

Illicit Cigarettes Study (ICS) In Malaysia, May 2023 Report

Report Commissioned by CMTM member companies

Table of contents

Illegal Cigarettes Criteria for Verification	3	Fake Tax Stamp Breakdown by Manufacturers / Importers	9-13
Illegal Cigarettes Incidence at National Level	4	Illegal Cigarettes Incidence by States	14-15
Illegal Cigarettes Incidence at Peninsular Malaysia Level	5	Top 10 Illegal Cigarettes Brands State Level	16-29
Illegal Cigarettes Incidence at East Malaysia Level	6	Appendix: Nielsen's ICS Research Objective & Methodology	30-62
Top 10 Illegal Cigarettes Brands National Level	7		
Tax Stamp Breakdown of Illegal Cigarettes	8		

Illegal Cigarettes Criteria For Verification

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

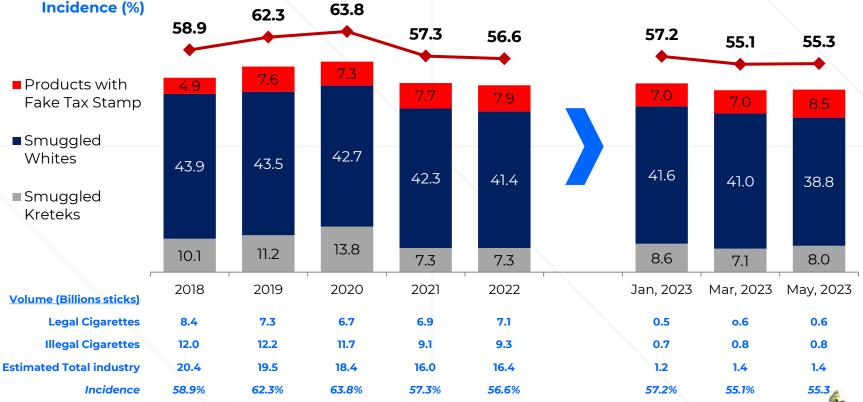
- 1. Absence of Registered Importers
- 2. Unregistered Importers*
- 3. Absence of Registered Manufacturers
- 4. Unregistered Manufacturers*
- 5. Packs with counterfeit (fake) Malaysian tax stamp**
- 6. Packs without Malaysian tax stamp
- 7. Packs with non-Malaysian tax stamp
- 8. Unregistered Brand*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

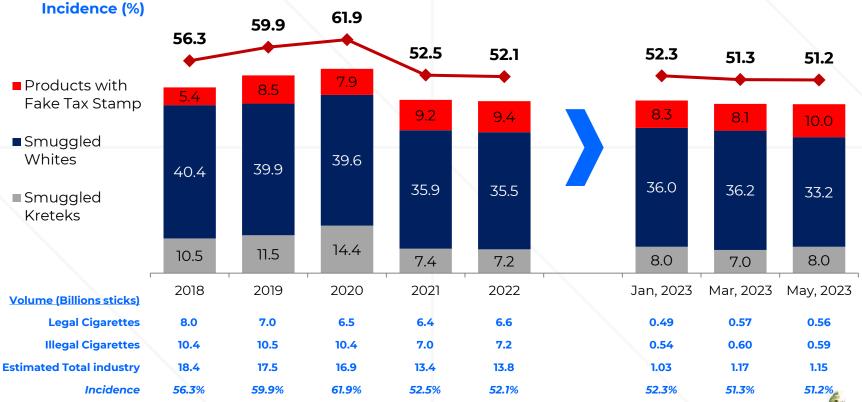
Illegal Cigarettes Incidence At National Level :

Overall increase by 0.2 ppt. vs. Mar, 2023



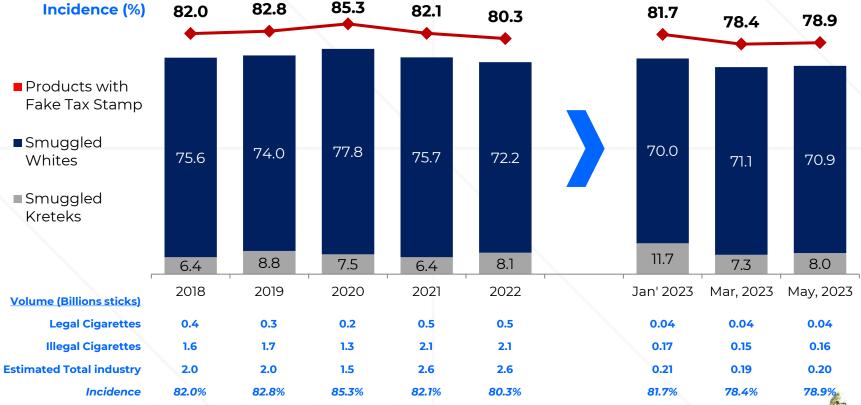
Illegal Cigarettes Incidence In Pen. Malaysia :

Overall decrease by 0.1 vs. Mar, 2023



Illegal Cigarettes Incidence In East Malaysia :

Overall increase by 0.5 vs. Mar, 2023



Top 10 Illegal Cigarettes Brands*

They account for approximately 79% of illegal cigarettes volume

		May, 2023	Mar, 2023	2022	#1	# 2	# 3
		SOM	SOM	SOM	A1144	and the second	
	Illegal Brand	(%)	(%)	(%)		:Ă:	Canyon
1.	John	13.5	14.5	15.4	Adda JOS	ERA	Canyon
2.	Era	7.2	7.1	7.7		020000	-
3.	Canyon	6.2	7.3	5.2	# 4	# 5	#6
4.	Gudang Garam	4.8	4.7	4.2	- Anger	15-32	
5.	U2	4.7	5.5	3.9	GARAM	12 12	LA
6.	L.A.	1.8	2.0	1.9	and the second	THE COURSE	The second se
7.	Parkway	1.6	1.4	1.7	# 7	# 8	# 9
8.	Bosston*	1.4	1.2	1.4		and the second	54
9.	Misto*	1.4	1.1	1.9	Section 2010	And a state of the	Pre- Spin Service Service
10.	Rave	1.3	1.0	1.0	PARKWAY	IIIIMION .	e in Sto
	Top 10 Total	43.9	45.8	44.3	Straine 1		derit metric
						# 10	
	Other Illegal	11.4	9.3	12.3		100	
	Total Illegal %	55.3	55.1	56.6		Rave	

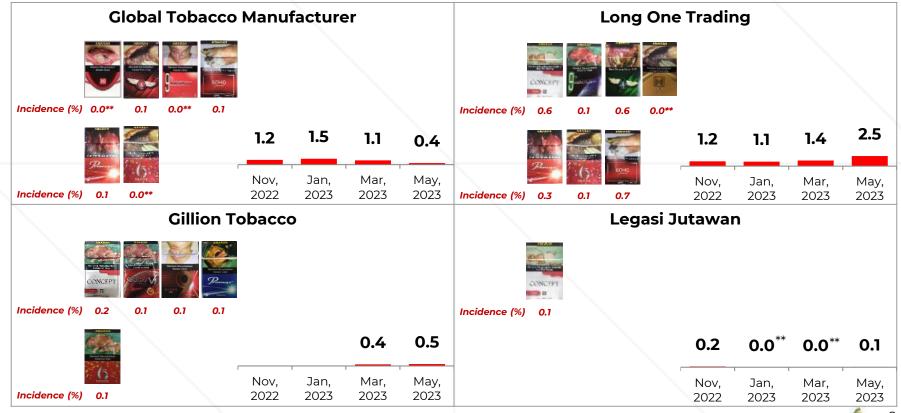
* relates to incidence of empty packs collected that meet any of illegal cigarettes criteria in page 3, regardless whether they are a legal brand or otherwise

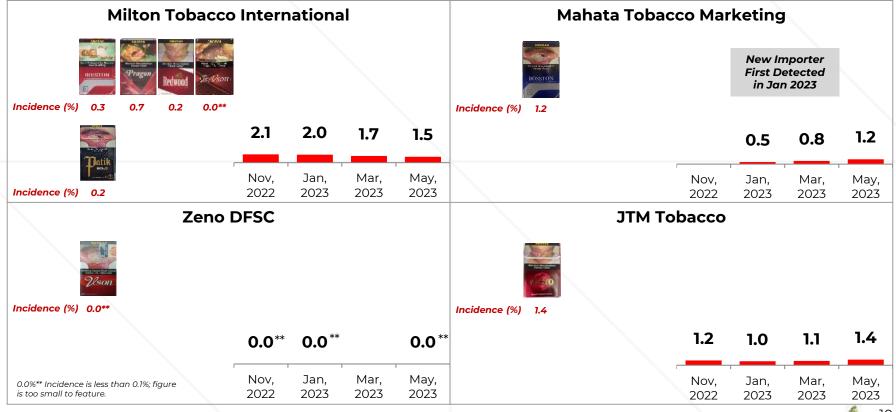
Tax Stamp Breakdown Of Illegal Cigarettes :

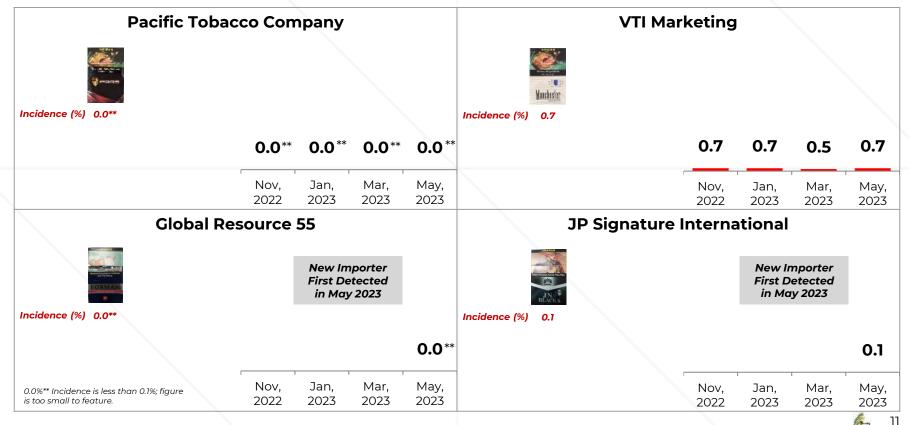
85% of illegal cigarettes are without tax stamps while remaining 15% are with fake tax stamps

63.8 57.3 57.7 57.2 56.6 56.1 55.6 55.1 55.3 54.8 7.3 7.0 7.7 7.9 9.7 8.2 6.9 6.5 7.0 With Fake Tax Stamp 8.5 56.5 50.2 49.6 Without Tax Stamp 48.7 48.0 47.9 48.7 48.3 48.1 46.8 2020 2021 2022 May, 2022 Jul, 2022 Sep, 2022 Nov, 2022 Jan, 2023 Mar, 2023 May, 2023

Incidence (%)









Incidence for packs imported by Long One Trading has increased by 1.1 ppt. in May'23



Sep'22 Nov'22 Jan'23 Mar'23 May'23





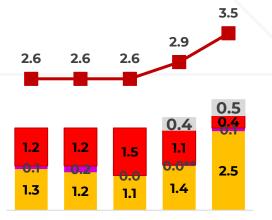
Sep'22 Nov'22 Jan'23 Mar'23 May'23

Zeno DFSC

Milton Tobacco International

Mahata Tobacco Marketing

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



Sep'22 Nov'22 Jan'23 Mar'23 May'23

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

13



Illegal Cigarettes Incidence By State :

8 States recording an increase vs. Mar 2023

			А				в			A mi	inus B		Volume
		May	, 2023			Mar	, 2023		Vari	ance (May'2	023 vs. Mar'	2023)	Contribution
	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	%
Sarawak	79.9	0.0	65.0	14.9	79.4	0.0	67.4	12.0	+0.5	0.0	-2.4	+2.9	11%
Sabah	77.7	0.1	77.2	0.4	77.0	0.0	75.6	1.4	+0.7	+0.1	+1.6	-1.0	10%
Pahang	77.6	10.1	56.9	10.6	76.6	8.6	59.1	8.9	+1.0	+1.5	-2.2	+1.7	13%
Terengganu	67.4	6.9	55.1	5.4	69.5	17.1	45.1	7.3	-2.1	-10.2	+10.0	-1.9	4%
Johor	56.4	18.3	31.2	6.9	57.0	9.4	42.1	5.5	-0.6	+8.9	-10.9	+1.4	20%
Kelantan	50.2	0.2	47.1	2.9	35.0	0.3	32.4	2.3	+15.2	-0.1	+14.7	+0.6	2%
Perlis	49.9	2.1	36.0	11.8	44.6	0.2	36.8	7.6	+5.3	+1.9	-0.8	+4.2	0%**
Melaka	46.9	23.5	19.7	3.7	56.0	27.4	24.8	3.8	-9.1	-3.9	-5.1	-0.1	3%
Penang	46.9	4.9	38.9	3.1	45.8	9.8	31.9	4.1	+1.1	-4.9	+7.0	-1.0	5%
Selangor	45.9	4.6	28.7	12.6	46.3	2.4	32.0	11.9	-0.4	+2.2	-3.3	+0.7	17%
Kedah	44.6	6.8	30.0	7.8	43.6	2.2	35.8	5.6	+1.0	+4.6	-5.8	+2.2	3%
WP KL	41.2	0.7	30.0	10.5	41.6	1.6	32.2	7.8	-0.4	-0.9	-2.2	+2.7	7%
N.Sembilan	40.7	19.9	17.7	3.1	41.7	20.2	18.3	3.2	-1.0	-0.3	-0.6	-0.1	3%
Perak	34.3	15.3	18.4	0.6	34.2	11.6	21.3	1.3	+0.1	+3.7	-2.9	-0.7	3%
National Incidence	55.3	8.5	38.8	8.0	55.1	7.0	41.0	7.1	+0.2	+1.5	-2.2	+0.9	100%

14

Illegal Cigarettes Incidence By State :

4 States recording an increase vs. 2022

			A				в			A mi	nus B		Volume
		Mar,	2023			2022			Variance (May'2023 vs. 2022)				Contribution
	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	%
Sarawak	79.9	0.0	65.0	14.9	81.1	0.0	68.7	12.4	-1.2	0.0	-3.7	+2.5	11%
Sabah	77.7	0.1	77.2	0.4	79.5	0.0	75.9	3.6	-1.8	+0.1	+1.3	-3.2	10%
Pahang	77.6	10.1	56.9	10.6	67.0	11.3	48.4	7.3	+10.6	-1.2	+8.5	+3.3	13%
Terengganu	67.4	6.9	55.1	5.4	71.2	10.4	55.5	5.3	-3.8	-3.5	-0.4	+0.1	4%
Johor	56.4	18.3	31.2	6.9	54.1	13.2	34.5	6.4	+2.3	+5.1	-3.3	+0.5	20%
Kelantan	50.2	0.2	47.1	2.9	72.1	3.4	64.5	4.2	-21.9	-3.2	-17.4	-1.3	2%
Perlis	49.9	2.1	36.0	11.8	49.9	3.2	37.4	9.3	0.0	-1.1	-1.4	+2.5	0%**
Melaka	46.9	23.5	19.7	3.7	53.3	18.7	33.0	1.6	-6.4	+4.8	-13.3	+2.1	3%
Penang	46.9	4.9	38.9	3.1	46.1	8.7	35.1	2.3	+0.8	-3.8	+3.8	+0.8	5%
Selangor	45.9	4.6	28.7	12.6	47.9	6.2	29.8	11.9	-2.0	-1.6	-1.1	+0.7	17%
Kedah	44.6	6.8	30.0	7.8	60.1	6.3	47.6	6.2	-15.5	+0.5	-17.6	+1.6	3%
WP KL	41.2	0.7	30.0	10.5	43.6	1.6	31.8	10.2	-2.4	-0.9	-1.8	+0.3	7%
N.Sembilan	40.7	19.9	17.7	3.1	45.7	24.3	16.3	5.1	-5.0	-4.4	+1.4	-2.0	3%
Perak	34.3	15.3	18.4	0.6	32.2	12.7	18.0	1.5	+2.1	+2.6	+0.4	-0.9	3%
National Incidence	55.3	8.5	38.8	8.0	56.6	7.9	41.4	7.3	-1.3	+0.6	-2.6	+0.7	100%

Top 10 Illegal Cigarettes Brands* For Perlis

Volume contribution to National = 0%**

		May, 2023	Mar, 2023	2022	#1	# 2	#
		SOM	SOM	SOM	444 b 10	Surges.	
	Illegal Brand	(%)	(%)	(%)	Part of Case	2005	VES
1.	John	30.7	31.6	33.4	John	GARAM Banalina	
2.	Gudang Garam	10.7	7.1	8.6			
3.	Vess	3.2	4.4	3.0	# 4	# 5	#
4.	Misto*	1.9	-	0.1	E.A.	Res.	161ce-
5.	Tiara	1.6	0.3	0.2	Constant	and the second sec	
6.	Touro	1.0	0.1	0.6	C I I I I I	TIARA	
7.	D&J	0.4	0.3	0.2	# 7	# 8	#
8.	Promax*	0.1	-	0.2		-	C
9.	A380*	0.1	-	0.4			
10.	L.A.	0.1	0.3	0.1	Consecution of Consecution	Tohan	-
	Top 10 Total	49.8	44.1	46.8			
						# 10	
	Other Illegal	0.1	0.5	3.1			
	Total Illegal %	49.9	44.6	49.9		LAT	

* 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 Kedah

Volume contribution to National = 3%

				_				
		May, 2023	Mar, 2023		2022	#1	# 2	# 3
		SOM	SOM		SOM	444 8 92	Junger-	
	Illegal Brand	(%)	(%)		(%)	Particular Control	GARAN	
1.	John	19.7	17.1		42.8	John	GARAM	<u>Oliver</u>
2.	Gudang Garam	7.8	5.6		6.1			and a state of the
3.	D&J	3.4	5.1		0.8	# 4	# 5	#6
4.	Concept*	3.0	0.2		1.0		-	A SAL
5.	JN	2.7	0.1		-	CONCEPT	And the second second second	Mose
6.	Mone	2.6	2.7		-		JN BLACK E	and the second
7.	Luffman	2.6	2.0		0.4	# 7	# 8	# 9
8.	Vess	1.5	3.4		2.2	242	V	
9.	A380*	0.6	1.6		0.5		VESS	ALL DESCRIPTION
10.	M*	0.4	-		0.5	Luffman		
	Top 10 Total	44.3	37.8		54.3		THE PERSON NEW YORK	
				_ '			# 10	
	Other Illegal	0.3	5.8		5.8		A STAR	
	Total Illegal %	44.6	43.6		60.1		Contract of the other state	
							Land Land	

* 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 = 5%

			May, 2023	Mar, 2023	2022	#1	# 2	# 3
			SOM	SOM	SOM	A44272	a large	and the second
		Illegal Brand	(%)	(%)	(%)	Particular Caret	GARASH	2.96
-	1.	John	33.0	28.7	25.5	John		SAAT
ź	2.	Gudang Garam	2.8	4.0	2.2		and the second	
3	3.	Saat	2.8	1.2	5.5	# 4	# 5	#6
4	4.	Manchester*	1.7	4.1	2.9	A Company	Partie incomerce.	
Ę	5.	Tex	1.3	0.7	0.6	Annual Kennya Malakan Ranare Laher	TEX	Pragon
e	6.	Pragon*	1.0	1.3	1.1	Nanchester 1		
5	7.	Concept*	0.7	0.9	0.9	#7	# 8	#9
8	8.	Misto*	0.6	0.1	0.3		54	FORT
ç	9.	Fort	0.4	-	0.1		Ministration and a second second	FOUL
1	0.	Canyon	0.4	-	0.2	CONCEPT	et and	
		Top 10 Total	44.7	41.0	39.3			
							# 10	
		Other Illegal	2.2	4.8	6.8		S.A.	
		Total Illegal %	46.9	45.8	46.1		Canyon	
							and the second second	

* 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%

		May, 2023	Mar, 2023	2022	#1	# 2	#
		SOM	SOM	SOM	46412.42	- Dal	
	Illegal Brand	(%)	(%)	(%)	Particular County		
1.	John	10.3	13.3	10.8	John	3	co
2.	D&J	3.7	4.3	3.3		And and a second second	
3.	Concept*	2.7	3.0	1.6	# 4	# 5	#
4.	Manchester*	2.1	2.8	2.1	A.	CALL	A
5.	Bosston*	2.0	1.8	2.2	Nanchester	mession	1000
6.	Misto*	1.9	1.1	1.7	<u>Nanchester</u>		01
7.	Canyon	1.8	2.0	1.7	# 7	# 8	#
8.	9 th Century*	1.6	1.1	1.7			
9.	Promax*	1.5	0.5	0.8	Canyon		.
10.	Pragon*	0.9	0.4	0.8	Caryon	gammer	2
	Top 10 Total	28.5	30.3	26.7	-		
						# 10	
	Other Illegal	5.8	3.9	5.5			
	Total Illegal %	34.3	34.2	32.2		Progon	

* 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 = 17%

			May, 2023	Mar, 2023	2022	#1	# 2	# 3
			SOM	SOM	SOM	AVES	A DESCRIPTION	Ave.
		Illegal Brand	(%)	(%)	(%)	Technology	JOA DA	EME
	1.	John	11.3	12.9	12.1	Ada.	UZ.	GARAM
	2.	U2	7.8	8.7	6.8		and the second sec	and Allower
	3.	Gudang Garam	7.4	8.4	7.1	# 4	# 5	#6
	4.	Canyon	4.1	6.4	4.7	E.A.	10 m	
	5.	L.A.	3.5	3.3	3.5	Canyon	TA	- 20 Hanan
	6.	Luffman	2.6	2.5	3.6		-	
	7.	Zon King	2.1	1.3	1.7	# 7	# 8	# 9
	8.	Sampoerna	1.6	-	0.4	1 m	No. of Contraction	-
	9.	A380*	1.4	0.9	1.6	ZON		C:A
	10.	Misto*	1.2	0.5	2.3	ZON KENG	x	-att
		Top 10 Total	43.0	44.9	43.8			
							# 10	
		Other Illegal	2.9	1.4	4.1		E.A.	
		Total Illegal %	45.9	46.3	47.9		A LOO	
-					·			

* 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 = 7%

	May, 2023	Mar, 2023	2022	#1	# 2	# 3
	SOM	SOM	SOM	AVE IS	Since .	Same
Illegal Brand	(%)	(%)	(%)	Padro Soci	A100 - 100 -	GARAN
John	11.1	12.3	12.3	Jaka. JOB	<u>1</u> 2	
U2	8.8	7.3	7.7		- Charleson and a second	
Gudang Garam	6.3	3.5	5.5	# 4	# 5	#6
Canyon	3.7	3.7	4.3	54		1
Luffman	3.4	4.6	4.2	Canyon	alle	LA
L.A.	3.1	4.0	3.4		1	-
Zon King	2.6	4.0	2.3	# 7	# 8	# 9
Sampoerna	1.0	0.2	0.5	1000	and the second second	8492 M
Saat	0.2	0.1	0.6	ZON		5.34
9 th Century*	0.2	-	0.1	KING	3	SAAT
Top 10 Total	40.4	39.7	40.9	and the second second		
					# 10	
Other Illegal	0.8	1.9	2.7		E.C.	
Total Illegal %	41.2	41.6	43.6		No. of Concession, Name	
	John U2 Gudang Garam Canyon Luffman LA. Zon King Sampoerna Saat 9 th Century* Top 10 Total	SOM Illegal Brand (%) John 11.1 JOhn 11.1 U2 8.8 Gudang Garam 6.3 Canyon 3.7 Canyon 3.4 Luffman 3.4 LA 3.1 Zon King 2.6 Sampoerna 1.0 Saat 0.2 9 th Century* 0.2 Top 10 Total 40.4	SOM SOM Illegal Brand (%) (%) John 11.1 12.3 JOL 8.8 7.3 Cudang Garam 6.3 3.5 Gudang Garam 3.7 3.7 Luffman 3.4 4.6 Luffman 3.1 4.0 Zon King 2.6 4.0 Sampoerna 1.0 0.2 Shat 0.2 0.1 9 th Century* 0.2 - Other Illegal 0.8 1.9	SOM SOM SOM Illegal Brand (%) (%) (%) John 11.1 12.3 12.3 JOU2 8.8 7.3 7.7 Gudang Garam 6.3 3.5 5.5 Gudang Caram 3.4 4.6 4.2 Luffman 3.4 4.6 4.2 Zon King 2.6 4.0 3.4 Sampoerna 1.0 0.2 0.1 0.5 Shat 0.2 0.1 0.6 0.1 9 th Century* 0.2 - 0.1 0.1 Other Illegal 0.8 1.9 2.7 0.1	SOM SOM SOM Illegal Brand (%) (%) (%) John 11.1 12.3 12.3 U2 8.8 7.3 7.7 Gudang Garam 6.3 3.5 5.5 Canyon 3.7 4.3 #4 Canyon 3.7 4.3 #4 Luffman 3.4 4.6 4.2 #7 Zon King 2.6 4.0 3.4 #7 Math Canyon 1.0 0.2 0.1 #7 Sampoerna 1.0 0.2 0.1 0.6 #7 9 th Century* 0.2 0.1 0.6 #7 9 th Century* 0.2 0.1 0.6 #7 9 th Century* 0.2 0.1 0.1 #0.9 U 1.9 2.7 40.9 10.1	SOM SOM SOM Illegal Brand (%) (%) (%) John 11.1 12.3 12.3 U2 8.8 7.3 7.7 Gudang Garam 6.3 3.5 5.5 Canyon 3.7 4.3 Luffman 3.4 4.6 4.2 Zon King 2.6 4.0 3.4 Sampoerna 1.0 0.2 0.5 Shampoerna 1.0 0.2 0.5 9th Century* 0.2 - 0.1 Other Illegal 0.8 1.9 2.7

* 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 N.Sembilan

Volume contribution to National = 3%

		May, 2023	Mar, 2023	2022	#1
		SOM	SOM	SOM	# 1
	Illegal Brand	(%)	(%)	(%)	Canyon
1.	Canyon	9.5	6.4	8.1	Canyon
2.	Misto*	8.1	11.8	10.4	
3.	A380*	5.7	7.6	7.3	# 4
4.	John	4.9	3.7	4.4	1 ale
5.	Gudang Garam	3.0	2.7	4.0	Jos
6.	6 th Sense*	2.7	1.6	1.4	
7.	Pragon*	1.9	1.5	0.4	# 7
8.	U2	1.4	0.8	2.2	
9.	League	1.4	0.3	0.3	
10.	Promax*	0.4	0.1	0.2	ePrage
	Top 10 Total	39.0	36.5	38.7	
	Other Illegal	1.7	5.2	7.0	
	Total Illegal %	40.7	41.7	45.7	

* 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 Melaka

Volume contribution to National = 3%

		May, 2023	Mar, 2023	2022	
		SOM	SOM	SOM	
	Illegal Brand	(%)	(%)	(%)	
1.	John	10.6	13.4	16.8	Jo
2.	SOHO*	10.5	11.9	1.8	
3.	Canyon	8.6	10.0	15.6	#
4.	Bosston*	3.9	3.0	4.0	ante
5.	Gudang Garam	3.3	3.5	0.9	ILUSS
6.	Misto*	3.3	5.2	2.6	E
7.	Promax*	1.6	2.4	4.6	#
8.	9 th Century*	1.0	0.2	0.6	14
9.	Redwood*	0.8	1.1	0.4	Sec.
10.	Concept*	0.7	0.3	0.6	R
	Top 10 Total	44.3	51.0	47.9	-
	Other Illegal	2.6	5.0	5.4	
	Total Illegal %	46.9	56.0	53.3	

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

Top 10 Illegal Cigarettes Brands* For Johor

Volume contribution to National = 20%

		May, 2023	Mar, 2023	2022	#1	# 2	
		SOM	SOM	SOM		914 9 4 4 4 G	
	Illegal Brand	(%)	(%)	(%)	Contraction of the	terinizen Antes	
1.	Canyon	15.4	16.9	14.6	Clanyon	John Joos	
2.	John	7.9	13.7	12.7			
3.	U2	5.4	10.3	5.8	# 4	# 5	
4.	Gudang Garam	4.4	4.6	4.1	Conget-	CARL C	
5.	Bosston*	2.7	1.8	3.3	GAILAN	aussides	
6.	Misto*	2.6	1.8	4.0		CT	
7.	SOHO*	2.6	0.5	0.6	# 7	# 8	
8.	Conceot*	2.5	0.7	1.0			
9.	Manchester*	2.5	0.3	0.8		And and a state of the local division of the local division of the local division of the local division of the	
10.	RE	1.6	-	0.7	621.9	CONCEPT	
	Top 10 Total	47.6	50.6	47.6	and the second		
						# 10	
	Other Illegal	8.8	6.4	6.5			
	Total Illegal %	56.4	57.0	54.1		RE	

* 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 = 13%

		May, 2023	Mar, 2023	2022	#1	#2	# 3
		SOM	SOM	SOM			
	Illegal Brand	(%)	(%)	(%)	Katination John	Contraction of the	104
1.	John	30.0	30.1	27.1	John Jos	Cherry Charles	12
2.	Canyon	13.9	15.9	8.8		-	THERE
3.	U2	12.1	10.8	9.8	# 4	# 5	# 6
4.	Gudang Garam	9.4	8.2	5.8	Congress -	ING TO	
5.	Bosston*	5.9	4.9	6.6	GATLAN	ILLISSTER.	No. of Concession, Name
6.	Concept*	1.7	1.0	1.4	- Star		CONCEPT
7.	Pragon*	1.2	0.5	0.9	# 7	# 8	# 9
8.	Misto*	0.6	0.9	0.7	AMARAS	24	Sec. Sec.
9.	Touro	0.6	0.3	0.9	Municipal Managementation		372
10.	Patik*	0.4	-	0.0**	Pragon	100	100
	Top 10 Total	75.8	72.6	62.0		# 10	
						# 10	
	Other Illegal	1.8	4.0	5.0			
	Total Illegal %	77.6	76.6	67.0		Patik	

* 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 Terengganu

Volume contribution to National = 4%

		May, 2023	Mar, 2023	2022	#1	# 2	# 3
		SOM	SOM	SOM	1-55+5	Tangas.	
	Illegal Brand	(%)	(%)	(%)	And Andrews	ESS(S)	100 A
1.	John	44.3	35.0	36.5	المالية مركزي محصر	GARAM	SAAT
2.	Gudang Garam	5.4	7.3	5.1		Concession of Co	
3.	Saat	4.1	2.8	10.4	# 4	# 5	#6
4.	U2	3.9	4.5	5.4	63	ANARAN C	Set.
5.	Pragon*	1.7	6.8	5.4	ů2	Pragon	Contract of Contractory
6.	Redwood*	1.0	3.2	0.7	Terminal Street Barrier		Redwood
7.	A380*	1.0	0.9	0.4	#7	#8	# 9
8.	Bosston*	0.9	1.4	0.3			- and
9.	Misto*	0.9	3.3	1.4		CALL	GN
10.	Premium	0.8	0.2	0.2	- and	III STOR	CONTRACTOR
	Top 10 Total	64.0	65.4	65.8			Arrows a
						# 10	
	Other Illegal	3.4	4.1	5.4		Real	
	Total Illegal %	67.4	69.5	71.2		dismiss	
						and the second second	

* 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 9 Illegal Cigarettes Brands* For Kelantan

Volume contribution to National = 2%

		May, 2023	Mar, 2023	2022	#1	# 2	# 3
		SOM	SOM	SOM	- 20 K (4 + 2	and the second	Serges-
	Illegal Brand	(%)	(%)	(%)	121122	Contraction of the second	GARAM
1.	John	30.4	23.9	34.3	John .	SAAT	
2.	Saat	15.7	7.3	25.8			Contraction of the second
3.	Gudang Garam	2.9	2.3	4.1	# 4	# 5	#6
4.	Premium	0.5	0.3	0.6		Hand	No.
5.	Tex	0.2	0.4	0.3	TEX	Citation .	PTA
6.	Tiara	0.2	-	0.2		-	TIARA
7.	Concept*	0.2	0.3	2.8	# 7	# 8	# 9
8.	D&J	0.1	0.1	0.0**		Do J	N/14-4
9.	Lee	0.0**	0.3	2.5			Control Street March Street
	Top 9 Total	50.2	34.9	70.6	CONCEPT		Lee
						Transaction of	
	Other Illegal	-	0.1	1.5			
	Total Illegal %	50.2	35.0	72.1			

* 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 8 Illegal Cigarettes Brands* For Sabah

Volume contribution to National = 10%

		May, 2023	Mar, 2023	2022	#1	#2	# 3
		SOM	SOM	SOM	100000000000000000000000000000000000000	P	DaJ
	Illegal Brand	(%)	(%)	(%)	TAT:	(Senior	the second se
1.	Era	74.4	74.4	70.4	ERA	11- 12	
2.	Premium	1.9	0.9	3.8	CITERS.	- Andrew -	
3.	D&J	0.9	0.2	1.1	#4	# 5	#6
4.	Gudang Garam	0.2	0.1	1.3	Things.	0 🕯	10th
5.	L.A.	0.2	1.2	1.8	GARAM	LA	E
6.	A380*	0.1	-	0.0**	2 The second second	1	0
7.	Lee	0.0**	-	-	# 7	# 8	
8.	Win Mild	0.0**	-	0.5	All det	12	
	Top 8 Total	77.7	76.8	78.9	and the second state of the second		
					Lee		
	Other Illegal	-	0.2	0.6		14000	
	Total Illegal %	77.7	77.0	79.5			

* 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 = 11%

		May, 2023	Mar, 2023	2022	#1	# 2	# 3
		SOM	SOM	SOM		and the second se	All Reads
	Illegal Brand	(%)	(%)	(%)	12.		The American Contract of the
1.	Era	24.9	31.0	27.7	ERA	PARKWAY	Rave
2.	Parkway	19.9	18.0	20.2		PARKWAY	10
3.	Rave	16.2	12.8	12.1	# 4	# 5	#6
4.	L.A.	8.2	9.2	6.7	0 😂	CRYSTAL	DA.J
5.	Crystal	3.6	0.1	0.8	LA	alie.	8
6.	D&J	2.1	2.7	3.9	1	12	Sectored in
7.	S Super	1.4	0.4	3.4	# 7	# 8	# 9
8.	Premium	0.8	0.8	0.8		april 1	Thomas
9.	Gudang Garam	0.8	0.7	0.7	Manufactures.	Comins	BRE
10.	Master Mild M2	0.4	1.4	0.4		-	GARAM
	Top 10 Total	78.3	77.1	76.7		1 matters	The Contraction of Co
			<u>_</u>			# 10	
	Other Illegal	1.6	2.3	4.4		No. of Aller	
	Total Illegal %	79.9	79.4	81.1		1	
						Ma	

* 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



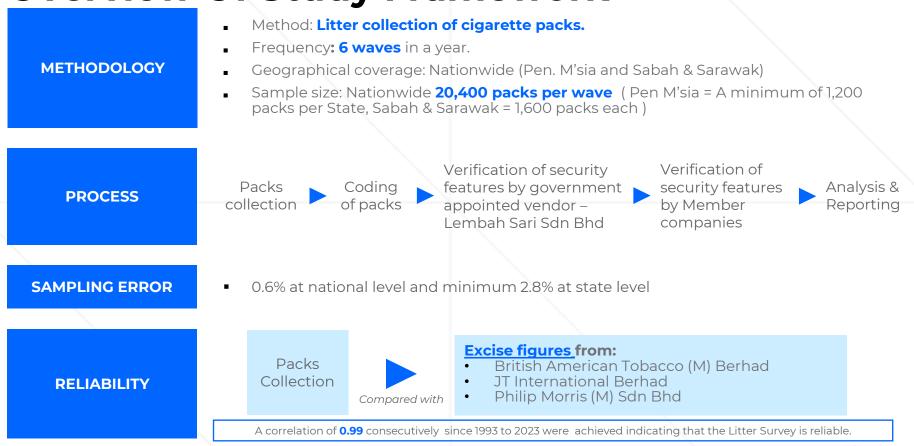
Identify the illegal brands available in Malaysia and at State Level

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



- Results are presented as ratio or percentages of sticks collected.

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

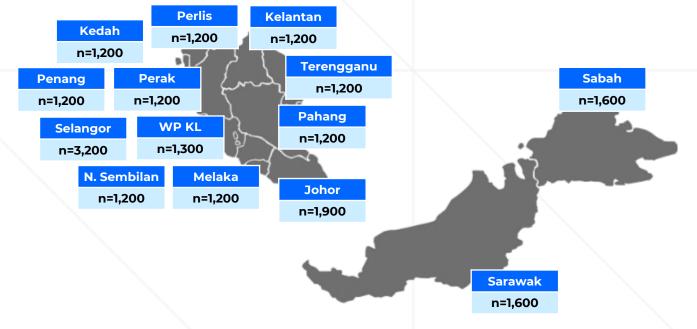
Why Sample Size of 20,000 packs?

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.

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

iii. Coding Processes

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

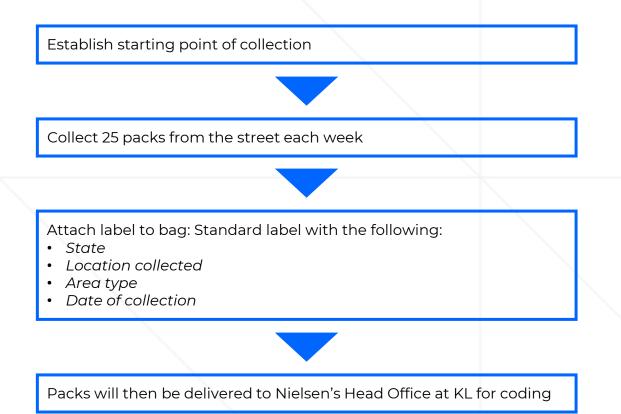
Sampling Coverage of ICS

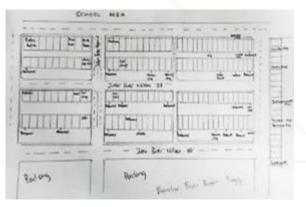
STATE	DISTRICT COVERED		
Perlis	Kangar		
Kedah	Kuala Muda	Kota Setar	Kulim
	Kubang Pasu	Baling	Pendang
Penang	Timur Laut	Seberang Perai Tengah	Seberang Perai Utara
Perak	Kinta	Larut & Matang	Manjung
	Hilir Perak	Kerian	
Selangor	Petaling	Ulu Langat	Klang
	Gombak	Kuala Langat	
WP KL	Spread across KL		
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 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







38

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 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

* Not registered with the Royal Malaysian Customs

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

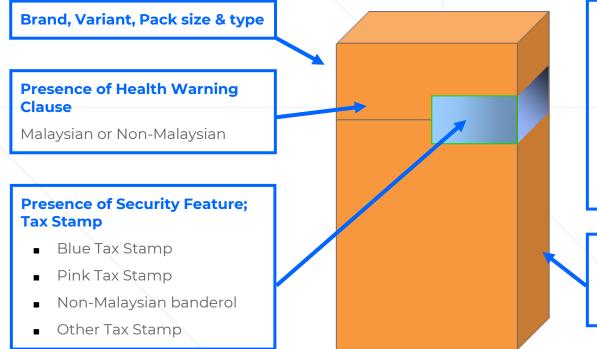
Regulations Set By The Malaysian Government

- 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 <u>domestic</u> consumption:
 - Blue tax stamp
- Additional security features for imported / manufactured packs for <u>duty free</u> 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



Other information

- Duty Free packs
 - Malaysian Duty Not Paid clause
- State/Town/District/Location
- Pictorial Health Warning Clause (2009)
- Etc., etc.

Manufacturer/Importer

- Company Name
- Address

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

1					۰	
	A	В	Ċ	D	G	н
1	Loca	d Manufact	F = Fake	X = N	lo ink	G50 = genuine security ink, DF/MY - fake (tamp
2	No	Pack ID	Brand	Pack Size		Remarks (by LSSB)
3		System			Security lak	Other Commonts
10	7	30720	John	20	F	
11	8	111197	John	20	F	
12	- 9	110215	Jahn	20	F	
13	10	101121	John	20	F	
14	11	40836	John	20	F	
15	12	40782	John	20	F	
16	13	121022	Jahn	20	F	
17	14	100613	John	20	F	
18	16	121195	John	20	F	
19	16	110975	John	20	F	
20	17	60734	Jahn	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	40708	John	20	F	
26	23	40711	John	20	F	
27	24	10938	John	20	F	
28	28	41090	Jahn	20	F	
29	26	40682	Jahn	20	F	
30	27	40996	John	20	F	
31	28	4167	John	20	F	
32	29	111168	Jahn	20	F	
33	30	41032	John	20	F	
34	31	40639	Jahn	20	F	
35	32	120799	Jahn	20	F	
36	33	40843	John	20	F	
37	-04	4082	laho	20	F	
14 4		 Templete 	-BATM / Terro	eta - PMI	Templete - JTL 🏸	Template - RHC Importer), Template - ELPC /

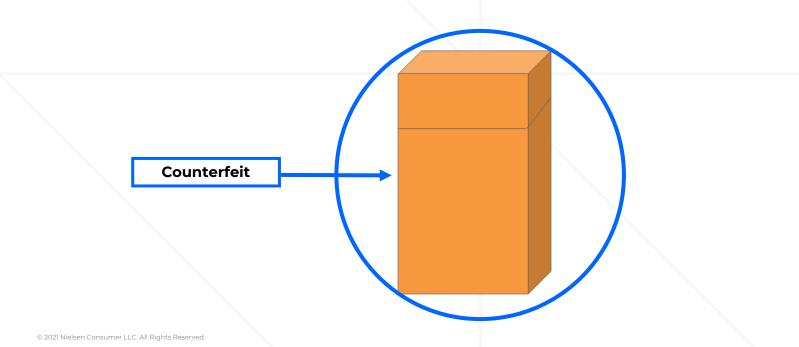


Verification Of Security Tax Stamp



Verification Of Non-Visible Elemenets

- 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
- iii. Coding Processes

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

G. TDT, Miskes kanactigiani	
Chatageth (e) yes (1925 cm -	
14 14	
and a state of the second s	
	_
Danala de ser cama	
The second s	
C. Vodery Transco Co. Sch. Dist.	
CL TOTAL Co. Son. Dec. / Tail-Drong Response Manufacturing & Contactly Sign Eliter-	
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O 1910 RECEIPTED INFORTERS - Common Markation & Daniadar Sin Bid.	
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C. Philips Manie Stell, De J.	
C. Dille Medering Service Scin Rid	
Ci. J? interveloped Teleators Date: Une	
Ci Littles Marketing Catr. Effet	
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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)

11.21		- 12						0.0		
AI		& responsed								
A	8	E	F	G	н	1	J	K:	L.:	W.
	biceedid			OR State		cel CB, Street			029 Regi	
2 1	24003	Wave 3, Week 33, 01/10/20	0ct-12		Johor-b	BajUrbat	Johor, Ba	Terren b	to South [Jot	DumillE
2 1	5	Wave 3, Week 33, 93/10/20	0 ct-12			Ka Urbar			5. North Per	
1	36003	Wave 3, Week 33, 03/10/20	Oct-12	Salash	Sabab-	K-Urban	Sabah, Ki	T-million	ov Earch Make	Durnill R
5 4	16	Wove 3. Week 33: 02/10/20	Oct 12	Peris	Peris h	Ko Urbos	Peris, Ka	r Jalan Art	5. North Fer	Dunhill P
5 5	51038	Wave 3 Week 33 32/10/20	Oct-12	Sabah	Sabat -	Kit2bas	Jn Paser	Jalan Pa	s East Vala	DumillB
7 8	36004	Wave 3, Week 33, 03/10/20	Oct 12	Sobolt	Sobol:	<:Urbor			or East Mala	
7 87 8 9	24004	Wave 3 Week 33 03/10/20	0ct-12	Johar	Johor-E	BeUber	Johor, Ba	(Terren E	South [Joh	Dunhill R
3 3	24005	Wove 3, Week 33, 03/10/20	Oct-12	Johor	Johor-5	Bellibos -	Johor, Ba	(Tomon 5	Ic South [Jot	DumiliP
	56095	Wove 3 Week 33 02/10/20		Sabah	Sebel:	< Urbar			ovEast Vala	
11 10	24006	Weve 3 Week 33 33/10/20	0ct-12	Johar	Johor-E	Es Liber	Johor, Ba	(Terran 8	ic South (Joi	Dunhill R
12 11	DECHC	Wove 3, Week 33: 02/10/20	Oct 12	Soloah	Sabat:	<:Ubor			a East Nala	
13 12	36006	White 3 Week 23 33/10/20	0ct-12	Sebelt	Sabat-	KUbar	Sebet Ki	slikes-T	mEast Male	Gudeng
14 13	36002	Wave 3, Week 33, 03/10/20		Soboh	Sobol.	K-Urber	Sabah, Ki	Likas - T	or East Mala	Gedang
15 34	5678	Wave 3 Week 33 02/10/20	0ct-12	Keoleh	Hedah-	AUbar			North Fat	
16 15	DE041	Wave 3, Week 33, 03/10/20	Oct-12	Soboh	Subul.	Kitkbor	Jn Pasar	Julian Pe	is East Mala	Durnhill M
17 16	24007	Wove 3, Week 33, 03/10/20	0 ct-12	Johor	Johor-E	BelU-ber	Johor, Bo	(Terren E	Id South [Joh	Winston
18 17	24008	Weve 3, Week 33, 03/10/90	Oct-12	Johor	Johor-8	Es Urbar	Johor, Ba	Terran S	Ic South [Jat	Winston
19 18	36042	Wove 3, Week 33, 03/10/20	Oct-12	Sabah	Sobot:	K:Urbor	Un Pasar	Jalan Pe	s East Mala	Premum
20 115	D6006	White 3, Week 33, 03/10/20	0ct-12	Sebeh	Sabat	KUhan	Sebeh Ki	Likes-T	or East Mala	Budeng
21 20	36009	Wave 3, Week 33, 03/10/20		Sebeh	Sebet -	<urber< td=""><td></td><td></td><td>or East Vide</td><td></td></urber<>			or East Vide	
22 21	1	Wave 3 Week 33 02/10/20	0ct-12	Poris	Peris-P	Ca Urbar	Portis, Ka	r Jalan An	s, North Par	Salem M
23 22	3679	Wave 3, Week 33, 03/10/20	0ct-12	Kedah	Kedah-	AlUibas	Jalan Peç	Jalan Pe	g North Per	Mariboro
24 23	36010	Wove 3, Week 33, 03/10/20	0 ct 12	Soboh	Sabat:	KU-bor	Soboh, Ki	Likos-T	in East Vala	Marlboro
25 24	31043	Weve 3 Week 33 03/10/20	0d-12	Saturb	Sabab-	Kitthar	Jn Peser	Jalan Pa	s East Male	Premum
26 25	36011	Wove 3, Week 33, 03/10/20		Solooh	Sobot:	K:Urbor			ov East Mala	
27 26	56044	Wave 3 Week 33-02/10/20	0ct/12	Sebeh	Sebate	K:Ubar	Jn Peser	Jalan Pa	a East Nale	Premum
28 22	24009	Wave 3, Week 33, 01/10/20	Oct-12			Ba Urber			ic South (Jot	
28 28	5689	Wave 3 Week 33 33/10/20		Keoleh		AUber			g North Per	
30 29	5	Weve 3, Week 33, 03/10/20	Oct-12	Platia	Peris-k	Cal Liber	Furin, Ka	r Jahari An	. Norh Per	Marlboro
31 30	24010	Wave 3. Week 33: 05/10/20	Oct 12	Johor	Johor - E	Ballibor	Johor, Bo	(Tomon i	lo South [Jo!	Wisston
32 31	560.C	Weive 3 Week 33 03/10/20	Oct-12	Salvah	Sabat -	KiUbar	Jn Peser	Jalan Pa	s East Vale	Premium
33 32	3(81	Wove 3. Week 33: 03/10/20	Oct 12	Kecion	Keech-	AUbor	Uplan Peo	Jalan Pe	g North Per	Mariboro.
See Page	Bear	LUI DALL LAD ARAGAN	A 140	A 1 1	100 4 4	100 10 10 10	1.0	1.1.15	10 10 C	5

10% of data entered into the database will be crosscheck 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

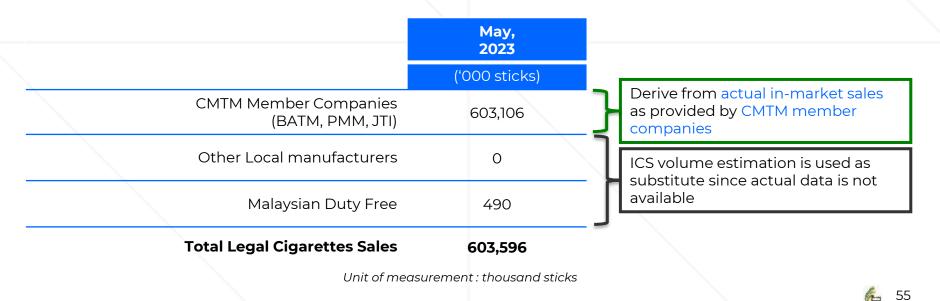
ICS Research Methodology & Design

- i. ICS Universe, Sample Size
- ii. Sampling Coverage Of ICS and Fieldwork
- iii. Coding Processes
- iv. Data Processing

v. Weighting The Survey Data

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)



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 603,596,000 sticks

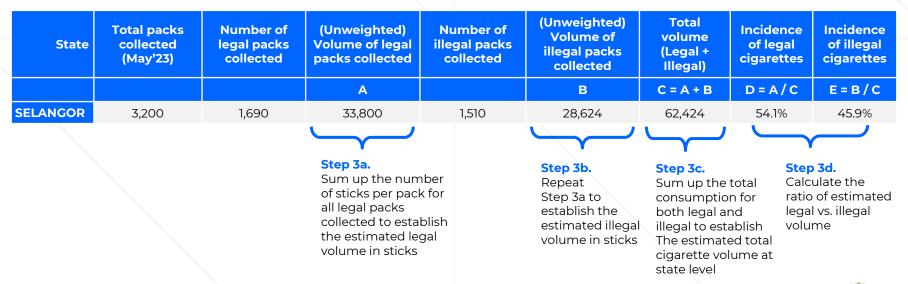
	IN-MARKET SALES BY CMTM	STATE'S LEGAL VOLUME CONTRIBUTION	<u>Step 2a.</u> (Using In State Legal Volum	ne = <u>State's l</u> i	n-Market Volume		
PERLIS	3,569	0.6%	Contribution		tional Volume 907 / 588,965 = 24	70/)	
KEDAH	24,627	4.2%		(e.g. 142,:	9077388,983 - 24		
PENANG	42,797	7.3%				PROJECTED/	
PERAK	45,626	77%		IN-MARKET	STATE'S LEGAL VOLUME	ESTIMATED	
SELANGOR	142,907	24.3%		SALES	CONTRIBUTION	STATE LEGAL VOLUME	
WP KL	68,054	11.6%				VOLOME	
N.SEMBILAN	29,853	5.1%	SELANGOR	142,907	24.3%	146,458	
MELAKA	21,312	3.6%	SELANGOR	142,907	24.5%	140,450	
JOHOR	111,291	18.9%					
PAHANG	26,780	4.5%	NATIONAL	588,965		603,596	
TERENGGANU	12,584	2.1%					
KELANTAN	18,009	3.1%	Step 2b.		_		
SABAH	20,863	3.5%	 Projected States L = State Legal Volur 			aal Volume	
SARAWAK	20,691	3.5%	(derived from In-			from Step 1)	
NATIONAL	588,965		(e.g. 24.3% x 603,	596 = 146,458	8)		

Step 2: Key Output

	IN-MARKET SALES BY CMTM	STATE'S LEGAL VOLUME CONTRIBUTION	PROJECTED/ ESTIMATED STATE LEGAL VOLUME
PERLIS	3,569	0.6%	3,657
KEDAH	24,627	4.2%	25,238
PENANG	42,797	7.3%	43,860
PERAK	45,626	7.7%	46,760
SELANGOR	142,907	24.3%	146,458
WP KL	68,054	11.6%	69,745
N.SEMBILAN	29,853	5.1%	30,595
MELAKA	21,312	3.6%	21,842
JOHOR	111,291	18.9%	114,056
PAHANG	26,780	4.5%	27,446
TERENGGANU	12,584	2.1%	12,897
KELANTAN	18,009	3.1%	18,457
SABAH	20,863	3.5%	21,381
SARAWAK	20,691	3.5%	21,205
NATIONAL	588,965		603,596

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



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'23)	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
			Α		В	C = A + B	D=A/C	E=B/C
PERLIS	1,200	560	11,200	640	11,144	22,344	50.1%	49.9%
KEDAH	1,200	634	12,680	566	10,200	22,880	55.4%	44.6%
PENANG	1,200	626	12,520	574	11,063	23,583	53.1%	46.9%
PERAK	1,200	787	15,740	413	8,202	23,942	65.7%	34.3%
SELANGOR	3,200	1,690	33,800	1,510	28,624	62,424	54.1%	45.9%
WP KL	1,300	743	14,860	557	10,417	25,277	58.8%	41.2%
N.SEMBILAN	1,200	704	14,080	496	9,673	23,753	59.3%	40.7%
MELAKA	1,200	628	12,560	572	11,112	23,672	53.1%	46.9%
JOHOR	1,900	815	16,300	1,085	21,080	37,380	43.6%	56.4%
PAHANG	1,200	256	5,120	944	17,772	22,892	22.4%	77.6%
T'GANU	1,200	381	7,620	819	15,722	23,342	32.6%	67.4%
KELANTAN	1,200	586	11,720	614	11,832	23,552	49.8%	50.2%
SABAH	1,600	356	7,120	1,244	24,820	31,940	22.3%	77.7%
SARAWAK	1,600	311	6,220	1,289	24,764	30,984	20.1%	79.9%

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
	А	В	C = A / B	D = C - A
SELANGOR	146,458	54.1%	270,487	124,030
			$\underbrace{}_{}$	$\underbrace{}$
			Step 4a. Based on the incidence for legal cigarettes of 51.5% in Selangor, project the total volume for the state (e.g. 146,458 divide by 541% = 270,487)	Step 4b. Illegal volume is established by subtracting the projected total state's volume with the legal volume (e.g. 270,487 – 146,458 = 124,030)

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	3,657	50.1%	7,296	3,639
KEDAH	25,238	55.4%	45,541	20,302
PENANG	43,860	53.1%	82,616	38,756
PERAK	46,760	65.7%	71,126	24,366
SELANGOR	146,458	54.1%	270,487	124,030
WP KL	69,745	58.8%	118,637	48,892
N.SEMBILAN	30,595	59.3%	51,614	21,019
MELAKA	21,842	53.1%	41,166	19,324
JOHOR	114,056	43.6%	261,560	147,503
PAHANG	27,446	22.4%	122,712	95,267
TERENGGANU	12,897	32.6%	39,507	26,610
KELANTAN	18,457	49.8%	37,090	18,633
SABAH	21,381	22.3%	95,916	74,534
SARAWAK	21,205	20.1%	105,628	84,423
NATIONAL	603,596		1,350,894	747,298

Divide National Illegal Volume 747,298 with National Total Market Volume 1,350,894 55.3%

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**