



# **illicit Cigarettes Study (ICS) In Malaysia, Oct 2021 Report**

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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

\* Not registered with the Royal Malaysian Customs

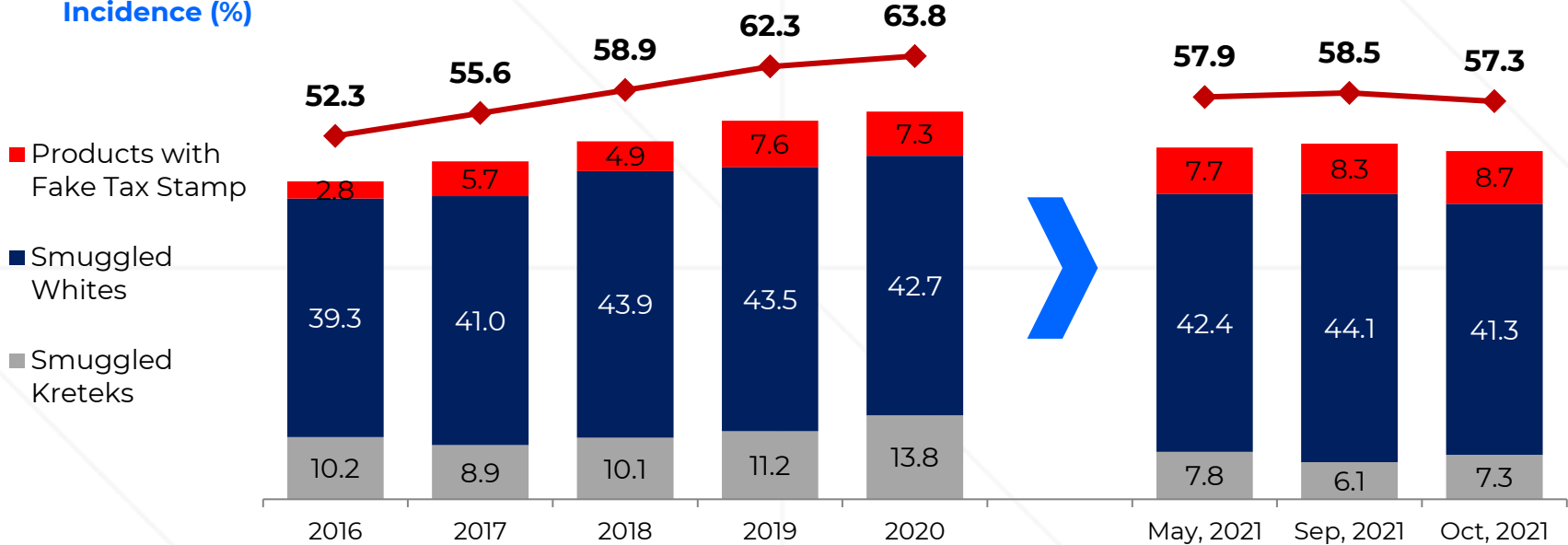
\*\* Verified by Lembah Sari Sdn Bhd (LSSB) – Government appointed sole vendor for tax stamp



# Illegal Cigarettes Incidence At National Level :

Overall decrease by 1.2 ppt. vs. Sep, 2021

## Incidence (%)



## Volume (Billions sticks)

	2016	2017	2018	2019	2020	May, 2021	Sep, 2021	Oct, 2021
<b>Illegal Cigarettes</b>	10.1	11.1	12.0	12.2	11.7	1.0	0.8	0.7
<b>Estimated Total industry</b>	19.3	20.0	20.4	19.5	18.4	1.8	1.3	1.3
<b>Incidence</b>	52.3%	55.6%	58.9%	62.3%	63.8%	57.9%	58.5%	57.3%

# Top 10 Illegal Cigarettes Brands\*

They account for approximately 77% of illegal cigarettes volume

		Oct, 2021	Sep, 2021	2020
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	12.2	13.5	13.9
2.	Era	6.2	9.6	3.7
3.	U2	5.2	4.8	9.0
4.	Canyon	4.6	4.2	4.7
5.	Saat	4.3	3.6	4.0
6.	Gudang Garam	3.4	3.9	6.4
7.	L.A.	2.9	1.6	4.8
8.	Luffman	2.2	1.6	2.3
9.	Misto	1.8	2.0	0.7
10.	Premium	1.6	0.6	1.5
<b>Top 10 Total</b>		<b>44.4</b>	<b>45.4</b>	<b>51.0</b>

Other Illegal		12.9	13.1	12.8
<b>Total Illegal %</b>		<b>57.3</b>	<b>58.5</b>	<b>63.8</b>

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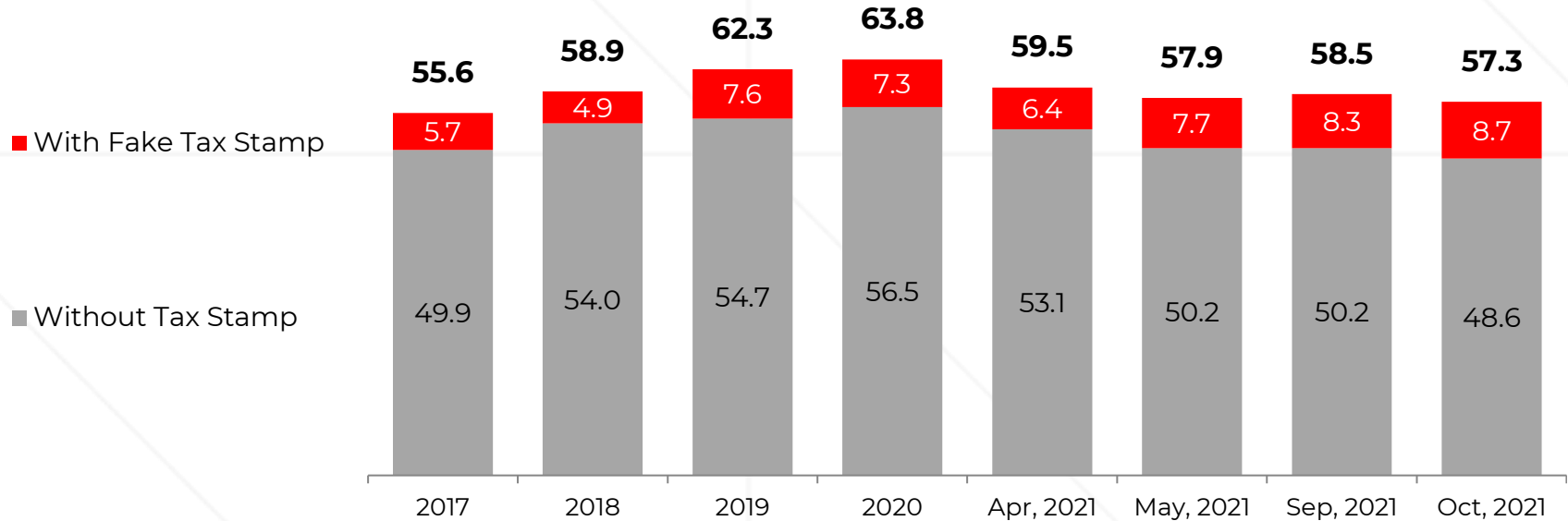


\* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise

# Tax Stamp Breakdown Of Illegal Cigarettes :

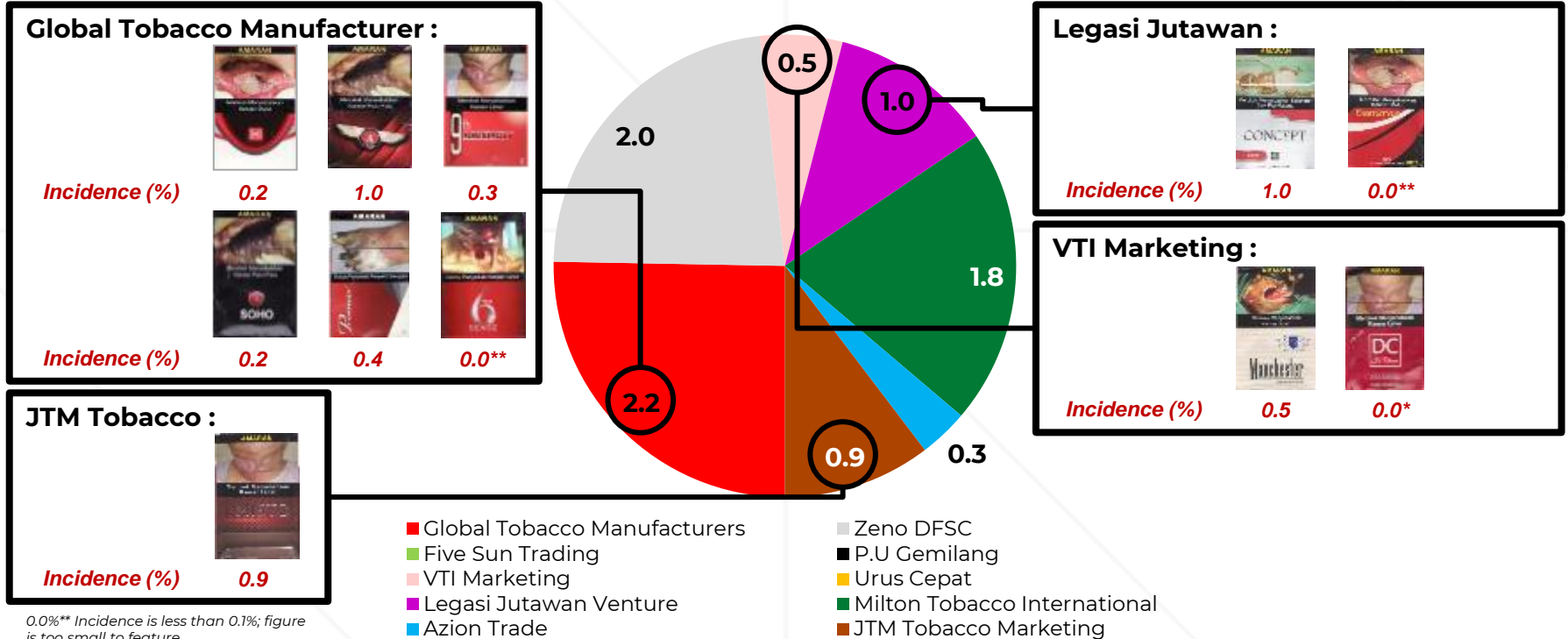
85% of illegal cigarettes are without tax stamps while remaining 15% are with fake tax stamps

## Incidence (%)



# Fake Tax Stamp Breakdown By Manufacturers / Importers :

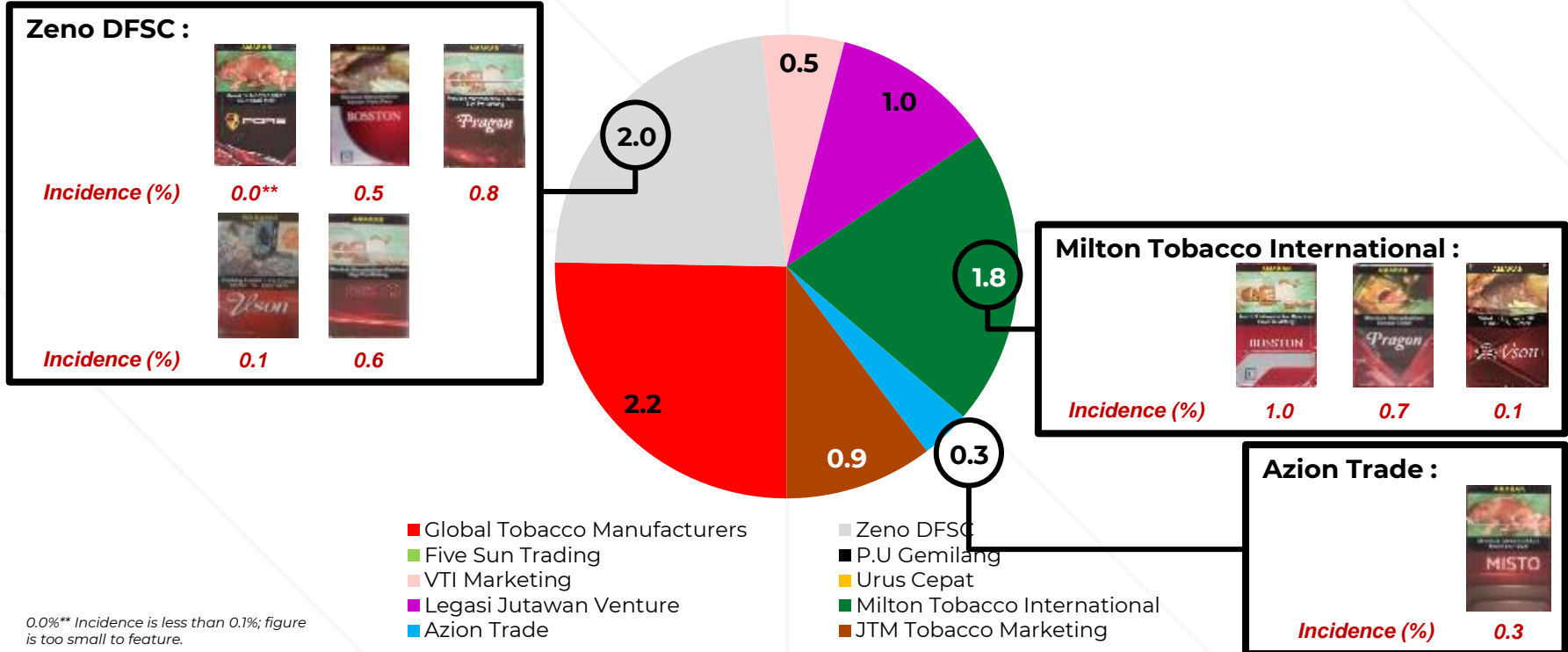
Illegal cigarettes with fake tax stamp for brands imported by JTM Tobacco Marketing and Milton Tobacco International has increased in Oct 2021



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

# Fake Tax Stamp Breakdown By Manufacturers / Importers :

Illegal cigarettes with fake tax stamp for brands imported by JTM Tobacco Marketing and Milton Tobacco International has increased in Oct 2021

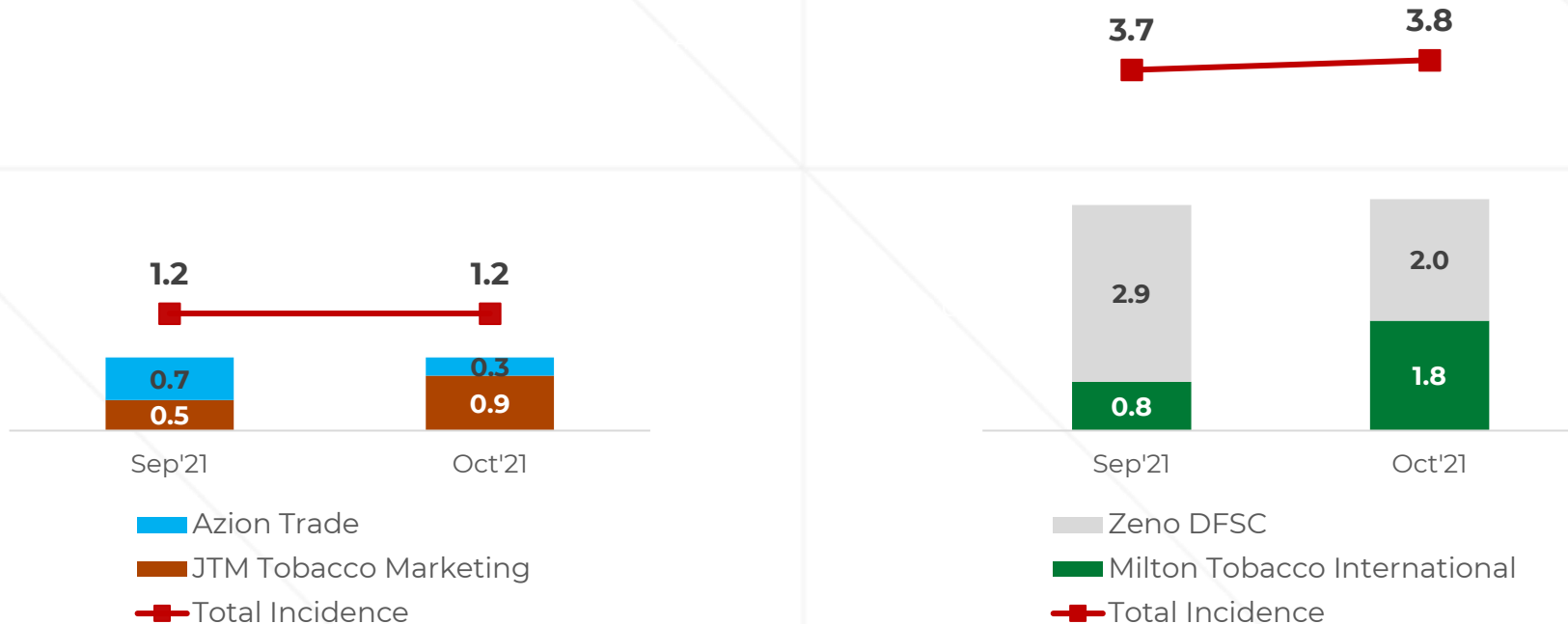


0.0%\*\* Incidence is less than 0.1%; figure is too small to feature.



# Fake Tax Stamp Breakdown By Manufacturers / Importers :

Migration observed from Azion Trade to JTM Tobacco Marketing and Zeno DFSC to Milton Tobacco International



# Illegal Cigarettes Incidence By State :

6 States recording an increase vs. Sep 2021

	A				B				A minus B				Volume Contribution
	Oct, 2021				Sep, 2021				Variance (Oct'2021 vs. Sep'2021)				
	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Kretek	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Kretek	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Kretek	%
Sabah	81.2	0.0	69.0	12.2	84.6	0.0	82.3	2.3	-3.4	0.0	-13.3	+9.9	12%
Terengganu	77.9	5.8	67.9	4.2	73.1	4.7	62.7	5.7	+4.8	+1.1	+5.2	-1.5	6%
Sarawak	76.9	0.0	68.1	8.8	75.9	0.1	68.2	7.6	+1.0	-0.1	-0.1	+1.2	9%
Pahang	74.3	8.2	59.4	6.7	76.1	7.9	62.5	5.7	-1.8	+0.3	-3.1	+1.0	10%
Kelantan	62.1	1.9	59.5	0.7	64.1	6.2	55.7	2.2	-2.0	-4.3	+3.8	-1.5	4%
Kedah	58.6	4.8	42.9	10.9	49.1	2.7	38.4	8.0	+9.5	+2.1	+4.5	+2.9	5%
Selangor	53.2	8.5	34.5	10.2	53.7	7.1	35.9	10.7	-0.5	+1.4	-1.4	-0.5	22%
WP KL	50.9	6.3	35.5	9.1	51.6	4.2	37.4	10.0	-0.7	+2.1	-1.9	-0.9	8%
Perlis	49.6	1.2	38.0	10.4	40.9	2.0	31.5	7.4	+8.7	-0.8	+6.5	+3.0	1%
Penang	49.3	10.0	34.9	4.4	63.3	11.4	48.4	3.5	-14.0	-1.4	-13.5	+0.9	6%
Johor	48.3	17.1	26.8	4.4	46.3	18.6	25.8	1.9	+2.0	-1.5	+1.0	+2.5	10%
Melaka	46.5	26.9	19.1	0.5	46.8	22.4	22.6	1.8	-0.3	+4.5	-3.5	-1.3	2%
N.Sembilan	34.6	13.6	17.2	3.8	38.0	10.9	21.3	5.8	-3.4	+2.7	-4.1	-2.0	2%
Perak	34.0	16.4	15.9	1.7	28.8	17.4	10.2	1.2	+5.2	-1.0	+5.7	+0.5	3%
<b>National Incidence</b>	<b>57.3</b>	<b>8.7</b>	<b>41.3</b>	<b>7.3</b>	<b>58.5</b>	<b>8.3</b>	<b>44.1</b>	<b>6.1</b>	<b>-1.2</b>	<b>+0.4</b>	<b>-2.8</b>	<b>+1.2</b>	<b>100%</b>

# Illegal Cigarettes Incidence By State :

1 State recording an increase vs. 2020

	A				B				A minus B				Volume Contribution
	Oct, 2021				2020				Variance (Oct'2021 vs. 2020)				%
	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Kretek	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Kretek	Total Illegal	Fake Tax Stamp	Smuggled Whites	Smuggled Kretek	
Sabah	81.2	0.0	69.0	12.2	86.6	0.0	80.8	5.8	-5.4	0.0	-11.8	+6.4	12%
Terengganu	77.9	5.8	67.9	4.2	78.0	2.4	70.7	4.9	-0.1	+3.4	-2.8	-0.7	6%
Sarawak	76.9	0.0	68.1	8.8	82.2	0.0	70.8	11.4	-5.3	0.0	-2.7	-2.6	9%
Pahang	74.3	8.2	59.4	6.7	76.8	4.3	51.9	20.6	-2.5	+3.9	+7.5	-13.9	10%
Kelantan	62.1	1.9	59.5	0.7	72.9	2.1	67.0	3.8	-10.8	-0.2	-7.5	-3.1	4%
Kedah	58.6	4.8	42.9	10.9	67.7	14.9	45.2	7.6	-9.1	-10.1	-2.3	+3.3	5%
Selangor	53.2	8.5	34.5	10.2	64.1	5.3	37.9	20.9	-10.9	+3.2	-3.4	-10.7	22%
WP KL	50.9	6.3	35.5	9.1	66.8	3.0	42.1	21.7	-15.9	+3.3	-6.6	-12.6	8%
Perlis	49.6	1.2	38.0	10.4	54.9	4.1	39.8	11.0	-5.3	-2.9	-1.8	-0.6	1%
Penang	49.3	10.0	34.9	4.4	54.4	12.5	34.5	7.4	-5.1	-2.5	+0.4	-3.0	6%
Johor	48.3	17.1	26.8	4.4	46.0	13.5	27.7	4.8	+2.3	+3.6	-0.9	-0.4	10%
Melaka	46.5	26.9	19.1	0.5	55.0	20.8	30.4	3.8	-8.5	+6.1	-11.3	-3.3	2%
N.Sembilan	34.6	13.6	17.2	3.8	47.2	13.7	25.9	7.6	-12.6	-0.1	-8.7	-3.8	2%
Perak	34.0	16.4	15.9	1.7	39.2	19.0	18.4	1.8	-5.2	-2.6	-2.5	-0.1	3%
<b>National Incidence</b>	<b>57.3</b>	<b>8.7</b>	<b>41.3</b>	<b>7.3</b>	<b>63.8</b>	<b>7.3</b>	<b>42.7</b>	<b>13.8</b>	<b>-6.5</b>	<b>+1.4</b>	<b>-1.4</b>	<b>-6.5</b>	<b>100%</b>

# Top 10 Illegal Cigarettes Brands\* For Perlis

Volume contribution to National = 1%

	Illegal Brand	Oct, 2021	Sep, 2021	2020
		SOM (%)	SOM (%)	SOM (%)
1.	John	31.9	27.1	36.7
2.	Gudang Garam	10.3	7.3	11.0
3.	Vess	4.3	1.5	-
4.	Tiara	0.9	0.1	0.2
5.	JN	0.4	2.2	-
6.	Vson*	0.4	0.1	-
7.	D&J	0.3	0.5	0.1
8.	Manchester*	0.3	0.9	0.4
9.	Concept*	0.2	0.2	0.1
10.	Bosston*	0.1	-	-
<b>Top 10 Total</b>		<b>49.1</b>	<b>39.9</b>	<b>48.5</b>
Other Illegal		0.5	1.0	6.4
<b>Total Illegal %</b>		<b>49.6</b>	<b>40.9</b>	<b>54.9</b>

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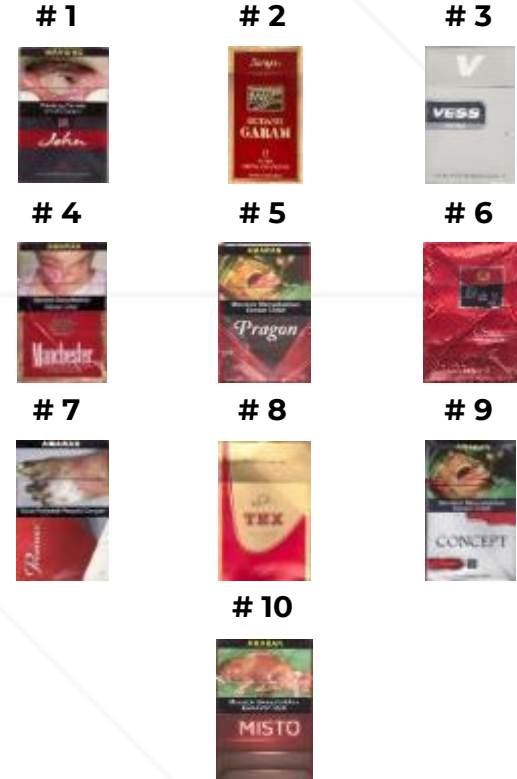
\* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise

# Top 10 Illegal Cigarettes Brands\* For Kedah

Volume contribution to National = 5%

		Oct, 2021	Sep, 2021	2020
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	38.0	33.5	38.6
2.	Gudang Garam	10.8	8.0	7.2
3.	Vess	2.8	1.3	-
4.	Manchester*	1.4	0.5	1.0
5.	Pragon*	0.7	0.5	0.5
6.	D&J	0.7	1.6	0.7
7.	Promax*	0.6	-	0.6
8.	Tex	0.4	0.1	0.8
9.	Concept*	0.4	0.3	1.9
10.	Misto*	0.4	0.3	0.3
<b>Top 10 Total</b>		<b>56.2</b>	<b>46.1</b>	<b>51.6</b>

Other Illegal		2.4	3.0	16.1
<b>Total Illegal %</b>		<b>58.6</b>	<b>49.1</b>	<b>67.7</b>



\* 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 Penang

Volume contribution to National = 6%

	Illegal Brand	Oct, 2021	Sep, 2021	2020
		SOM (%)	SOM (%)	SOM (%)
1.	John	23.4	41.5	22.6
2.	Gudang Garam	4.2	3.2	6.4
3.	D&J	3.6	3.6	0.4
4.	Saat	2.8	0.1	4.0
5.	Manchester*	2.1	1.4	2.2
6.	Luffman	1.5	0.6	1.9
7.	Promax*	1.5	1.4	0.9
8.	Pragon*	1.5	3.4	1.4
9.	A380*	1.2	1.4	3.2
10.	Concept*	1.2	1.3	0.5
<b>Top 10 Total</b>		<b>43.0</b>	<b>57.9</b>	<b>43.5</b>

<i>Other Illegal</i>	6.3	5.4	10.9
<b>Total Illegal %</b>	<b>49.3</b>	<b>63.3</b>	<b>54.4</b>

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\* 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 Perak

Volume contribution to National = 3%

		Oct, 2021	Sep, 2021	2020
		SOM	SOM	SOM
	Illegal Brand	(%)	(%)	(%)
1.	John	10.0	1.6	8.7
2.	Concept*	6.2	4.8	3.6
3.	D&J	3.1	4.6	2.7
4.	Misto*	2.3	2.2	1.3
5.	Manchester*	2.2	2.6	1.3
6.	Bosston*	2.1	2.3	1.8
7.	9th Century*	1.8	2.3	2.3
8.	Gudang Garam	1.7	0.9	1.5
9.	Pragon*	1.1	1.9	2.1
10.	June Slims	1.0	-	0.4
<b>Top 10 Total</b>		<b>31.5</b>	<b>23.2</b>	<b>25.7</b>

<i>Other Illegal</i>		2.5	5.6	13.5
<b>Total Illegal %</b>		<b>34.0</b>	<b>28.8</b>	<b>39.2</b>

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\* 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 Selangor

Volume contribution to National = 22%

		Oct, 2021	Sep, 2021	2020
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	9.0	9.8	12.7
2.	U2	8.6	8.1	12.5
3.	Canyon	6.8	5.9	4.8
4.	Luffman	5.5	4.3	4.0
5.	Gudang Garam	4.7	6.1	9.2
6.	L.A.	4.3	3.7	8.9
7.	Zon King	3.2	6.1	1.4
8.	Pragon*	2.8	2.1	0.5
9.	Misto*	2.0	1.6	0.6
10.	Bosston*	2.0	0.8	0.7
<b>Top 10 Total</b>		<b>48.9</b>	<b>48.5</b>	<b>55.3</b>

Other Illegal		4.3	5.2	8.8
<b>Total Illegal %</b>		<b>53.2</b>	<b>53.7</b>	<b>64.1</b>

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\* 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 WP KL

Volume contribution to National = 8%

		Oct, 2021	Sep, 2021	2020
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	10.2	10.4	14.1
2.	U2	7.7	8.3	14.8
3.	Luffman	7.0	4.6	4.6
4.	L.A.	4.8	4.1	10.3
5.	Canyon	4.5	3.9	4.4
6.	Zon King	3.9	8.4	1.7
7.	Pragon*	3.4	1.5	0.4
8.	Gudang Garam	3.3	4.2	8.7
9.	Bosston*	1.6	0.5	0.6
10.	Saat	0.9	0.9	0.7
<b>Top 10 Total</b>		<b>47.3</b>	<b>46.8</b>	<b>60.3</b>

Other Illegal		3.6	4.8	6.5
<b>Total Illegal %</b>		<b>50.9</b>	<b>51.6</b>	<b>66.8</b>

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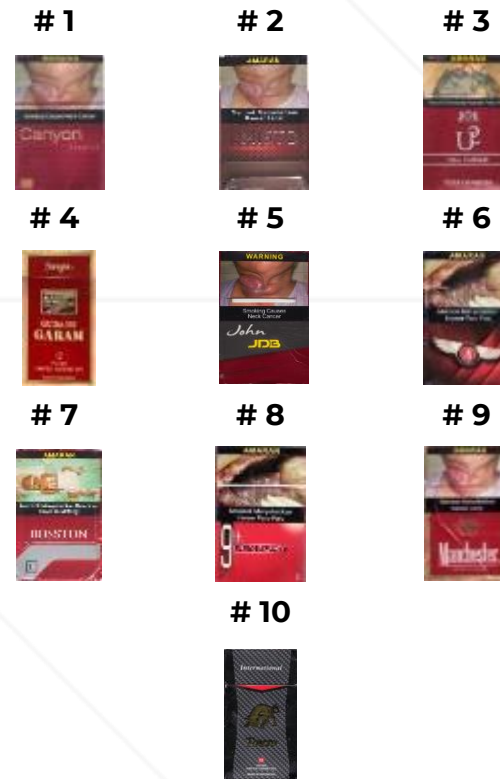
\* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise

# Top 10 Illegal Cigarettes Brands\* For N.Sembilan

Volume contribution to National = 2%

		Oct, 2021	Sep, 2021	2020
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	Canyon	10.5	9.8	6.8
2.	Misto*	7.5	7.0	3.2
3.	U2	4.2	4.7	7.0
4.	Gudang Garam	3.0	5.4	6.4
5.	John	2.0	4.7	8.2
6.	A380*	1.6	0.9	4.3
7.	Bosston*	1.6	1.0	1.2
8.	9 <sup>th</sup> Century*	0.9	-	0.4
9.	Manchester*	0.8	1.4	0.7
10.	Touro	0.6	0.4	0.3
<b>Top 10 Total</b>		<b>32.7</b>	<b>35.3</b>	<b>38.5</b>

Other Illegal		1.9	2.7	8.7
<b>Total Illegal %</b>		<b>34.6</b>	<b>38.0</b>	<b>47.2</b>



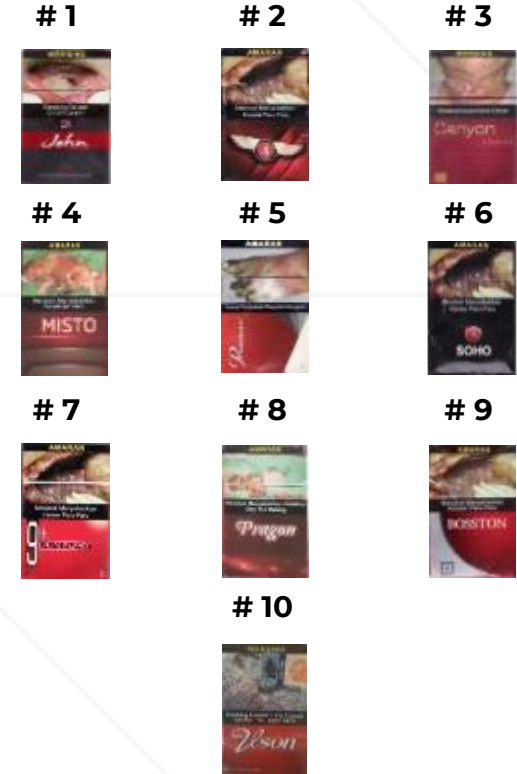
\* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise

# Top 10 Illegal Cigarettes Brands\* For Melaka

Volume contribution to National = 2%

		Oct, 2021	Sep, 2021	2020
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	9.7	8.1	18.9
2.	A380*	9.6	2.3	3.3
3.	Canyon	7.9	9.9	9.0
4.	Misto*	6.9	7.2	1.7
5.	Promax*	3.7	2.2	4.2
6.	SOHO*	2.2	0.8	0.5
7.	9 <sup>th</sup> Century*	1.6	0.8	1.9
8.	Pragon*	0.8	1.8	0.9
9.	Bosston*	0.8	3.1	5.0
10.	Vson*	0.6	1.0	0.8
<b>Top 10 Total</b>		<b>43.8</b>	<b>37.2</b>	<b>46.2</b>

<i>Other Illegal</i>	2.7	9.6	8.8
<b>Total Illegal %</b>	<b>46.5</b>	<b>46.8</b>	<b>55.0</b>



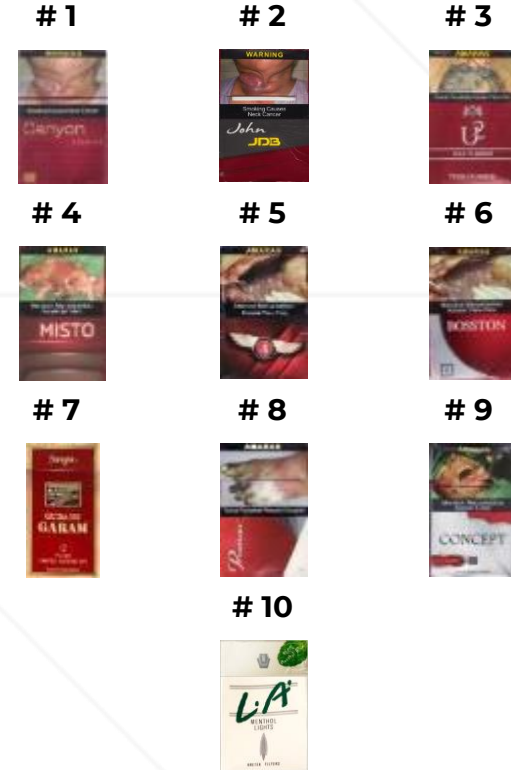
\* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise

# Top 10 Illegal Cigarettes Brands\* For Johor

Volume contribution to National = 10%

	Illegal Brand	Oct, 2021	Sep, 2021	2020
		SOM (%)	SOM (%)	SOM (%)
1.	Canyon	9.1	8.6	8.9
2.	John	8.5	8.4	9.1
3.	U2	7.2	7.2	7.6
4.	Misto*	4.6	7.1	2.3
5.	A380*	4.1	1.3	1.5
6.	Bosston*	2.1	2.7	2.6
7.	Gudang Garam	2.1	1.8	3.4
8.	Promax*	1.4	1.2	1.6
9.	Concept*	1.3	2.2	1.5
10.	L.A.	1.2	0.1	0.7
<b>Top 10 Total</b>		<b>41.6</b>	<b>40.6</b>	<b>39.2</b>

Other Illegal		6.7	5.7	6.8
<b>Total Illegal %</b>		<b>48.3</b>	<b>46.3</b>	<b>46.0</b>



\* 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 Pahang

Volume contribution to National = 10%

		Oct, 2021	Sep, 2021	2020
		SOM	SOM	SOM
	Illegal Brand	(%)	(%)	(%)
1.	John	30.7	35.3	20.9
2.	U2	9.4	8.8	19.7
3.	Canyon	8.8	8.6	8.5
4.	Saat	8.3	7.4	1.4
5.	Gudang Garam	5.0	5.1	7.3
6.	Bosston*	4.1	3.2	2.1
7.	Misto*	1.3	1.2	0.3
8.	Pragon*	1.1	0.9	0.4
9.	L.A.	0.8	0.1	1.3
10.	Lee	0.7	0.2	-
<b>Top 10 Total</b>		<b>70.2</b>	<b>70.8</b>	<b>61.9</b>

<i>Other Illegal</i>		4.1	5.3	14.9
<b>Total Illegal %</b>		<b>74.3</b>	<b>76.1</b>	<b>76.8</b>



\* 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 Terengganu

Volume contribution to National = 6%

		Oct, 2021	Sep, 2021	2020
		SOM	SOM	SOM
Illegal Brand		(%)	(%)	(%)
1.	John	27.3	26.2	29.7
2.	Saat	26.5	24.7	27.3
3.	U2	12.3	9.1	9.1
4.	Gudang Garam	4.2	5.4	4.0
5.	Pragon*	2.4	1.2	0.2
6.	Concept*	1.4	1.6	0.1
7.	Bosston*	0.7	0.3	0.1
8.	League	0.6	0.3	0.6
9.	D&J	0.4	0.9	0.0**
10.	Canyon	0.3	0.6	2.3
<b>Top 10 Total</b>		<b>76.1</b>	<b>70.3</b>	<b>73.4</b>

Other Illegal		1.8	2.8	4.6
<b>Total Illegal %</b>		<b>77.9</b>	<b>73.1</b>	<b>78.0</b>



\* 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 10 Illegal Cigarettes Brands\* For Kelantan

Volume contribution to National = 4%

	Illegal Brand	Oct, 2021	Sep, 2021	2020
		SOM (%)	SOM (%)	SOM (%)
1.	Saat	58.1	52.7	57.4
2.	Concept*	1.4	5.8	0.5
3.	John	1.2	1.2	7.1
4.	Diplomat	0.6	-	-
5.	Misto*	0.5	0.3	0.0**
6.	Gudang Garam	0.1	2.2	3.6
7.	U2	0.1	-	0.3
8.	Dunhill	0.1	-	-
<b>Top 8 Total</b>		<b>62.1</b>	<b>62.2</b>	<b>68.9</b>
Other Illegal		-	1.9	4.0
<b>Total Illegal %</b>		<b>62.1</b>	<b>64.1</b>	<b>72.9</b>

# 1



# 2



# 3



# 4



# 5



# 6



# 7



# 8



\* 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 10 Illegal Cigarettes Brands\* For Sabah

Volume contribution to National = 12%

	Illegal Brand	Oct, 2021	Sep, 2021	2020
		SOM (%)	SOM (%)	SOM (%)
1.	Era	49.9	74.9	52.3
2.	Premium	18.4	4.9	24.6
3.	L.A.	9.9	0.2	0.9
4.	Win Mild	1.6	-	0.1
5.	D&J	0.6	2.4	2.2
6.	Gudang Garam	0.3	2.1	1.0
7.	A Satu Mild	0.3	-	0.1
8.	John	0.1	-	0.1
9.	Apache	0.1	0.1	3.7
10.	Tex	0.0**	-	0.0**
<b>Top 10 Total</b>		<b>81.2</b>	<b>84.6</b>	<b>85.0</b>

Other Illegal	-	-	1.6
<b>Total Illegal %</b>	<b>81.2</b>	<b>84.6</b>	<b>86.6</b>



\* 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.

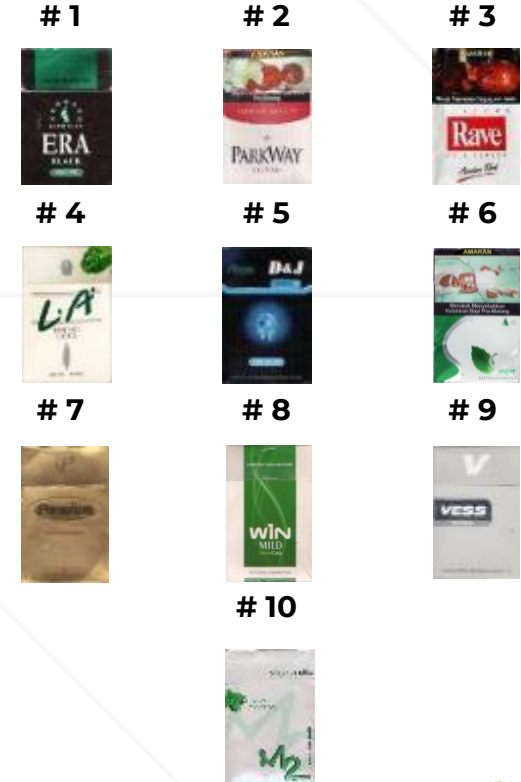


# Top 10 Illegal Cigarettes Brands\* For Sarawak


Volume contribution to National = 9%

	Illegal Brand	Oct, 2021	Sep, 2021	2020
		SOM (%)	SOM (%)	SOM (%)
1.	Era	32.3	33.6	29.1
2.	Parkway	19.6	18.7	19.2
3.	Rave	7.5	6.3	8.6
4.	L.A.	5.4	5.2	6.6
5.	D&J	4.1	4.3	4.0
6.	S Super	1.4	0.3	1.4
7.	Premium	1.0	1.5	2.4
8.	Win Mild	0.6	0.2	0.1
9.	Vess	0.5	0.5	0.9
10.	Master Mild M2	0.5	1.5	0.8
<b>Top 10 Total</b>		<b>72.9</b>	<b>72.1</b>	<b>73.1</b>

<i>Other Illegal</i>	4.0	3.8	9.1
<b>Total Illegal %</b>	<b>76.9</b>	<b>75.9</b>	<b>82.2</b>



\* 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



# **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



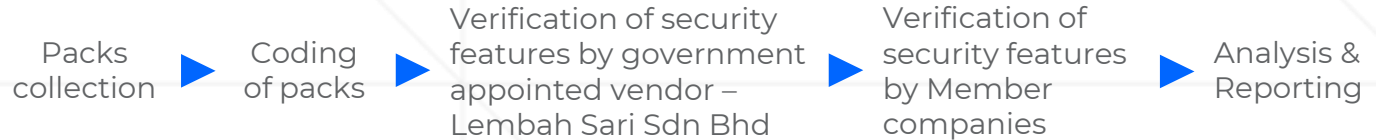
- I. Security features (Tax Stamps)
- II. Brands of Local Manufacturers and Importers registered with Royal Malaysian Customs
- III. Mandated Labeling Requirements (under Control of Tobacco Product Regulations, Trade Description Act, Price Control & Anti Profiteering Act )

# 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 **20,400 packs per wave** ( Pen M'sia = A minimum of 1,200 packs per State, Sabah & Sarawak = 1,600 packs each )

## PROCESS



## SAMPLING ERROR

- 0.6% at national level and minimum 2.8% at state level

## RELIABILITY



A correlation of **0.99** consecutively since 1993 to 2021 were achieved indicating that the Litter Survey is reliable.



# 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

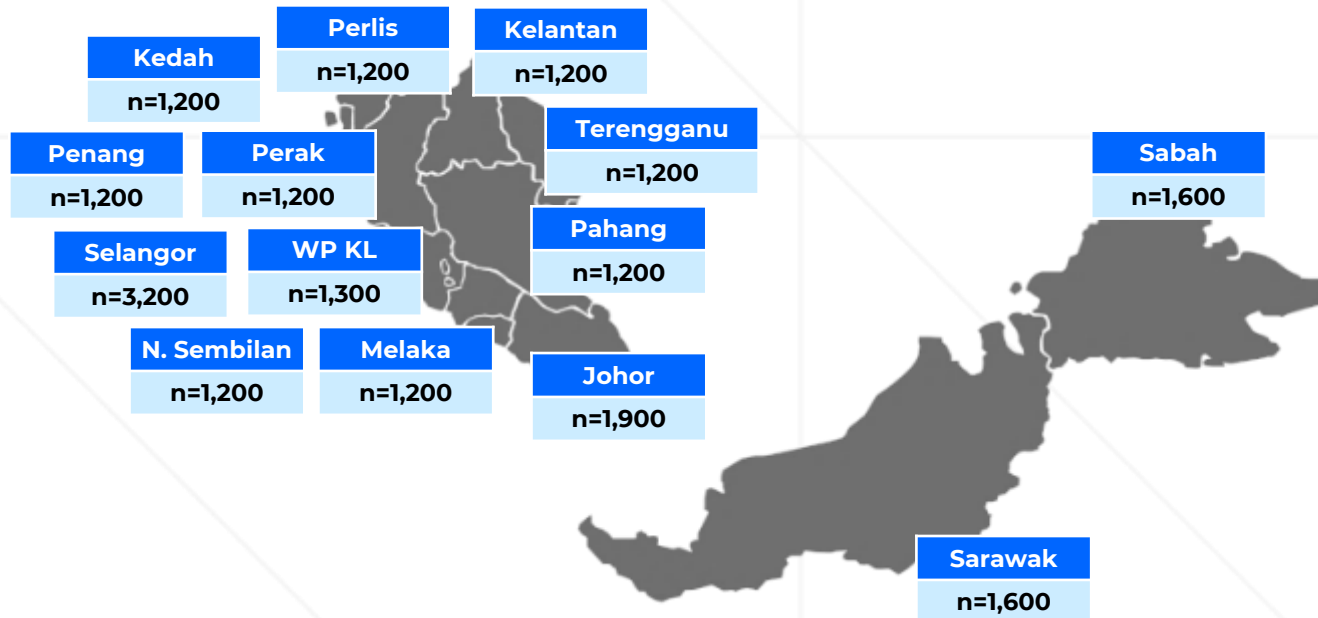
# Why Sample Size of 20,000 packs?

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%
<b>n=20,000</b>	<b>0.6%</b>
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.

# 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

## ii. Sampling Coverage Of ICS and Fieldwork

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# Sampling Coverage of ICS

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

- Nationwide
- All 13 states in Peninsular and East Malaysia and KL Federal Territory
- 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

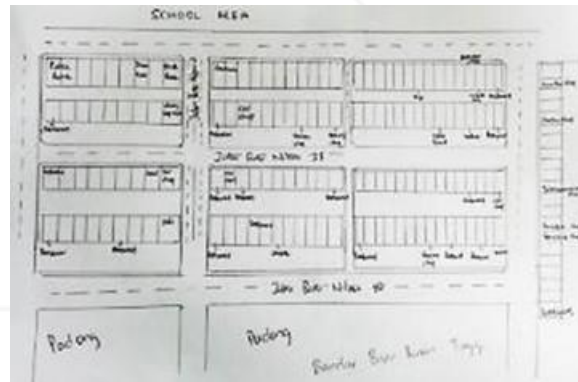


Attach label to bag: Standard label with the following:

- *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

- iv. Data Processing
- v. Weighting The Survey Data

# A Robust SOP For Pack Verification & Coding Process

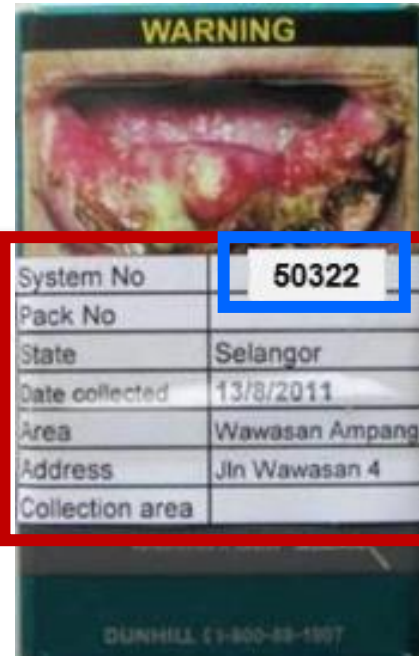
The following diagram illustrates the pack verification & coding process



# 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

\* Not registered with the Royal Malaysian Customs

\*\* Verified by Lembah Sari Sdn Bhd (LSSB) – Government appointed sole vendor for tax stamp

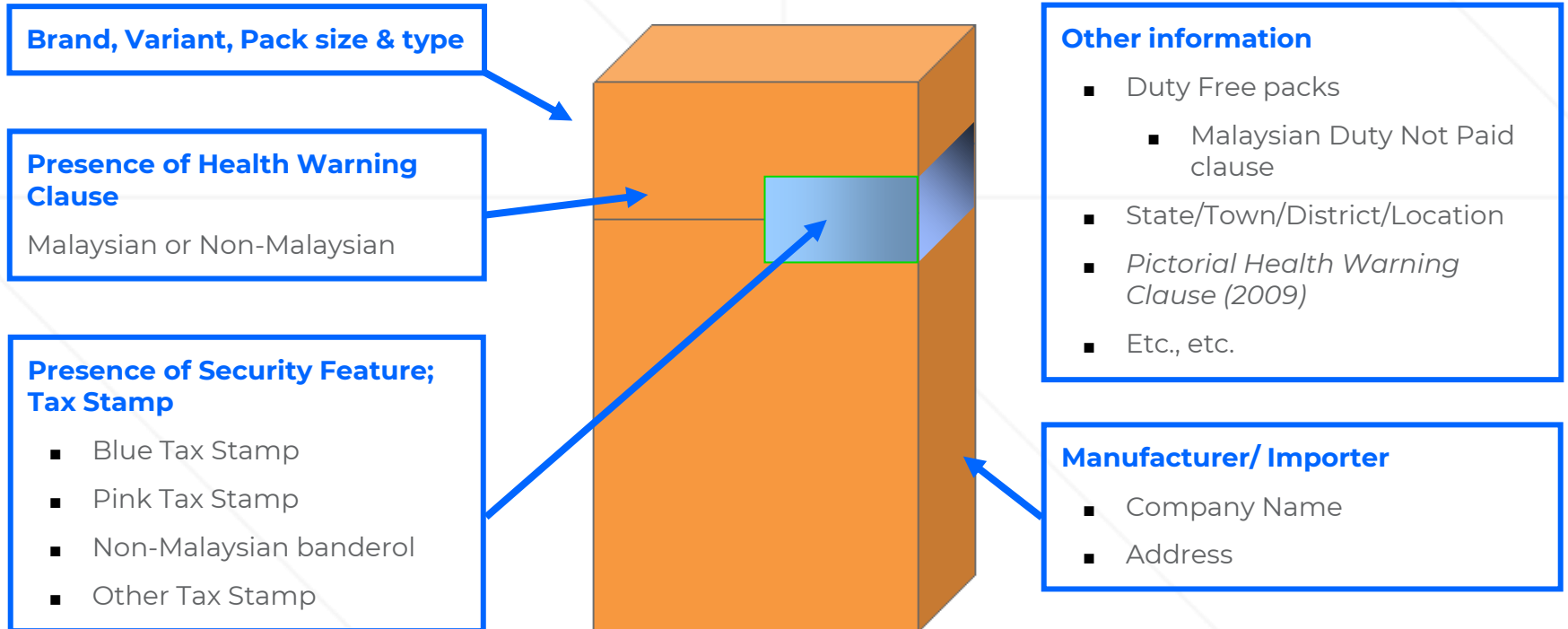
# Regulations Set By The Malaysian Government

- 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

*\* 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*

# 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

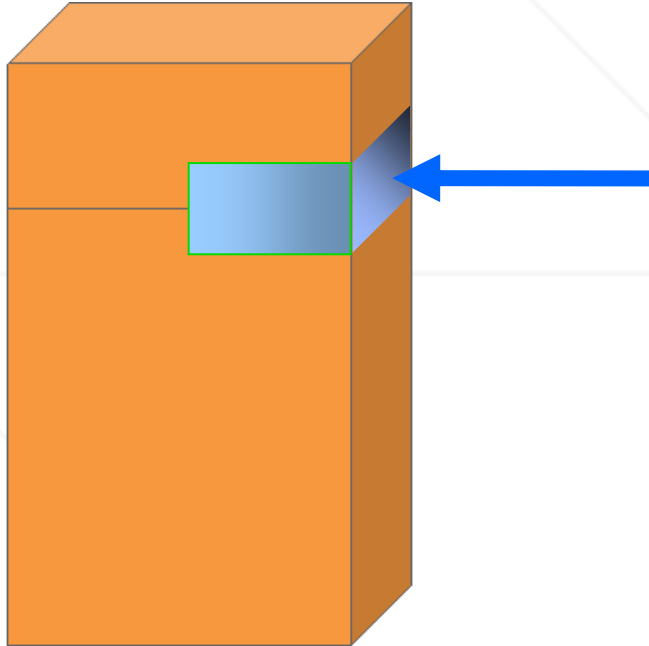
# Verification Of Security Tax Stamp

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

No	Pack ID System	Brand	Pack Size	Security link	Remarks (by LSSB)
10	7 30720	John	20	F	
11	8 111130	John	20	F	
12	9 110215	John	20	F	
13	10 101121	John	20	F	
14	11 40096	John	20	F	
15	12 40792	John	20	F	
16	13 121022	John	20	F	
17	14 100813	John	20	F	
18	15 121195	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 40794	John	20	F	
24	21 40699	John	20	F	
25	22 40700	John	20	F	
26	23 40711	John	20	F	
27	24 10898	John	20	F	
28	25 41090	John	20	F	
29	26 40862	John	20	F	
30	27 40996	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 41043	John	20	F	
37	34 4088	John	20	F	



# Verification Of Security Tax Stamp



**Blue Tax Stamp**  
(Domestic Market)

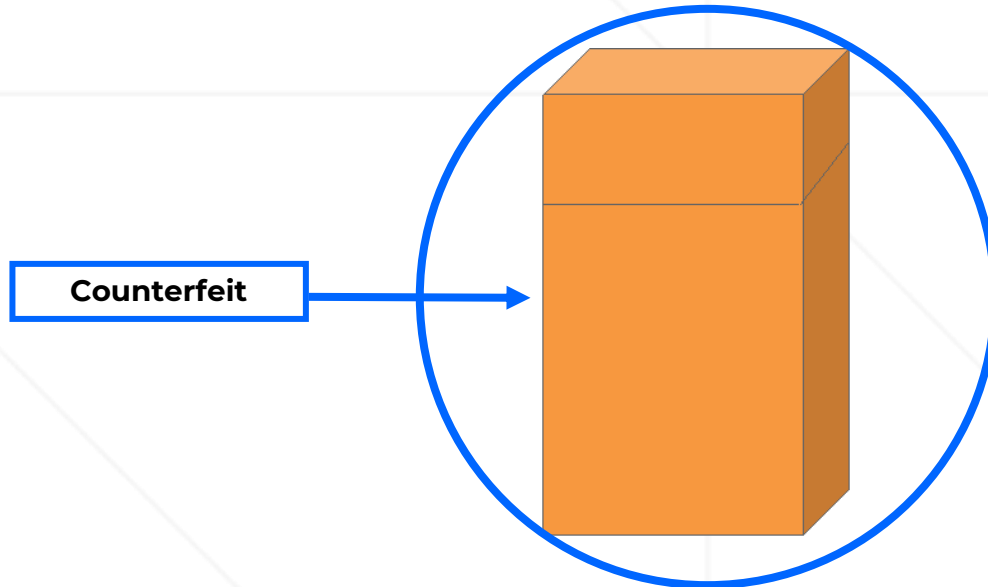
OR



**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

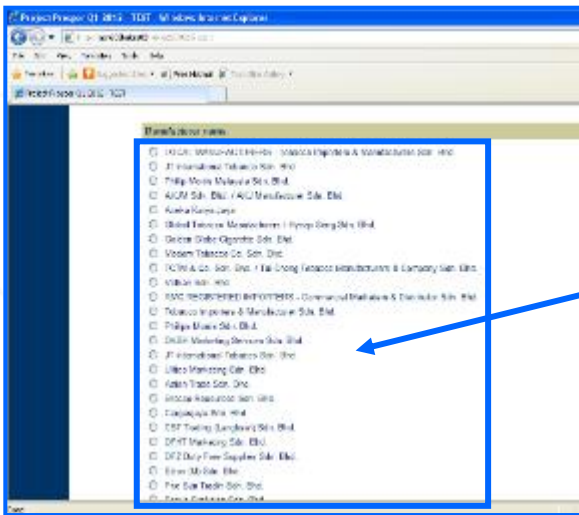
- i. ICS Universe, Sample Size
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## **iv. Data Processing**

- v. Weighting The Survey Data

# 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)

	A1	A	B	E	F	G	H	I	J	K	L	M
	Wagon	Brand	OS	Week	Of Month	Of State	Of Loc	Of State	Of State	Of State	Of State	Of State
1	24001	Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Bt Ubar	Johor	Bar Toman Bt South Joh	Dunhill Re		
2	24002	Wave 3	Week 33	03/10/20	Oct-12	Perlis	Perlis - Kt Ubar	Perlis	Kar Jalan Arb North Per	Peter Stay		
3	24003	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Selangor	Ka Likas - Tin East Mela	Dunhill Re		
4	24004	Wave 3	Week 33	03/10/20	Oct-12	Perlis	Perlis - Kt Ubar	Perlis	Kar Jalan Arb North Per	Dunhill Re		
5	24005	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Jin Pagar	Jalan Pas East Mela	Dunhill Re		
6	24006	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Selangor	Ka Likas - Tin East Mela	Winston R		
7	24007	Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Bt Ubar	Johor	Bar Toman Bt South Joh	Dunhill Re		
8	24008	Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Bt Ubar	Johor	Bar Toman Bt South Joh	Dunhill Re		
9	24009	Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Bt Ubar	Johor	Bar Toman Bt South Joh	Dunhill Re		
10	24010	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Selangor	Ka Likas - Tin East Mela	Dunhill Re		
11	24011	Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Bt Ubar	Johor	Bar Toman Bt South Joh	Dunhill Re		
12	24012	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Jin Pagar	Jalan Pas East Mela	Dunhill Re		
13	24013	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Selangor	Ka Likas - Tin East Mela	Gadang G		
14	24014	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Selangor	Ka Likas - Tin East Mela	Gadang G		
15	24015	Wave 3	Week 33	03/10/20	Oct-12	Kedah	Kedah - Kt Ubar	Jalan Pag	Jalan Pag North Per	Marlboro G		
16	24016	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Jin Pagar	Jalan Pas East Mela	Dunhill Re		
17	24017	Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Bt Ubar	Johor	Bar Toman Bt South Joh	Winston R		
18	24018	Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Bt Ubar	Johor	Bar Toman Bt South Joh	Winston R		
19	24019	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Jin Pagar	Jalan Pas East Mela	Premium S		
20	24020	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Selangor	Ka Likas - Tin East Mela	Gadang G		
21	24021	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Selangor	Ka Likas - Tin East Mela	Gadang G		
22	24022	Wave 3	Week 33	03/10/20	Oct-12	Perlis	Perlis - Kt Ubar	Perlis	Kar Jalan Arb North Per	Sekem Ma		
23	24023	Wave 3	Week 33	03/10/20	Oct-12	Kedah	Kedah - Kt Ubar	Jalan Pag	Jalan Pag North Per	Marlboro G		
24	24024	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Selangor	Ka Likas - Tin East Mela	Marlboro G		
25	24025	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Jin Pagar	Jalan Pas East Mela	Premium S		
26	24026	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Selangor	Ka Likas - Tin East Mela	Premium S		
27	24027	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Jin Pagar	Jalan Pas East Mela	Premium S		
28	24028	Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Bt Ubar	Johor	Bar Toman Bt South Joh	Winston R		
29	24029	Wave 3	Week 33	03/10/20	Oct-12	Kedah	Kedah - Kt Ubar	Jalan Pag	Jalan Pag North Per	Marlboro G		
30	24030	Wave 3	Week 33	03/10/20	Oct-12	Perlis	Perlis - Kt Ubar	Perlis	Kar Jalan Arb North Per	Marlboro G		
31	24031	Wave 3	Week 33	03/10/20	Oct-12	Johor	Johor - Bt Ubar	Johor	Bar Toman Bt South Joh	Winston R		
32	24032	Wave 3	Week 33	03/10/20	Oct-12	Selangor	Selangor - Kt Ubar	Jin Pagar	Jalan Pas East Mela	Premium S		
33	24033	Wave 3	Week 33	03/10/20	Oct-12	Kedah	Kedah - Kt Ubar	Jalan Pag	Jalan Pag North Per	Marlboro 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
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- 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**)

	Oct, 2021	
	('000 sticks)	
CMTM Member Companies (BATM, PMM, JTI)	550,780	Derive from <b>actual in-market sales</b> as provided by <b>CMTM member companies</b>
Other Local manufacturers	0	
Malaysian Duty Free	1,273	ICS volume estimation is used as substitute since actual data is not available
<b>Total Legal Cigarettes Sales</b>	<b>552,053</b>	

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 530,742,000 sticks

	IN-MARKET SALES BY CMTM	STATE'S LEGAL VOLUME CONTRIBUTION
PERLIS	3,662	0.7%
KEDAH	24,165	4.6%
PENANG	40,722	7.7%
PERAK	44,400	8.4%
SELANGOR	140,953	26.6%
WP KL	57,167	10.8%
N.SEMBILAN	31,425	5.9%
MELAKA	19,864	3.7%
JOHOR	76,732	14.5%
PAHANG	25,565	4.8%
TERENGGANU	11,873	2.2%
KELANTAN	16,255	3.1%
SABAH	18,983	3.6%
SARAWAK	18,977	3.6%
<b>NATIONAL</b>	<b>530,742</b>	<b>100.0%</b>

### Step 2a. (Using In-Market Sales)

**State Legal Volume Contribution** =  $\frac{\text{State's In-Market Volume}}{\text{National Volume}}$   
 (e.g.  $140,953 / 530,742 = 26.6\%$ )

	IN-MARKET SALES	STATE'S LEGAL VOLUME CONTRIBUTION	PROJECTED/ ESTIMATED STATE LEGAL VOLUME
SELANGOR	140,953	26.6%	146,612
<b>NATIONAL</b>	<b>530,742</b>		<b>552,053</b>

### 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.  $26.6\% \times 552,053 = 146,612$ )

# 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	3,662	0.7%	3,809
KEDAH	24,165	4.6%	25,135
PENANG	40,722	7.7%	42,358
PERAK	44,400	8.4%	46,183
<b>SELANGOR</b>	<b>140,953</b>	<b>26.6%</b>	<b>146,612</b>
WP KL	57,167	10.8%	59,462
N.SEMBILAN	31,425	5.9%	32,686
MELAKA	19,864	3.7%	20,662
JOHOR	76,732	14.5%	79,813
PAHANG	25,565	4.8%	26,591
TERENGGANU	11,873	2.2%	12,350
KELANTAN	16,255	3.1%	16,907
SABAH	18,983	3.6%	19,745
SARAWAK	18,977	3.6%	19,739
<b>NATIONAL</b>	<b>530,742</b>	<b>100.0%</b>	<b>552,053</b>

# 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 (Oct'21)	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	1,466	29,320	1,734	33,314	62,634	46.8%	53.2%

### 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

# How Does Nielsen Weight The Data?

## 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 (Oct'21)	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	569	11,380	631	11,204	22,584	50.4%	49.6%
KEDAH	1,200	465	9,300	735	13,186	22,486	41.4%	58.6%
PENANG	1,200	593	11,860	607	11,515	23,375	50.7%	49.3%
PERAK	1,200	786	15,720	414	8,113	23,833	66.0%	34.0%
SELANGOR	3,200	1,466	29,320	1,734	33,314	62,634	46.8%	53.2%
WP KL	1,300	628	12,560	672	13,014	25,574	49.1%	50.9%
N.SEMBILAN	1,200	774	15,480	426	8,178	23,658	65.4%	34.6%
MELAKA	1,200	640	12,800	560	11,141	23,941	53.5%	46.5%
JOHOR	1,900	972	19,440	928	18,142	37,582	51.7%	48.3%
PAHANG	1,200	300	6,000	900	17,313	23,313	25.7%	74.3%
T'GANU	1,200	259	5,180	941	18,273	23,453	22.1%	77.9%
KELANTAN	1,200	454	9,080	746	14,868	23,948	37.9%	62.1%
SABAH	1,600	292	5,840	1,308	25,292	31,132	18.8%	81.2%
SARAWAK	1,600	362	7,240	1,238	24,130	31,370	23.1%	76.9%

# 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	146,612	46.8%	313,196	166,584

### Step 4a.

Based on the incidence for legal cigarettes of 51.5% in Selangor, project the total volume for the state (e.g. 146,612 divide by 46.8% = 313,196)

### Step 4b.

Illegal volume is established by subtracting the projected total state's volume with the legal volume (e.g. 313,196 - 146,612 = 166,584)



# 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	3,809	50.4%	7,559	3,750
KEDAH	25,135	41.4%	60,773	35,638
PENANG	42,358	50.7%	83,483	41,125
PERAK	46,183	66.0%	70,018	23,835
SELANGOR	146,612	46.8%	313,196	166,584
WP KL	59,462	49.1%	121,074	61,612
N.SEMBILAN	32,686	65.4%	49,954	17,268
MELAKA	20,662	53.5%	38,645	17,984
JOHOR	79,813	51.7%	154,297	74,484
PAHANG	26,591	25.7%	103,320	76,729
TERENGGANU	12,350	22.1%	55,917	43,567
KELANTAN	16,907	37.9%	44,593	27,685
SABAH	19,745	18.8%	105,256	85,511
SARAWAK	19,739	23.1%	85,527	65,788
<b>NATIONAL</b>	<b>552,053</b>		<b>1,293,612</b>	<b>741,559</b>

Divide **National Illegal Volume 741,559** with **National Total Market Volume 1,293,612** **57.3%**



## About NielsenIQ

Arthur C. Nielsen, who founded Nielsen in 1923, is the original name in consumer intelligence. After decades of helping companies look to the future, we are setting the foundation for our future by becoming NielsenIQ. We continue to be the undisputed industry leaders as evidenced by our experience and unmatched integrity. As we move forward, we are focused on providing the best retail and consumer data platform, enabling better innovation, faster delivery, and bolder decision-making. We are unwavering in our commitment to these ideals and passionate about helping clients achieve success. For more information, visit: [niq.com](https://niq.com)