

Illicit Cigarettes Study (ICS) In Malaysia, May 2024 Report

Report Commissioned by CMTM member companies



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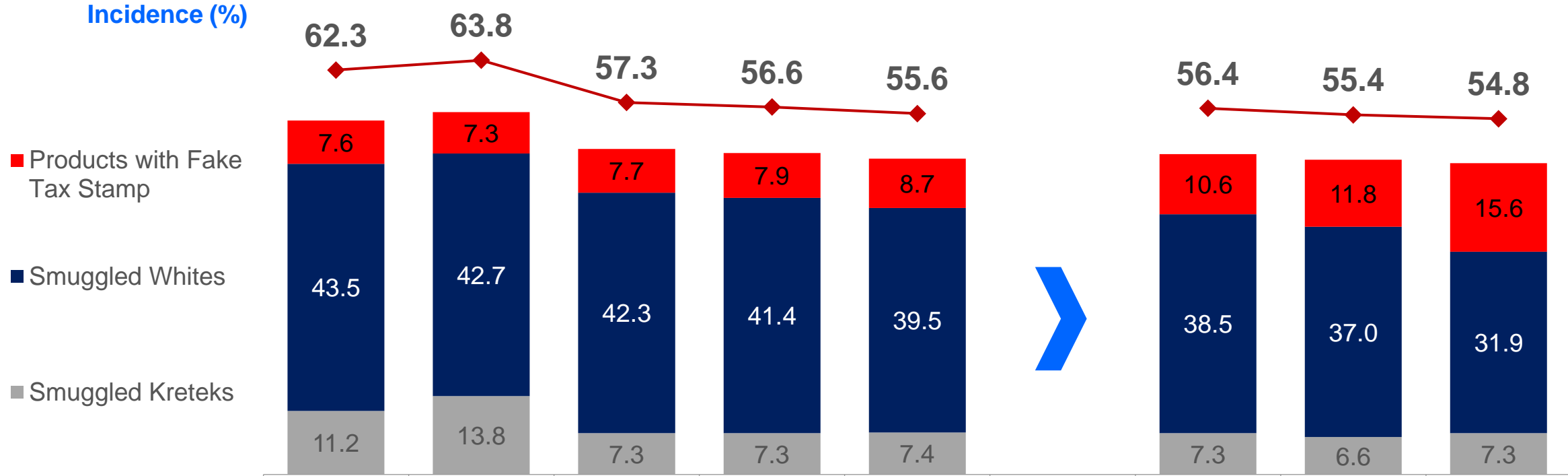
Illegal Cigarettes Criteria For Verification

Packs with at least one (1) of the following features:

1. Absence of Registered Importers
2. Unregistered Importers*
3. Absence of Registered Manufacturers
4. Unregistered Manufacturers*
5. Packs with counterfeit (fake) Malaysian tax stamp**
6. Packs without Malaysian tax stamp
7. Packs with non-Malaysian tax stamp
8. Unregistered Brand*
9. Non Compliance to Ministry of Health's Control of Tobacco Product Regulations (CTPR) 2004
 - I. Absence or Non Compliance of Pictorial Health Warning Requirements
 - II. Pack Size other than 20 sticks
 - III. Absence or Non Compliance of mandated labeling requirements

Illegal Cigarettes Incidence At National Level :

Overall decrease by 0.6 ppt. vs. Mar, 2024

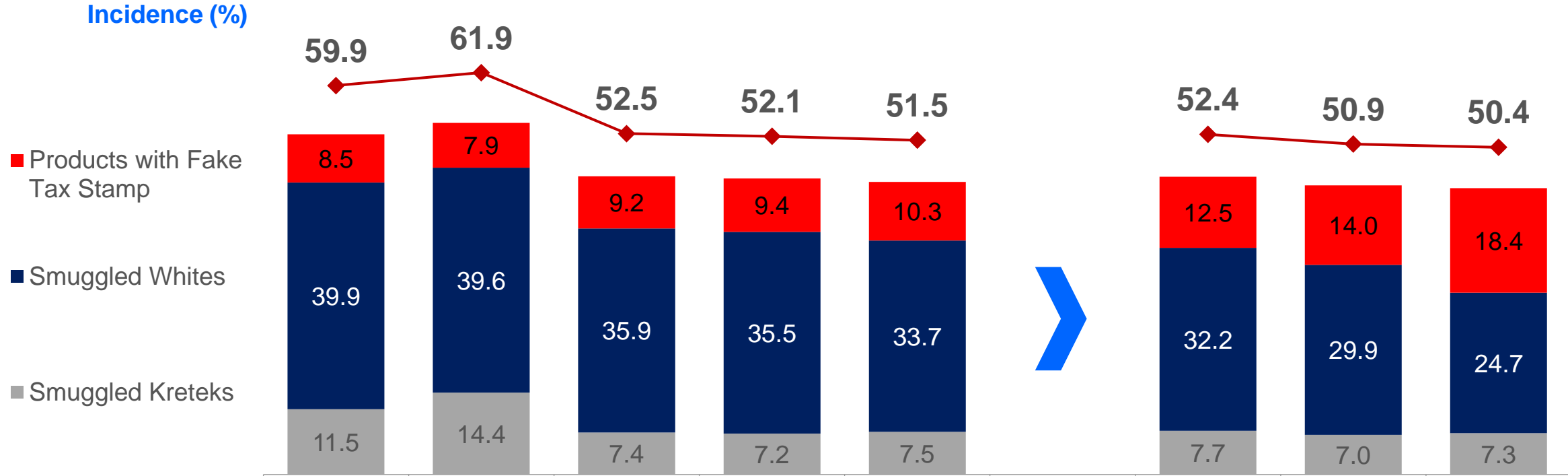


Volume (Billions sticks)

	2019	2020	2021	2022	2023	Jan, 2024	Mar, 2024	May, 2024
Legal Cigarettes	7.3	6.7	6.9	7.1	7.1	0.5	0.6	0.6
Illegal Cigarettes	12.2	11.7	9.1	9.3	8.9	0.7	0.7	0.7
Estimated Total industry	19.5	18.4	16.0	16.4	16.0	1.2	1.3	1.3
Incidence	62.3%	63.8%	57.3%	56.6%	55.6%	56.4%	55.4%	54.8%

Illegal Cigarettes Incidence In Pen. Malaysia :

Overall decrease by 0.5 ppt. vs. Mar, 2024



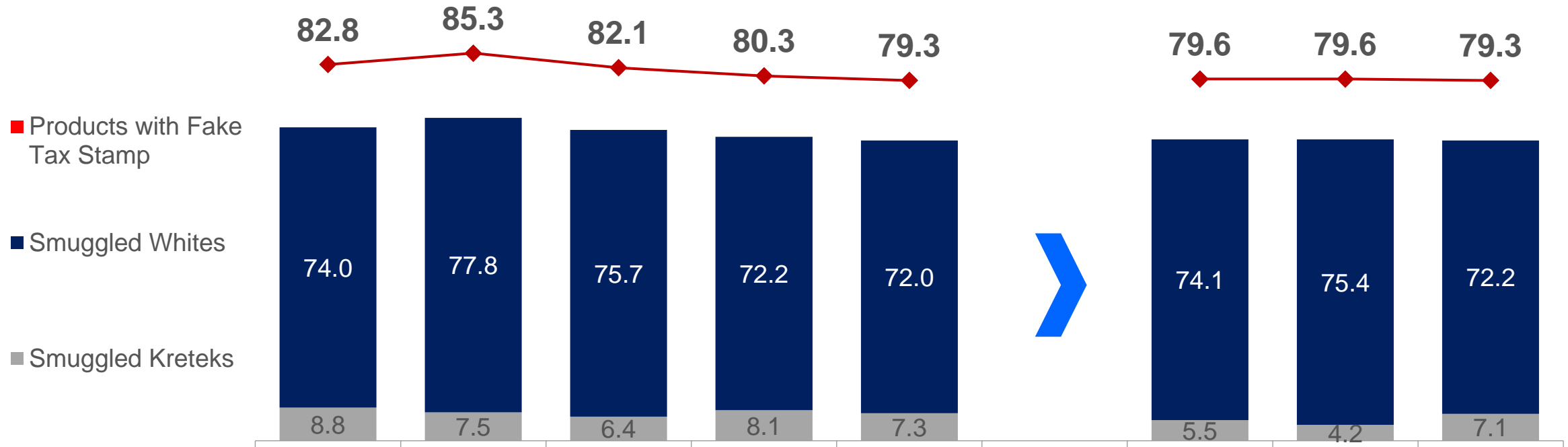
Volume (Billions sticks)

	2019	2020	2021	2022	2023	Jan, 2024	Mar, 2024	May, 2024
Legal Cigarettes	7.0	6.5	6.4	6.6	6.6	0.48	0.52	0.53
Illegal Cigarettes	10.5	10.4	7.0	7.2	7.0	0.52	0.54	0.54
Estimated Total industry	17.5	16.9	13.4	13.8	13.6	1.00	1.06	1.07
Incidence	59.9%	61.9%	52.5%	52.1%	51.5%	52.4%	50.9%	50.4%

Illegal Cigarettes Incidence In East Malaysia :

Overall decrease by 0.3 ppt. vs. Mar, 2024

Incidence (%)



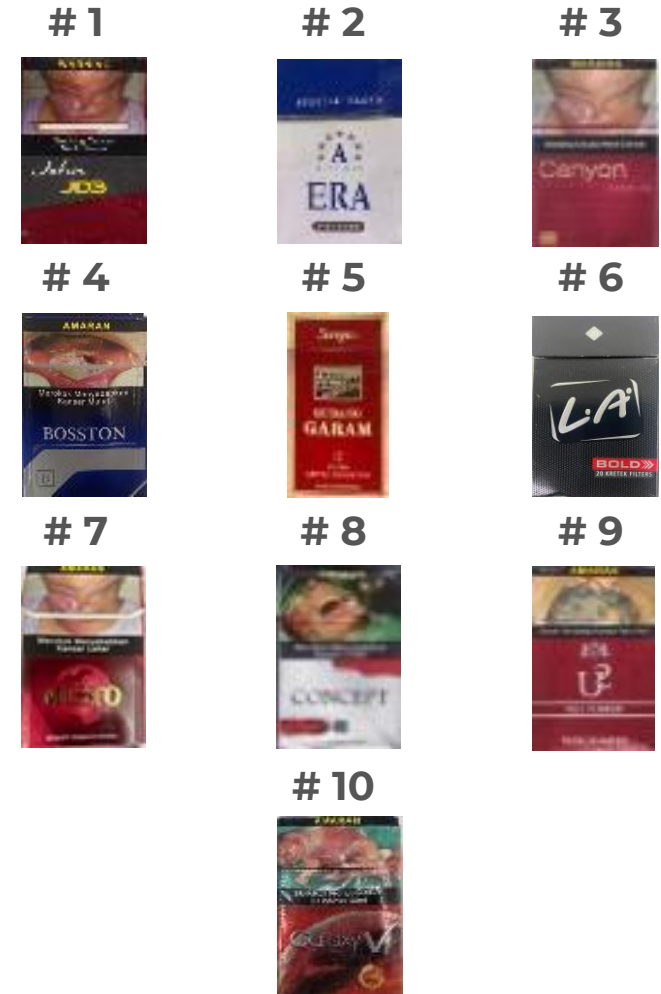
Volume (Billions sticks)

	2019	2020	2021	2022	2023	Jan, 2024	Mar, 2024	May, 2024
Legal Cigarettes	0.3	0.2	0.5	0.5	0.5	0.04	0.04	0.04
Illegal Cigarettes	1.7	1.3	2.1	2.1	1.9	0.14	0.16	0.15
Estimated Total industry	2.0	1.5	2.6	2.6	2.4	0.18	0.20	0.19
Incidence	82.8%	85.3%	82.1%	80.3%	79.3%	79.6%	79.6%	79.3%

Top 10 Illegal Cigarettes Brands*

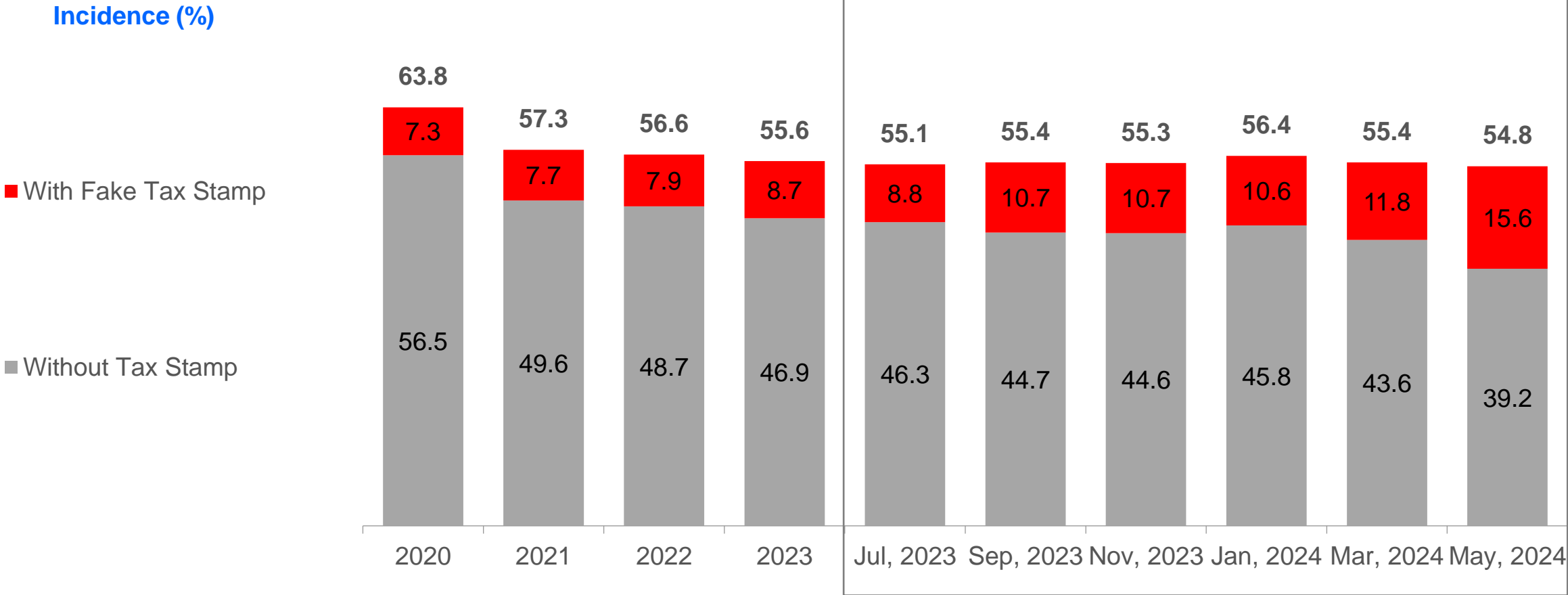
They account for approximately 72% of illegal cigarettes volume

		May 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	10.9	13.0	13.7
2.	Era	8.3	8.3	7.4
3.	Canyon	3.4	4.0	5.6
4.	Bosston*	3.3	2.8	1.7
5.	Gudang Garam	2.9	3.0	4.2
6.	L.A.	2.6	2.2	2.3
7.	Misto*	2.3	2.2	1.4
8.	Concept*	2.3	1.4	0.8
9.	U2	2.0	3.3	4.4
10.	Galaxy*	1.2	0.6	0.3
Top 10 Total		39.2	40.8	41.8
<i>Other Illegal</i>		15.6	14.6	13.8
Total Illegal %		54.8	55.4	55.6

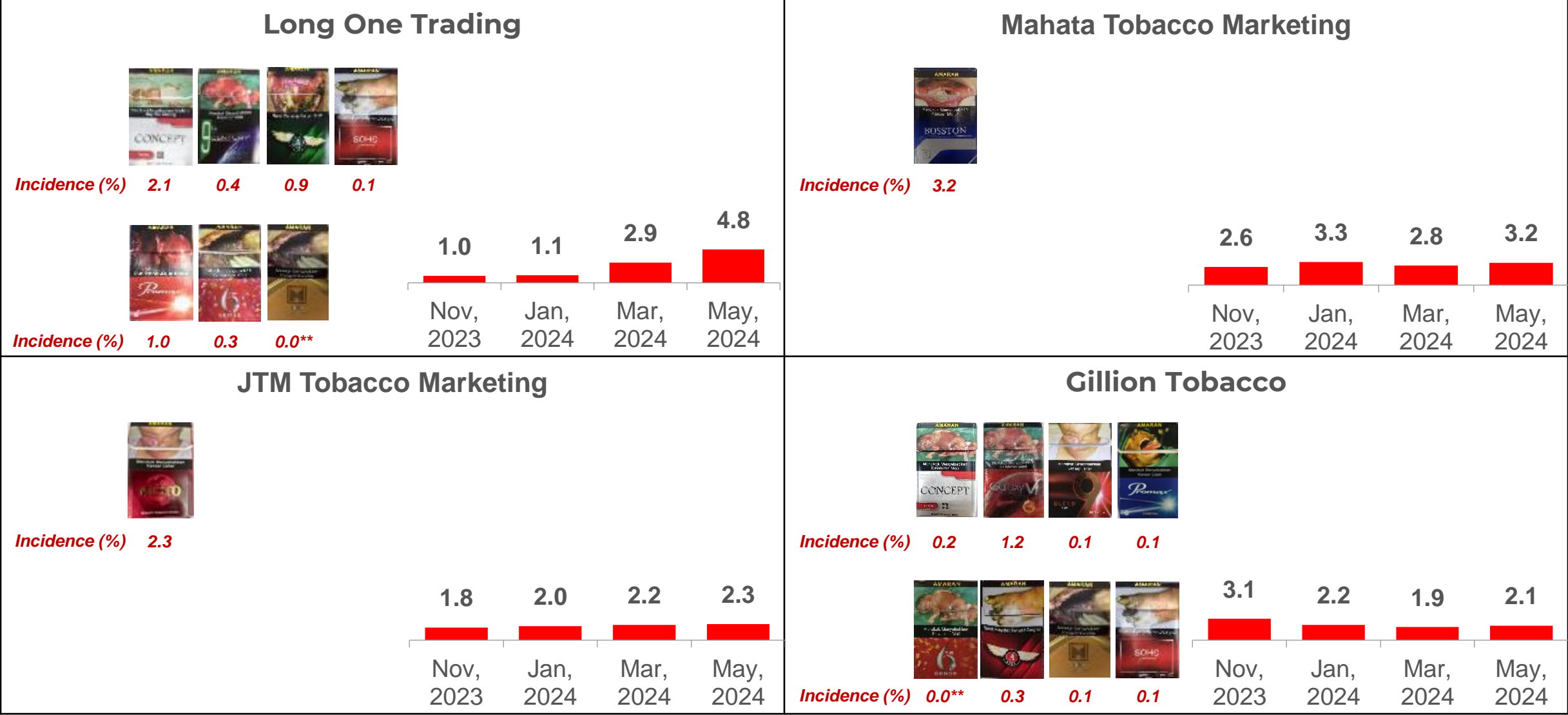


Tax Stamp Breakdown Of Illegal Cigarettes :

- 72% of illegal cigarettes are without tax stamps while remaining 28% are with fake tax stamps

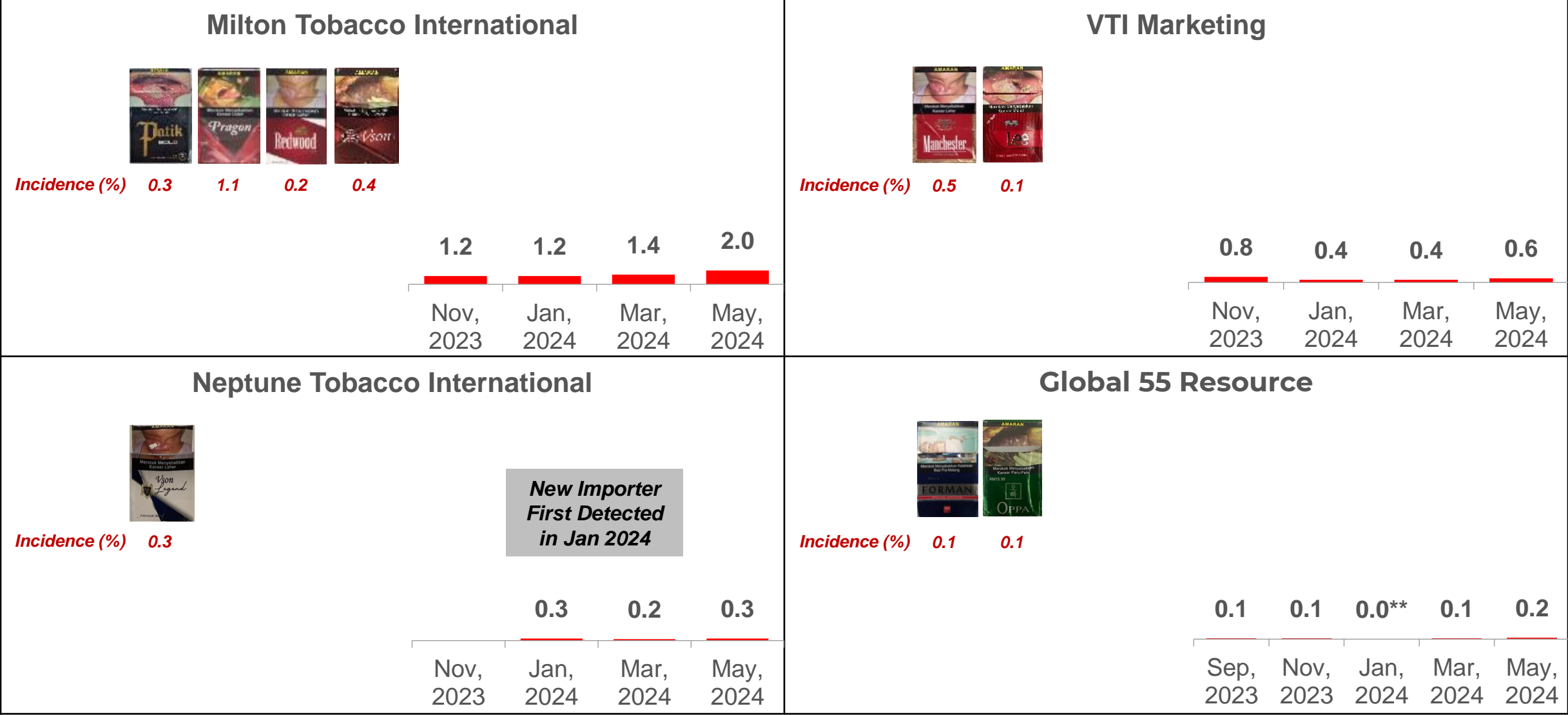


Fake Tax Stamp Breakdown By Importers :




0.0%** Incidence is less than 0.1%; figure is too small to feature.

Fake Tax Stamp Breakdown By Importers :



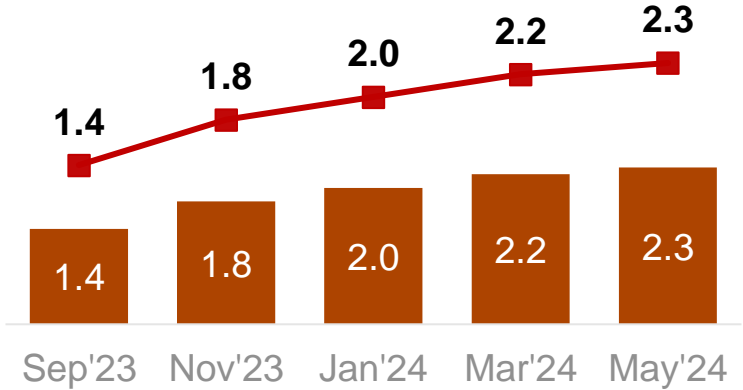
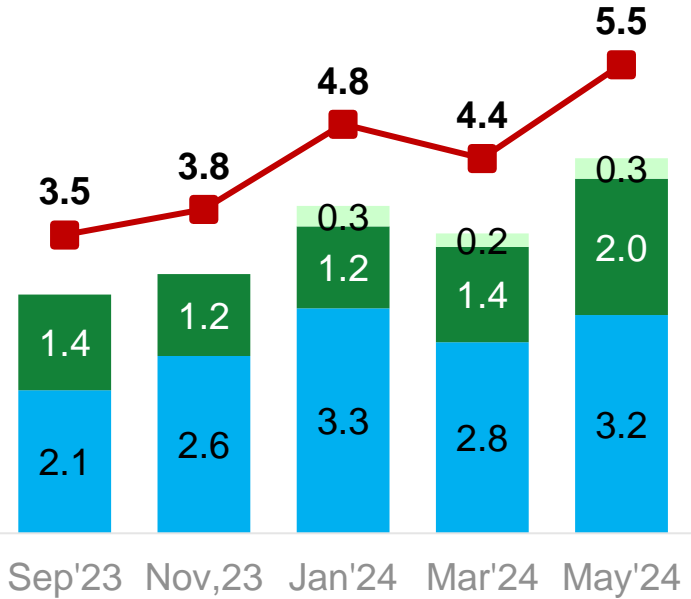
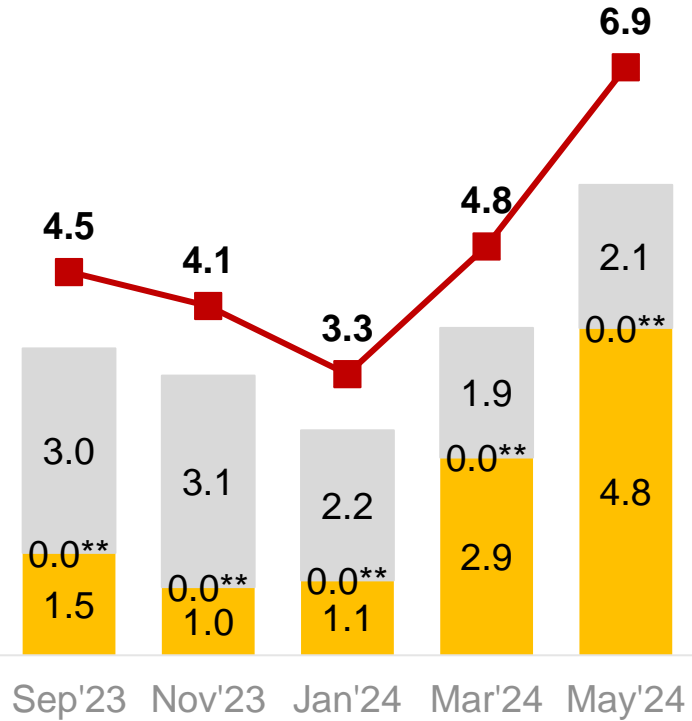
Fake Tax Stamp Breakdown By Importers :

Pacific Tobacco Company	Global Tobacco Manufacturer
 <p>Incidence (%) 0.0**</p>	 <p>Incidence (%) 0.0**</p>
<p>0.0** 0.0** 0.0** 0.0**</p>	<p>0.0** 0.0** 0.0** 0.0**</p>
<p>Nov, 2023 Jan, 2024 Mar, 2024 May, 2024</p>	<p>Nov, 2023 Jan, 2024 Mar, 2024 May, 2024</p>
Legasi Jutawan	
 <p>Incidence (%) 0.0**</p>	
<p>0.0** 0.0** 0.0** 0.0**</p>	
<p>Nov, 2023 Jan, 2024 Mar, 2024 May, 2024</p>	

0.0%** Incidence is less than 0.1%; figure is too small to feature.

Fake Tax Stamp Breakdown By Importers :

Incidence for packs imported by Gillion Tobacco, JTM Tobacco Marketing, Long One Trading, Mahata, Tobacco Marketing and Milton Tobacco International and have increased in Mar'24



- Gillion Tobacco
- Global Tobacco Manufacturer
- Legasi Jutawan
- Long One Trading
- Total Incidence

- Neptune Tobacco International
- Milton Tobacco International
- Mahata Tobacco Marketing
- Total Incidence

- Azion Trade
- JTM Tobacco Marketing
- Total Incidence

0.0%** Incidence is less than 0.1%; figure is too small to feature.

Illegal Cigarettes Incidence By State :

11 States recording an increase vs. Mar 2024

	A May, 2024				B Mar, 2024				A minus B Variance (May'2024 vs. Mar'2024)				Volume Contribution
	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Krettek	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Krettek	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Krettek	%
WP Labuan	80.0	0.0	79.6	0.4	79.3	0.0	75.3	4.0	+0.7	0.0	+4.3	-3.6	0%**
Sabah	79.4	0.0	74.8	4.6	78.7	0.0	77.5	1.2	+0.7	0.0	-2.7	+3.4	11%
Sarawak	79.1	0.0	69.2	9.9	80.7	0.1	73.3	7.3	-1.6	-0.1	-4.1	+2.6	10%
Pahang	78.4	29.3	37.0	12.1	79.4	16.2	52.8	10.4	-1.0	+13.1	-15.8	+1.7	13%
Terengganu	71.4	21.0	44.6	5.8	69.4	18.1	47.3	4.0	+2.0	+2.9	-2.7	+1.8	4%
Melaka	62.4	35.5	25.4	1.5	59.4	32.2	22.8	4.4	+3.0	+3.3	+2.6	-2.9	5%
Perlis	55.0	12.4	41.3	1.3	48.1	3.9	42.8	1.4	+6.9	+8.5	-1.5	-0.1	1%
Kelantan	53.2	0.3	50.6	2.3	51.1	0.7	50.0	0.4	+2.1	-0.4	+0.6	+1.9	3%
Johor	50.7	34.4	14.7	1.6	55.0	23.6	28.8	2.6	-4.3	+10.8	-14.1	-1.0	17%
Penang	45.7	9.3	33.1	3.3	45.9	7.2	35.6	3.1	-0.2	+2.1	-2.5	+0.2	5%
Kedah	44.1	22.7	20.8	0.6	36.5	12.4	23.5	0.6	+7.6	+10.3	-2.7	0.0	3%
Selangor	43.2	6.1	23.3	13.8	43.1	6.2	22.8	14.1	+0.1	-0.1	+0.5	-0.3	15%
WP Putrajaya	42.3	0.5	19.0	22.8	40.7	1.8	24.5	14.4	+1.6	-1.3	-5.5	+8.4	0%**
N.Sembilan	42.3	21.9	17.0	3.4	40.8	24.9	13.4	2.5	+1.5	-3.0	+3.6	+0.9	3%
WP KL	42.2	2.6	23.1	16.5	41.0	1.7	25.8	13.5	+1.2	+0.9	-2.7	+3.0	7%
Perak	31.9	13.3	17.8	0.8	32.2	13.1	18.1	1.0	-0.3	+0.2	-0.3	-0.2	3%
National Incidence	54.8	15.6	31.9	7.3	55.4	11.8	37.0	6.6	-0.6	+3.8	-5.1	+0.7	100%

0.0%** Incidence is less than 0.1%; figure is too small to feature.

Illegal Cigarettes Incidence By State :

7 States recording an increase vs. 2023

	A May, 2024				B 2023				A minus B Variance (May'2024 vs. 2023)				Volume Contribution
	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Kretex	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Kretex	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Kretex	%
WP Labuan	80.0	0.0	79.6	0.4									0%**
Sabah	79.4	0.0	74.8	4.6	78.4	0.0	76.2	2.2	+1.0	0.0	-1.4	+2.4	11%
Sarawak	79.1	0.0	69.2	9.9	80.2	0.0	68.1	12.1	-1.1	0.0	+1.1	-2.2	10%
Pahang	78.4	29.3	37.0	12.1	77.7	12.3	54.2	11.2	+0.7	+17.0	-17.2	+0.9	13%
Terengganu	71.4	21.0	44.6	5.8	68.4	11.5	51.8	5.1	+3.0	+9.5	-7.2	+0.7	4%
Melaka	62.4	35.5	25.4	1.5	49.2	27.5	19.1	2.6	+13.2	+8.0	+6.3	-1.1	5%
Perlis	55.0	12.4	41.3	1.3	50.6	1.6	41.3	7.7	+4.4	+10.8	0.0	-6.4	1%
Kelantan	53.2	0.3	50.6	2.3	56.9	1.0	53.5	2.4	-3.7	-0.7	-2.9	-0.1	3%
Johor	50.7	34.4	14.7	1.6	56.0	17.0	32.6	6.4	-5.3	+17.4	-17.9	-4.8	17%
Penang	45.7	9.3	33.1	3.3	46.8	8.0	35.7	3.1	-1.1	+1.3	-2.6	+0.2	5%
Kedah	44.1	22.7	20.8	0.6	46.4	6.0	36.7	3.7	-2.3	+16.7	-15.9	-3.1	3%
Selangor	43.2	6.1	23.3	13.8	45.3	4.3	29.0	12.0	-2.1	+1.8	-5.7	+1.8	15%
WP Putrajaya	42.3	0.5	19.0	22.8									0%**
N.Sembilan	42.3	21.9	17.0	3.4	41.3	21.1	16.7	3.5	+1.0	+0.8	+0.3	-0.1	3%
WP KL	42.2	2.6	23.1	16.5	41.4	1.1	30.2	10.1	+0.8	+1.5	-7.1	+6.4	7%
Perak	31.9	13.3	17.8	0.8	34.4	13.0	20.4	1.0	-2.5	+0.3	-2.6	-0.2	3%
National Incidence	54.8	15.6	31.9	7.3	55.6	8.7	39.5	7.4	-0.8	+6.9	-7.6	-0.1	100%

0.0%** Incidence is less than 0.1%; figure is too small to feature.

Top 10 Illegal Cigarettes Brands* For Perlis

- Volume contribution to National = 1%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	37.5	36.3	33.2
2.	Vson*	8.9	3.4	0.0**
3.	Vess	3.4	6.2	5.9
4.	Manchester*	1.9	-	0.0**
5.	Gudang Garam	1.3	1.0	7.0
6.	Redwood*	0.6	0.1	0.0**
7.	Misto*	0.5	0.2	1.1
8.	Rudland & George*	0.4	-	-
9.	Tiara	0.2	-	1.7
10.	9th Century*	0.1	-	-
Top 10 Total		54.8	47.2	48.9
<i>Other Illegal</i>		<i>0.2</i>	<i>0.9</i>	<i>1.7</i>
Total Illegal %		55.0	48.1	50.6



Top 10 Illegal Cigarettes Brands* For Kedah

- Volume contribution to National = 3%

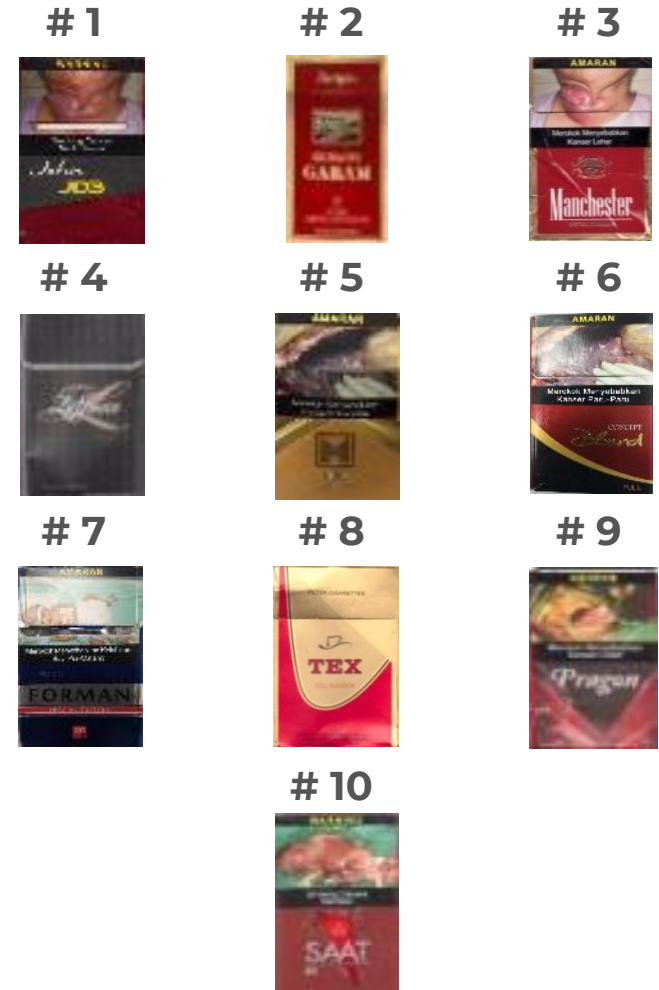
		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	12.5	9.4	24.6
2.	Vson*	12.0	6.3	0.8
3.	Tiara	4.3	7.1	3.7
4.	Vess	3.6	5.9	3.9
5.	A380*	3.5	2.4	1.9
6.	Misto*	2.6	3.8	0.3
7.	Oppa*	2.1	-	-
8.	Manchester*	1.1	-	0.4
9.	Rudland & George*	0.6	-	-
10.	Gudang Garam	0.6	0.5	3.6
Top 10 Total		42.9	35.4	39.2
<i>Other Illegal</i>		1.2	1.1	7.2
Total Illegal %		44.1	36.5	46.4



Top 10 Illegal Cigarettes Brands* For Penang

- Volume contribution to National = 5%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	28.9	32.9	31.4
2.	Gudang Garam	3.2	2.9	2.8
3.	Manchester*	2.6	1.4	2.5
4.	Luffman	1.3	0.7	0.4
5.	M*	1.3	1.0	0.6
6.	Concept*	1.3	0.7	0.9
7.	Forman*	1.3	1.4	0.3
8.	Tex	1.1	0.8	1.0
9.	Pragon*	1.0	1.0	1.0
10.	Saat	0.8	0.9	1.4
Top 10 Total		42.8	43.7	42.3
<i>Other Illegal</i>		2.9	2.2	4.5
Total Illegal %		45.7	45.9	46.8



Top 10 Illegal Cigarettes Brands* For Perak

- Volume contribution to National = 3%

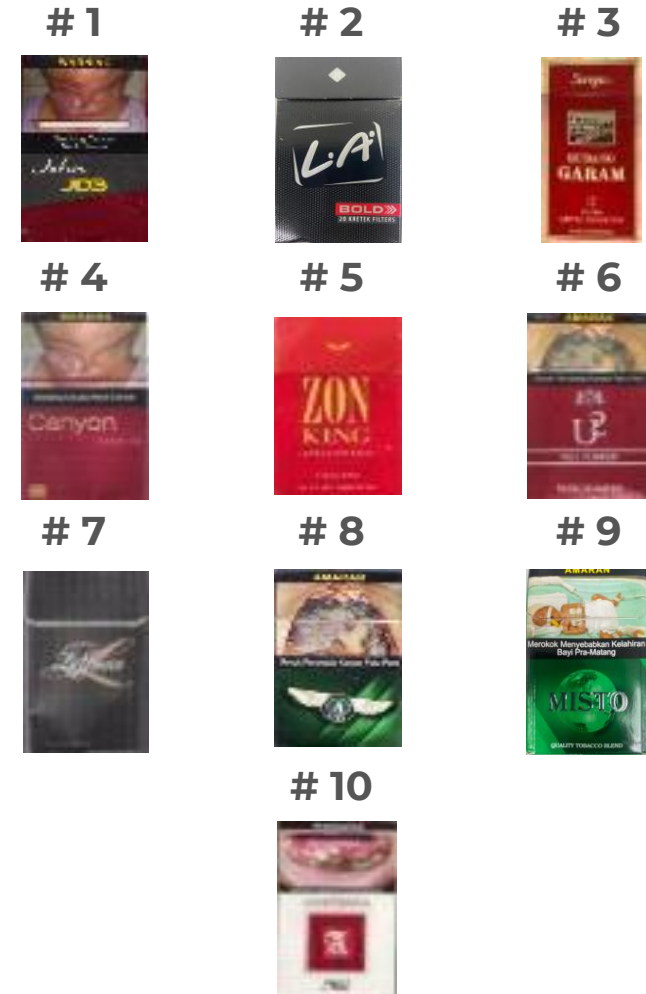
		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	11.3	10.6	12.3
2.	Misto*	3.1	3.1	1.7
3.	9 th Century*	3.0	2.5	1.7
4.	D&J	2.9	4.1	3.7
5.	Concept*	1.6	0.8	2.2
6.	Canyon	1.0	1.5	1.8
7.	Manchester*	0.9	1.8	1.8
8.	Pragon*	0.8	1.4	1.4
9.	Gudang Garam	0.8	0.7	0.7
10.	Forman*	0.8	0.5	0.3
Top 10 Total		26.2	27.0	27.6
<i>Other Illegal</i>		<i>5.7</i>	<i>5.2</i>	<i>6.8</i>
Total Illegal %		31.9	32.2	34.4



Top 10 Illegal Cigarettes Brands* For Selangor

- Volume contribution to National = 15%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	8.0	8.9	10.9
2.	L.A.	6.7	6.8	4.8
3.	Gudang Garam	4.8	5.5	6.3
4.	Canyon	3.9	3.6	4.9
5.	Zon King	3.8	2.8	2.0
6.	U2	3.7	4.5	7.0
7.	Luffman	3.2	2.6	3.1
8.	A380*	1.6	1.9	1.4
9.	Misto*	1.2	1.1	0.9
10.	Sampoerna	1.0	1.4	0.6
Top 10 Total		37.9	39.1	41.9
<i>Other Illegal</i>		<i>5.3</i>	<i>4.0</i>	<i>3.4</i>
Total Illegal %		43.2	43.1	45.3



Top 10 Illegal Cigarettes Brands* For WP KL

- Volume contribution to National = 7%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	L.A.	9.3	6.8	5.0
2.	John	7.8	10.9	11.0
3.	Gudang Garam	4.9	5.1	4.4
4.	Canyon	4.6	2.5	3.9
5.	Luffman	4.0	3.1	4.4
6.	U2	3.8	6.9	7.3
7.	Zon King	2.7	2.1	3.2
8.	Sampoerna	1.4	1.3	0.6
9.	Bosston*	0.7	0.4	0.2
10.	Djarum	0.5	-	0.0**
Top 10 Total		39.7	39.1	40.0

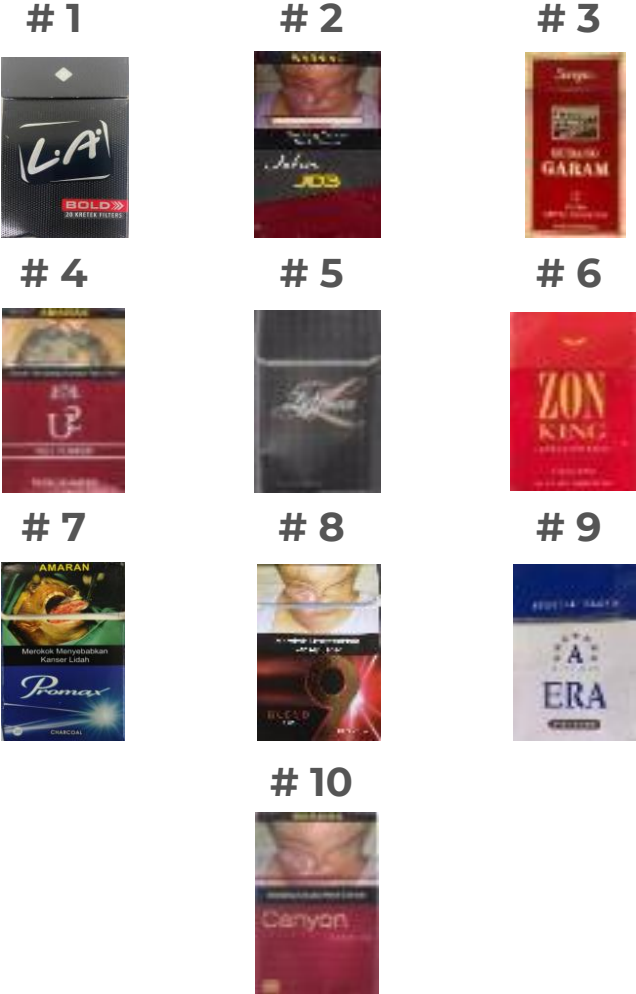
<i>Other Illegal</i>	2.5	1.9	1.4
Total Illegal %	42.2	41.0	41.4



Top 10 Illegal Cigarettes Brands* For WP Putrajaya

• Volume contribution to National = 0%**

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	L.A.	12.0	7.5	
2.	John	10.9	8.9	
3.	Gudang Garam	10.8	5.5	
4.	U2	4.9	5.5	
5.	Luffman	1.8	2.6	
6.	Zon King	0.8	4.4	
7.	Promax*	0.3	0.3	
8.	9th Century	0.3	0.3	
9.	Era	0.3	-	
10.	Canyon	0.2	3.1	
Top 10 Total		42.3	38.1	
<i>Other Illegal</i>		-	2.6	
Total Illegal %		42.3	40.7	



* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise

Top 10 Illegal Cigarettes Brands* For Negeri Sembilan

- Volume contribution to National = 3%

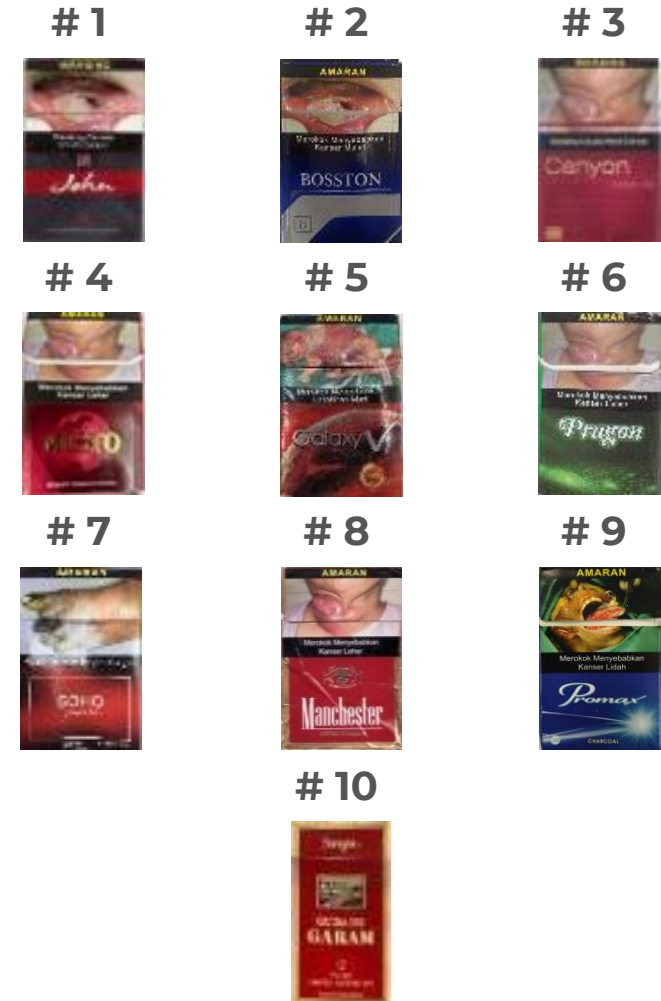
		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	7.8	5.4	5.0
2.	A380*	7.0	8.3	6.9
3.	Misto*	6.1	7.0	6.8
4.	Canyon	5.1	6.2	7.9
5.	6 th Sense*	3.0	4.4	2.8
6.	Gudang Garam	2.9	1.3	3.0
7.	League	2.8	0.6	1.4
8.	Promax*	2.0	0.7	0.5
9.	9 th Century*	0.9	0.5	0.5
10.	U2	0.8	0.5	1.3
Top 10 Total		38.4	34.9	36.1
<i>Other Illegal</i>		3.9	5.9	5.2
Total Illegal %		42.3	40.8	41.3



Top 10 Illegal Cigarettes Brands* For Melaka

- Volume contribution to National = 5%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	15.0	12.6	10.7
2.	Bosston*	14.4	14.6	4.9
3.	Canyon	9.8	7.8	7.7
4.	Misto*	6.7	6.2	4.1
5.	Galaxy*	5.0	1.8	0.8
6.	Pragon*	4.0	2.5	1.3
7.	SOHO*	1.4	4.1	7.6
8.	Manchester*	1.3	0.1	2.9
9.	Promax*	0.9	1.1	3.1
10.	Gudang Garam	0.7	2.9	2.2
Top 10 Total		59.2	53.7	45.3
<i>Other Illegal</i>		3.2	5.7	3.9
Total Illegal %		62.4	59.4	49.2



Top 10 Illegal Cigarettes Brands* For Johor

- Volume contribution to National = 17%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Bosston*	7.1	6.3	3.3
2.	Canyon	5.3	8.1	13.2
3.	Misto*	5.2	4.4	2.9
4.	Galaxy*	4.9	2.0	0.9
5.	Promax*	4.4	2.2	1.4
6.	John	3.0	6.2	8.9
7.	Concept*	2.7	2.2	1.3
8.	Pragon*	2.6	1.8	1.2
9.	NYX	2.5	4.2	1.9
10.	A380*	2.0	1.1	0.9
Top 10 Total		39.7	38.5	35.9
<i>Other Illegal</i>		11.0	16.5	20.1
Total Illegal %		50.7	55.0	56.0



Top 10 Illegal Cigarettes Brands* For Pahang

- Volume contribution to National = 13%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	24.0	36.4	29.4
2.	Concept*	14.5	6.5	2.3
3.	Bosston*	10.8	6.8	7.3
4.	Gudang Garam	8.9	7.9	9.4
5.	U2	5.6	6.0	11.7
6.	Canyon	5.4	9.2	11.7
7.	L.A.	1.4	1.4	0.6
8.	Pragon*	1.5	0.9	1.0
9.	Zon King	0.9	0.3	0.4
10.	Gajah Baru	0.9	0.5	0.7
Top 10 Total		73.9	75.9	74.5
<i>Other Illegal</i>		4.5	3.5	3.2
Total Illegal %		78.4	79.4	77.7



Top 10 Illegal Cigarettes Brands* For Terengganu

- Volume contribution to National = 4%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	34.3	36.1	39.2
2.	Misto*	7.1	9.0	1.7
3.	Pragon*	5.0	3.5	4.3
4.	Concept*	4.1	0.7	1.1
5.	Saat	3.9	4.1	4.5
6.	Gudang Garam	3.2	2.4	4.3
7.	U2	2.6	3.0	4.2
8.	Gajah Baru	2.5	1.2	0.6
9.	Bosston*	1.9	2.5	1.7
10.	A380*	1.4	1.1	0.6
Top 10 Total		66.0	63.6	62.2
<i>Other Illegal</i>		<i>5.4</i>	<i>5.8</i>	<i>6.2</i>
Total Illegal %		71.4	69.4	68.4



Top 7 Illegal Cigarettes Brands* For Kelantan

- Volume contribution to National = 3%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	34.6	40.3	32.2
2.	Saat	15.8	8.8	17.6
3.	Gudang Garam	2.3	0.4	2.4
4.	Concept*	0.3	0.2	0.8
5.	Lee*	0.2	0.3	0.9
6.	Misto*	0.0**	0.1	0.1
7.	Premium	0.0**	0.4	1.5
Top 7 Total		53.2	50.5	55.5
<i>Other Illegal</i>		-	0.6	1.4
Total Illegal %		53.2	51.1	56.9



* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise
 0.0%** Incidence is less than 0.1%; figure is too small to feature.

Top 3 Illegal Cigarettes Brands* For WP Labuan

- Volume contribution to National = 0%**

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Era	76.3	62.1	
2.	Premium	3.3	9.3	
3.	L.A.	0.4	0.5	
Top 3 Total		80.0	71.9	
<i>Other Illegal</i>		-	7.4	
Total Illegal %		80.0	79.3	



* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise

Top 10 Illegal Cigarettes Brands* For Sabah

- Volume contribution to National = 11%

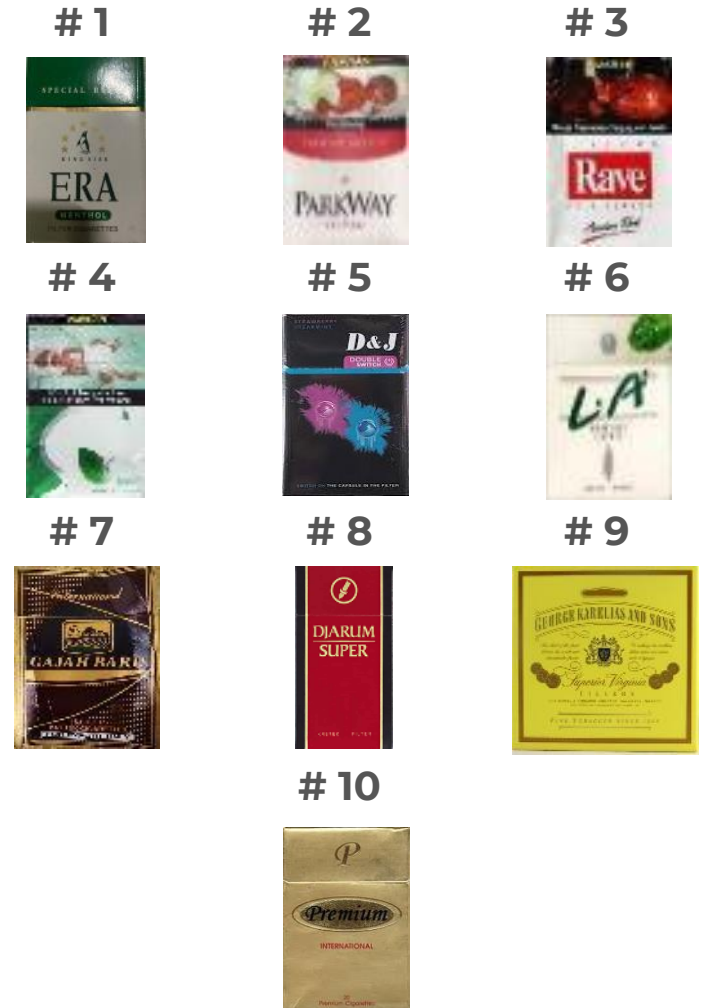
		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Era	72.6	70.4	73.1
2.	L.A.	2.0	0.2	1.8
3.	Grow	1.7	0.8	-
4.	Premium	1.4	5.3	2.2
5.	D&J	0.6	1.8	0.7
6.	Gudang Garam	0.5	0.2	0.1
7.	Sampoerna	0.2	-	0.0**
8.	Win Mild	0.1	0.0**	0.3
9.	Che	0.1	-	0.0**
10.	John	0.1	-	0.0**
Top 10 Total		79.3	78.7	78.2
<i>Other Illegal</i>		<i>0.1</i>	<i>-</i>	<i>0.2</i>
Total Illegal %		79.4	78.7	78.4



Top 10 Illegal Cigarettes Brands* For Sarawak

- Volume contribution to National = 10%

		May, 2024	Mar, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Era	34.8	35.7	27.3
2.	Parkway	15.9	20.9	19.1
3.	Rave	11.3	10.4	13.9
4.	S Super	5.6	2.3	1.8
5.	D&J	5.6	4.3	3.5
6.	L.A.	2.5	1.4	7.5
7.	Gajah Baru	1.0	2.5	0.2
8.	Djarum	0.6	0.6	0.2
9.	George Karelia	0.4	0.6	0.2
10.	Premium	0.4	0.2	0.7
Top 10 Total		78.1	78.9	74.4
<i>Other Illegal</i>		1.0	1.8	5.8
Total Illegal %		79.1	80.7	80.2



Appendix: Nielsen's ICS Research Objective & Methodology



Research Objectives

1

Identify the **incidence & trend** of illegal cigarettes in Malaysia & at State Level

2

Identify the **illegal brands** available in Malaysia and at State Level

3

Identify the level of **compliance vs. non-compliance** on cigarette packs

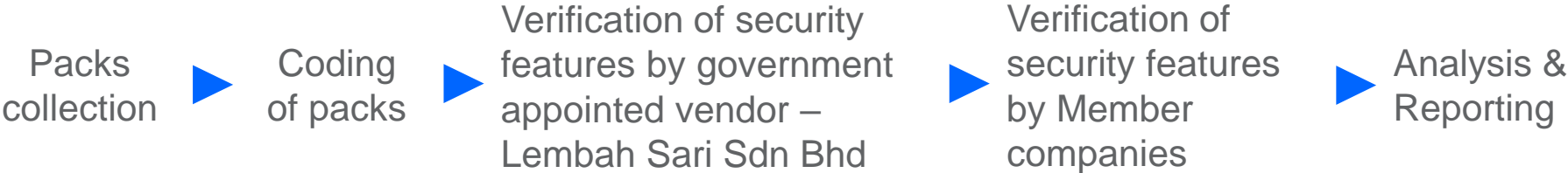
- I. Security features (Tax Stamps)
- II. Brands of Local Manufacturers and Importers registered with Royal Malaysian Customs
- III. Mandated Labeling Requirements (under Control of Tobacco Product Regulations, Trade Description Act, Price Control & Anti Profiteering Act)

Overview Of Study Framework

METHODOLOGY

- Method: **Litter collection of cigarette packs.**
- Frequency: **6 waves** in a year.
- Geographical coverage: Nationwide (Pen. M'sia and Sabah & Sarawak)
- Sample size: Nationwide **21,200 packs per wave** (Pen M'sia = A minimum of 1,200 packs per State, Sabah & Sarawak = 1,600 packs each, Putrajaya & Labuan = 400 packs each)

PROCESS



SAMPLING ERROR

- 0.6% at national level and minimum 5.0% at state level

ICS Research Methodology & Design

I. ICS Universe, Sample Size

II. Sampling Coverage Of ICS and Fieldwork

III. Coding Processes

IV. Data Processing

V. Weighting The Survey Data

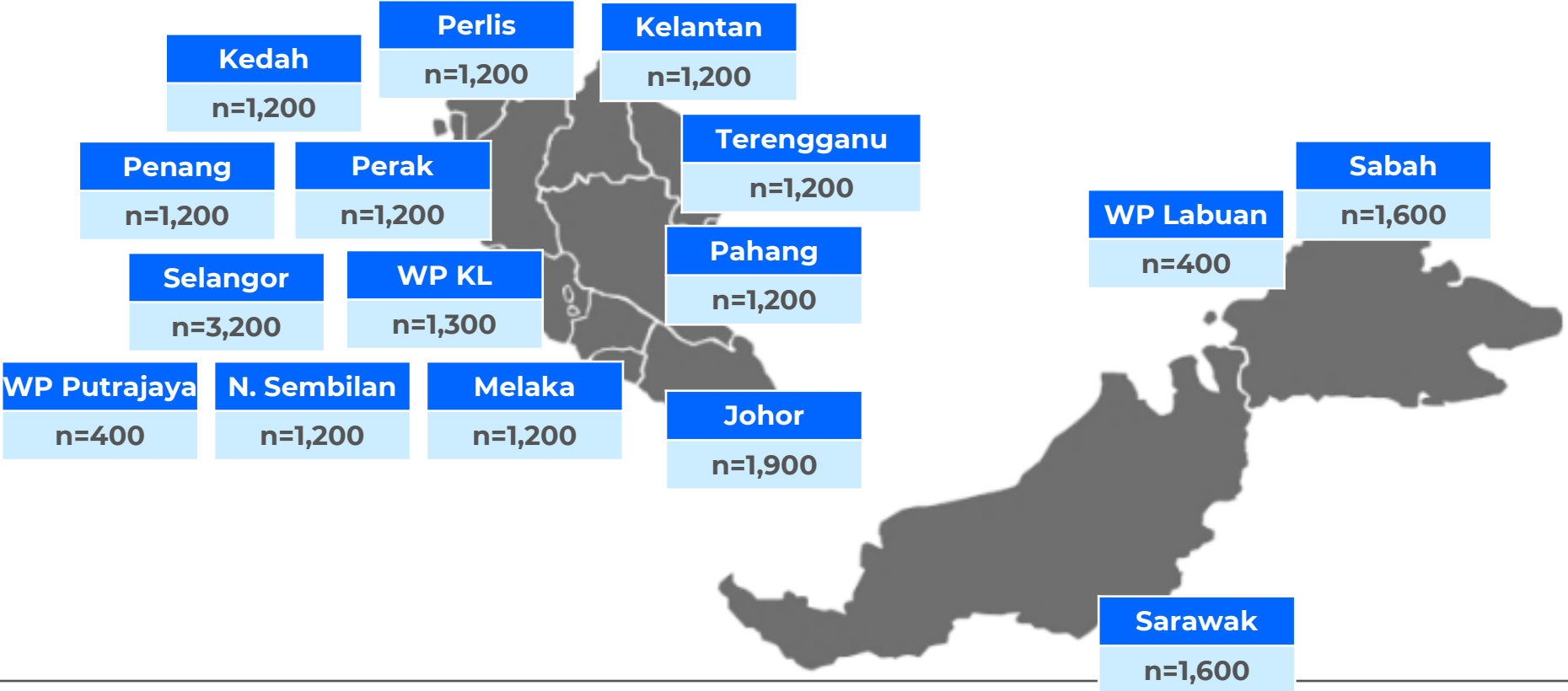
Why Sample Size of 20,000 packs?

Sample Size (n=)	Sampling Error @ 95% Confidence
n=50	14.9%
n=100	9.9%
n=250	5.9%
n=500	4.1%
n=1,000	2.8%
n=2,000	2.0%
n=3,000	1.6%
n=4,000	1.4%
n=10,000	0.8%
n=20,000	0.6%
n=50,000	0.4%

- The data accuracy for a sample size is dependent on the sample size of a study; **Sampling error declines** as **sample size** for a study is **increased**
- To ensure minimal sampling error at **National level**, **sample size of n=20,000** was chosen
- At State level, a minimum sample size of n=1,200 was chosen to optimize data accuracy without impacting the efficiency of fieldwork turnaround time. However, n=400 for Putrajaya and Labuan due to population size consideration.

Geographical Coverage & Sample Size For Each State

- State in Pen Malaysia, minimum sample size n=1,200
- State in East Malaysia, sample size n=1,600
- **These sample size are robust** taking into consideration geographical landscape, different cigarettes volume pattern and efficient turnaround of fieldwork



ICS Research Methodology & Design

I. ICS Universe, Sample Size

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Sampling Coverage of ICS

STATE	DISTRICT COVERED		
Perlis	Kangar		
Kedah	Kuala Muda	Kota Setar	Kulim
	Kubang Pasu	Baling	Pendang
Penang	Timur Laut	Seberang Perai Tengah	Seberang Perai Utara
Perak	Kinta	Larut & Matang	Manjung
	Hilir Perak	Kerian	
Selangor	Petaling	Ulu Langat	Klang
	Gombak	Kuala Langat	
WP	Spread across KL	Spread across Putrajaya	Spread across Labuan
N. Sembilan	Seremban	Jempol	Port Dickson
	Tampin		
Melaka	Melaka	Alor Gajah	
Johor	Johor Bahru	Batu Pahat	Kluang
	Kulai Jaya	Muar	Kota Tinggi
Pahang	Kuantan	Temerloh	Bentong
	Maran	Rompin	Pekan
Terengganu	Kuala Terengganu	Kemaman	Dungun
	Besut		
Kelantan	Kota Bharu	Pasir Mas	Tumpat
	Bachok	Tanah Merah	
Sabah	Kota Kinabau	Tawau	Sandakan
	Lahad Datu	Keningau	Semporna
	Papar	Penampang	Beluran
	Tuaran	Ranau	Kota Belud
Sarawak	Kuching	Miri	Sibu
	Bintulu	Serian	Samarahan
	Sri Aman	Sarikei	Kapit
	Bau	Limbang	Saratok

- Nationwide
- All 13 states in Peninsular and East Malaysia and 3 Federal Territories
- Covers each state's **top 50% most populous** districts
- The sampling approach ensure **both Urban & Rural** coverage reflects data released by Malaysia Department of Statistic (Census 2010)

Flow Chart For Pre-Fieldwork & Fieldwork

Establish starting point of collection



Collect 25 packs from the street each week

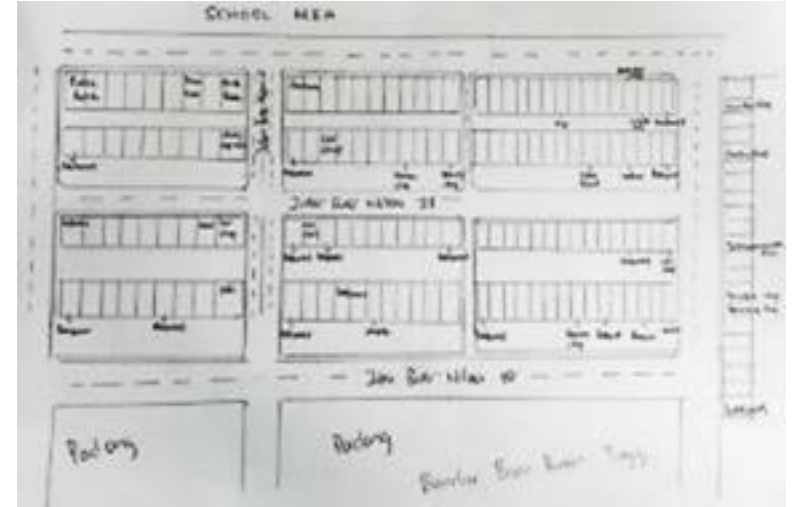


Attach label to bag: Standard label with the following:

- *State*
- *Location collected*
- *Area type*
- *Date of collection*



Packs will then be delivered to Nielsen's Head Office at KL for coding



Guidelines For Pack Collection

- All Packs collected from the collection points must be in decent condition. If not Lembah Sari Sdn. Bhd. will not be able to validate the authenticity of a pack if the packs are so badly damaged that certain key elements are missing
- Instruction to collectors is to collect pack in decent condition.
- No instruction on brand restriction is issued (hence, [rejection of packs in poor condition applies to all](#) brands)
- As such, collectors will have no preference on the packs being collected as long as it is in decent condition
- Remuneration for packs collected are standard across all pack type / brand



Visual Examples of Unacceptable Packs

ICS Research Methodology & Design

I. ICS Universe, Sample Size

II. Sampling Coverage Of ICS and Fieldwork

III. Coding Processes

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V. Weighting The Survey Data

A Robust SOP For Pack Verification & Coding Process

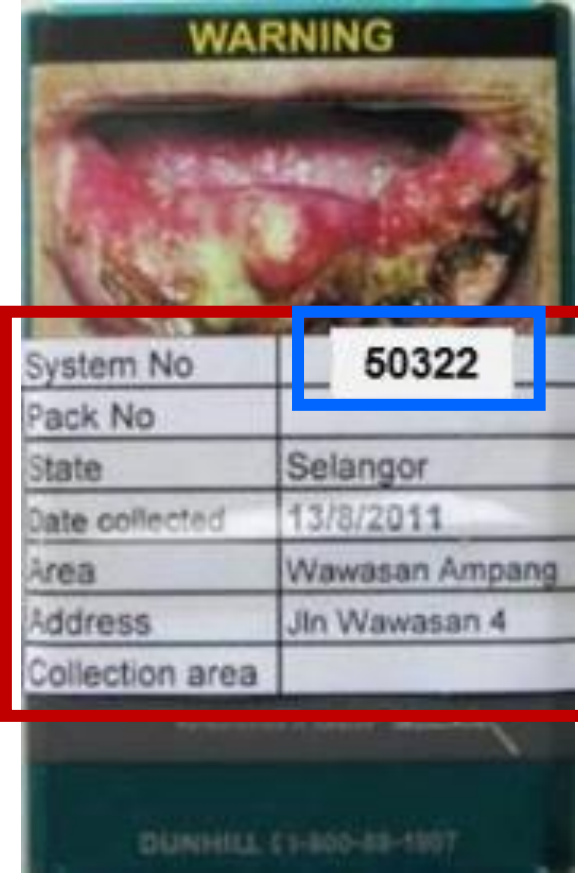
The following diagram illustrates the pack verification & coding process



Coding & Storage Process At Nielsen HQ



1. Packs which arrive at Nielsen HQ are assigned a unique pack ID number



Pack Sample

A unique ID is assigned to each pack when it reach Nielsen HQ

Each cigarettes pack which arrive will have a sticker with details on when and where it is collected

Coding & Storage Process At Nielsen HQ



2. Once the pack ID number is assigned, data entry process will begin. All information on the pack will be captured



3. When data entry is completed, the packs are sorted by brands and types



Coding & Storage Process At Nielsen HQ

4. Once the sorting is complete, the cigarettes packs are stored on shelves with labeling for easy retrieval when required



Illegal Cigarettes Criteria For Verification

Packs with at least one (1) of the following features:

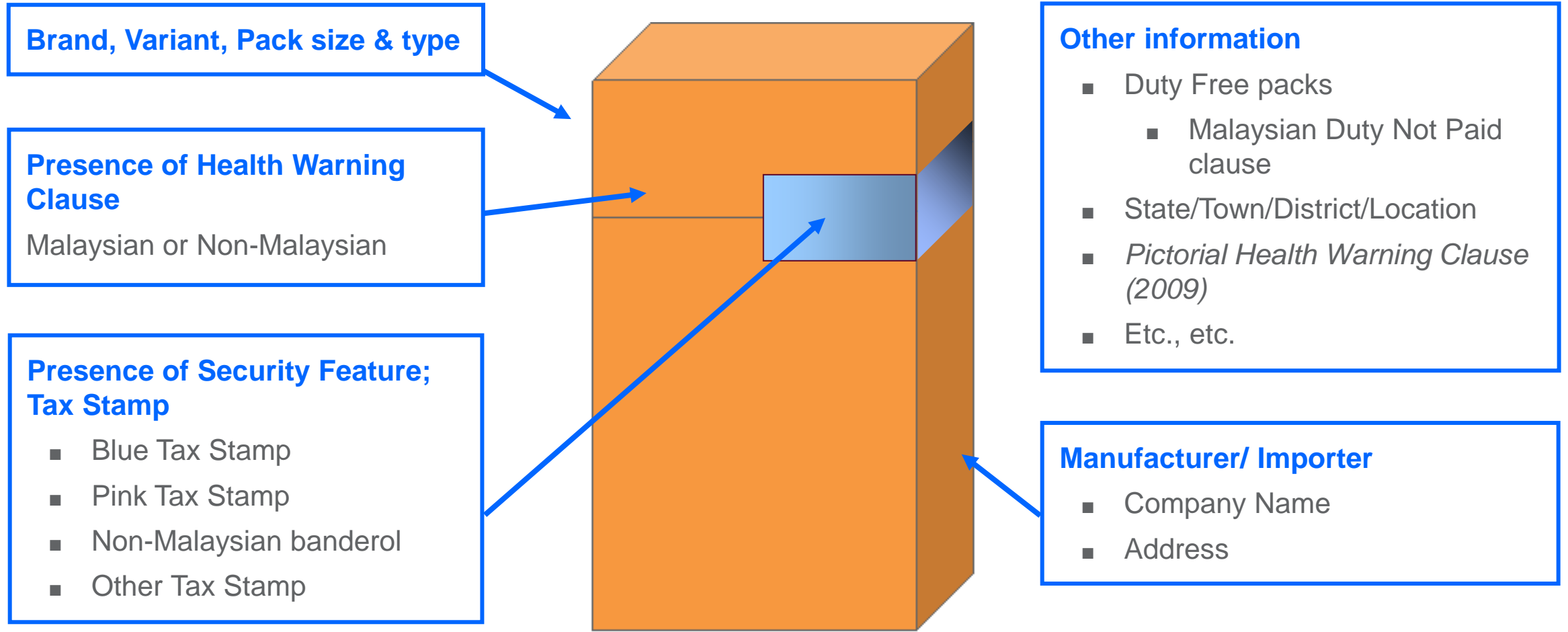
1. Absence of Registered Importers
2. Unregistered Importers*
3. Absence of Registered Manufacturers
4. Unregistered Manufacturers*
5. Packs with counterfeit (fake) Malaysian tax stamp**
6. Packs without Malaysian tax stamp
7. Packs with non-Malaysian tax stamp
8. Unregistered Brand*
9. Non Compliance to Ministry of Health's Control of Tobacco Product Regulations (CTPR) 2004
 - I. Absence or Non Compliance of Pictorial Health Warning Requirements
 - II. Pack Size other than 20 sticks
 - III. Absence or Non Compliance of mandated labeling requirements

Regulations Set By The Malaysian Government

- All locally manufactured cigarettes and imported cigarettes are required to meet the following criteria:
 - **Registered brand** with Customs
 - **Registered manufacturer** with Customs
 - **Registered importer** with Customs (if it is an imported pack)
 - **Malaysian labeling requirements** i.e. pictorial health warning clause, textual health warning clause, “no sales to under 18” clause, manufacturing date, name and address on manufacturer/importer
 - **Pack size** of not less than 20 sticks
- Additional security features for imported / manufactured packs for **domestic** consumption:
 - Blue tax stamp
- Additional security features for imported / manufactured packs for **duty free** consumption:
 - Pink tax stamp

Visible Elements Captured By ICS

The following visible elements is **checked & coded / captured** for **each** of the collected packs by Nielsen Malaysia



Information on registered brands, registered manufacturers/ Importers is provided by CMTM

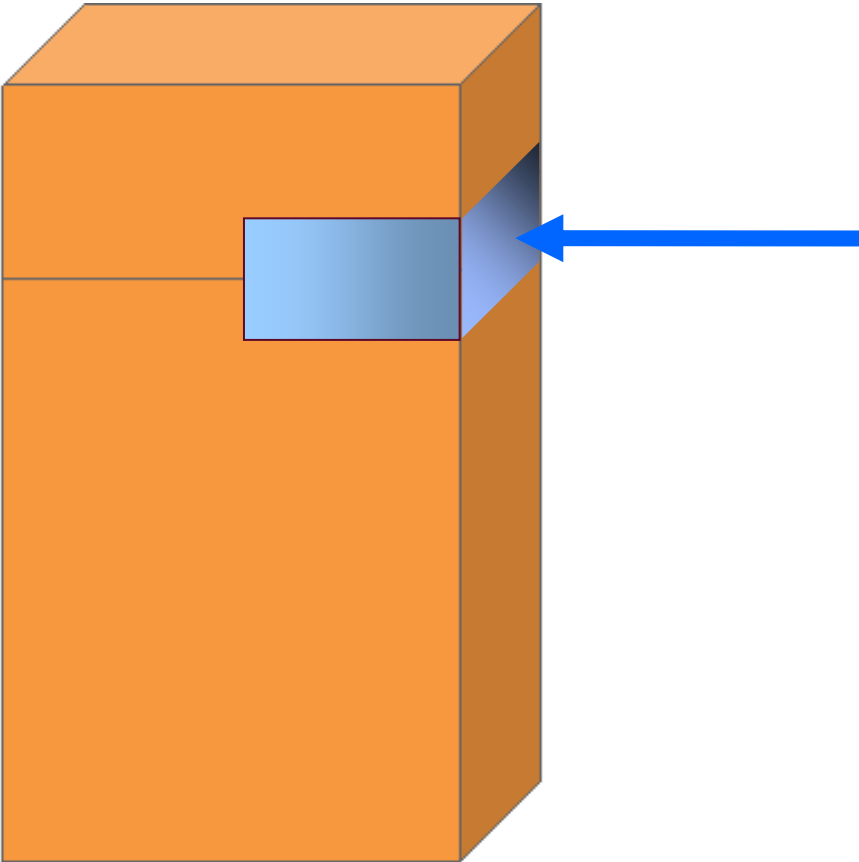
Verification Of Security Tax Stamp

- **Tax Stamps** are verified by Lembah Sari using the special reader/tool
- Verification outcome: **sign off by Lembah Sari** & Nielsen as witness

	A	B	C	D	E	H
1	Local Manufact		F = Fake	X = No Ink	G50 = genuine security ink, DF/MY - fake (tamp	
2						Remarks (by LSSB)
3	No	Pack ID System	Brand	Pack Size	Security Ink	Other Comments
10	7	30720	John	20	F	
11	8	111192	John	20	F	
12	9	110215	John	20	F	
13	10	101121	John	20	F	
14	11	40886	John	20	F	
15	12	40782	John	20	F	
16	13	121022	John	20	F	
17	14	100813	John	20	F	
18	15	121196	John	20	F	
19	16	110975	John	20	F	
20	17	60734	John	20	F	
21	18	110977	John	20	F	
22	19	41164	John	20	F	
23	20	40784	John	20	F	
24	21	40689	John	20	F	
25	22	40788	John	20	F	
26	23	40711	John	20	F	
27	24	10938	John	20	F	
28	25	41050	John	20	F	
29	26	40682	John	20	F	
30	27	40936	John	20	F	
31	28	4167	John	20	F	
32	29	111160	John	20	F	
33	30	41032	John	20	F	
34	31	40639	John	20	F	
35	32	120799	John	20	F	
36	33	40843	John	20	F	
37	34	4188	John	20	F	



Verification Of Security Tax Stamp



Blue Tax Stamp
(Domestic Market)

OR

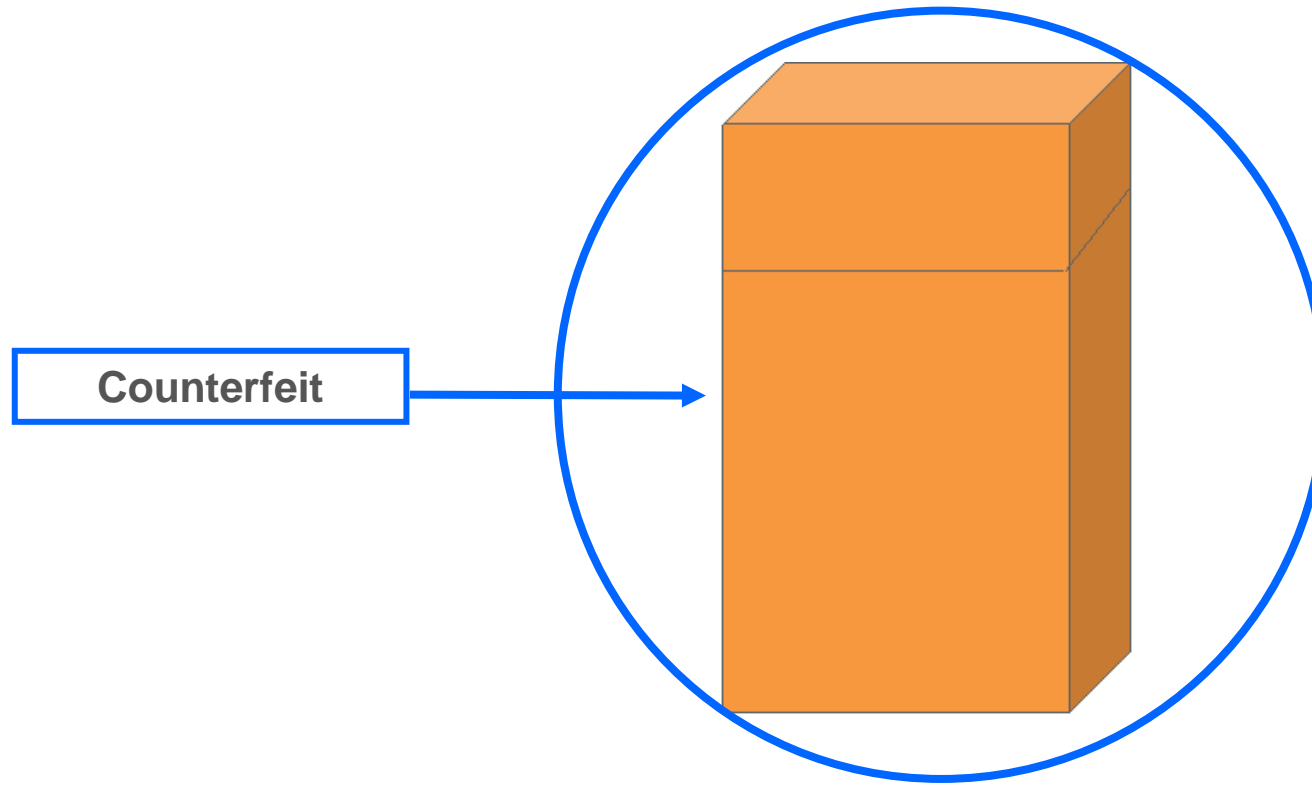


Pink Tax Stamp
(Duty Free Market)



Verification Of Non-Visible Elements

- Only applicable to CMTM members' brands
- **Verification** by the respective member companies' **technical experts**
- Pack **IDs of identified Counterfeit packs** are given to Nielsen Malaysia



ICS Research Methodology & Design

I. ICS Universe, Sample Size

II. Sampling Coverage Of ICS and Fieldwork

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IV. Data Processing

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Data Processing (Data Cleaning & Merging)

- Software program to ensure data accuracy
- Logic checks on brand and manufacturers
- Security feature verification results merged into data file



Control of Response List by Researchers

- Data entry can only input data as per the response list provided
- Any new information to be added to the response list is subject to Research Team approval
- Research Team will review and validate the new details before adding in any new response into the system

Data Processing (Quality Control)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33																																																
Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Dunhill Re	Perlis	Perlis - Ka Urban	Perlis, Kar Jalan Ara, North Per Peter Shy	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Dunhill Re	Perlis	Perlis - Ka Urban	Perlis, Kar Jalan Ara, North Per Dunhill Re	Jin Paser	Jalan Pas East Mela, Dunhill Re	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Winston R	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Dunhill Re	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Dunhill Re	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Dunhill Me	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Dunhill Re	Sabah	Sabah - K Urban	Jin Paser	Jalan Pas East Mela, Dunhill Me	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Gudang G	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Gudang G	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Marlboro	Sabah	Sabah - K Urban	Jin Paser	Jalan Pas East Mela, Premium	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Era Prem	Jin Paser	Jalan Pas East Mela, Premium	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro	Sabah	Sabah - K Urban	Jin Paser	Jalan Pas East Mela, Premium	Perlis	Perlis - Ka Urban	Perlis, Kar Jalan Ara, North Per Marlboro	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R	Sabah	Sabah - K Urban	Jin Paser	Jalan Pas East Mela, Premium	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro
24003	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Dunhill Re																																																																											
7	Wave 3, Week 33, 03/10/20	Oct-12	Perlis	Perlis - Ka Urban	Perlis, Kar Jalan Ara, North Per Peter Shy																																																																											
36003	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Dunhill Re																																																																											
56	Wave 3, Week 33, 03/10/20	Oct-12	Perlis	Perlis - Ka Urban	Perlis, Kar Jalan Ara, North Per Dunhill Re																																																																											
36008	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Dunhill Re																																																																											
36004	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Winston R																																																																											
24004	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Dunhill Re																																																																											
24005	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Dunhill Re																																																																											
36005	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Dunhill Me																																																																											
24006	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Dunhill Re																																																																											
36040	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Dunhill Me																																																																											
36006	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Gudang G																																																																											
36007	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Gudang G																																																																											
36078	Wave 3, Week 33, 03/10/20	Oct-12	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro																																																																											
36041	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Dunhill Me																																																																											
24007	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R																																																																											
24008	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R																																																																											
36042	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Premium																																																																											
36009	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Gudang G																																																																											
36009	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Gudang G																																																																											
36079	Wave 3, Week 33, 03/10/20	Oct-12	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro																																																																											
36010	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Marlboro																																																																											
36043	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Premium																																																																											
36011	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Ton East Mela, Era Prem																																																																											
36044	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Premium																																																																											
24009	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R																																																																											
3609	Wave 3, Week 33, 03/10/20	Oct-12	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro																																																																											
5	Wave 3, Week 33, 03/10/20	Oct-12	Perlis	Perlis - Ka Urban	Perlis, Kar Jalan Ara, North Per Marlboro																																																																											
24010	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R																																																																											
36085	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Premium																																																																											
3681	Wave 3, Week 33, 03/10/20	Oct-12	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro																																																																											
3686	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Premium																																																																											

10% of data entered into the database will be cross-check by a QC personnel to ensure data accuracy and coders are capturing the data correctly

QC personnel will randomly select 10% of packs which has been keyed into the system, cross-compare to ensure pack features is similar to what has been recorded in the system and rectify the data

Besides completing a 10% physical QC check, the database is reviewed to check for data discrepancy against known facts

- E.g. Dunhill belongs to BAT M'sia ,
- Legal packs comes only in pack size of 20s

If any data discrepancies are detected, the affected pack will be extracted and a physical validation process will be undergone

ICS Research Methodology & Design

- I. ICS Universe, Sample Size
- II. Sampling Coverage Of ICS and Fieldwork
- III. Coding Processes
- IV. Data Processing
- V. Weighting The Survey Data**

How Does Nielsen Weight The Data?

Step 1 : Establish the Estimated Legal Industry Volume

- The **estimated legal industry volume** is established based on the following information:
 - In-market sales** as provided independently by British American Tobacco Malaysia (BATM), Philip Morris Malaysia (PMM) and Japan Tobacco International (JTI)
 - Local manufacturers' **volume** and **Malaysian Duty Free** volume from Illicit Cigarettes Study (**ICS**)

	May, 2024	
	('000 sticks)	
CMTM Member Companies (BATM, PMM, JTI)	566,410	Derive from actual in-market sales as provided by CMTM member companies
Other Local manufacturers	0	
Malaysian Duty Free	445	ICS volume estimation is used as substitute since actual data is not available
Total Legal Cigarettes Sales	566,855	

Unit of measurement : thousand sticks

How Does Nielsen Weight The Data?

Step 2 : Establish the Legal Industry Volume contribution by State

- Using in-market sales (3 months average) as provided by CMTM member companies as a guideline, **establish each states' legal volume contribution** towards the national volume of 566,855,000 sticks

	IN-MARKET SALES BY CMTM	STATE'S LEGAL VOLUME CONTRIBUTION
PERLIS	3,332	0.6%
KEDAH	23,094	4.1%
PENANG	39,937	7.1%
PERAK	43,016	7.7%
SELANGOR	134,452	24.0%
WP KL	63,794	11.4%
WP PUTRAJAYA	253	0.0%
N.SEMBILAN	27,610	4.9%
MELAKA	20,163	3.6%
JOHOR	114,688	20.5%
PAHANG	24,248	4.3%
TERENGGANU	11,118	2.0%
KELANTAN	16,195	2.9%
WP LABUAN	219	0.0%
SABAH	20,149	3.6%
SARAWAK	18,346	3.3%
NATIONAL	560,614	

Step 2a. (Using In-Market Sales)

State Legal Volume = $\frac{\text{State's In-Market Volume}}{\text{National Volume}}$ Contribution
 (e.g. $134,452 / 560,614 = 24.0\%$)

	IN-MARKET SALES	STATE'S LEGAL VOLUME CONTRIBUTION	PROJECTED/ ESTIMATED STATE LEGAL VOLUME
SELANGOR	134,452	24.0%	135,948
NATIONAL	560,614		566,855

Step 2b.

Projected States Legal Volume = State Legal Volume Contribution X National Legal Volume
 (derived from In-Market Sales) (obtained from Step 1)
 (e.g. $24.0\% \times 560,614 = 135,948$)

How Does Nielsen Weight The Data?

Step 2 : Key Output

	IN-MARKET SALES BY CMTM	STATE'S LEGAL VOLUME CONTRIBUTION	PROJECTED/ ESTIMATED STATE LEGAL VOLUME
PERLIS	3,332	0.6%	3,369
KEDAH	23,094	4.1%	23,351
PENANG	39,937	7.1%	40,382
PERAK	43,016	7.7%	43,495
SELANGOR	134,452	24.0%	135,948
WP KL	63,794	11.4%	64,504
WP PUTRAJAYA	253	0.0%	256
N.SEMBILAN	27,610	4.9%	27,917
MELAKA	20,163	3.6%	20,388
JOHOR	114,688	20.5%	115,965
PAHANG	24,248	4.3%	24,518
T'GANU	11,118	2.0%	11,242
KELANTAN	16,195	2.9%	16,375
WP LABUAN	219	0.0%	221
SABAH	20,149	3.6%	20,374
SARAWAK	18,346	3.3%	18,550
NATIONAL	560,614		566,855

How Does Nielsen Weight The Data?

Step 3 : Establish the Incidence for Legal / Illegal Cigarettes

- Convert the data from “**packs collected**” to “**sticks**” (based on pack size)
- The **study’s unit of measurement** is based on consumption in **sticks**
 - Though CTPR prohibits the sales of cigarettes below the pack sizes of 20 sticks, **illegal cigarettes** (primarily for illegal kretek) could still be found **in pack sizes below 20 sticks**
 - The **calculation based on number of packs collected** will **create a false inflation** on illegal volume due to the presence of packs sizes below 20 sticks

State	Total packs collected (May'24)	Number of legal packs collected	(Unweighted) Volume of legal packs collected	Number of illegal packs collected	(Unweighted) Volume of illegal packs collected	Total volume (Legal + Illegal)	Incidence of legal cigarettes	Incidence of illegal cigarettes
			A		B	C = A + B	D = A / C	E = B / C
SELANGOR	3,200	1,752	35,040	1,448	26,696	61,736	56.8%	43.2%



Step 3a.
Sum up the number of sticks per pack for all legal packs collected to establish the estimated legal volume in sticks



Step 3b.
Repeat Step 3a to establish the estimated illegal volume in sticks



Step 3c.
Sum up the total consumption for both legal and illegal to establish The estimated total cigarette volume at state level



Step 3d.
Calculate the ratio of estimated legal vs. illegal volume

Top 10 Illegal Cigarettes Brands* For Sarawak

Step 3 : Incidence for Legal / Illegal Cigarettes Key Output

- Establish the level of legal vs. illegal cigarettes ratio in each respective state

State	Total packs collected (May'24)	Number of legal packs collected	(Unweighted) Volume of legal packs collected	Number of illegal packs collected	(Unweighted) Volume of illegal packs collected	Total volume (Legal + Illegal)	Incidence of legal cigarettes	Incidence of illegal cigarettes
			A		B	C = A + B	D = A / C	E = B / C
PERLIS	1,200	535	10,700	665	13,096	23,796	45.0%	55.0%
KEDAH	1,200	668	13,360	532	10,552	23,912	55.9%	44.1%
PENANG	1,200	639	12,780	561	10,740	23,520	54.3%	45.7%
PERAK	1,200	815	16,300	385	7,643	23,943	68.1%	31.9%
SELANGOR	3,200	1,752	35,040	1,448	26,696	61,736	56.8%	43.2%
WP KL	1,300	721	14,420	579	10,530	24,950	57.8%	42.2%
WP PUTRAJAYA	400	216	4,240	184	3,113	7,353	57.7%	42.3%
N.SEMBILAN	1,200	684	13,680	516	10,036	23,716	57.7%	42.3%
MELAKA	1,200	450	9,000	750	14,907	23,907	37.6%	62.4%
JOHOR	1,900	932	18,640	968	19,188	37,828	49.3%	50.7%
PAHANG	1,200	248	4,960	952	17,971	22,931	21.6%	78.4%
T'GANU	1,200	338	6,760	862	16,850	23,610	28.6%	71.4%
KELANTAN	1,200	553	11,060	647	12,596	23,656	46.8%	53.2%
WP LABUAN	400	80	1,600	320	6,392	7,992	20.0%	80.0%
SABAH	1,600	325	6,500	1,275	25,096	31,596	20.6%	79.4%
SARAWAK	1,600	326	6,520	1,274	24,744	31,264	20.9%	79.1%

How Does Nielsen Weight The Data?

Step 4 : Project Total Market Volume

- Once each states' estimated legal volume and legal incidence have been established, the numbers will be used to project total industry volume for each state

	STATE LEGAL VOLUME	LEGAL INCIDENCE	TOTAL MARKET VOLUME	STATE ILLEGAL VOLUME
	A	B	$C = A / B$	$D = C - A$
SELANGOR	135,948	56.8%	239,524	103,575



Step 4a.
 Based on the incidence for legal cigarettes of 56.9% in Selangor, project the total volume for the state
 (e.g. 135,948 divide by 56.8% = 239,524)



Step 4b.
 Illegal volume is established by subtracting the projected total state's volume with the legal volume
 (e.g. 239,524 – 135,948 = 103,575)

How Does Nielsen Weight The Data?

Step 4 : Key Output - Illegal Cigarettes Incidence @ National level

- Repeat the same process in Step 4 for all States

	STATE LEGAL VOLUME	LEGAL INCIDENCE	TOTAL MARKET VOLUME	STATE ILLEGAL VOLUME
PERLIS	3,369	45.0%	7,493	4,124
KEDAH	23,351	55.9%	41,794	18,443
PENANG	40,382	54.3%	74,318	33,936
PERAK	43,495	68.1%	63,889	20,394
SELANGOR	135,948	56.8%	239,524	103,575
WP KL	64,504	57.8%	111,607	47,103
WP PUTRAJAYA	256	57.7%	443	188
N.SEMBILAN	27,917	57.7%	48,397	20,481
MELAKA	20,388	37.6%	54,157	33,769
JOHOR	115,965	49.3%	235,340	119,374
PAHANG	24,518	21.6%	113,353	88,835
TERENGGANU	11,242	28.6%	39,262	28,021
KELANTAN	16,375	46.8%	35,025	18,650
WP LABUAN	221	20.0%	1,104	883
SABAH	20,374	20.6%	99,034	78,661
SARAWAK	18,550	20.9%	88,948	70,398
NATIONAL	566,855		1,253,690	686,835

Divide **National Illegal Volume 686,835** with **National Total Market Volume 1,253,690** **54.8%**

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