0.82

April VS May

	interest category	April volume	May volume	Growth x
TOTAL	Travel	1,085,059	1,164,976	1.07
1	Travel > Travel to Europe > Travel to Croatia	13,514	70,722	5.23
2	Travel > Travel to APAC region > Travel to New Zealand	3,786	13,768	3.64
3	Travel > Travel to Europe > Travel to Prague	5,216	14,594	2.80
4	Travel > Seafaring	4,670	12,790	2.74
5	Travel > Travel to Europe > Travel to Greece	5,802	13,829	2.38
6	Travel > Hotels, Lodging > Condominium resort	3,612	7,570	2.10
7	Travel > Hotels, Lodging > Hotels (1 star, 2-star hotel)	99,890	194,779	1.95
8	Travel > Hotels, Lodging	182,620	325,240	1.78
9	Travel > Travel to Europe	117,438	193,767	1.65
10	Travel > Travel to North America	23,465	31,363	1.34
11	Travel > Travel to Europe > Travel to Rome	25,058	33,400	1.33
12	Travel > Air Travel	96,934	108,275	1.12
13	Travel > Travel to Europe > Travel to the Canary Islands	5,021	5,372	1.07
14	Travel > Travel to APAC region > Travel to Vietnam	9,235	9,707	1.05

Top Traffic-Decreased (less-increased) Travel Categories

- Overall, Travel Categories were in Decreasing trend in March & April, then started to get its volume back from May.
- APAC countries decreased their volume the most in March as COVID-19 issue occurred from Asian countries.
- Europe countries decreased a lot in April as COVID-19 issue outbroke in European countries.
- In May, Middle east, Latin America and Russia decreased those volume, where the COVID-19 issue outbroke relatively later than the other countries.

※ "**volume**" indicates volume of unique cookie who were interested into each interest categorised listed under the correspond month.

※ "**Growth x**" is calculated by = target month volume / compared month volume
(ex. February VS March Growth x = March(target month) volume / February (compared month) volume)

※ Only auto categories with cookie volume ≧ 10,000 in compared month are selected.
(= categories which had big cookie volume ≧ 10,000 in the first month, but volume dropped a lot in the next month)

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	Travel	2,361,315	1,696,086	0.72
1	Travel > Travel to APAC region > Travel to Vietnam	34,029	9,734	0.29
2	Travel > Travel to APAC region > Travel to Japan	104,831	30,021	0.29
3	Travel > Travel to APAC region > Travel to Taipei	26,291	8,856	0.34
4	Travel > Travel to Europe > Travel to Rome	106,207	38,885	0.37
5	Travel > Travel to Europe > Travel to the Canary Islands	32,675	12,867	0.39
6	Travel > Travel to Europe > Travel to Croatia	171,094	69,416	0.41
7	Travel > Travel to Europe > Travel to Prague	23,717	10,109	0.43
8	Travel > Travel to North America	55,243	25,524	0.46
9	Travel > Travel to Europe	471,569	226,116	0.48
10	Travel > Hotels, Lodging > Hotels (1 star, 2-star hotel)	502,510	246,440	0.49
11	Travel > Travel to APAC region > Travel to Sydney	11,603	5,692	0.49
12	Travel > Car rental	13,485	7,031	0.52
13	Travel > Hotels, Lodging > Condominium resort	17,038	8,896	0.52
14	Travel > Travel to APAC region	414,525	218,902	0.53
15	Travel > Seafaring	20,407	10,851	0.53

March VS April

interest category	March volume	April volume	Growth x
Travel	1,696,086	1,085,059	0.64
Travel > Travel to Europe > Travel to Croatia	69,416	13,514	0.19
Travel > Travel to Middle East, Africa > Travel to South Africa	66,452	14,696	0.22
Travel > Travel to Europe > Travel to Ireland	17,649	5,991	0.34
Travel > Travel to Europe > Travel to Greece	14,907	5,802	0.39
Travel > Travel to Europe > Travel to the Canary Islands	12,867	5,021	0.39
Travel > Hotels, Lodging > Hotels (1 star, 2-star hotel)	246,440	99,890	0.41
Travel > Hotels, Lodging	434,418	182,620	0.42
Travel > Air Travel	192,699	96,934	0.50
Travel > Travel to Europe > Travel to Prague	10,109	5,216	0.52
Travel > Travel to Europe	226,116	117,438	0.52
Travel > Travel to Europe > Travel to Rome	38,885	25,058	0.64
Travel > Travel to Middle East, Africa	325,719	239,441	0.74
Travel > Travel to APAC region > Travel to India	7,449	5,677	0.76

April VS May

interest category	April volume	May volume	Growth x
Travel	1,085,059	1,164,976	1.07
Travel > Travel to Middle East, Africa	239,441	83,537	0.35
Travel > Travel to APAC region > Travel to Taipei	13,811	9,446	0.68
Travel > Travel to Latin America > Travel to Costa Rica	7,420	5,895	0.79
Travel > Travel to Europe > Travel to Moscow	6,840	5,892	0.86
Travel > Travel to Europe > Travel to United Kingdom, London	9,884	8,624	0.87
Travel > Travel to Europe > Travel to Turkey	15,224	13,356	0.88
Travel > Travel to Latin America	24,517	22,440	0.92
Travel > Travel to APAC region > Travel to Japan	24,564	22,944	0.93
Travel > Travel to North America > Travel to USA	12,220	11,514	0.94
Travel > Travel to APAC region > Travel to Seoul	63,480	61,669	0.97
Travel > Travel to APAC region > Travel to India	5,677	5,522	0.97
Travel > Travel to APAC region > Travel to Shanghai	28,553	29,168	1.02
Travel > Travel to APAC region	183,079	188,825	1.03

Daily PV in Time Series for Travel Categories
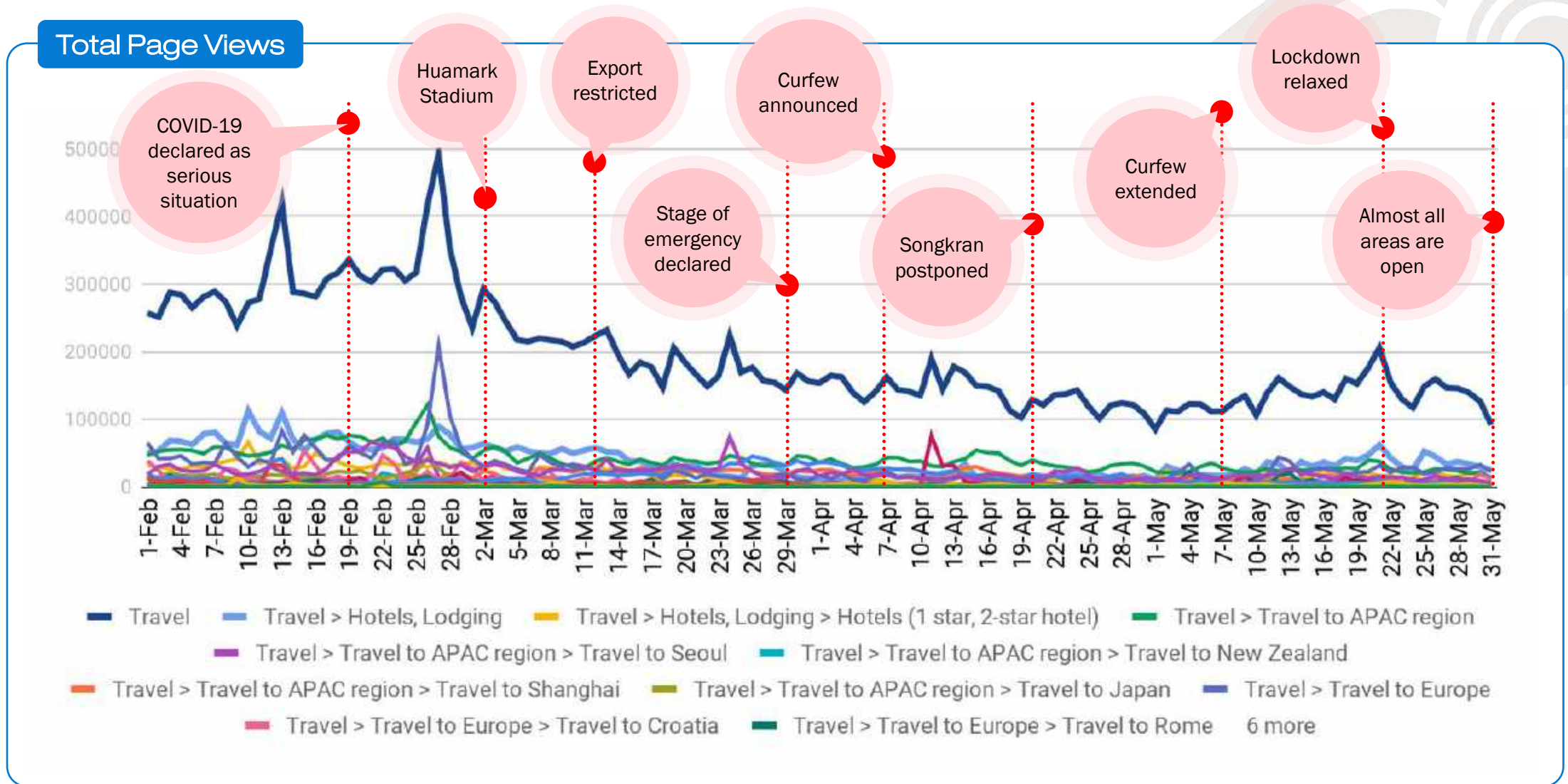
Appendix :
Shopping Category

Shopping Categories by order of Traffic Growth

- Overall, Shopping Categories were in flat trend in during COVID-19 period.
- Online mall increased a lot in April, and continue to grow in May too, which might because of Stay-Home trend.

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	Shopping	1,793,239	1,803,522	**1.01**
1	Shopping > Gifts	145,955	214,914	**1.47**
2	Shopping > Children's products	115,958	117,586	**1.01**
3	Shopping > Retail	1,278,778	1,279,677	**1.00**
4	Shopping > Online Mall	151,527	147,025	**0.97**
5	Shopping > Tickets	7,350	4,734	**0.64**
6	Shopping > Miscellaneous goods	60,865	37,503	**0.62**

March VS April

interest category	March volume	April volume	Growth x
Shopping > Retail	1,279,677	1,281,884	**1.00**
Shopping > Online Mall	147,025	206,585	**1.41**
Shopping	1,803,522	1,810,876	**1.00**
Shopping > Children's products	117,586	106,935	**0.91**
Shopping > Gifts	214,914	193,249	**0.90**
Shopping > Miscellaneous goods	37,503	33,526	**0.89**
Shopping > Tickets	4,734	4,058	**0.86**

April VS May

interest category	April volume	May volume	Growth x
Shopping > Children's products	106,935	101,142	**0.95**
Shopping > Miscellaneous goods	33,526	47,894	**1.43**
Shopping > Online Mall	206,585	217,178	**1.05**
Shopping	1,810,876	1,688,233	**0.93**
Shopping > Retail	1,281,884	1,183,879	**0.92**
Shopping > Tickets	4,058	3,469	**0.85**
Shopping > Gifts	193,249	140,414	**0.73**

Condition: by using raw data greater than 20,000 cookies

Daily PV in Time Series for Shopping Categories
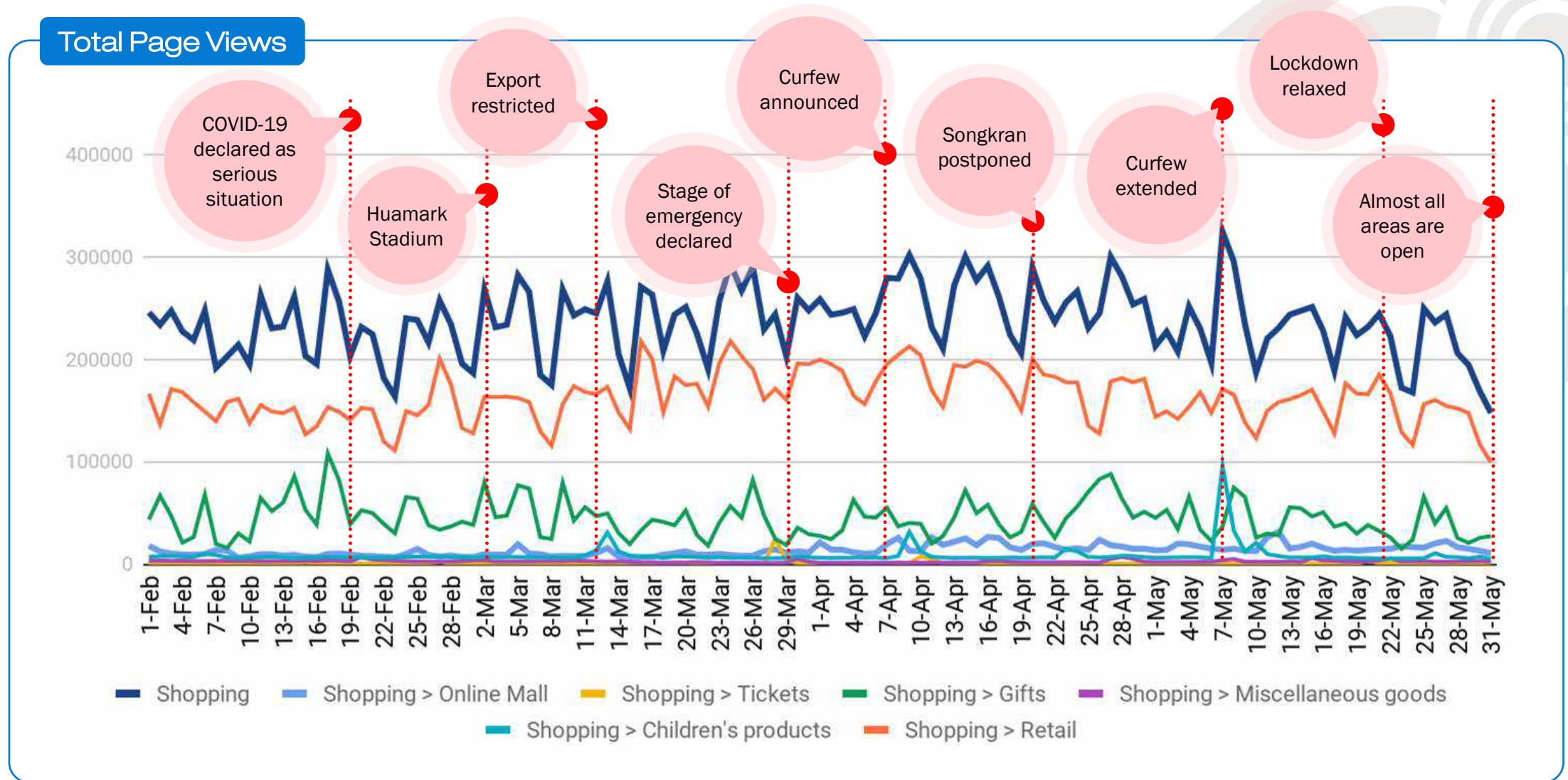
Shopping Categories Analysis Insight Summary

Only 7 data sources are shown in Shopping Category
(reference: https://console.treasuredata.com/app/jobs/758406243)

Compare period between;

February to March

- There are no remarkable sub-cate that has changed in this period

- Interesting sub category is **Online Mall** which people are most like to purchase online items for all time of Coronavirus

March to April

- As for this period, people are not allowed to go outside (lockdown period) >> led most people purchase things online such as Lazada and Shopee. For this reason, **Online Mall** was accounting for the top percent growth during this period.

April to May

- During this period, people tend to have more impact on **Miscellaneous Goods** for use in dairy live.

- Follow by Miscellaneous goods, Online Mall remain a high percent growth of Shopping category. People are rather purchase goods online than go to shopping mall to avoid infection of COVID

Daily PV in Time Series for Shopping Categories
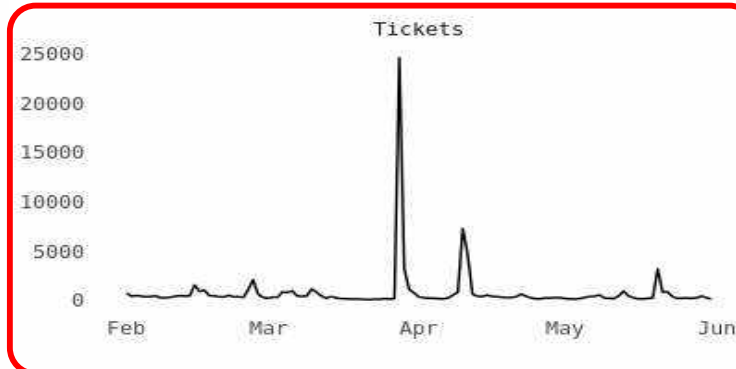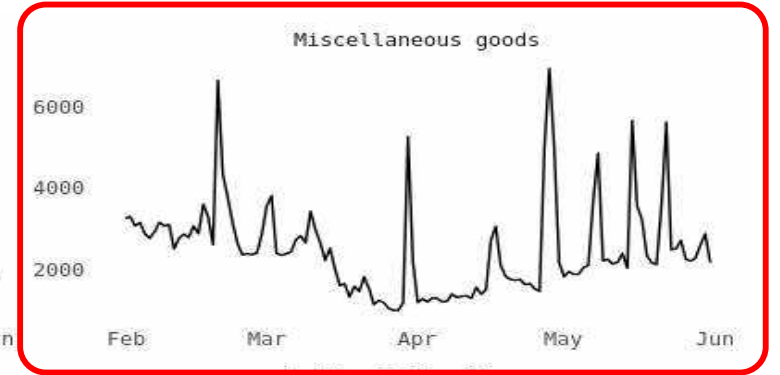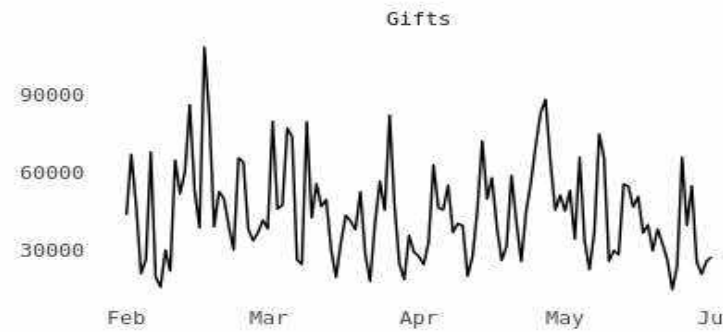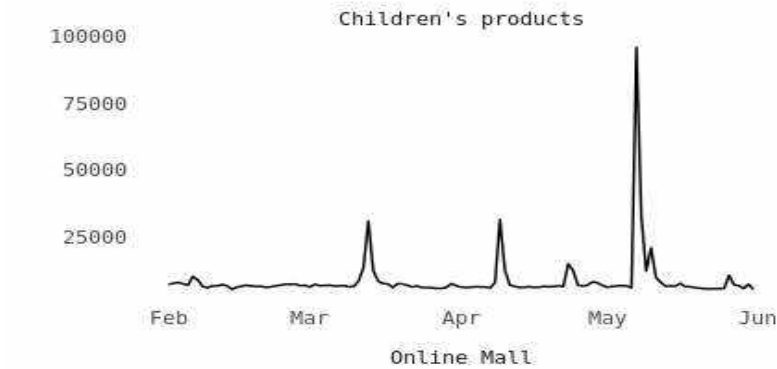
Why ticket peak during April?
The hypothesis was that some people booked tickets and look for update such cancel or reschedule

Appendix :
Health Category

Health Categories by order of Traffic Growth

- Overall, Health Categories were in flat trend in during COVID-19 period.
- Heart disease, Cold & Flu categories were growing in March & April.
- Depression category increased its volume in both April & May which was raised as big issue in the country during COVID-19 period.

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	Health & Fitness	5,113,641	5,043,954	0.99

	interest category	Feb volume	March volume	Growth x
1	Health & Fitness > Heart disease	57,136	189,761	3.32
2	Health & Fitness > Cold & Flu	641,875	744,308	1.16
3	Health & Fitness > Headaches	1,109,473	1,067,226	0.96
4	Health & Fitness > Cancer	455,335	429,000	0.94
5	Health & Fitness > Allergies	514,734	473,712	0.92
6	Health & Fitness > Kidney disease	699,813	641,288	0.92
7	Health & Fitness > Depression	294,392	269,505	0.92

March VS April

interest category	March volume	April volume	Growth x
Health & Fitness	5,043,954	4,833,875	0.96

interest category	March volume	April volume	Growth x
Health & Fitness > Depression	269,505	286,671	1.06
Health & Fitness > Headaches	1,067,226	1,073,687	1.01
Health & Fitness > Kidney disease	641,288	590,649	0.92
Health & Fitness > Cancer	429,000	394,303	0.92
Health & Fitness > Cold & Flu	744,308	677,624	0.91
Health & Fitness > Allergies	473,712	379,287	0.80
Health & Fitness > AIDS/HIV	53,411	39,454	0.74

April VS May

interest category	April volume	May volume	Growth x
Health & Fitness	4,833,875	4,606,500	0.95

| interest category	April volume	May volume	Growth x
Health & Fitness > Depression	286,671	295,177	1.03
Health & Fitness > Cancer	394,303	390,554	0.99
Health & Fitness > Kidney disease	590,649	584,765	0.99
Health & Fitness > Allergies	379,287	365,110	0.96
Health & Fitness > Headaches	1,073,687	1,021,713	0.95
Health & Fitness > Cold & Flu	677,624	621,715	0.92
Health & Fitness > AIDS/HIV	39,454	36,005	0.91

** covid-19 category is newly added category, thus it is not contained in this monthly growth table, but only in daily PV graph.

Daily PV in Time Series for Health Categories
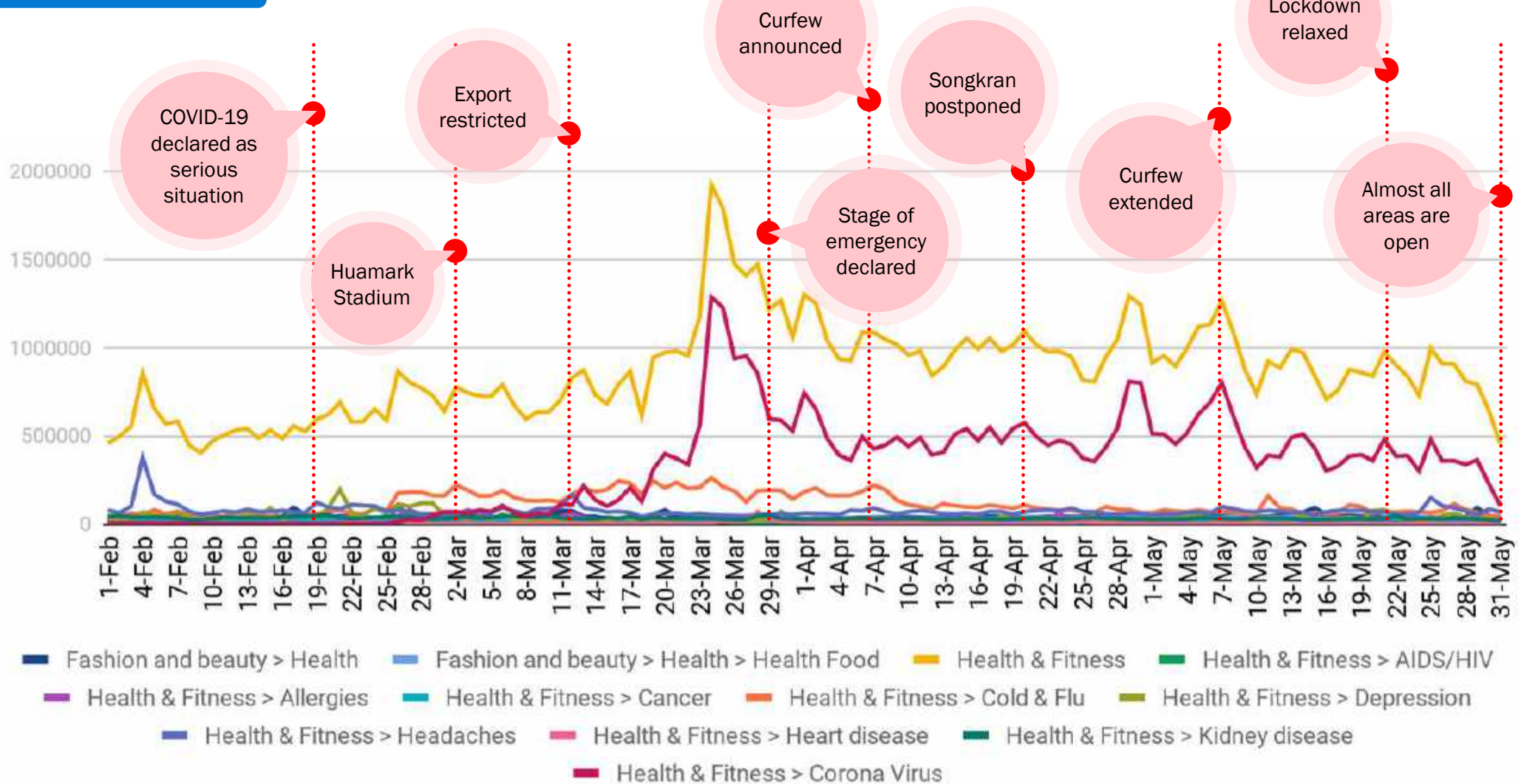
Health Categories Analysis Insight Summary

Only 10 data sources are shown in Health category
(reference: https://console.treasuredata.com/app/jobs/758406243)

Compare period between;

February to March

- As **Corona Virus** were spread around the world, this situation has made the percent growth up to 46.62% from Feb to March represented the most highest percentage growth of all period. (Note that: The percent growth was high because DMP received heavily traffic from OPPA during March period)

- Followed by **heart disease**; one of the symptom of coronavirus infection >> led to 3.51 times percent growth in this period.

March to April

- **Corona Virus** situation was remain conceivably; percent growth 1.01% indicate the situation was still not getting any better.

April to May

- Because of COVID's situation, most people were faced with **depression** symptom accounting for 1.05 times percent growth for both period after COVID occured.

- **Corona Virus** seem to get better during this period.

Daily PV in Time Series for Health Categories
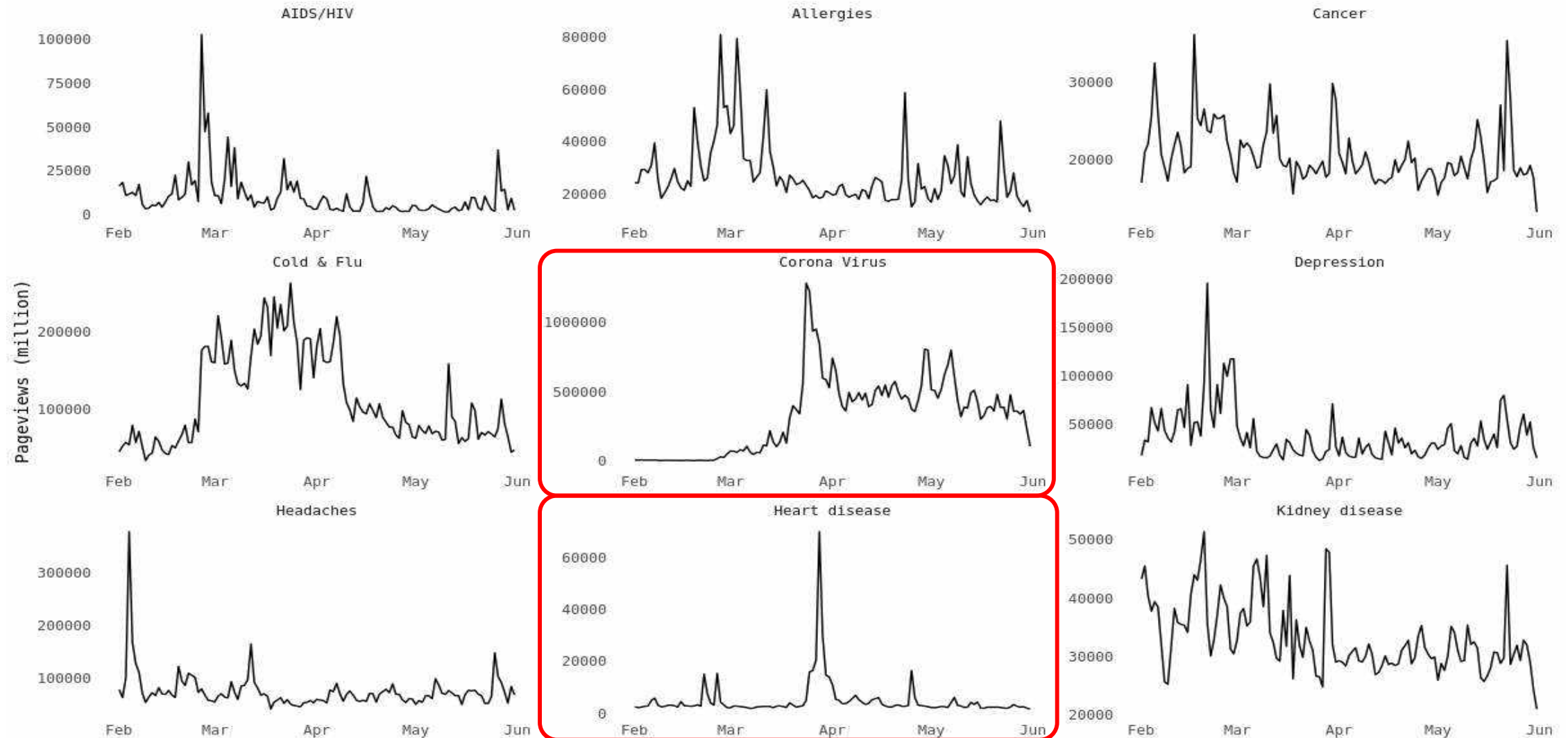
Appendix :
Food Category

Food Categories by order of Traffic Growth

- Overall, Food category grew a lot in April when Stay-Home was in big trend.
- Water category increased a lot as the government was announced the emergency law for COVID-19 beginning of March, which might because many people tried to hold the water to stay at home.
- Recipe & Cooking categories were increasing until April when everyone tend to stay at home, and all restaurants were closed due to government announcement.

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	Gourmet food information	3,782,596	3,623,674	0.96
1	Gourmet food information > Water	41,348	47,149	1.14
2	Gourmet food information > Cooking	614,446	684,895	1.11
3	Gourmet food information > Recipe	1,054,625	1,142,111	1.08
4	Gourmet food information > Confectionery and dessert	740,495	769,928	1.04
5	Gourmet food information > Wine	44,077	40,252	0.91
6	Gourmet food information > Drink	940,284	824,041	0.88
7	Gourmet food information > Fast food	110,902	88,279	0.80
8	Gourmet food information > Organic food	88,932	62,223	0.70
9	Gourmet food information > Gourmet	7,733	4,852	0.63

March VS April

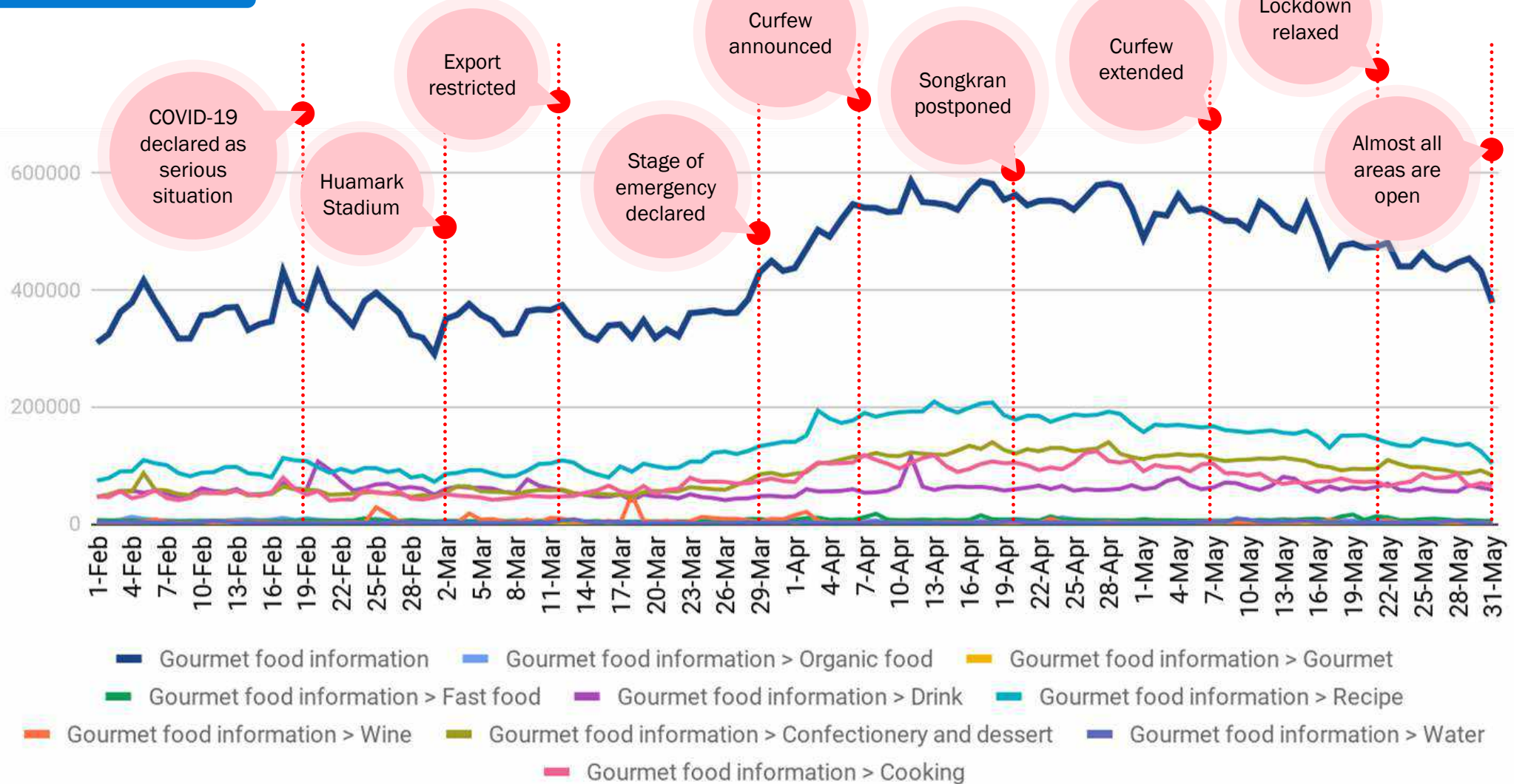| interest category	March volume	April volume	Growth x
Gourmet food information	3,623,674	4,678,445	1.29
Gourmet food information > Confectionery and dessert	769,928	1,346,785	1.75
Gourmet food information > Recipe	1,142,111	1,885,012	1.65
Gourmet food information > Cooking	684,895	1,025,025	1.50
Gourmet food information > Fast food	88,279	127,619	1.45
Gourmet food information > Organic food	62,223	77,739	1.25
Gourmet food information > Drink	824,041	946,912	1.15
Gourmet food information > Wine	40,252	30,776	0.76
Gourmet food information > Water	47,149	32,225	0.68
Gourmet food information > Gourmet	4,852	3,094	0.64

April VS May

interest category	April volume	May volume	Growth x
Gourmet food information	4,678,445	4,441,357	0.95
Gourmet food information > Water	32,225	66,673	2.07
Gourmet food information > Gourmet	3,094	4,159	1.34
Gourmet food information > Organic food	77,739	86,030	1.11
Gourmet food information > Wine	30,776	34,022	1.11
Gourmet food information > Drink	946,912	994,126	1.05
Gourmet food information > Fast food	127,619	113,383	0.89
Gourmet food information > Recipe	1,885,012	1,674,540	0.89
Gourmet food information > Confectionery and dessert	1,346,785	1,184,712	0.88
Gourmet food information > Cooking	1,025,025	897,518	0.88

Food Categories Analysis Insight Summary

Only 10 data sources are shown in Food category
(reference: https://console.treasuredata.com/app/jobs/758406243)

Compare period between;

February to March

▪ During this period, most people tend to purchase (hold) **water** as the government was announced the emergency law for COVID-19 beginning of March

▪ **Cooking, Recipe and Confectionery and dessert** were accounting for most necessary sub-cate respectively.

March to April

▪ **Confectionery and dessert, Recipe and Cooking** was the most top three percent growth during this period. Due to the lockdown period, people were told to stay home, leads those sub-cate into high percent growth. Most people learn how to cook such brownie, organic food while water and wine were appeared less percentage growth.

April to May

▪ Some events were re-open as normal, the government was loosen the curfew which lead most people tend to have more activities. With this reason, **Water, Gourmet and Organic Food** were in highest growth.

▪ While **Confectionery and dessert, Recipe and Cooking** were seen as latest growth, this is because people are most likely to have food outside rather than cooking at home (COVID's situation was getting better)

Daily PV in Time Series for Food Categories
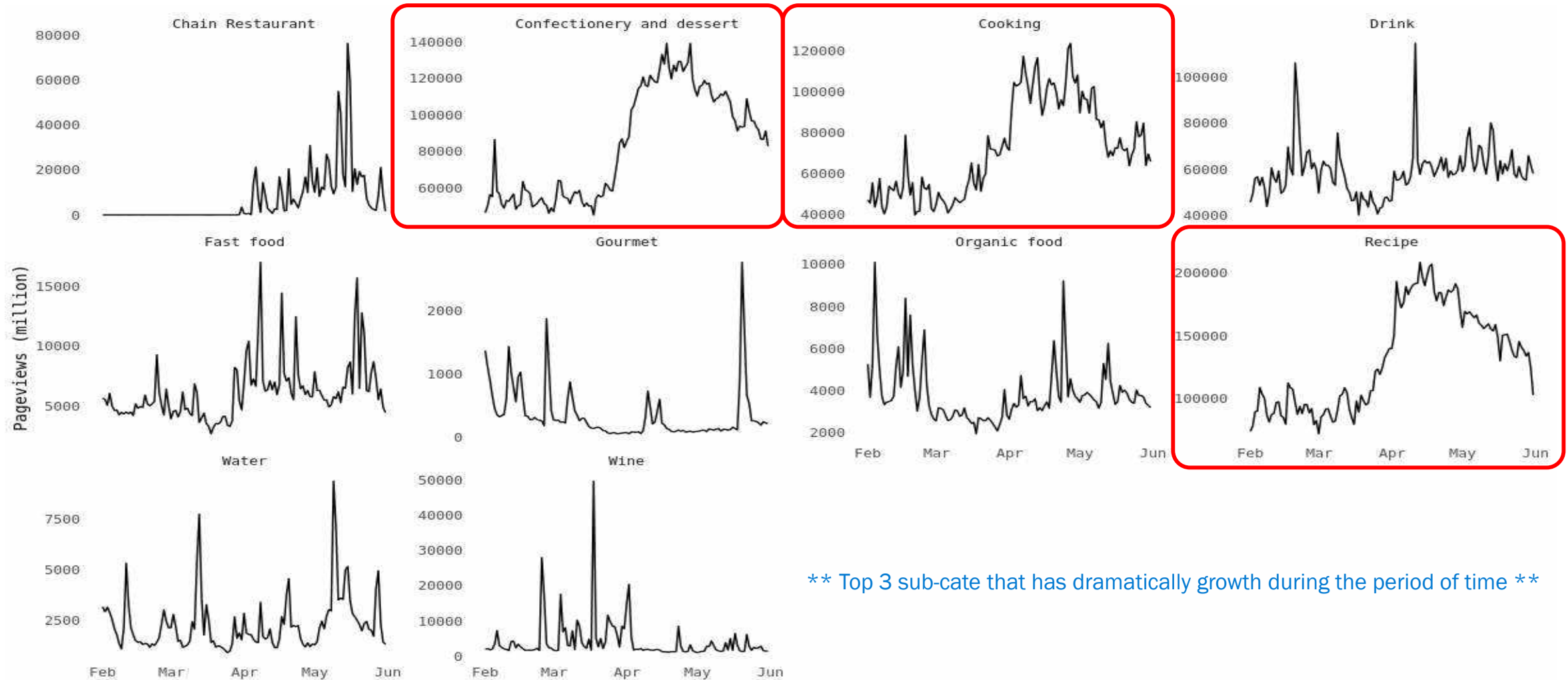
** Top 3 sub-cate that has dramatically growth during the period of time **

Appendix :
Finance Category

Finance Categories by order of Traffic Growth

- Overall, Finance category grew in April, in the other periods, it kept flat-trend.
- Life insurance increased its volume in March which might because people started to search about insurance for COVID-19.
- Cashing, loans, debt categories increased in all periods which might because many people were in financially difficult situation due to COVID-19 issue.

※ "**volume**" indicates volume of unique cookie who were interested into each interest categorised listed under the correspond month.

※ "**Growth x**" is calculated by = target month volume / compared month volume
(ex. February VS March Growth x = March(target month) volume / February (compared month) volume)

※ Only auto categories with cookie volume ≧ 10,000 in compared month are selected.
(= categories which had big cookie volume ≧ 10,000 in the first month, but volume dropped a lot in the next month)

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	Finance	2,744,906	2,864,654	1.04
1	Finance > Insurance > Life insurance	102,075	135,080	1.32
2	Finance > Investment > Stock, NISA	220,127	263,759	1.20
3	Finance > Bank > Internet bank	420,360	491,686	1.17
4	Finance > Bank	1,392,564	1,622,247	1.16
5	Finance > Insurance > Medical insurance	129,509	141,952	1.10
6	Finance > Credit, loan > Debt	435,358	476,442	1.09
7	Finance > Insurance	543,462	574,358	1.06
8	Finance > Credit, loan > Cashing, consumer finance	134,017	140,567	1.05
9	Finance > Credit, loan	1,184,783	1,214,116	1.02
10	Finance > Credit, loan > Credit card	421,829	420,771	1.00
11	Finance > Credit, loan > Auto loans	225,898	218,405	0.97
12	Finance > Investment > FX	45,510	43,615	0.96
13	Finance > Investment	568,683	543,113	0.96
14	Finance > Insurance > Auto insurance	92,442	86,466	0.94
15	Finance > Insurance > Property insurance	71,383	63,755	0.89
16	Finance > Investment > Exchange	41,710	33,723	0.81
17	Finance > Insurance > Travel insurance	12,443	9,146	0.74
18	Finance > Prepaid	22,814	16,447	0.72
19	Finance > Investment > Gold	113,279	80,417	0.71
20	Finance > Insurance > Educational endowment insurance	79,021	54,203	0.69

March VS April

	interest category	March volume	April volume	Growth x
TOTAL	Finance	2,864,654	3,553,375	1.24
1	Finance > Credit, loan > Auto loans	218,405	613,030	2.81
2	Finance > Investment > FX	43,615	77,272	1.77
3	Finance > Credit, loan	1,214,116	1,807,931	1.49
4	Finance > Credit, loan > Debt	476,442	673,933	1.41
5	Finance > Bank > Internet bank	491,686	572,455	1.16
6	Finance > Bank	1,622,247	1,879,798	1.16
7	Finance > Investment > Exchange	33,723	38,689	1.15
8	Finance > Credit, loan > Cashing, consumer finance	140,567	160,384	1.14
9	Finance > Investment	543,113	595,267	1.10
10	Finance > Prepaid	16,447	17,896	1.09
11	Finance > Investment > Stock, NISA	263,759	270,406	1.03
12	Finance > Insurance > Property insurance	63,755	63,657	1.00
13	Finance > Investment > Gold	80,417	80,289	1.00
14	Finance > Credit, loan > Credit card	420,771	419,008	1.00
15	Finance > Insurance	574,358	538,756	0.94
16	Finance > Insurance > Life insurance	135,080	125,660	0.93
17	Finance > Insurance > Educational endowment insurance	54,203	49,973	0.92
18	Finance > Insurance > Medical insurance	141,952	118,211	0.83
19	Finance > Insurance > Auto insurance	86,466	70,243	0.81
20	Finance > Insurance > Travel insurance	9,146	5,800	0.63

April VS May

	interest category	April volume	May volume	Growth x
TOTAL	Finance	3,553,375	3,332,674	0.94
1	Finance > Credit, loan > Cashing, consumer finance	160,384	250,995	1.56
2	Finance > Insurance > Educational endowment insurance	49,973	59,819	1.20
3	Finance > Credit, loan > Debt	673,933	794,467	1.18
4	Finance > Insurance > Travel insurance	5,800	6,793	1.17
5	Finance > Insurance > Medical insurance	118,211	121,593	1.03
6	Finance > Insurance > Auto insurance	70,243	70,359	1.00
7	Finance > Investment > Gold	80,289	78,009	0.97
8	Finance > Investment	595,267	578,084	0.97
9	Finance > Insurance > Life insurance	125,660	120,608	0.96
10	Finance > Credit, loan	1,807,931	1,730,485	0.96
11	Finance > Investment > Stock, NISA	270,406	258,821	0.96
12	Finance > Insurance	538,756	513,669	0.95
13	Finance > Bank	1,879,798	1,697,697	0.90
14	Finance > Prepaid	17,896	15,912	0.89
15	Finance > Credit, loan > Credit card	419,008	372,428	0.89
16	Finance > Investment > Exchange	38,689	33,203	0.86
17	Finance > Bank > Internet bank	572,455	487,457	0.85
18	Finance > Investment > FX	77,272	59,811	0.77
19	Finance > Insurance > Property insurance	63,657	48,627	0.76
20	Finance > Credit, loan > Auto loans	613,030	368,995	0.60

Daily PV in Time Series for Finance Categories
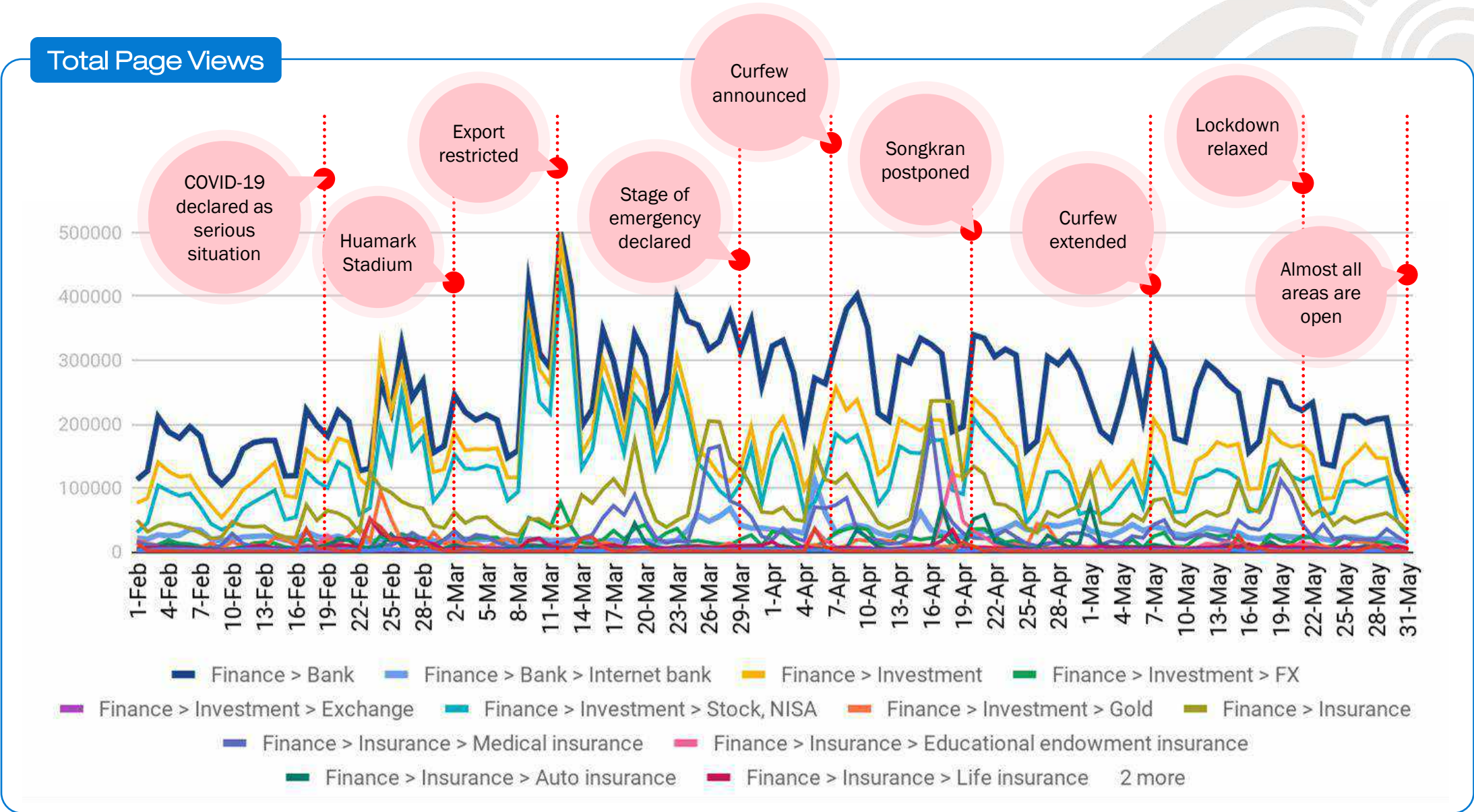
Finance Categories Analysis Insight Summary

According to the graph (reference: https://console.treasuredata.com/app/jobs/758406243)

- There are mainly two graph peak during March
- Investment and Bank seem to be the highest PV as the situation extended exporting

Analysing each graph . . .

- Finance > National Welfare Project : the graph was peak during April, this is because the government subsidize at least 1500 Baht per household

- Finance > Tax refund : It appeared that most people are redeemed all tax refund before COVID-19 started

Daily PV in Time Series for Finance Categories
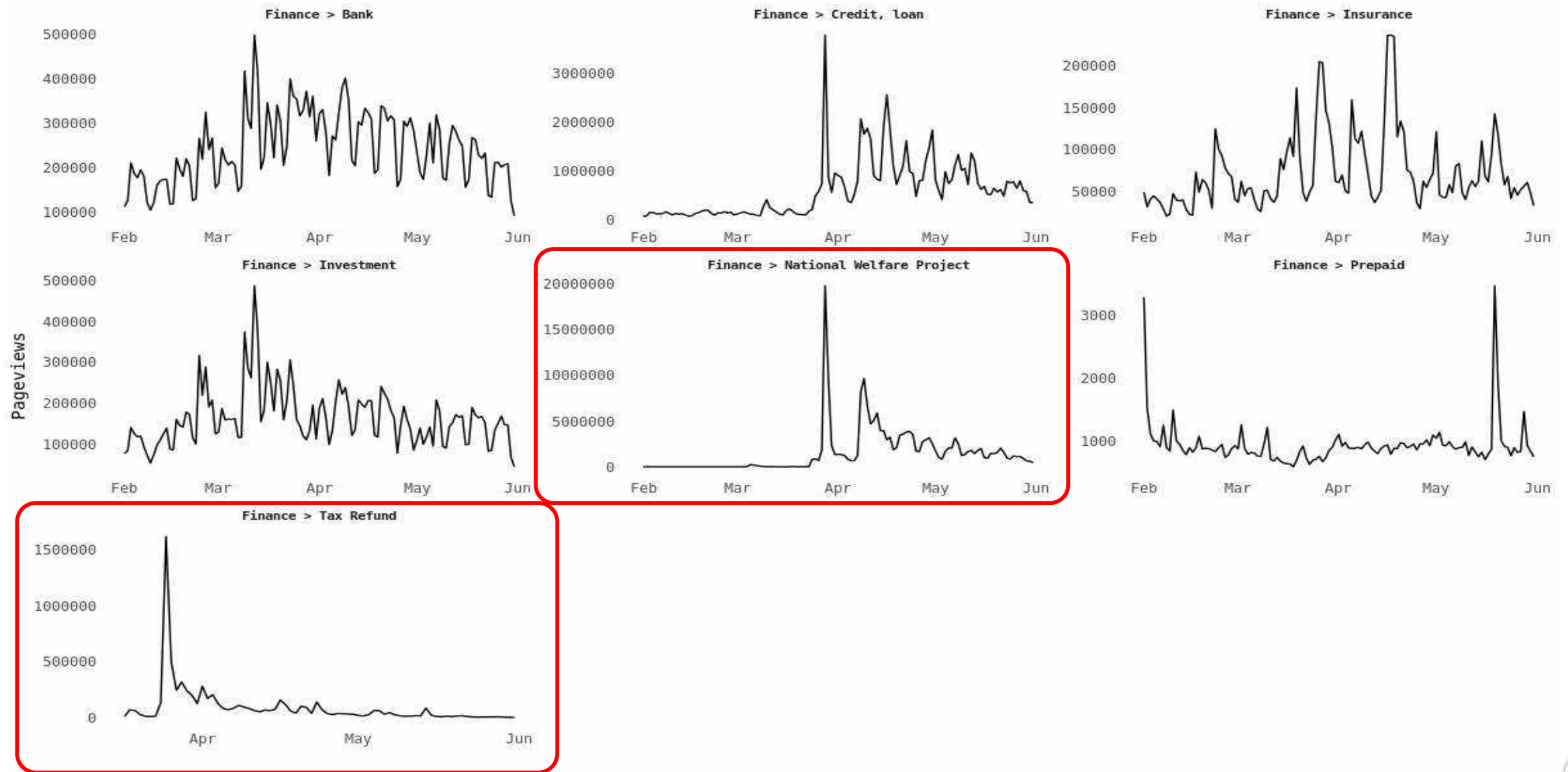
Appendix :
Consumer Electronics Category

Consumer Electronics Categories by order of Traffic Growt

- Overall, Consumer Electronics categories grew a bit in April, but kept flat trend in March & May.
- OTT (such as Netflix, Youtube, Amazon Prime) and Game category increased its volume a lot in March & April when Sta-Home was in big trend.
- Trend of checking hardware devices such as Laptop, Desktop PC, Tablet, TV can be seen in March & April too.

※ "**volume**" indicates volume of unique cookie who were interested into each interest categorised listed under the correspond month.

※ "**Growth x**" is calculated by = target month volume / compared month volume
(ex. February VS March Growth x = March(target month) volume / February (compared month) volume)

※ Only auto categories with cookie volume ≧ 10,000 in compared month are selected.
(= categories which had big cookie volume ≧ 10,000 in the first month, but volume dropped a lot in the next month)

February VS March

|	interest category	Feb volume	March volume	Growth x
TOTAL	Consumer electronics / PC / Mobile	3,402,769	3,617,772	1.06
1	Consumer electronics / PC / Mobile > OTT	9,761	14,540	1.49
2	Consumer electronics / PC / Mobile > Consumer electronics > Console game	25,940	34,951	1.35
3	Consumer electronics / PC / Mobile > OTT > ott electronics brands	2,137	2,790	1.31
4	Consumer electronics / PC / Mobile > PC > Laptop	103,165	123,163	1.19
5	Consumer electronics / PC / Mobile > PC > Desktop	59,197	68,460	1.16
6	Consumer electronics / PC / Mobile > Consumer electronics	1,203,479	1,368,989	1.14
7	Consumer electronics / PC / Mobile > PC > Windows	99,846	113,050	1.13
8	Consumer electronics / PC / Mobile > Consumer electronics > TV	85,475	95,073	1.11
9	Consumer electronics / PC / Mobile > Mobile & Smartphone > App	422,966	460,205	1.09
10	Consumer electronics / PC / Mobile > PC	879,752	954,289	1.08
11	Consumer electronics / PC / Mobile > PC > Macintosh	20,822	22,232	1.07
12	Consumer electronics / PC / Mobile > Mobile & Smartphone	1,964,734	1,974,394	1.00
13	Consumer electronics / PC / Mobile > Mobile & Smartphone > Mobile phone	797,055	789,061	0.99
14	Consumer electronics / PC / Mobile > Mobile & Smartphone > Other Android	565,721	559,267	0.99
15	Consumer electronics / PC / Mobile > Mobile & Smartphone > iPhone / iPad	508,796	493,699	0.97
16	Consumer electronics / PC / Mobile > Mobile & Smartphone > Samsung	273,896	258,674	0.94
17	Consumer electronics / PC / Mobile > Consumer electronics > Tablet	86,483	81,566	0.94
18	Consumer electronics / PC / Mobile > Consumer electronics > Audio	100,958	92,009	0.91
	Consumer electronics / PC / Mobile > Consumer electronics > Camera	219,047	180,330	0.82

March VS April

interest category	March volume	April volume	Growth x
Consumer electronics / PC / Mobile	3,617,772	4,211,511	1.16
Consumer electronics / PC / Mobile > OTT	14,540	28,071	1.93
Consumer electronics / PC / Mobile > Consumer electronics > Console game	34,951	58,759	1.68
Consumer electronics / PC / Mobile > OTT > ott electronics brands	2,790	4,595	1.65
Consumer electronics / PC / Mobile > Consumer electronics > TV	95,073	124,179	1.31
Consumer electronics / PC / Mobile > PC > Macintosh	22,232	28,757	1.29
Consumer electronics / PC / Mobile > Consumer electronics > Tablet	81,566	103,604	1.27
Consumer electronics / PC / Mobile > Consumer electronics > Audio	92,009	112,941	1.23
Consumer electronics / PC / Mobile > Consumer electronics	1,368,989	1,677,131	1.23
Consumer electronics / PC / Mobile > PC > Laptop	123,163	150,519	1.22
Consumer electronics / PC / Mobile > Mobile & Smartphone > App	460,205	552,923	1.20
Consumer electronics / PC / Mobile > Mobile & Smartphone > iPhone / iPad	493,699	581,037	1.18
Consumer electronics / PC / Mobile > Mobile & Smartphone > Other Android	559,267	657,734	1.18
Consumer electronics / PC / Mobile > Mobile & Smartphone > Samsung	258,674	302,147	1.17
Consumer electronics / PC / Mobile > PC > Windows	113,050	131,363	1.16
Consumer electronics / PC / Mobile > Mobile & Smartphone	1,974,394	2,280,635	1.16
Consumer electronics / PC / Mobile > PC	954,289	1,093,801	1.15
Consumer electronics / PC / Mobile > Mobile & Smartphone > Mobile phone	789,061	900,471	1.14
Consumer electronics / PC / Mobile > PC > Desktop	68,460	78,012	1.14
Consumer electronics / PC / Mobile > Consumer electronics > Camera	180,330	184,183	1.02

April VS May

| interest category	April volume	May volume	Growth x
Consumer electronics / PC / Mobile	4,211,511	4,052,530	0.96
Consumer electronics / PC / Mobile > Consumer electronics > Camera	184,183	195,384	1.06
Consumer electronics / PC / Mobile > PC > Laptop	150,519	154,497	1.03
Consumer electronics / PC / Mobile > Consumer electronics > Tablet	103,604	105,783	1.02
Consumer electronics / PC / Mobile > Consumer electronics	1,677,131	1,688,301	1.01
Consumer electronics / PC / Mobile > Consumer electronics > TV	124,179	124,904	1.01
Consumer electronics / PC / Mobile > PC > Macintosh	28,757	28,415	0.99
Consumer electronics / PC / Mobile > Mobile & Smartphone > iPhone / iPad	581,037	569,431	0.98
Consumer electronics / PC / Mobile > OTT > ott electronics brands	4,595	4,479	0.97
Consumer electronics / PC / Mobile > Mobile & Smartphone > Mobile phone	900,471	866,077	0.96
Consumer electronics / PC / Mobile > PC > Windows	131,363	126,186	0.96
Consumer electronics / PC / Mobile > PC	1,093,801	1,047,267	0.96
Consumer electronics / PC / Mobile > Mobile & Smartphone > Samsung	302,147	289,137	0.96
Consumer electronics / PC / Mobile > OTT	28,071	26,826	0.96
Consumer electronics / PC / Mobile > Consumer electronics > Audio	112,941	107,486	0.95
Consumer electronics / PC / Mobile > Mobile & Smartphone > Other Android	657,734	622,843	0.95
Consumer electronics / PC / Mobile > PC > Desktop	78,012	73,816	0.95
Consumer electronics / PC / Mobile > Mobile & Smartphone	2,280,635	2,125,451	0.93
Consumer electronics / PC / Mobile > Mobile & Smartphone > App	552,923	478,118	0.86
Consumer electronics / PC / Mobile > Consumer electronics > Console game	58,759	42,659	0.73

Daily PV in Time Series for Consumer Electronics Categories
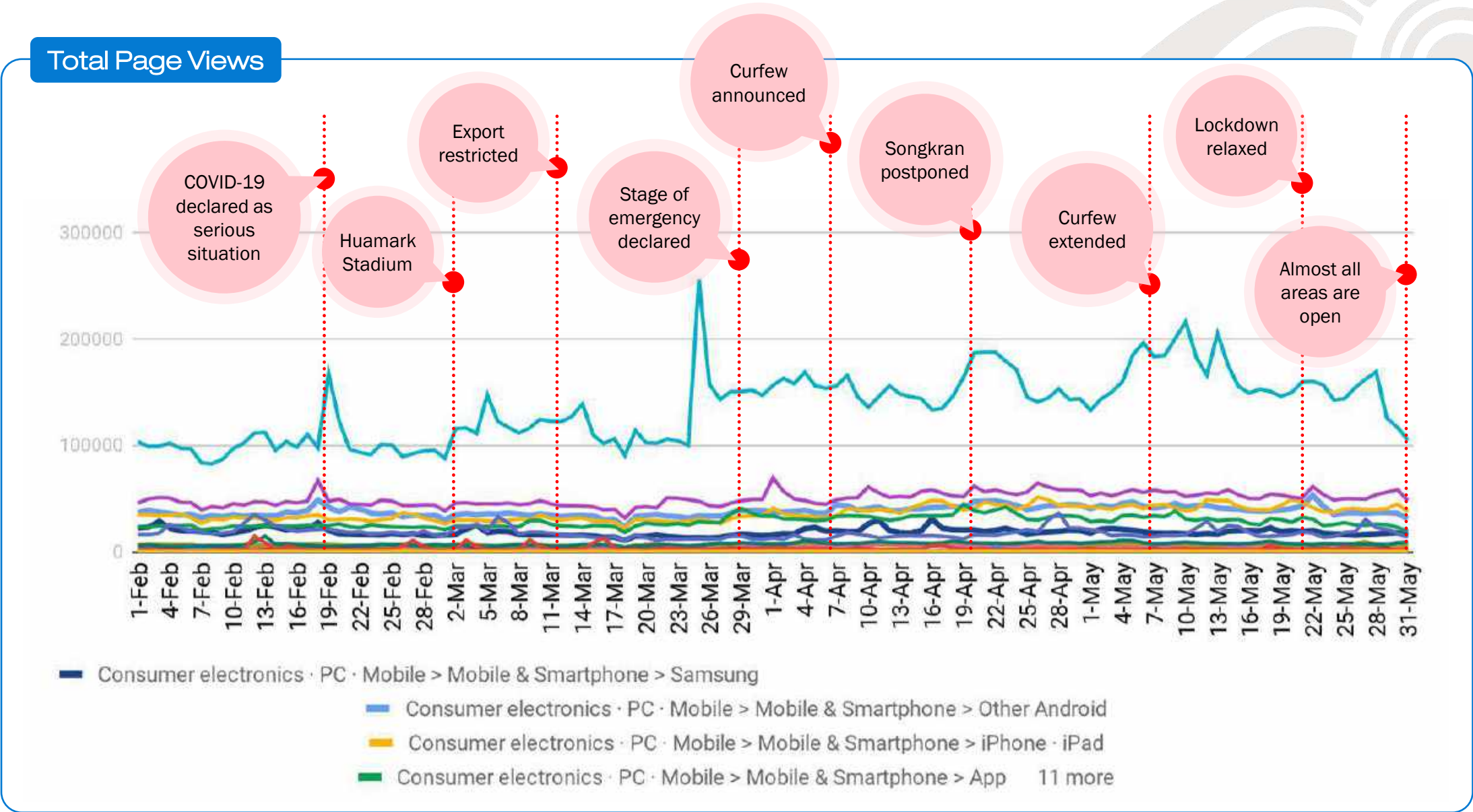
Daily PV in Time Series for Consumer Electronics Categories
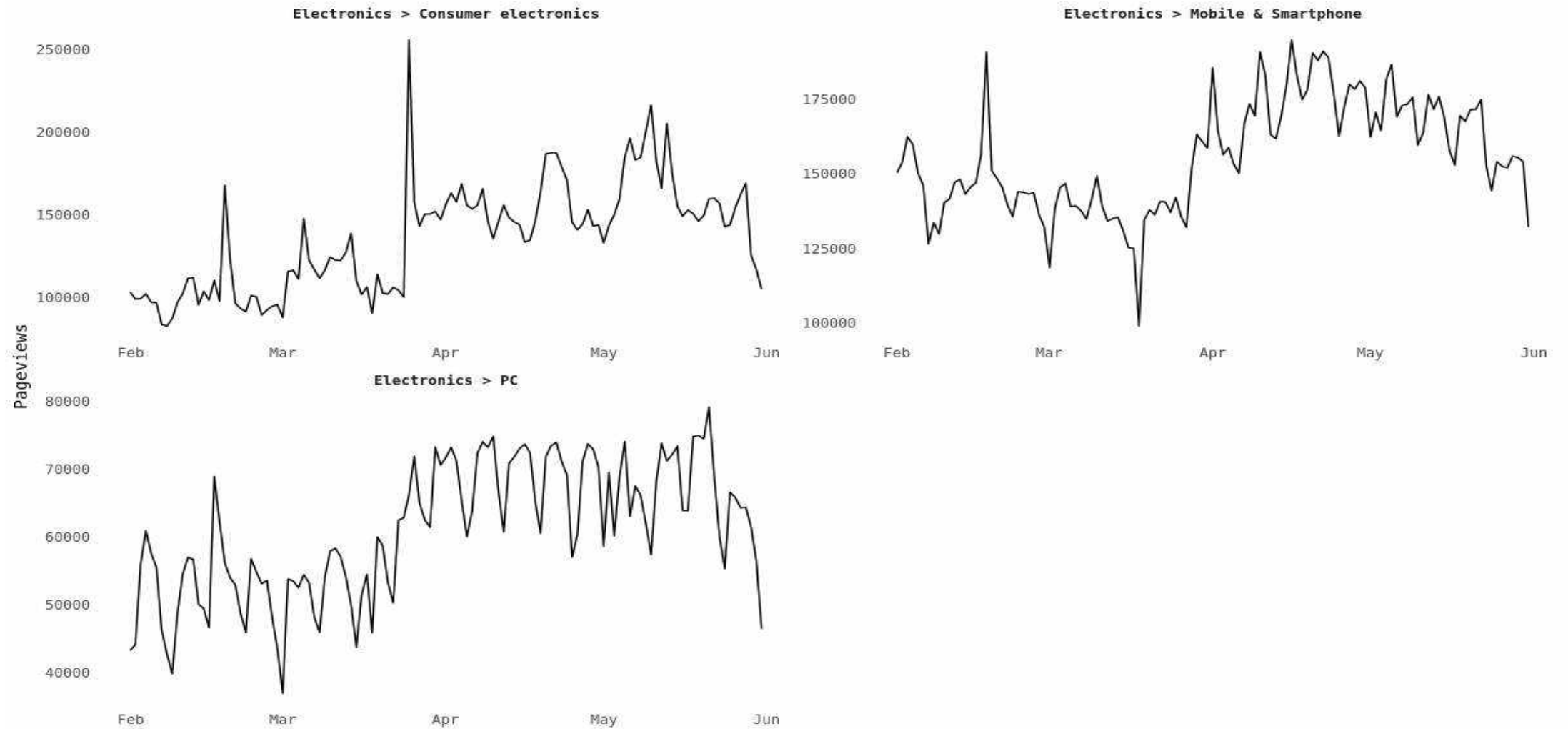
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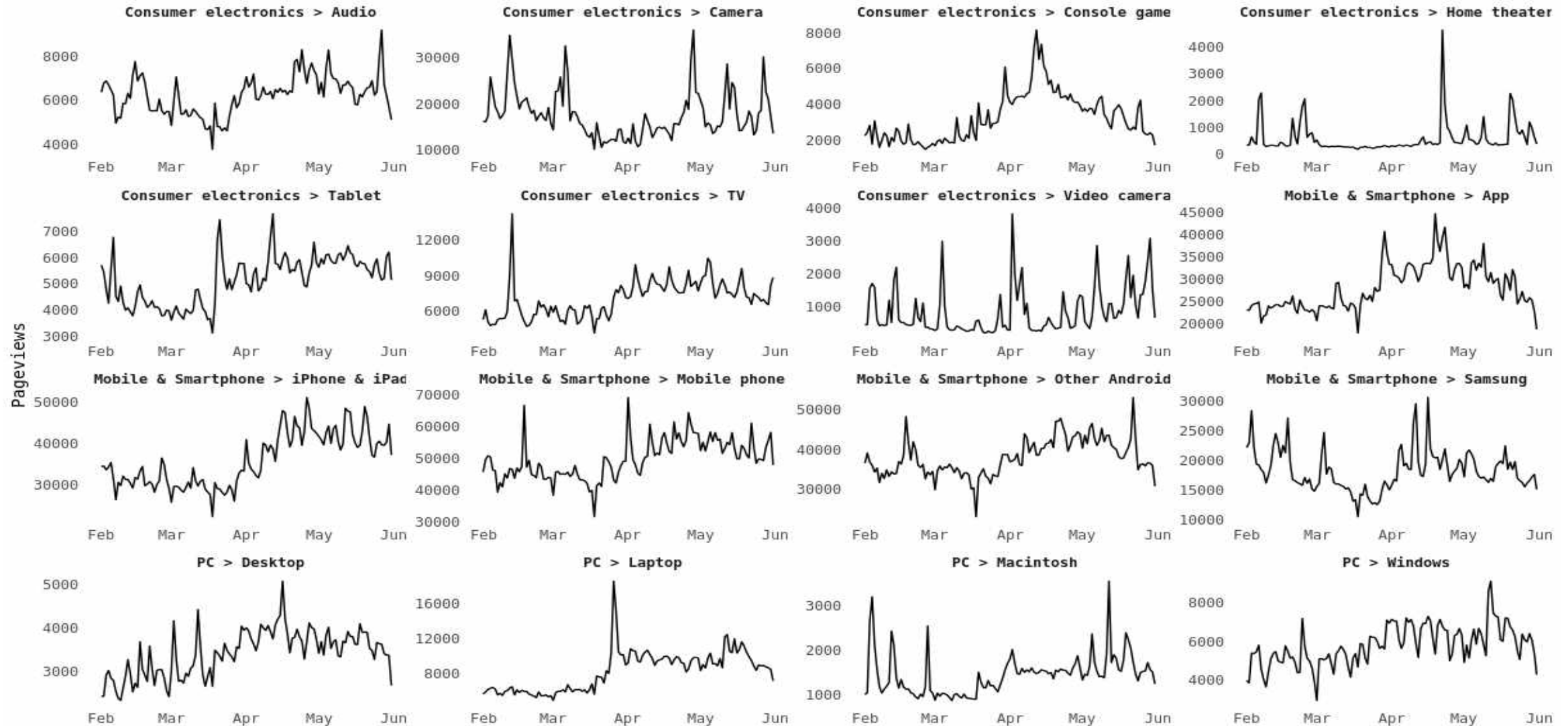
Appendix :
IT/Tech Category

IT/Tech Categories by order of Traffic Growth

- Overall, IT/Tech categories grew a bit in April, but kept flat trend in March & May.
- Audio & Video service category increased its volume in March, and Network service category increased its volume in March & April when Stay-Home trend was big.

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	IT / Technology	2,833,490	2,360,435	0.83
1	IT / Technology > Internet service > Audio and video	3,969	6,987	1.76
2	IT / Technology > Internet service > Network and Communications	115,746	128,686	1.11
3	IT / Technology > Software > Anti-virus, security software	22,325	24,788	1.11
4	IT / Technology > High-tech Technology / IT information	6,945	7,170	1.03
5	IT / Technology > Internet service > E-mail service	42,503	43,218	1.02
6	IT / Technology > Software > Office, business software	326,227	328,195	1.01
7	IT / Technology > Software > Audio, music software	2,608	2,621	1.00
8	IT / Technology > Software	759,501	761,255	1.00
9	IT / Technology > Software > Video editing software	41,395	40,074	0.97
10	IT / Technology > Programming and development > Development Tools	10,959	10,465	0.95
11	IT / Technology > Programming and development	86,224	79,917	0.93
12	IT / Technology > Programming and development > Programming languages	68,818	62,389	0.91
13	IT / Technology > Internet service > Homepage	120,308	105,623	0.88
14	IT / Technology > Software > Design Software	41,689	36,216	0.87
15	IT / Technology > Software > Photo editing software	98,173	84,927	0.87
16	IT / Technology > Internet service > Bulletin board	90,711	76,874	0.85
17	IT / Technology	2,833,490	2,360,435	0.83
18	IT / Technology > Internet service	2,205,142	1,717,003	0.78
19	IT / Technology > Internet service > Wiki	299,191	175,839	0.59
19	IT / Technology > Internet service > Free service	981,352	565,586	0.58

March VS April

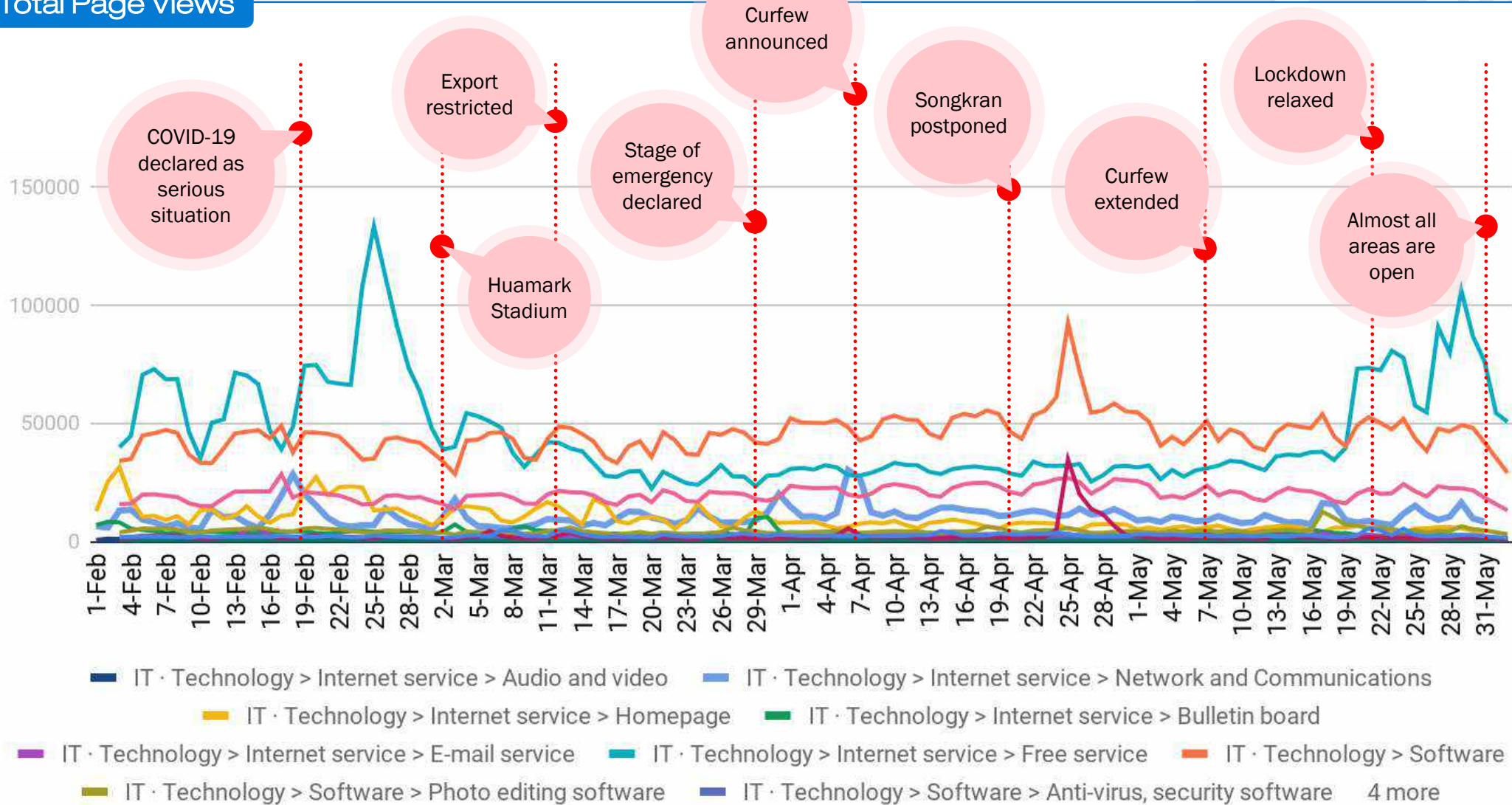|	interest category	March volume	April volume	Growth x
TOTAL	Consumer electronics / PC / Mobile	3,617,772	4,211,511	1.16
1	IT / Technology > Software > Audio, music software	2,621	4,006	1.53
2	IT / Technology > Programming and development > Programming languages	62,389	88,447	1.42
3	IT / Technology > Internet service > Network and Communications	128,686	176,478	1.37
4	IT / Technology > Programming and development	79,917	108,671	1.36
5	IT / Technology > Software > Anti-virus, security software	24,788	31,621	1.28
6	IT / Technology > Software > Video editing software	40,074	50,646	1.26
7	IT / Technology > Internet service > E-mail service	43,218	53,679	1.24
8	IT / Technology > Software	761,255	860,464	1.13
9	IT / Technology > Software > Office, business software	328,195	368,009	1.12
10	IT / Technology > High-tech Technology / IT information	7,170	8,021	1.12
11	IT / Technology > Programming and development > Development Tools	10,465	11,698	1.12
12	IT / Technology	2,360,435	2,547,860	1.08
13	IT / Technology > Internet service	1,717,003	1,788,468	1.04
14	IT / Technology > Software > Design Software	36,216	37,275	1.03
15	IT / Technology > Software > Photo editing software	84,927	85,812	1.01
16	IT / Technology > Internet service > Homepage	105,623	104,395	0.99
17	IT / Technology > Internet service > Free service	565,586	516,240	0.91
18	IT / Technology > Internet service > Wiki	175,839	141,616	0.81
19	IT / Technology > Internet service > Bulletin board	76,874	55,428	0.72
19	IT / Technology > Internet service > Audio and video	6,987	4,792	0.69

April VS May

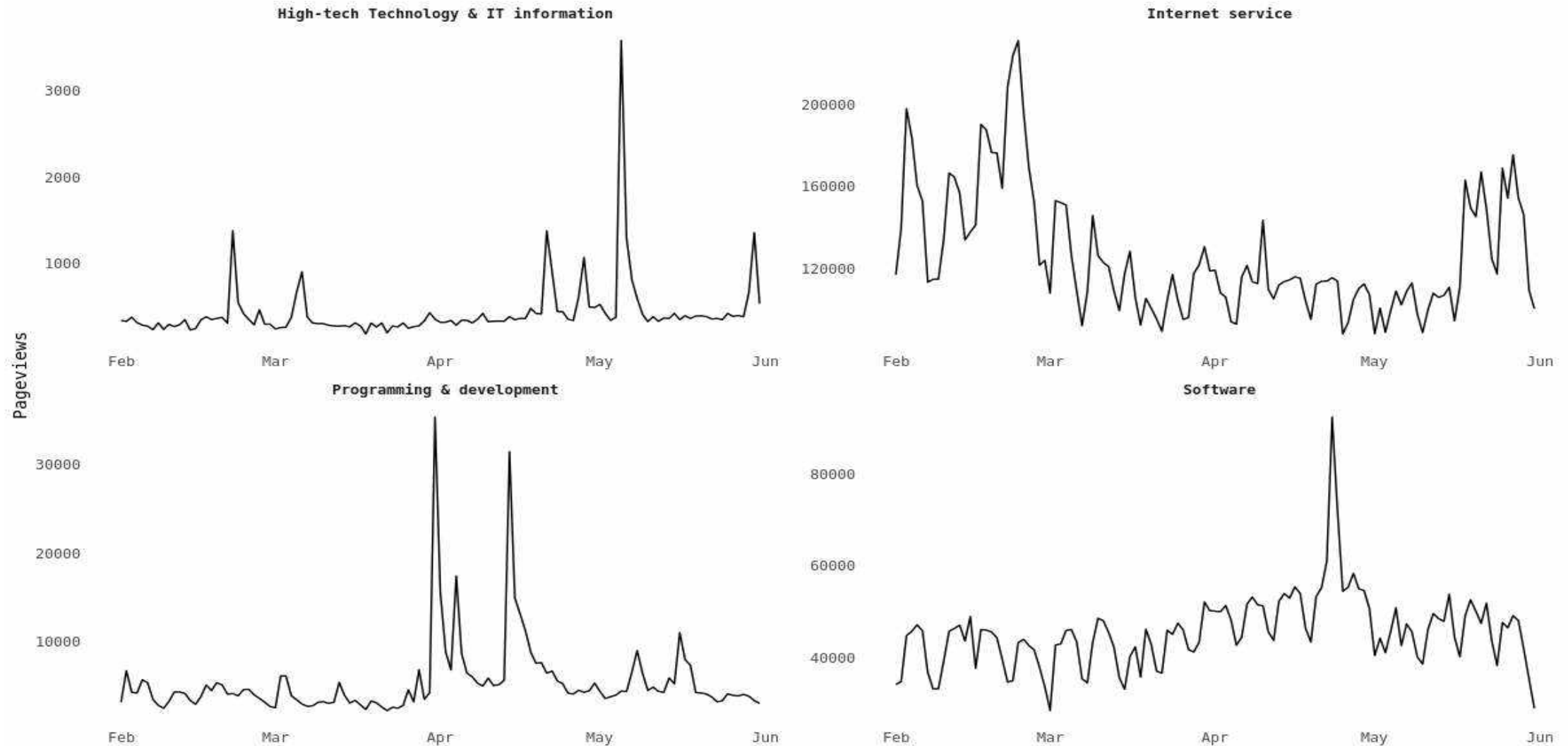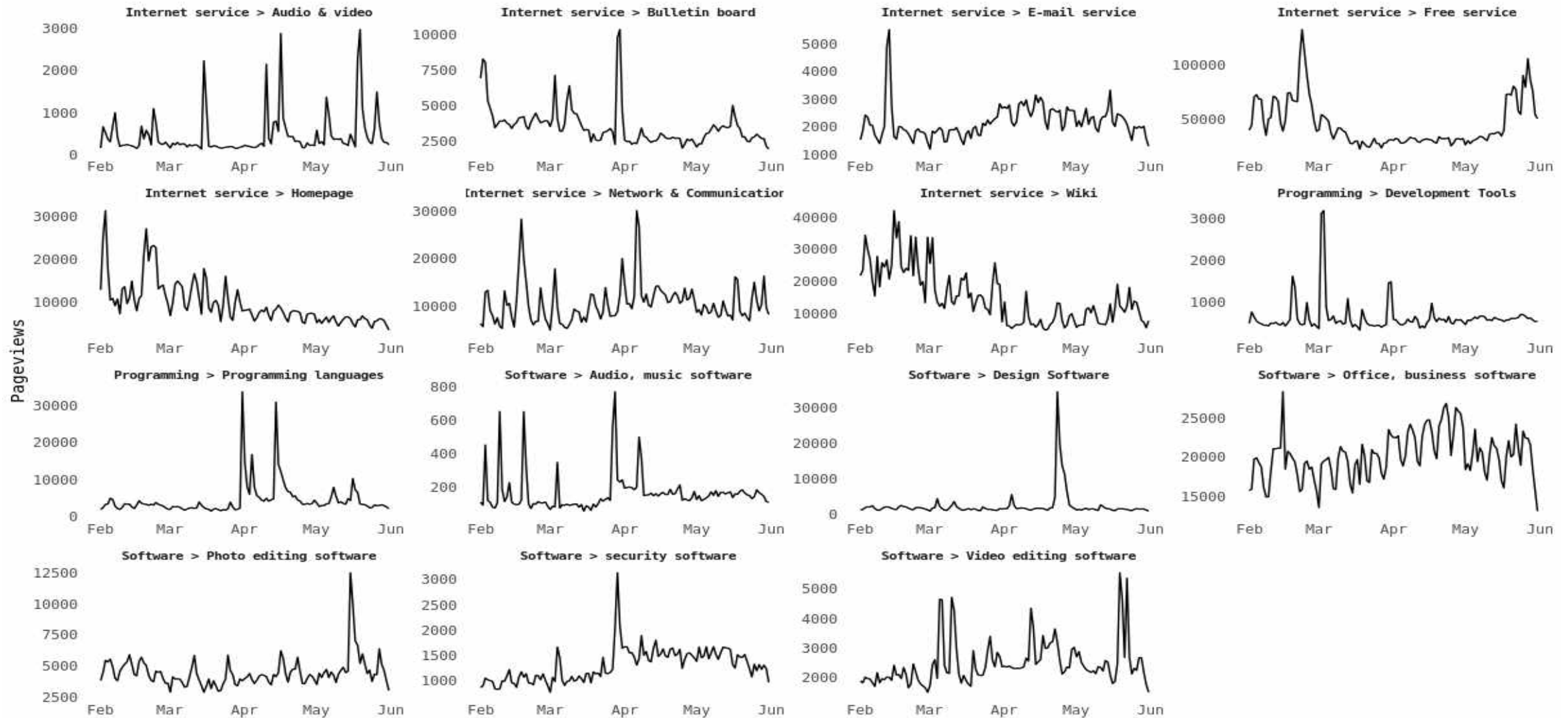|	interest category	April volume	May volume	Growth x
TOTAL	IT / Technology	2,547,860	2,544,669	1.00
1	IT / Technology > Internet service > Free service	516,240	674,866	1.31
2	IT / Technology > Internet service > Bulletin board	55,428	67,383	1.22
3	IT / Technology > Internet service > Wiki	141,616	171,814	1.21
4	IT / Technology > Programming and development > Development Tools	11,698	13,854	1.18
5	IT / Technology > Software > Photo editing software	85,812	91,232	1.06
6	IT / Technology > Software > Audio, music software	4,006	4,143	1.03
7	IT / Technology > Internet service	1,788,468	1,834,554	1.03
8	IT / Technology	2,547,860	2,544,669	1.00
9	IT / Technology > Software > Video editing software	50,646	50,402	1.00
10	IT / Technology > Software > Anti-virus, security software	31,621	31,459	0.99
11	IT / Technology > High-tech Technology / IT information	8,021	7,844	0.98
12	IT / Technology > Internet service > Audio and video	4,792	4,544	0.95
13	IT / Technology > Internet service > Network and Communications	176,478	165,778	0.94
14	IT / Technology > Software	860,464	791,432	0.92
15	IT / Technology > Software > Design Software	37,275	33,582	0.90
16	IT / Technology > Software > Office, business software	368,009	326,456	0.89
17	IT / Technology > Internet service > E-mail service	53,679	45,793	0.85
18	IT / Technology > Internet service > Homepage	104,395	79,784	0.76
19	IT / Technology > Programming and development	108,671	81,236	0.75
19	IT / Technology > Programming and development > Programming languages	88,447	58,825	0.67

Daily PV in Time Series for IT/Tech Categories

Total Page Views

COVID-19 declared as serious situation

Export restricted

Huamark Stadium

Stage of emergency declared

Curfew announced

Songkran postponed

Curfew extended

Lockdown relaxed

Almost all areas are open

- IT · Technology > Internet service > Audio and video
- IT · Technology > Internet service > Network and Communications
- IT · Technology > Internet service > Homepage
- IT · Technology > Internet service > Bulletin board
- IT · Technology > Internet service > E-mail service
- IT · Technology > Internet service > Free service
- IT · Technology > Software
- IT · Technology > Software > Photo editing software
- IT · Technology > Software > Anti-virus, security software
- 4 more

Daily PV in Time Series for IT/Tech Categories

Daily PV in Time Series for IT/Tech Categories

Appendix :
Real Estate
Category

Real Estate Categories by order of Traffic Growth

- Overall, Real Estate categories was in growing trend in April.
- Moving/Transfer category grew which might because many people considered moving to safe places from where the outbreak of COVID-19 occurred.
- Reform category increased its volume in May after many people kept staying at home for about 1 month.

※ "**volume**" indicates volume of unique cookie who were interested into each interest categorised listed under the correspond month.

※ "**Growth x**" is calculated by = target month volume / compared month volume
(ex. February VS March Growth x = March(target month) volume / February (compared month) volume)

※ Only auto categories with cookie volume ≧ 10,000 in compared month are selected.
(= categories which had big cookie volume ≧ 10,000 in the first month, but volume dropped a lot in the next month)

February VS March

	interest category	Feb volume	March volume	Growth x
TOTAL	Real estate	1,267,687	1,235,005	0.97
1	Real estate > Detached house	637,183	702,988	1.10
2	Real estate > Custom home	378,505	379,244	1.00
3	Real estate > Reviews	234	219	0.94
4	Real estate > Apartment	170,557	155,521	0.91
5	Real estate > Reform	288,790	245,616	0.85
6	Real estate > Luxury real estate	11,635	9,733	0.84
7	Real estate > Housing loan	146,529	118,529	0.81
8	Real estate > Real estate brokerage	1,567	1,183	0.75
9	Real estate > Rental house	28,625	21,534	0.75
10	Real estate > Moving, transfer	94,076	60,057	0.64

March VS April

interest category	March volume	April volume	Growth x
Real estate	1,235,005	1,519,812	1.23
Real estate > Reviews	219	537	2.45
Real estate > Moving, transfer	60,057	93,181	1.55
Real estate > Luxury real estate	9,733	14,346	1.47
Real estate > Housing loan	118,529	170,190	1.44
Real estate > Real estate brokerage	1,183	1,618	1.37
Real estate > Detached house	702,988	898,576	1.28
Real estate > Reform	245,616	299,652	1.22
Real estate > Custom home	379,244	437,467	1.15
Real estate > Apartment	155,521	176,132	1.13
Real estate > Rental house	21,534	21,662	1.01

April VS May

interest category	April volume	May volume	Growth x
Real estate	1,519,812	1,660,291	1.09
Real estate > Reform	299,652	450,224	1.50
Real estate > Apartment	176,132	216,923	1.23
Real estate > Custom home	437,467	525,258	1.20
Real estate > Rental house	21,662	23,484	1.08
Real estate > Detached house	898,576	929,148	1.03
Real estate > Housing loan	170,190	169,470	1.00
Real estate > Luxury real estate	14,346	13,613	0.95
Real estate > Moving, transfer	93,181	87,831	0.94
Real estate > Reviews	537	378	0.70
Real estate > Real estate brokerage	1,618	963	0.60

Daily PV in Time Series for Real Estate Categories
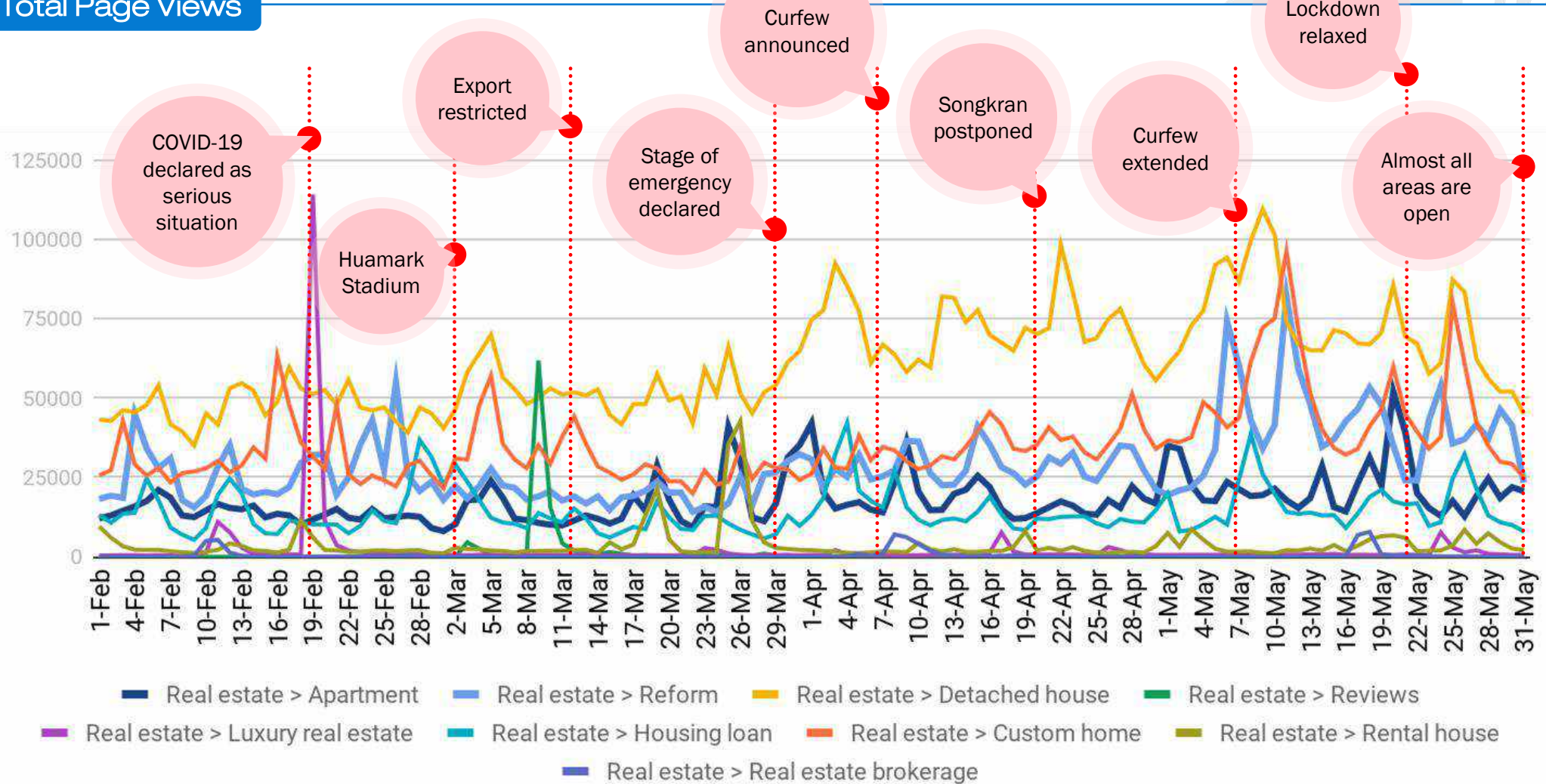
Real Estate Categories Analysis Insight Summary

Graph and Situation analysis (reference: https://console.treasuredata.com/app/jobs/758406243)

In terms of Real estate, the peak period appeared to be 'Luxury real estate' and ' Review' (Purple and green graph)

Hypothesis of reason why sub- category interest in luxury real estate was peak during February. . .

- As pandemic situation of Covid 19 was declared, price of some real estate was dropped significantly.
- Due to the price dropped down, people tended to search the news for Condo, House, Apartment for example
- This hypothesis could be concluded that all the luxury real estate was successful in terms of attract more revenue during this pandemic situation.

Hypothesis of reason why sub- category interest in review was peak during March. . .

- During March, there were some situation occur in Thailand. The number of infection was increasing dramatically during March from Huamark Stadium
- Also, the government was announced the restriction of exporting mask and eggs.
- For those event, it led in high or reviews content in real estate to see how much the event were affected it

Daily PV in Time Series for Real Estate Categories