

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

Report Commissioned by CMTM member companies



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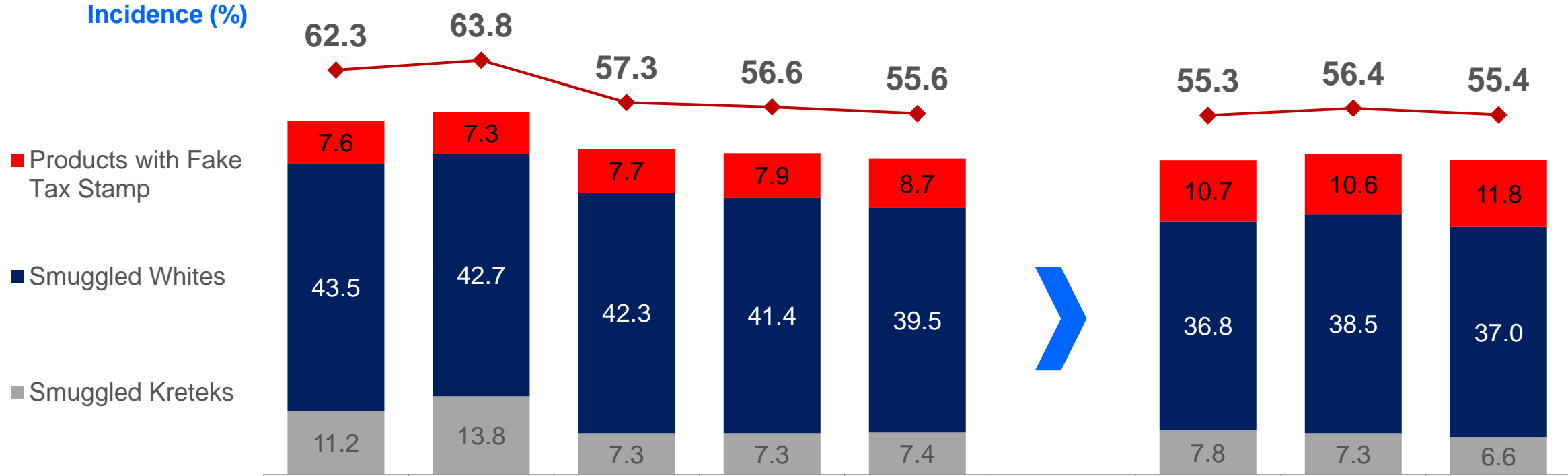
Illegal Cigarettes Criteria For Verification

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 :

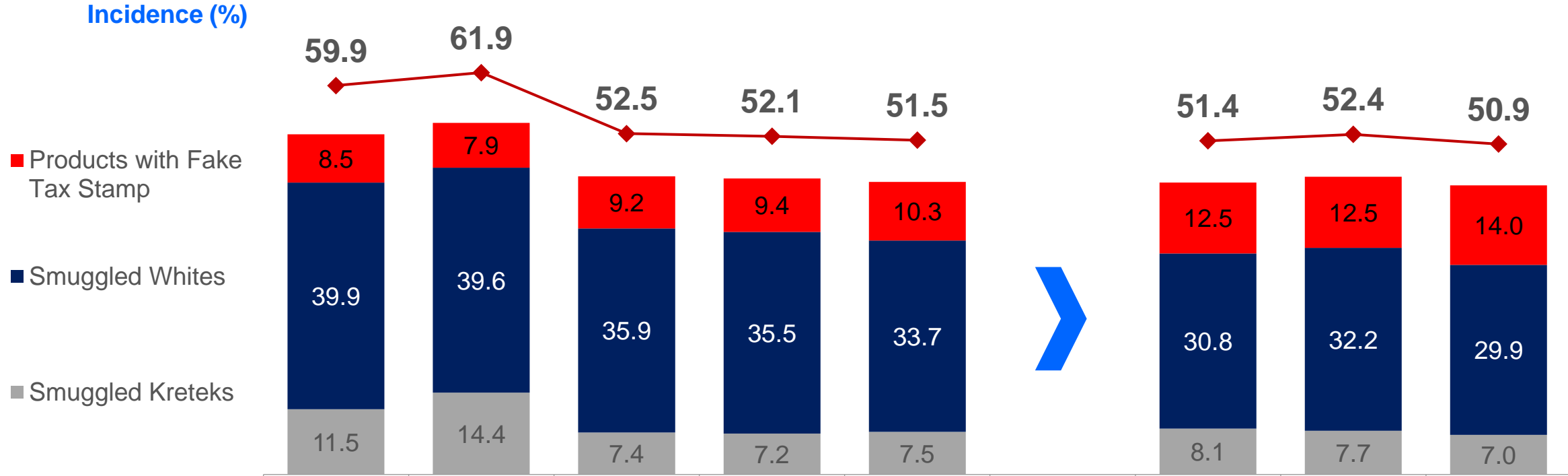
Overall decrease by 1.0 ppt. vs. Jan, 2024



Volume (Billions sticks)	2019	2020	2021	2022	2023	Nov, 2023	Jan, 2024	Mar, 2024
Legal Cigarettes	7.3	6.7	6.9	7.1	7.1	0.6	0.5	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	1.3	1.2	1.3
Incidence	62.3%	63.8%	57.3%	56.6%	55.6%	55.3%	56.4%	55.4%

Illegal Cigarettes Incidence In Pen. Malaysia :

Overall decrease by 1.5 ppt. vs. Jan, 2024



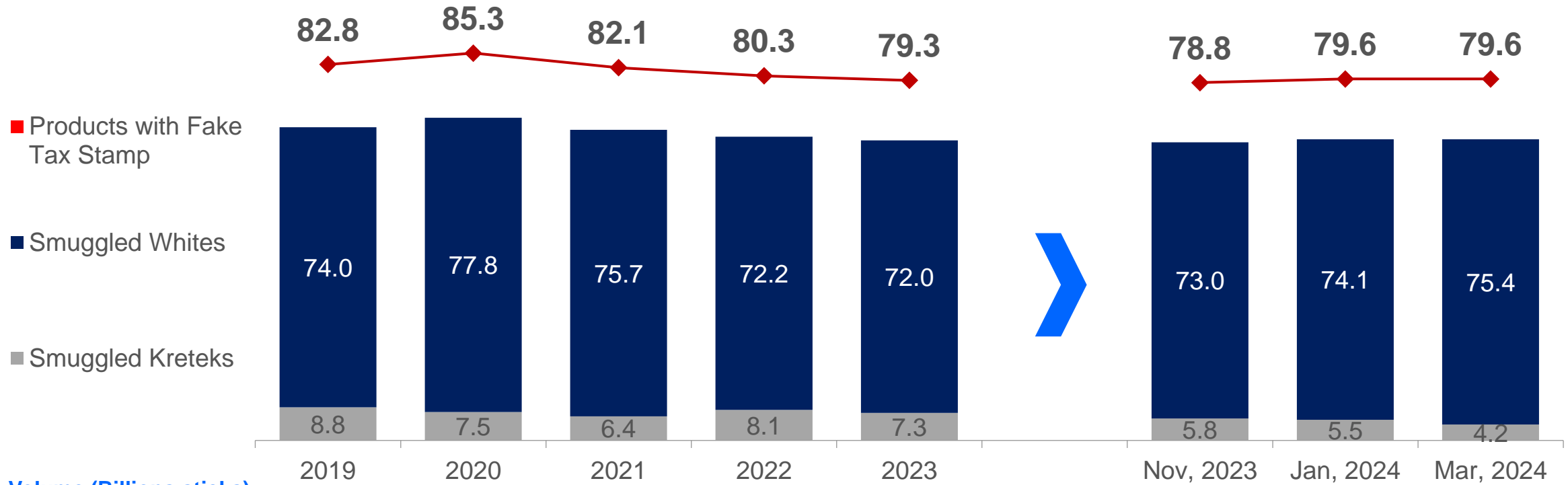
Volume (Billions sticks)

	2019	2020	2021	2022	2023	Nov, 2023	Jan, 2024	Mar, 2024
Legal Cigarettes	7.0	6.5	6.4	6.6	6.6	0.55	0.48	0.52
Illegal Cigarettes	10.5	10.4	7.0	7.2	7.0	0.58	0.52	0.54
Estimated Total industry	17.5	16.9	13.4	13.8	13.6	1.13	1.00	1.06
Incidence	59.9%	61.9%	52.5%	52.1%	51.5%	51.4%	52.4%	50.9%

Illegal Cigarettes Incidence In East Malaysia :

Remain unchanged vs. Jan, 2024

Incidence (%)



Volume (Billions sticks)

	2019	2020	2021	2022	2023	Nov, 2023	Jan, 2024	Mar, 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	0.15	0.14	0.16
Estimated Total industry	2.0	1.5	2.6	2.6	2.4	0.19	0.18	0.20
Incidence	82.8%	85.3%	82.1%	80.3%	79.3%	78.8%	79.6%	79.6%

Top 10 Illegal Cigarettes Brands*

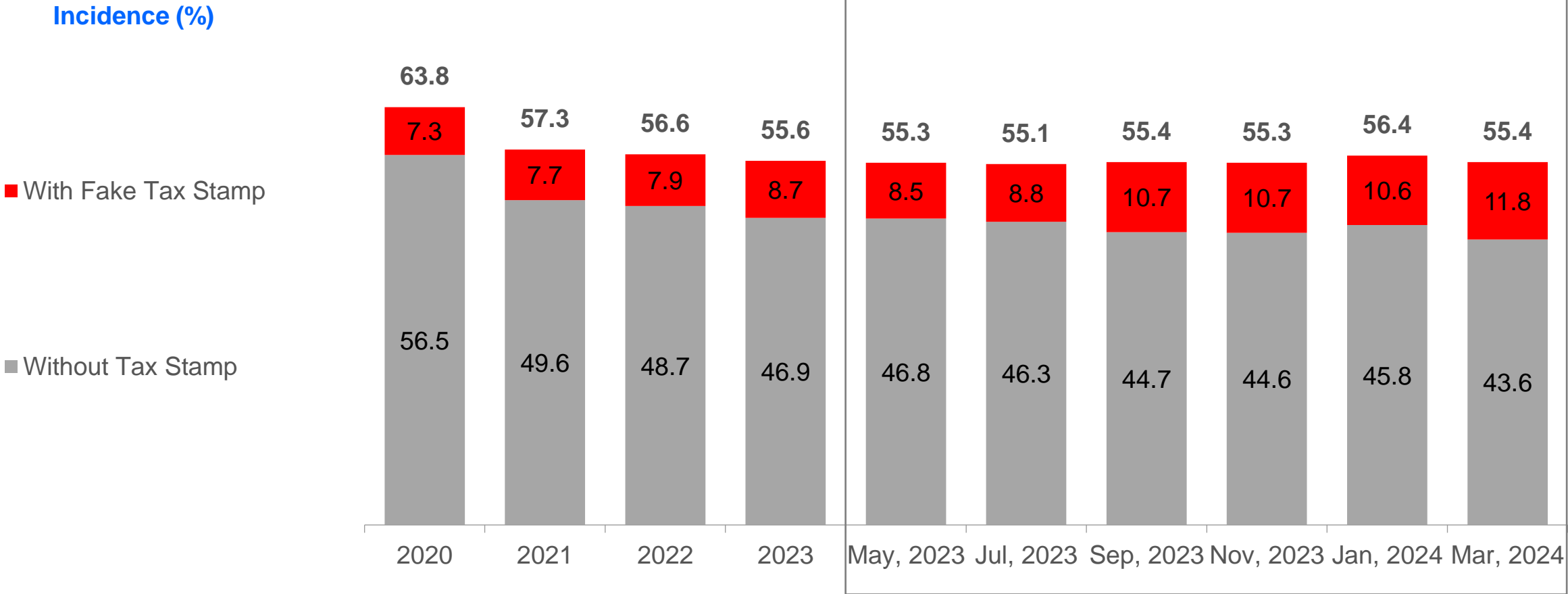
They account for approximately 75% of illegal cigarettes volume

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	13.0	13.3	13.7
2.	Era	8.3	7.9	7.4
3.	Canyon	4.0	4.5	5.6
4.	U2	3.3	3.9	4.4
5.	Gudang Garam	3.0	4.1	4.2
6.	Bosston*	2.8	3.3	1.7
7.	L.A.	2.2	2.4	2.3
8.	Misto*	2.2	2.0	1.4
9.	Parkway	1.6	1.8	1.5
10.	Concept*	1.4	0.7	0.8
Top 10 Total		41.8	43.9	43.0
<i>Other Illegal</i>		13.6	12.5	12.6
Total Illegal %		55.4	56.4	55.6

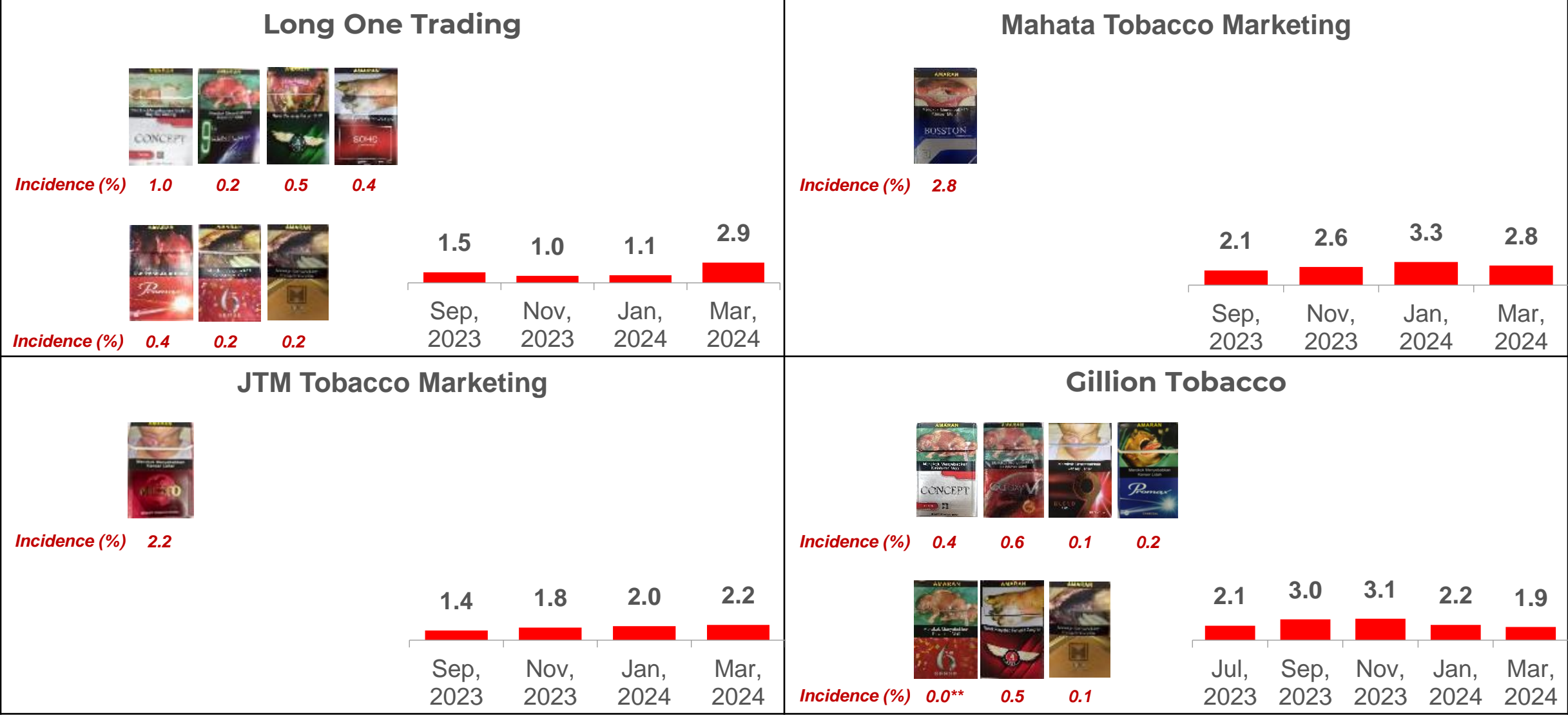


Tax Stamp Breakdown Of Illegal Cigarettes :

- 79% of illegal cigarettes are without tax stamps while remaining 21% are with fake tax stamps

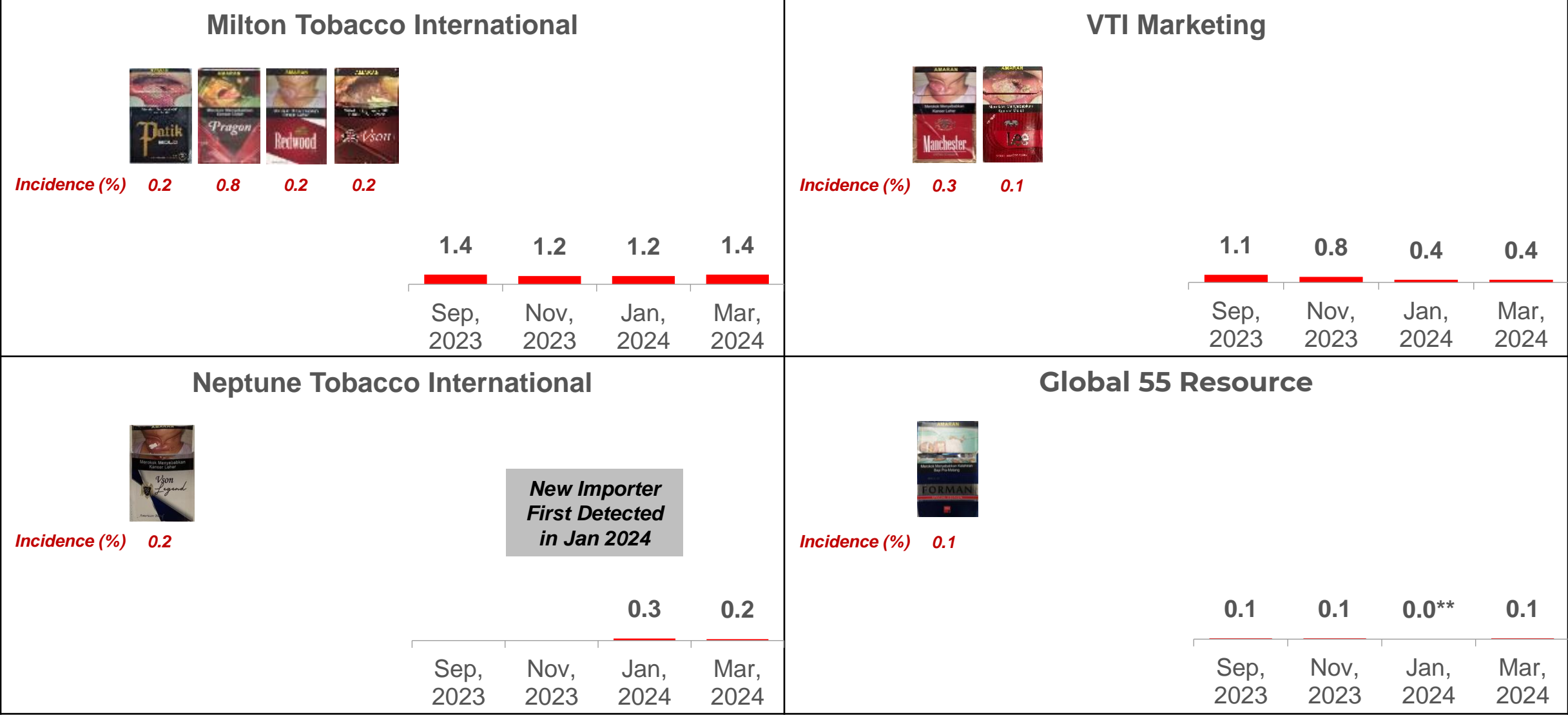


Fake Tax Stamp Breakdown By Importers :






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

Fake Tax Stamp Breakdown By Importers :



**New Importer
First Detected
in Jan 2024**

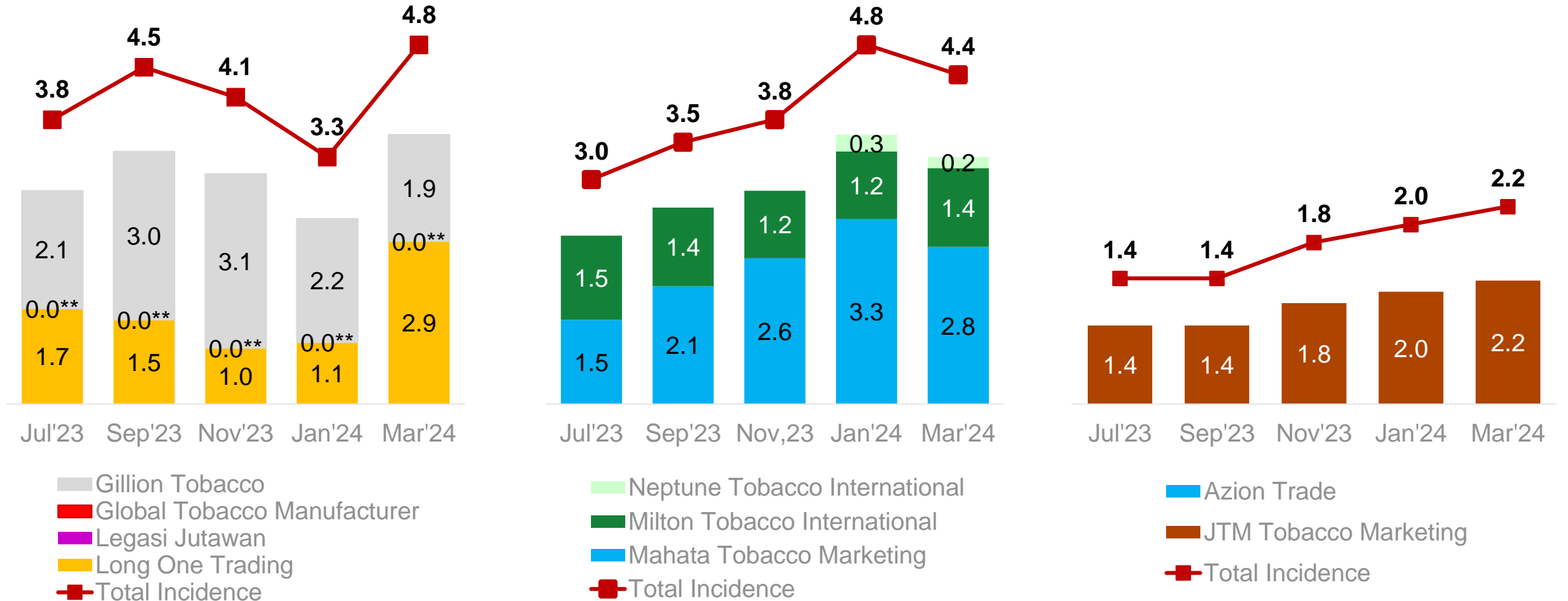
Fake Tax Stamp Breakdown By Importers :

Pacific Tobacco Company					Global Tobacco Manufacturer				
 <p>Incidence (%) 0.0**</p>					 <p>Incidence (%) 0.0**</p>				
0.1					0.0**				
0.0**					0.0**				
0.0**					0.0**				
Sep, 2023					Sep, 2023				
Nov, 2023					Nov, 2023				
Jan, 2024					Jan, 2024				
Mar, 2024					Mar, 2024				
Legasi Jutawan									
 <p>Incidence (%) 0.0**</p>									
0.0**									
0.0**									
0.0**									
0.0**									
Sep, 2023									
Nov, 2023									
Jan, 2024									
Mar, 2024									

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 JTM Tobacco Marketing, Milton Tobacco International and Long One Trading have increased in Mar'24



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

Illegal Cigarettes Incidence By State :

4 States recording an increase vs. Jan 2024

	A Mar, 2024				B Jan, 2024				A minus B Variance (Mar'2024 vs. Jan'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	%
Sarawak	80.7	0.1	73.3	7.3	80.3	0.0	71.7	8.6	+0.4	+0.1	+1.6	-1.3	11%
Pahang	79.4	16.2	52.8	10.4	80.7	13.6	52.2	14.9	-1.3	+2.6	+0.6	-4.5	13%
WP Labuan	79.3	0.0	75.3	4.0									0%**
Sabah	78.7	0.0	77.5	1.2	78.9	0.0	76.2	2.7	-0.2	0.0	+1.3	-1.5	11%
Terengganu	69.4	18.1	47.3	4.0	70.5	13.2	54.0	3.3	-1.1	+4.9	-6.7	+0.7	4%
Melaka	59.4	32.2	22.8	4.4	56.2	32.0	21.4	2.8	+3.2	+0.2	+1.4	+1.6	4%
Johor	55.0	23.6	28.8	2.6	57.0	21.8	30.0	5.2	-2.0	+1.8	-1.2	-2.6	20%
Kelantan	51.1	0.7	50.0	0.4	60.3	0.3	59.4	0.6	-9.2	+0.4	-9.4	-0.2	2%
Perlis	48.1	3.9	42.8	1.4	41.8	0.8	36.8	4.2	+6.3	+3.1	+6.0	-2.8	0%**
Penang	45.9	7.2	35.6	3.1	47.8	5.9	39.0	2.9	-1.9	+1.3	-3.4	+0.2	5%
Selangor	43.1	6.2	22.8	14.1	44.7	6.3	26.3	12.1	-1.6	-0.1	-3.5	+2.0	14%
WP KL	41.0	1.7	25.8	13.5	42.1	1.0	28.0	13.1	-1.1	+0.7	-2.2	+0.4	7%
N.Sembilan	40.8	24.9	13.4	2.5	42.0	24.7	15.9	1.4	-1.2	+0.2	-2.5	+1.1	3%
WP Putrajaya	40.7	1.8	24.5	14.4									0%**
Kedah	36.5	12.4	23.5	0.6	32.4	8.8	23.4	0.2	+4.1	+3.6	+0.1	+0.4	2%
Perak	32.2	13.1	18.1	1.0	33.2	12.5	19.7	1.0	-1.0	+0.6	-1.6	0.0	3%
National Incidence	55.4	11.8	37.0	6.6	56.4	10.6	38.5	7.3	-1.0	+1.2	-1.5	-0.7	100%

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

Illegal Cigarettes Incidence By State :

5 States recording an increase vs. 2023

	A Mar, 2024				B 2023				A minus B Variance (Mar'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	%
Sarawak	80.7	0.1	73.3	7.3	80.2	0.0	68.1	12.1	+0.5	+0.1	+5.2	-4.8	11%
Pahang	79.4	16.2	52.8	10.4	77.7	12.3	54.2	11.2	+1.7	+3.9	-1.4	-0.8	13%
WP Labuan	79.3	0.0	75.3	4.0									0%**
Sabah	78.7	0.0	77.5	1.2	78.4	0.0	76.2	2.2	+0.3	0.0	+1.3	-1.0	11%
Terengganu	69.4	18.1	47.3	4.0	68.4	11.5	51.8	5.1	+1.0	+6.6	-4.5	-1.1	4%
Melaka	59.4	32.2	22.8	4.4	49.2	27.5	19.1	2.6	+10.2	+4.7	+3.7	+1.8	4%
Johor	55.0	23.6	28.8	2.6	56.0	17.0	32.6	6.4	-1.0	+6.6	-3.8	-3.8	20%
Kelantan	51.1	0.7	50.0	0.4	56.9	1.0	53.5	2.4	-5.8	-0.3	-3.5	-2.0	2%
Perlis	48.1	3.9	42.8	1.4	50.6	1.6	41.3	7.7	-2.5	+2.3	+1.5	-6.3	0%**
Penang	45.9	7.2	35.6	3.1	46.8	8.0	35.7	3.1	-0.9	-0.8	-0.1	0.0	5%
Selangor	43.1	6.2	22.8	14.1	45.3	4.3	29.0	12.0	-2.2	+1.9	-6.2	+2.1	14%
WP KL	41.0	1.7	25.8	13.5	41.4	1.1	30.2	10.1	-0.4	+0.6	-4.4	+3.4	7%
N.Sembilan	40.8	24.9	13.4	2.5	41.3	21.1	16.7	3.5	-0.5	+3.8	-3.3	-1.0	3%
WP Putrajaya	40.7	1.8	24.5	14.4									0%**
Kedah	36.5	12.4	23.5	0.6	46.4	6.0	36.7	3.7	-9.9	+6.4	-13.2	-3.1	2%
Perak	32.2	13.1	18.1	1.0	34.4	13.0	20.4	1.0	-2.2	+0.1	-2.3	0.0	3%
National Incidence	55.4	11.8	37.0	6.6	55.6	8.7	39.5	7.4	-0.2	+3.1	-2.5	-0.8	100%

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

Top 10 Illegal Cigarettes Brands* For WP Putrajaya

- Volume contribution to National = 7%

		Mar, 2024
		SOM
Illegal Brand		(%)
1.	John	8.9
2.	L.A.	7.5
3.	U2	5.5
4.	Gudang Garam	5.5
5.	Zon King	4.4
6.	Canyon	3.1
7.	Luffman	2.6
8.	Sampoerna	1.5
9.	Bosston*	0.8
10.	Vson*	0.5
Top 10 Total		40.3

<i>Other Illegal</i>		0.4
Total Illegal %		40.7

Jan, 2024
SOM
(%)
[Redacted]

2023
SOM
(%)
[Redacted]

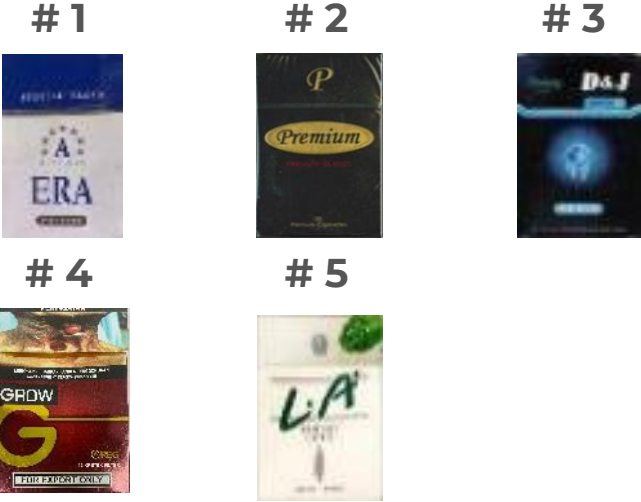


* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise

Top 5 Illegal Cigarettes Brands* For WP Labuan

- Volume contribution to National = 11%

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Era	62.1		
2.	Premium	9.3		
3.	D&J	3.8		
4.	Grow	3.6		
5.	L.A.	0.5		
Top 5 Total		79.3		
<i>Other Illegal</i>		-		
Total Illegal %		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 Perlis

- Volume contribution to National = 0%**

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	36.3	32.5	33.2
2.	Vess	6.2	4.1	5.9
3.	Vson*	3.4	0.2	0.0**
4.	Gudang Garam	1.0	4.2	7.0
5.	Touro	0.4	-	0.4
6.	D&J	0.2	-	0.3
7.	Misto*	0.2	0.3	1.1
8.	A380*	0.2	0.1	0.1
9.	Redwood*	0.1	-	0.0**
10.	Concept*	0.1	-	0.0**
Top 10 Total		48.1	41.4	48.0
<i>Other Illegal</i>		-	0.4	2.6
Total Illegal %		48.1	41.8	50.6



Top 10 Illegal Cigarettes Brands* For Kedah

- Volume contribution to National = 1%

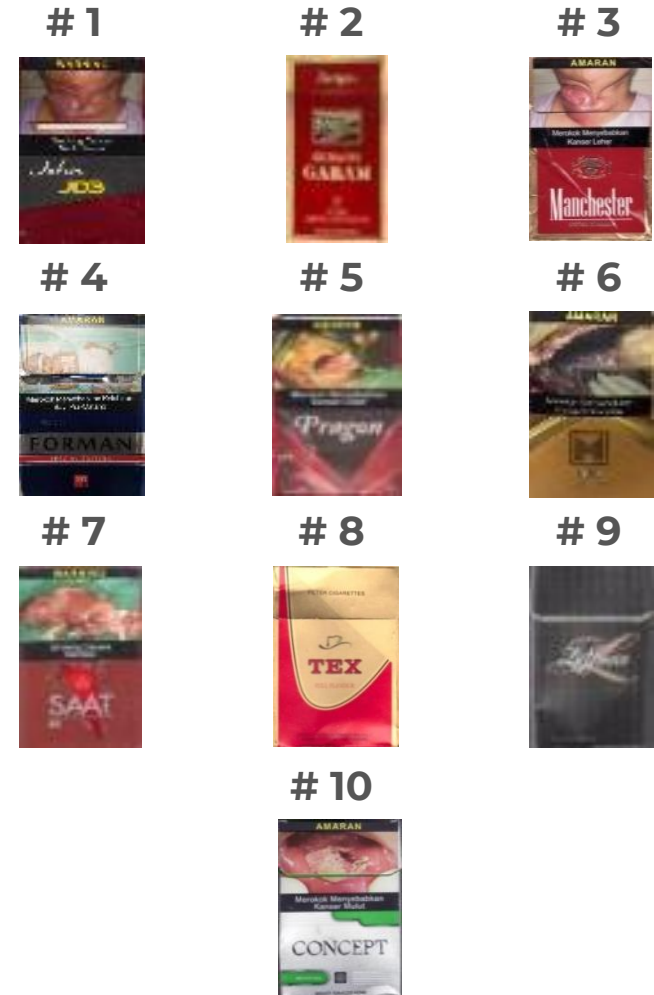
		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	9.4	14.3	24.6
2.	Tiara	7.1	6.0	3.7
3.	Vson*	6.3	3.0	0.8
4.	Vess	5.9	2.5	3.9
5.	Misto*	3.8	3.2	0.3
6.	A380*	2.4	0.3	1.9
7.	iFace	0.7	0.6	-
8.	Gudang Garam	0.5	0.2	3.6
9.	Touro	0.1	-	0.0**
10.	Era	0.1	-	0.0**
Top 10 Total		36.3	30.1	38.8
<i>Other Illegal</i>		<i>0.2</i>	<i>2.3</i>	<i>7.6</i>
Total Illegal %		36.5	32.4	46.4



Top 10 Illegal Cigarettes Brands* For Penang

- Volume contribution to National = 5%

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	32.9	36.4	31.4
2.	Gudang Garam	2.9	2.6	2.8
3.	Manchester*	1.4	1.5	2.5
4.	Forman*	1.4	0.4	0.3
5.	Pragon*	1.0	0.7	1.0
6.	M*	1.0	0.5	0.6
7.	Saat	0.9	-	1.4
8.	Tex	0.8	1.1	1.0
9.	Luffman	0.7	0.4	0.4
10.	Concept*	0.7	0.9	0.9
Top 10 Total		43.7	44.5	42.3
<i>Other Illegal</i>		2.2	3.3	4.5
Total Illegal %		45.9	47.8	46.8



Top 10 Illegal Cigarettes Brands* For Perak

- Volume contribution to National = 3%

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	10.6	12.9	12.3
2.	D&J	4.1	3.9	3.7
3.	Misto*	3.1	3.1	1.7
4.	9 th Century*	2.5	2.3	1.7
5.	Manchester*	1.8	1.6	1.8
6.	Canyon	1.5	1.6	1.8
7.	Pragon*	1.4	1.0	1.4
8.	Concept*	0.8	1.3	2.2
9.	Gudang Garam	0.7	0.8	0.7
10.	Lee*	0.6	0.1	0.3
Top 10 Total		27.1	28.6	27.6
<i>Other Illegal</i>		<i>5.1</i>	<i>4.6</i>	<i>6.8</i>
Total Illegal %		32.2	33.2	34.4



Top 10 Illegal Cigarettes Brands* For Selangor

- Volume contribution to National = 16%

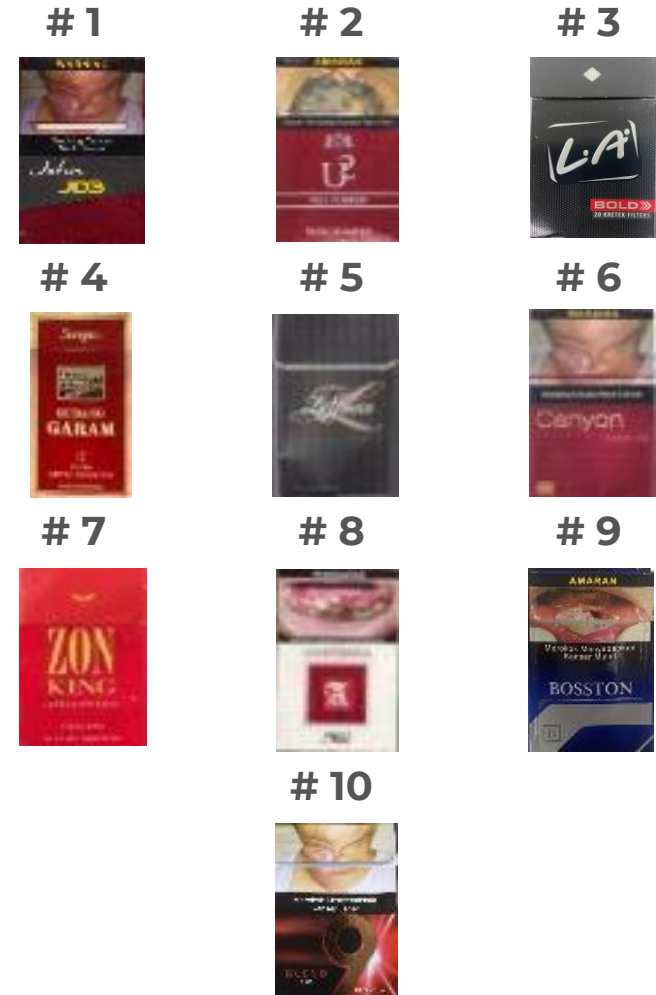
		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	8.9	8.1	10.9
2.	L.A.	6.8	6.2	4.8
3.	Gudang Garam	5.5	4.6	6.3
4.	U2	4.5	5.7	7.0
5.	Canyon	3.6	4.8	4.9
6.	Zon King	2.8	3.1	2.0
7.	Luffman	2.6	3.8	3.1
8.	A380*	1.9	2.5	1.4
9.	Sampoerna	1.4	0.7	0.6
10.	Misto*	1.1	1.0	0.9
Top 10 Total		39.1	40.5	41.9
<i>Other Illegal</i>		4.0	4.2	3.4
Total Illegal %		43.1	44.7	45.3



Top 10 Illegal Cigarettes Brands* For WP KL

- Volume contribution to National = 7%

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	10.9	9.4	11.0
2.	U2	6.9	7.8	7.3
3.	L.A.	6.8	6.6	5.0
4.	Gudang Garam	5.1	4.9	4.4
5.	Luffman	3.1	4.1	4.4
6.	Canyon	2.5	3.8	3.9
7.	Zon King	2.1	2.8	3.2
8.	Sampoerna	1.3	1.2	0.6
9.	Bosston*	0.4	0.1	0.2
10.	9th Century*	0.3	0.2	0.1
Top 10 Total		39.4	40.9	40.1
<i>Other Illegal</i>		1.6	1.2	1.3
Total Illegal %		41.0	42.1	41.4



Top 10 Illegal Cigarettes Brands* For Negeri Sembilan

- Volume contribution to National = 3%

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	A380*	8.3	9.0	6.9
2.	Misto*	7.0	6.5	6.8
3.	Canyon	6.2	7.2	7.9
4.	John	5.4	5.6	5.0
5.	6 th Sense*	4.4	2.8	2.8
6.	Concept*	1.3	0.3	0.4
7.	Gudang Garam	1.3	0.8	3.0
8.	Bosston*	1.0	1.0	1.0
9.	Vson*	0.8	0.3	0.1
10.	Touro	0.8	0.4	0.1
Top 10 Total		36.5	33.9	34.0
<i>Other Illegal</i>		<i>4.3</i>	<i>8.1</i>	<i>7.3</i>
Total Illegal %		40.8	42.0	41.3



Top 10 Illegal Cigarettes Brands* For Melaka

- Volume contribution to National = 4%

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Bosston*	14.6	13.3	4.9
2.	John	12.6	16.3	10.7
3.	Canyon	7.8	4.6	7.7
4.	Misto*	6.2	7.4	4.1
5.	SOHO*	4.1	1.4	7.6
6.	Gudang Garam	2.9	1.5	2.2
7.	Pragon*	2.5	5.2	1.3
8.	Galaxy*	1.8	1.8	0.8
9.	Zon King	1.7	0.2	0.2
10.	Promax	1.1	0.2	3.1
Top 10 Total		55.3	51.9	42.6
<i>Other Illegal</i>		<i>4.1</i>	<i>4.3</i>	<i>6.6</i>
Total Illegal %		59.4	56.2	49.2



Top 10 Illegal Cigarettes Brands* For Johor

- Volume contribution to National = 20%

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Canyon	8.1	10.9	13.2
2.	Bosston*	6.3	6.6	3.3
3.	John	6.2	5.9	8.9
4.	U2	5.7	3.7	5.8
5.	Misto*	4.4	4.4	2.9
6.	NYX	4.2	4.3	1.9
7.	D&J	3.2	4.3	1.8
8.	Concept*	2.2	1.8	1.3
9.	Promax*	2.2	1.2	1.4
10.	Galaxy*	2.0	0.3	0.9
Top 10 Total		44.5	43.4	41.4
<i>Other Illegal</i>		10.5	13.6	14.6
Total Illegal %		55.0	57.0	56.0



Top 10 Illegal Cigarettes Brands* For Pahang

- Volume contribution to National = 14%

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	36.4	34.7	29.4
2.	Canyon	9.2	4.9	11.7
3.	Gudang Garam	7.9	14.9	9.4
4.	Bosston*	6.8	13.5	7.3
5.	Concept	6.5	-	2.3
6.	U2	6.0	12.4	11.7
7.	L.A.	1.4	-	0.6
8.	Pragon	0.9	-	1.0
9.	Gajah Baru	0.5	-	0.7
10.	Galaxy	0.4	-	0.0**
Top 10 Total		76.0	80.4	74.1
<i>Other Illegal</i>		<i>3.4</i>	<i>0.3</i>	<i>3.6</i>
Total Illegal %		79.4	80.7	77.7



Top 10 Illegal Cigarettes Brands* For Terengganu

- Volume contribution to National = 4%

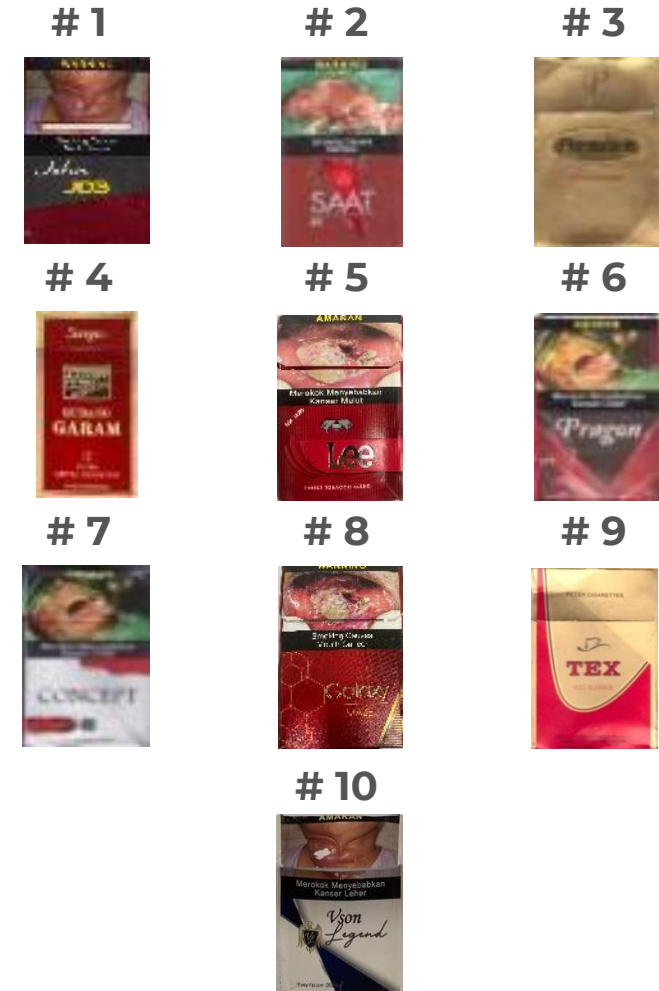
		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	36.1	41.5	39.2
2.	Misto*	9.0	5.8	1.7
3.	Saat	4.1	5.5	4.5
4.	Pragon*	3.5	3.0	4.3
5.	U2	3.0	2.8	4.2
6.	Bosston*	2.5	2.1	1.7
7.	Gudang Garam	2.4	2.7	4.3
8.	Premium	1.4	1.4	1.5
9.	Gajah Baru	1.2	0.1	0.6
10.	A380*	1.1	0.8	0.6
Top 10 Total		64.3	66.4	62.8
<i>Other Illegal</i>		<i>5.1</i>	<i>4.1</i>	<i>5.6</i>
Total Illegal %		69.4	70.5	68.4



Top 10 Illegal Cigarettes Brands* For Kelantan

- Volume contribution to National = 3%

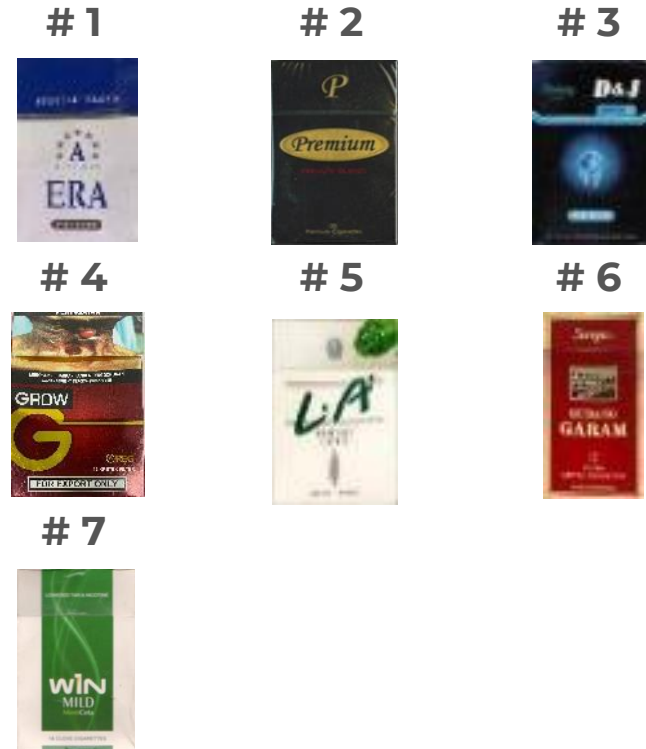
		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	40.3	31.4	32.2
2.	Saat	8.8	25.4	17.6
3.	Premium	0.4	0.1	1.5
4.	Gudang Garam	0.4	0.6	2.4
5.	Lee	0.3	1.8	0.9
6.	Pragon*	0.3	0.2	0.1
7.	Concept*	0.2	0.1	0.8
8.	Galaxy*	0.1	0.5	0.0**
9.	Tex	0.1	-	0.7
10.	Vson*	0.1	-	-
Top 10 Total		51.0	60.1	56.2
<i>Other Illegal</i>		<i>0.1</i>	<i>0.2</i>	<i>0.7</i>
Total Illegal %		51.1	60.3	56.9



Top 7 Illegal Cigarettes Brands* For Sabah

- Volume contribution to National = 11%

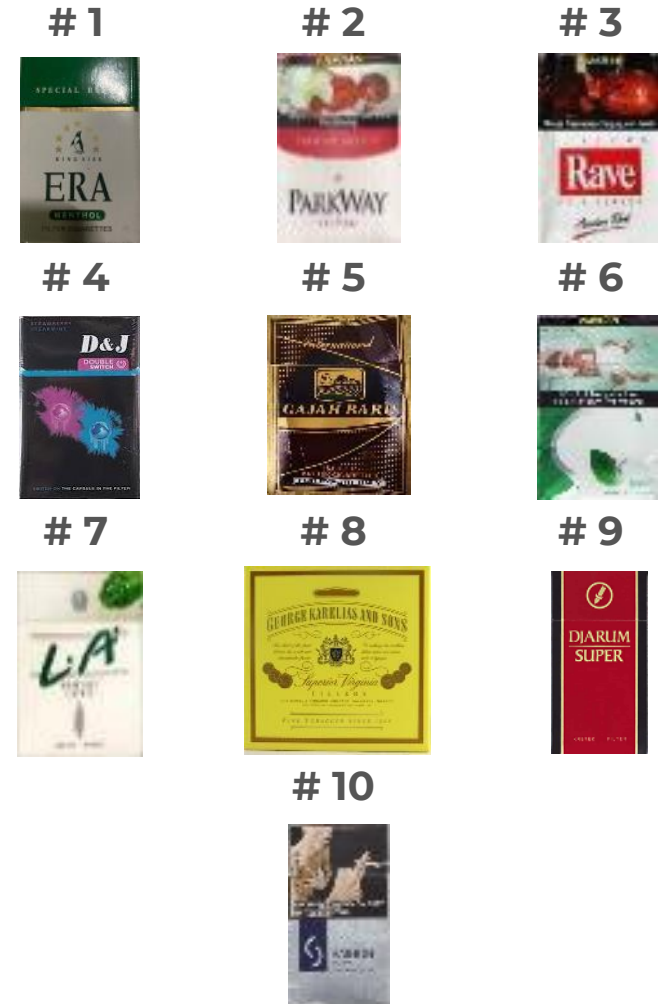
		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Era	70.4	71.7	73.1
2.	Premium	5.3	2.9	2.2
3.	D&J	1.8	1.1	0.7
4.	Grow	0.8	-	-
5.	L.A.	0.2	0.8	1.8
6.	Gudang Garam	0.2	1.7	0.1
7.	Win Mild	0.0**	-	0.3
Top 7 Total		78.7	78.2	78.2
<i>Other Illegal</i>		-	0.7	0.2
Total Illegal %		78.7	78.9	78.4



Top 10 Illegal Cigarettes Brands* For Sarawak

- Volume contribution to National = 10%

		Mar, 2024	Jan, 2024	2023
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Era	35.7	33.7	27.3
2.	Parkway	20.9	25.6	19.1
3.	Rave	10.4	10.2	13.9
4.	D&J	4.3	1.7	3.5
5.	Gajah Baru	2.5	-	0.2
6.	S Super	2.3	1.5	1.8
7.	L.A.	1.4	5.1	7.5
8.	George Karelia	0.6	-	0.2
9.	Djarum	0.6	0.3	0.2
10.	Saigon	0.3	-	0.4
Top 10 Total		79.0	78.1	74.1
<i>Other Illegal</i>		<i>1.7</i>	<i>2.2</i>	<i>6.1</i>
Total Illegal %		80.7	80.3	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

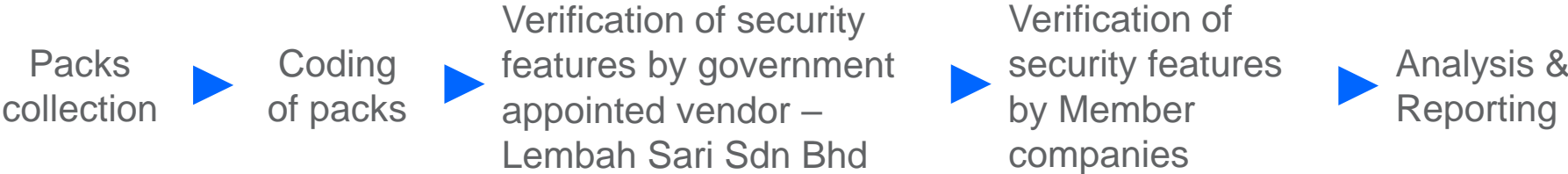
- I. Security features (Tax Stamps)
- II. Brands of Local Manufacturers and Importers registered with Royal Malaysian Customs
- III. Mandated Labeling Requirements (under Control of Tobacco Product Regulations, Trade Description Act, Price Control & Anti Profiteering Act)

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

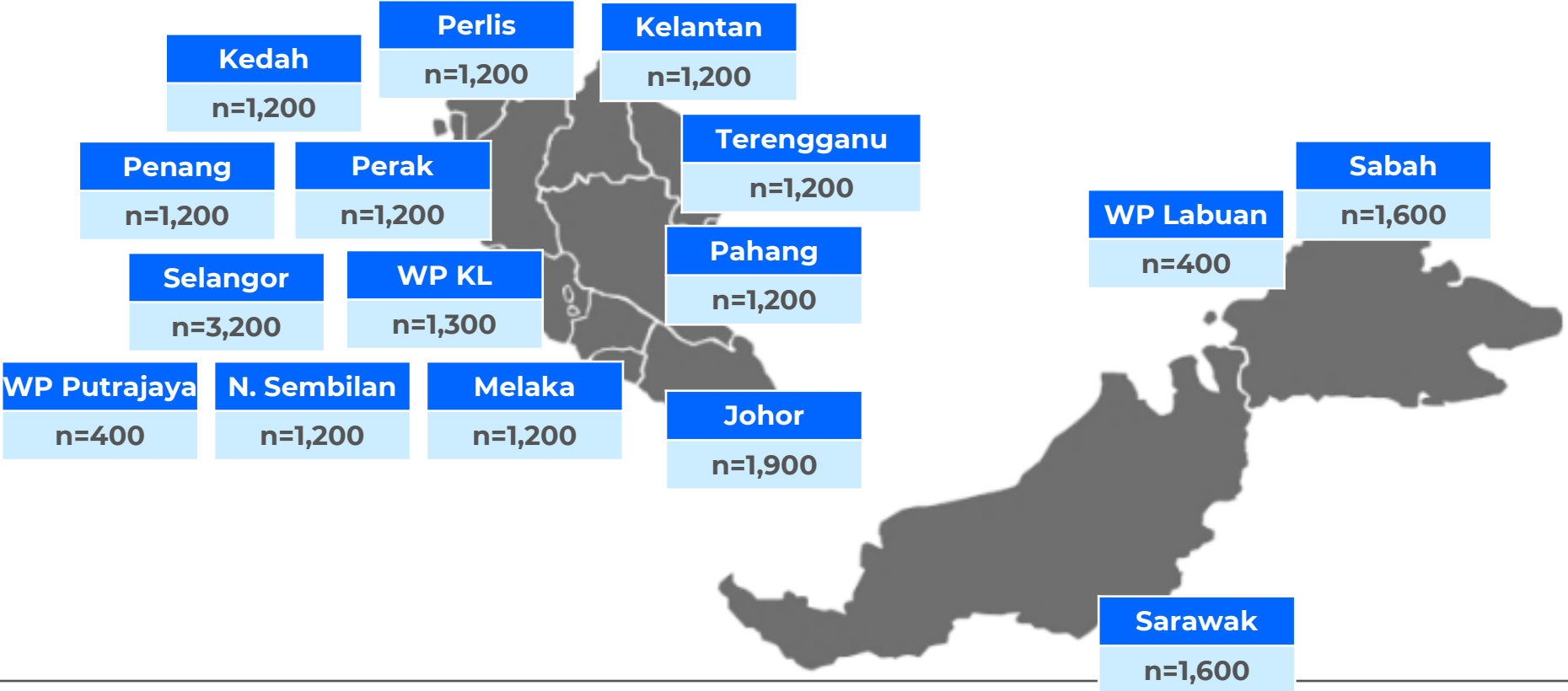
Why Sample Size of 20,000 packs?

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

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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

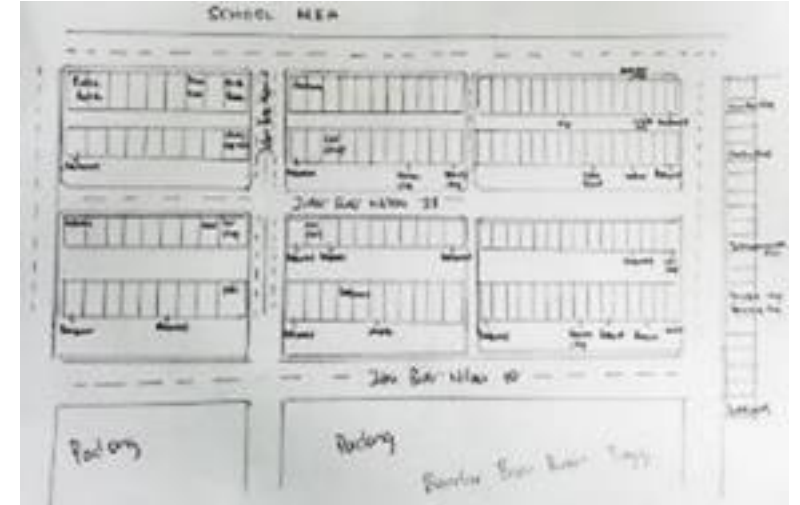


Attach label to bag: Standard label with the following:

- *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

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V. Weighting The Survey Data

A Robust SOP For Pack Verification & Coding Process

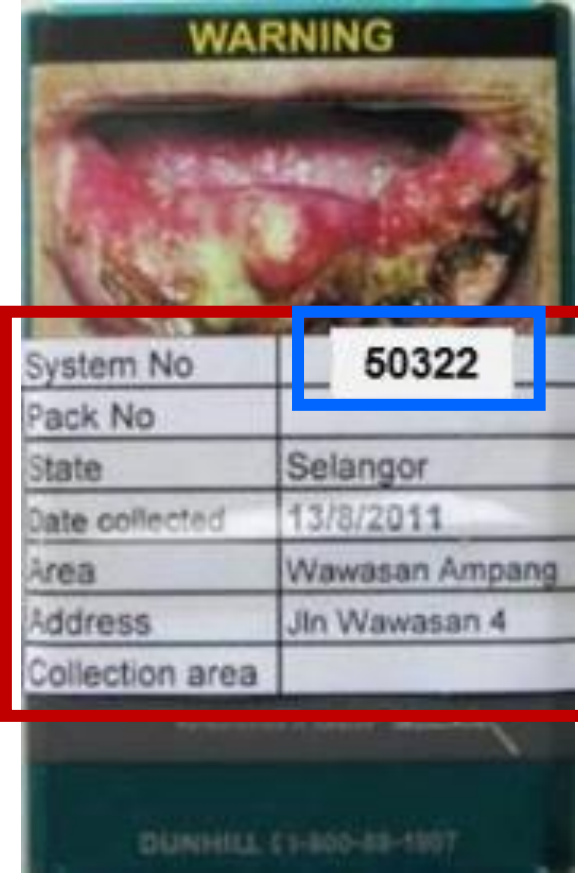
The following diagram illustrates the pack verification & coding process



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 begins. 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:

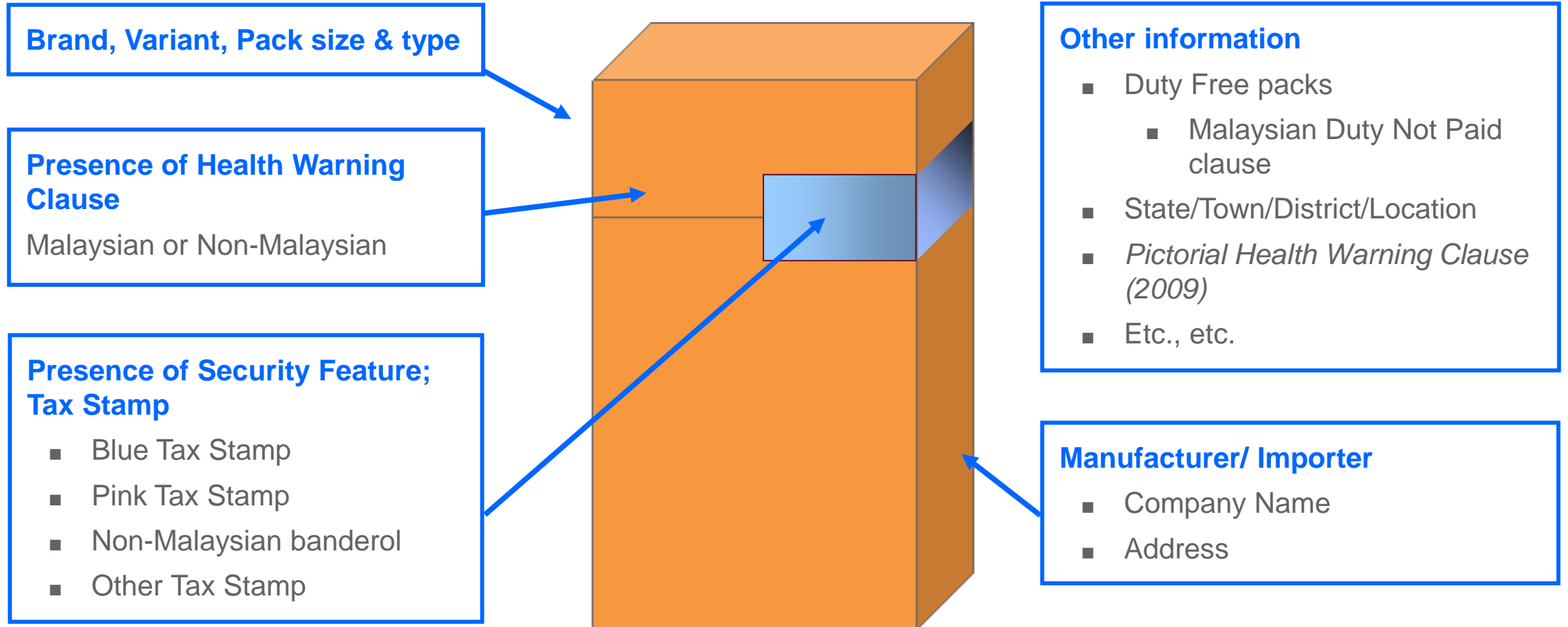
1. Absence of Registered Importers
2. Unregistered Importers*
3. Absence of Registered Manufacturers
4. Unregistered Manufacturers*
5. Packs with counterfeit (fake) Malaysian tax stamp**
6. Packs without Malaysian tax stamp
7. Packs with non-Malaysian tax stamp
8. Unregistered Brand*
9. Non Compliance 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

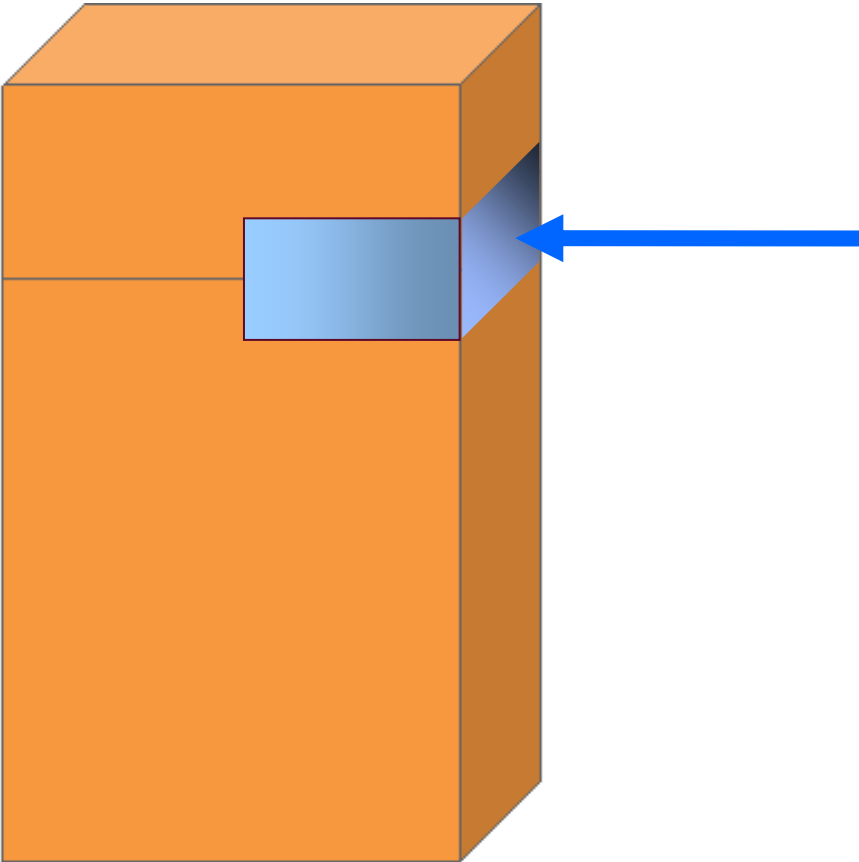
Verification Of Security Tax Stamp

- **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

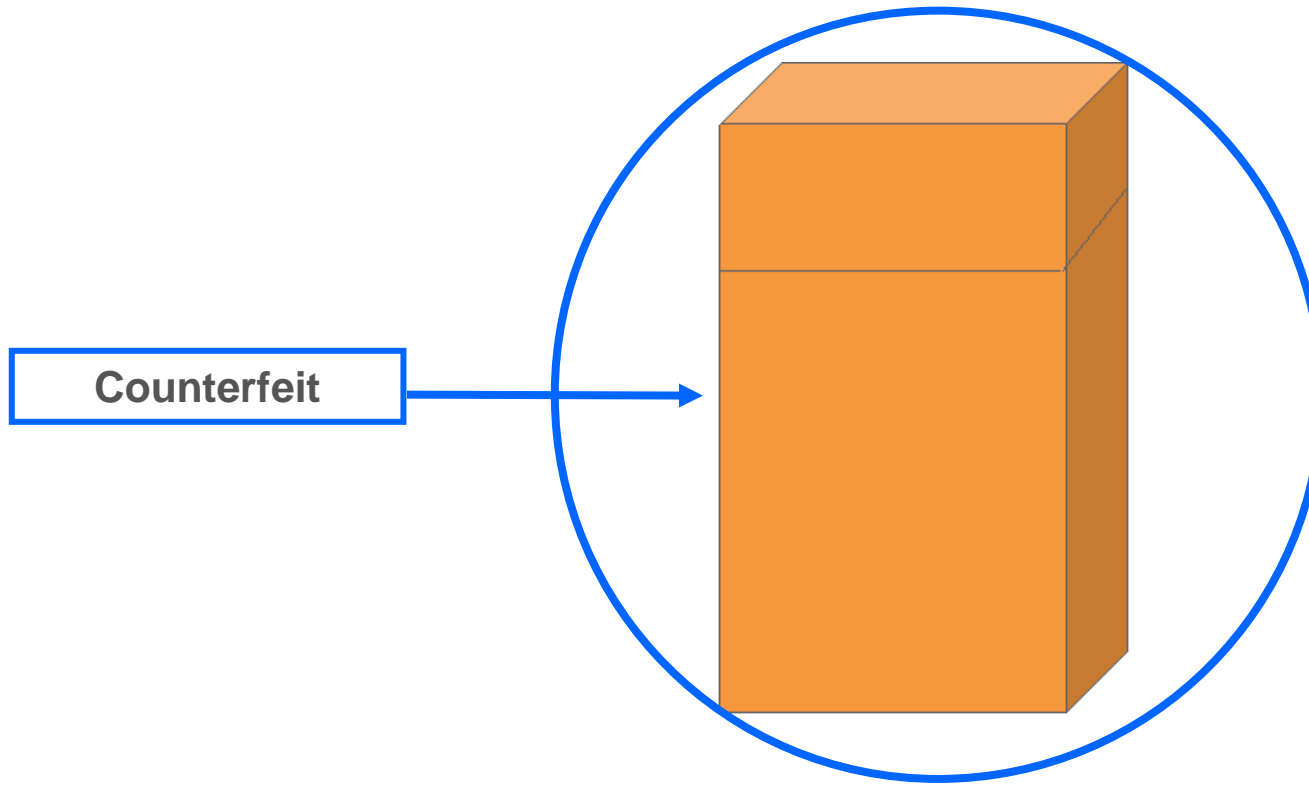


Pink Tax Stamp
(Duty Free Market)



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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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 - Tor 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 - Tor 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 - Tor 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 - Tor East Mela, Gudang G	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Marlboro	Sabah	Sabah - K Urban	Jin Paser	Jalan Pas East Mela, Premium	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor 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																																																																											
5	76	Wave 3, Week 33, 03/10/20	Oct-12	Perlis	Perlis - Ka Urban	Perlis, Kar Jalan Ara, North Per Dunhill Re																																																																										
76003	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Dunhill Re																																																																											
76004	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor 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																																																																											
76005	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Dunhill Me																																																																											
76006	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Dunhill Re																																																																											
76007	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76008	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76009	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76010	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76011	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76012	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76013	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76014	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76015	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76016	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R																																																																											
76017	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R																																																																											
76018	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Premium																																																																											
76019	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76020	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											
76021	Wave 3, Week 33, 03/10/20	Oct-12	Perlis	Perlis - Ka Urban	Perlis, Kar Jalan Ara, North Per Salern Me																																																																											
76022	Wave 3, Week 33, 03/10/20	Oct-12	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro																																																																											
76023	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Marlboro																																																																											
76024	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Premium																																																																											
76025	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Era Prem																																																																											
76026	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Premium																																																																											
76027	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R																																																																											
76028	Wave 3, Week 33, 03/10/20	Oct-12	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro																																																																											
76029	Wave 3, Week 33, 03/10/20	Oct-12	Perlis	Perlis - Ka Urban	Perlis, Kar Jalan Ara, North Per Marlboro																																																																											
76030	Wave 3, Week 33, 03/10/20	Oct-12	Johor	Johor - Ba Urban	Johor, Bar Taman Bc South [Joh Winston R																																																																											
76031	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Jin Paser, Jalan Pas East Mela, Premium																																																																											
76032	Wave 3, Week 33, 03/10/20	Oct-12	Kedah	Kedah - A Urban	Jalan Peg Jalan Peg North Per Marlboro																																																																											
76033	Wave 3, Week 33, 03/10/20	Oct-12	Sabah	Sabah - K Urban	Sabah, Ko Likas - Tor East Mela, Gudang G																																																																											

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**)

	Mar, 2024	
	('000 sticks)	
CMTM Member Companies (BATM, PMM, JTI)	564,105	Derive from actual in-market sales as provided by CMTM member companies
Other Local manufacturers	0	
Malaysian Duty Free	843	ICS volume estimation is used as substitute since actual data is not available
Total Legal Cigarettes Sales	564,948	

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 564,948,000 sticks

	IN-MARKET SALES BY CMTM	STATE'S LEGAL VOLUME CONTRIBUTION
PERLIS	3,306	0.6%
KEDAH	23,360	4.3%
PENANG	39,372	7.2%
PERAK	41,728	7.7%
SELANGOR	124,927	23.0%
WP KL	65,252	12.0%
WP PUTRAJAYA	282	0.1%
N.SEMBILAN	26,552	4.9%
MELAKA	20,114	3.7%
JOHOR	111,379	20.5%
PAHANG	23,615	4.3%
TERENGGANU	10,874	2.0%
KELANTAN	14,738	2.7%
WP LABUAN	250	0.0%
SABAH	20,485	3.8%
SARAWAK	17,935	3.3%
NATIONAL	544,168	

Step 2a. (Using In-Market Sales)

State Legal Volume = $\frac{\text{State's In-Market Volume}}{\text{National Volume}}$ Contribution
 (e.g. $124,927 / 544,168 = 23.0\%$)

	IN-MARKET SALES	STATE'S LEGAL VOLUME CONTRIBUTION	PROJECTED/ ESTIMATED STATE LEGAL VOLUME
SELANGOR	124,927	23.0%	129,698
NATIONAL	544,168		564,948

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. $23.0\% \times 564,948 = 129,698$)

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	3,306	0.6%	3,432
KEDAH	23,360	4.3%	24,252
PENANG	39,372	7.2%	40,876
PERAK	41,728	7.7%	43,322
SELANGOR	124,927	23.0%	129,698
WP KL	65,252	12.0%	67,743
WP PUTRAJAYA	282	0.1%	293
N.SEMBILAN	26,552	4.9%	27,566
MELAKA	20,114	3.7%	20,882
JOHOR	111,379	20.5%	115,632
PAHANG	23,615	4.3%	24,517
T'GANU	10,874	2.0%	11,290
KELANTAN	14,738	2.7%	15,301
WP LABUAN	250	0.0%	259
SABAH	20,485	3.8%	21,267
SARAWAK	17,935	3.3%	18,620
NATIONAL	544,168		564,948

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 (Mar'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	1,765	35,300	1,435	26,688	61,988	56.9%	43.1%



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 (Mar'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	618	12,360	582	11,448	23,808	51.9%	48.1%
KEDAH	1,200	759	15,180	441	8,740	23,920	63.5%	36.5%
PENANG	1,200	638	12,760	562	10,815	23,575	54.1%	45.9%
PERAK	1,200	810	16,200	390	7,698	23,898	67.8%	32.2%
SELANGOR	3,200	1,765	35,300	1,435	26,688	61,988	56.9%	43.1%
WP KL	1,300	744	14,880	556	10,349	25,229	59.0%	41.0%
WP PUTRAJAYA	400	227	4,540	173	3,122	7,662	21.3%	78.7%
N.SEMBILAN	1,200	704	14,080	496	9,702	23,782	59.3%	40.7%
MELAKA	1,200	479	9,580	721	14,037	23,617	59.2%	40.8%
JOHOR	1,900	848	16,960	1,052	20,768	37,728	40.6%	59.4%
PAHANG	1,200	240	4,800	960	18,465	23,265	45.0%	55.0%
T'GANU	1,200	362	7,240	838	16,441	23,681	20.6%	79.4%
KELANTAN	1,200	585	11,700	615	12,236	23,936	30.6%	69.4%
WP LABUAN	400	82	1,640	318	6,280	7,920	19.3%	80.7%
SABAH	1,600	340	6,800	1,260	25,084	31,884	48.9%	51.1%
SARAWAK	1,600	304	6,080	1,296	25,368	31,448	20.7%	79.3%

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	129,698	56.9%	227,754	98,056



Step 4a.
 Based on the incidence for legal cigarettes of 56.9% in Selangor, project the total volume for the state
 (e.g. 129,698 divide by 56.9% = 227,754)



Step 4b.
 Illegal volume is established by subtracting the projected total state's volume with the legal volume
 (e.g. 227,754 – 129,698 = 98,056)

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	3,432	51.9%	6,612	3,179
KEDAH	24,252	63.5%	38,215	13,963
PENANG	40,876	54.1%	75,521	34,645
PERAK	43,322	67.8%	63,907	20,586
SELANGOR	129,698	56.9%	227,754	98,056
WP KL	67,743	59.0%	114,859	47,115
WP PUTRAJAYA	293	21.3%	494	201
N.SEMBILAN	27,566	59.3%	46,560	18,995
MELAKA	20,882	59.2%	51,478	30,597
JOHOR	115,632	40.6%	257,227	141,595
PAHANG	24,517	45.0%	118,830	94,313
TERENGGANU	11,290	20.6%	36,926	25,637
KELANTAN	15,301	30.6%	31,303	16,002
WP LABUAN	259	19.3%	1,251	992
SABAH	21,267	48.9%	99,716	78,450
SARAWAK	18,620	20.7%	96,308	77,689
NATIONAL	564,948		1,266,962	702,014

Divide **National Illegal Volume 702,014** with **National Total Market Volume 1,266,962** **55.4%**

NIQ

NIQ