

# Survey on perception towards current cigarette packaging and (mock-up) standardised cigarette packaging

## Survey Findings

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Research and Evaluation Department  
Research and Strategic Planning Division

# Executive Summary

- A total of 160 smokers and 160 non-smokers aged 18-39 years old participated in the survey to understand their perceptions towards current cigarette packaging (4 packs) and a mock-up standardised cigarette packaging.
- Findings reveal that current cigarette pack design influences perceptions towards pack attributes. A more attractive pack design is perceived to have higher quality cigarettes, stronger taste, more expensive, greater social appeal, more likely to attract people to try smoking the cigarette and harder to quit smoking.
- Compared to current cigarette packs, the mock-up standardised pack was perceived to be less attractive, contained lower quality cigarettes, milder taste, less expensive, less social appeal, less likely to attract people to try smoking the cigarette and not as hard to quit.
- Non-smokers are not likely to try smoking cigarettes regardless of the pack design. For smokers, current cigarette packs are 4 times more likely to encourage them to try smoking cigarettes compared to the standardised pack.
- Noticeability of graphic health warning did not differ significantly between the mock-up standardised pack and current cigarette packs.
- The survey findings suggest that cigarette pack designs in the market could have an influence in encouraging people to try smoking the cigarette, while standardised packaging may help to mitigate this.

# Objectives

- To examine the perceptions towards the **current cigarette packaging** and the possible impact of current cigarette pack design on pack appeal/ attractiveness, attempt to try smoking, ease of quitting and perceived harm of smoking.
- To examine the perceptions towards the **mock-up standardised packaging** as compared to current cigarette packaging.
- To examine the **noticeability of graphic health warning labels** on current cigarette packs and the mock-up standardised pack.

# Methodology

- **Target population:** 18-39 years old Singaporeans/ Permanent residents
- **Sample size:** 320 (160 smokers and 160 non smokers)\*
- **Sampling method:** Quota sampling stratified by smoking status, gender and age
- **Mode of administration:** Face-to-face interview among households across different geographical locations in Singapore
- **Fieldwork period:** 1<sup>st</sup> – 23<sup>rd</sup> December 2014
- **Study protocol:**
  - Individual cigarette packs were shown to the respondents in a random order. For each pack, respondents were asked to rate the following attributes of the pack design using a 5-point Likert scale (1- strongly disagree; 5- strongly agree):

(1) Attractiveness	(5) Social Appeal
(2) Quality	(6) Attempt to try smoking
(3) Taste	(7) Ease of quitting
(4) Cost	(8) Perceived harm of smoking

- **Data analysis:**
  - The analysis was reported separately for smokers and non-smokers, as smokers have a pre-conceived notion of the current cigarette brands.
  - Chi-square analysis was used to test the significant differences between the two comparison groups.

## Current cigarette packs

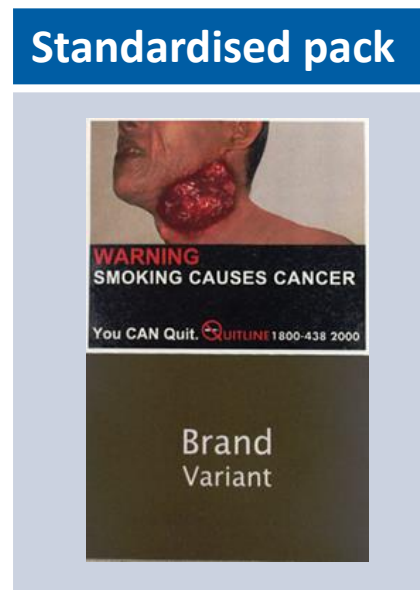
- 4 brands/variants currently found in Singapore's market were pre-selected for this study based on the criteria of : (1) Premium/budget, (2) Bright/dull colour, to reflect the diversity of cigarette packaging. This include:

Marlboro Red	Dunhill Blue	Pall Mall	Gudang Garam
			
Premium (Bright)	Premium (Dull)	Budget(Bright)	Budget (Dull)

- Note: Graphic health warning labels are the same for all packs. Real packs were used for this study.


## Mock-up standardised pack

- Standardised packaging refers to placing cigarette in a packet where its colour will be standardized, without any promotional information, and will only display information required by law (e.g. health warnings).
- The mock up used in this study follows the same colour scheme as that of Australia but customised to local setting, i.e. 50% graphic health warnings [front & back], and carry the same health warning as all the other sample packs.



Note: Australia is the first and only country in the world that has implemented plain packaging at the time of this study.

# Survey Findings

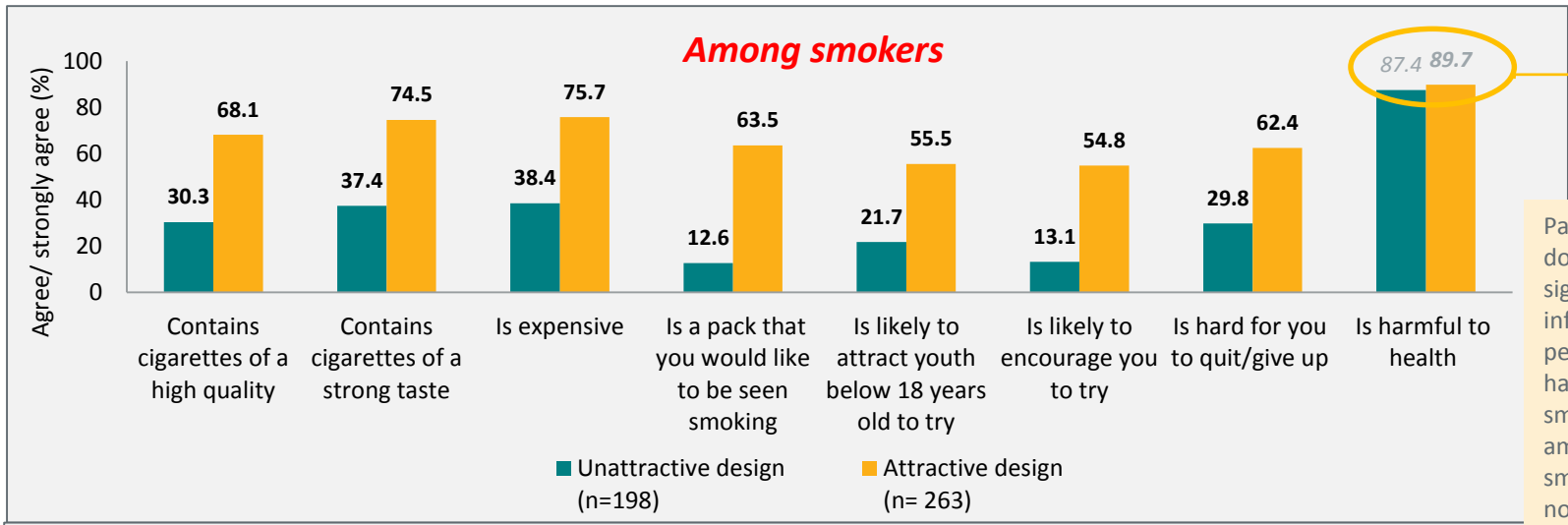
- 1) Association between current cigarette pack design and other pack attributes
  - 2) Perceptions towards the mock-up standardised packaging as compared to current cigarette packaging
  - 3) Noticeability of graphic health warnings on current cigarette packs and the mock-up standardised pack
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# 1) Association between current cigarette pack design and other pack attributes

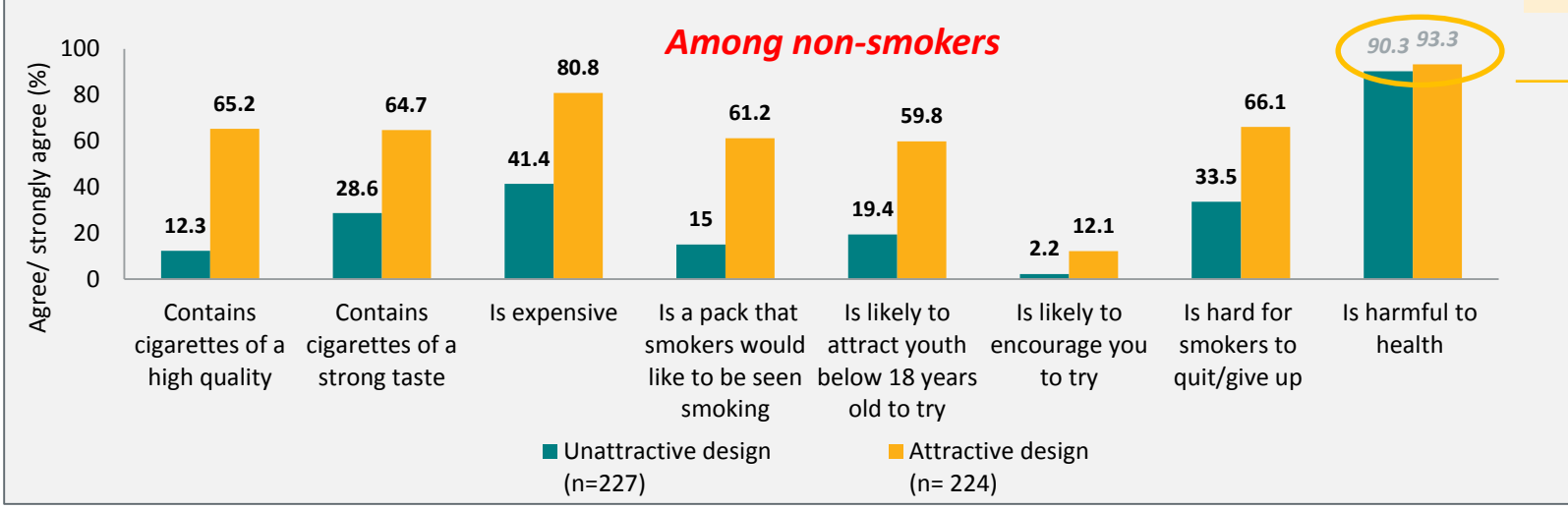
- Pack design and quality
- Pack design and taste
- Pack design and cost
- Pack design and social appeal
- Pack design and attempt to try smoking
- Pack design and ease of quitting
- Pack design and perceived harm



# Current cigarette packaging: A more attractive pack design is perceived to have higher quality cigarettes, stronger taste, more expensive, greater social appeal, more likely to attract people to try the cigarette and harder to quit smoking



Pack design does not significantly influence the perceived harm of smoking among smokers and non-smokers.



**Bold figures: statistically significant differences between comparison groups (p<0.05) ; Italic figures: statistically not significant (p>0.05)**  
 Attractive design : Those that selected agree/ strongly agree to the statement 'this pack has an attractive design'.  
 Unattractive design: Those that selected disagree/ strongly disagree to the statement 'this pack has an attractive design'  
 For perceptions towards individual packs, please refer to Annex C. For association of pack attributes based on individual packs, please refer to Annex D.

## Other findings...

### Smokers

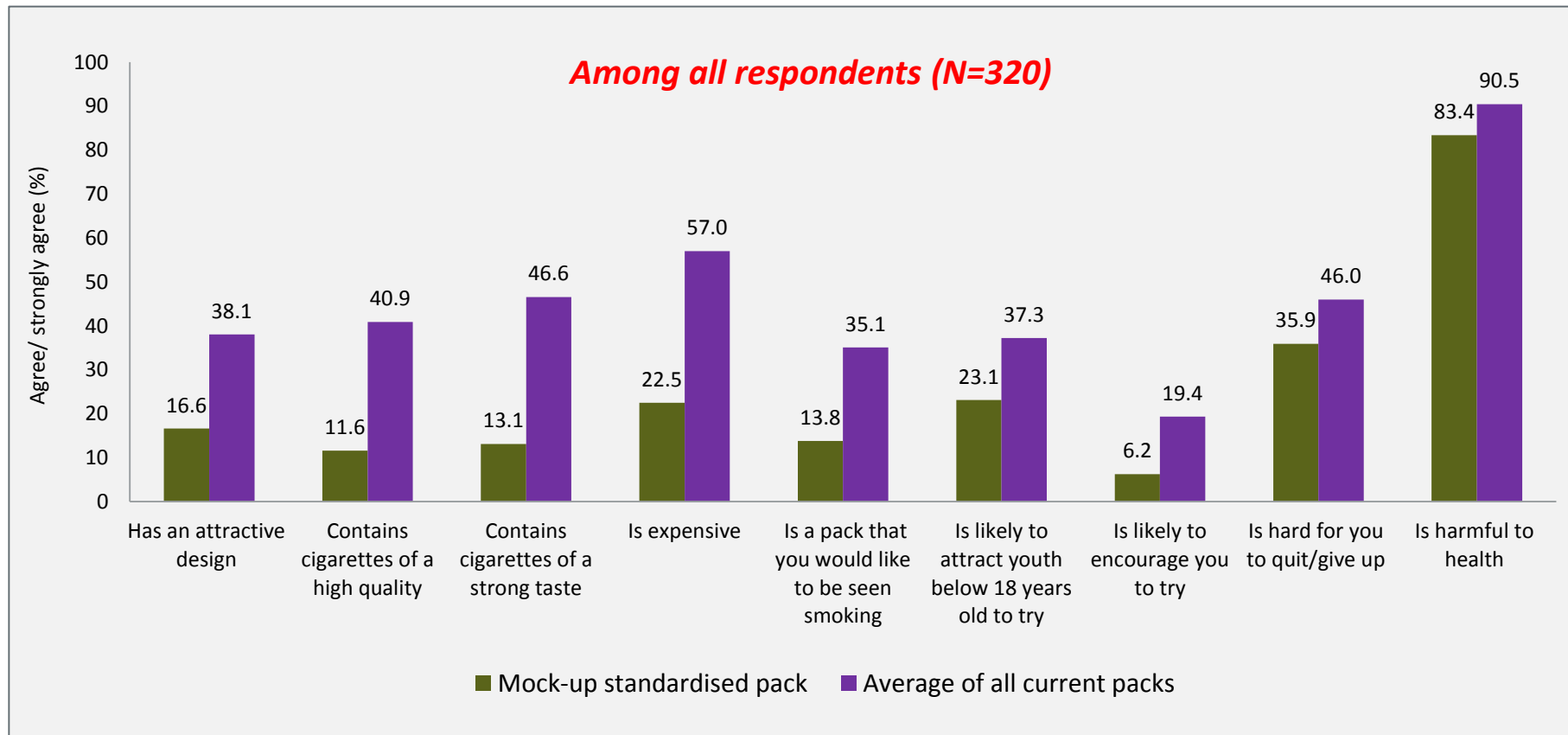
- Almost two-third of smokers (63.5%) would like to be seen smoking from an attractive pack design (vs. 12.6% for unattractive pack).
- Almost two-third of smokers (62.4%) perceived that cigarettes from an attractive pack design would be harder to quit (vs. 29.8% for unattractive pack).

### Non-smokers

- 12.1% of non-smokers reported they are encouraged to try smoking cigarettes from an attractive pack design (vs. 2.2% for unattractive pack).
- 3 out of 5 non-smokers (58%) perceived that youths below 18 are more likely to try cigarettes from an attractive pack design (vs. 19.4% for unattractive pack).

## **2) Perceptions towards the mock-up standardised packaging as compared to current cigarette packaging**

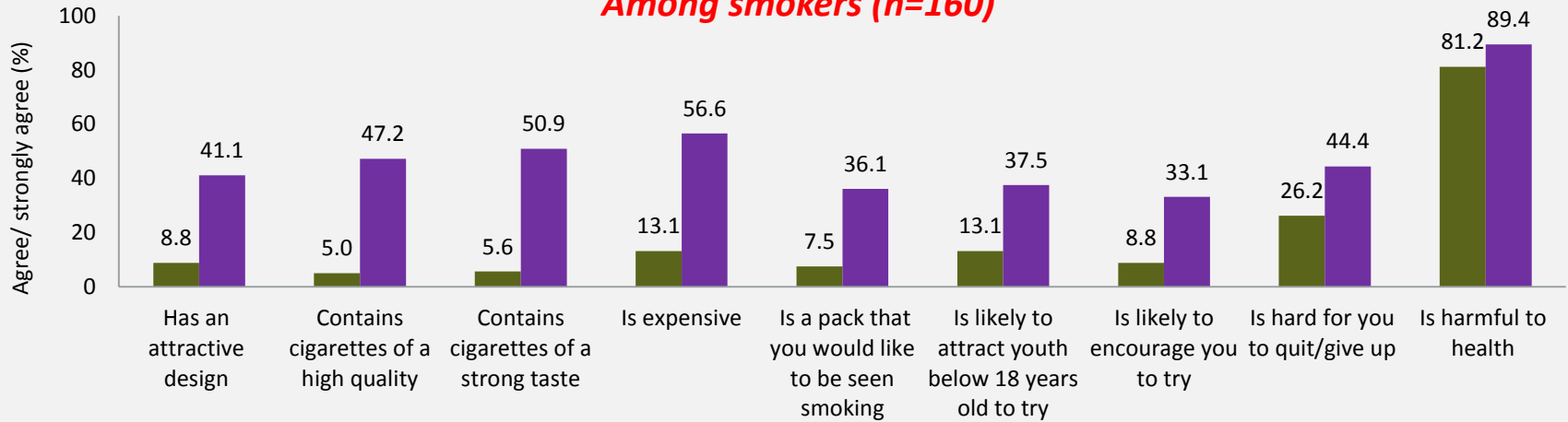
# Compared to current cigarette packs, the mock-up standardised pack was perceived to be less attractive, contained lower quality cigarettes, milder taste, less expensive, less social appeal, less likely to attract people to try, and not as hard to quit



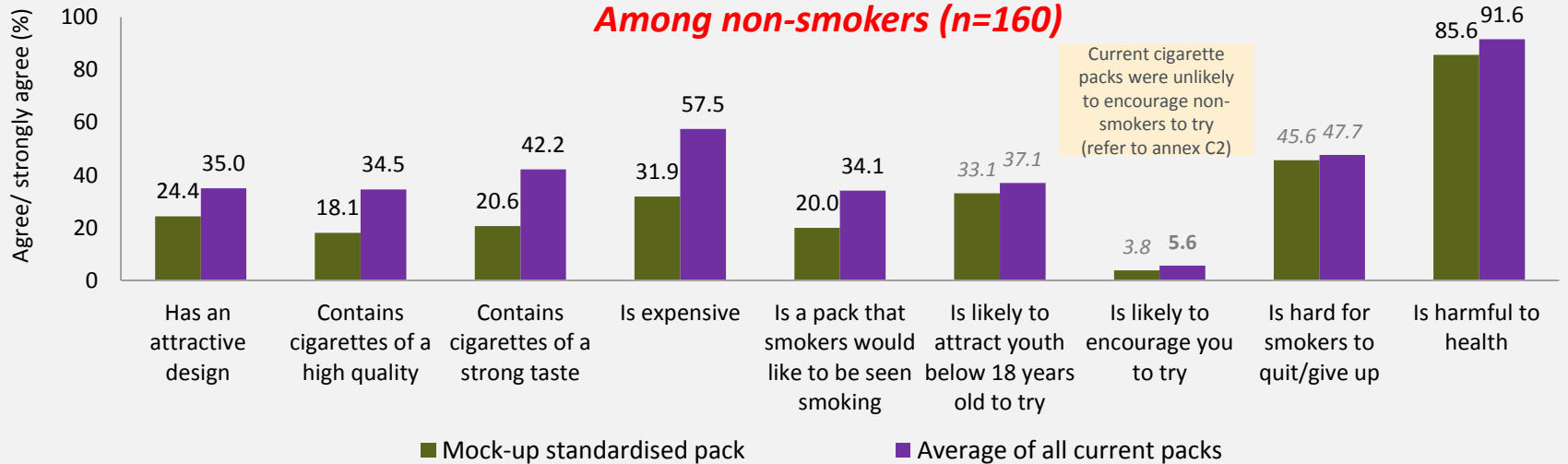
Significant difference between 2 comparison groups ( $p < 0.05$ )

# The difference in ratings between the mock-up standardised pack and the current cigarette packs was larger among smokers compared to non-smokers

## Among smokers (n=160)



## Among non-smokers (n=160)



Significant difference between 2 comparison groups ( $p < 0.05$ ), except for figures in grey and italic

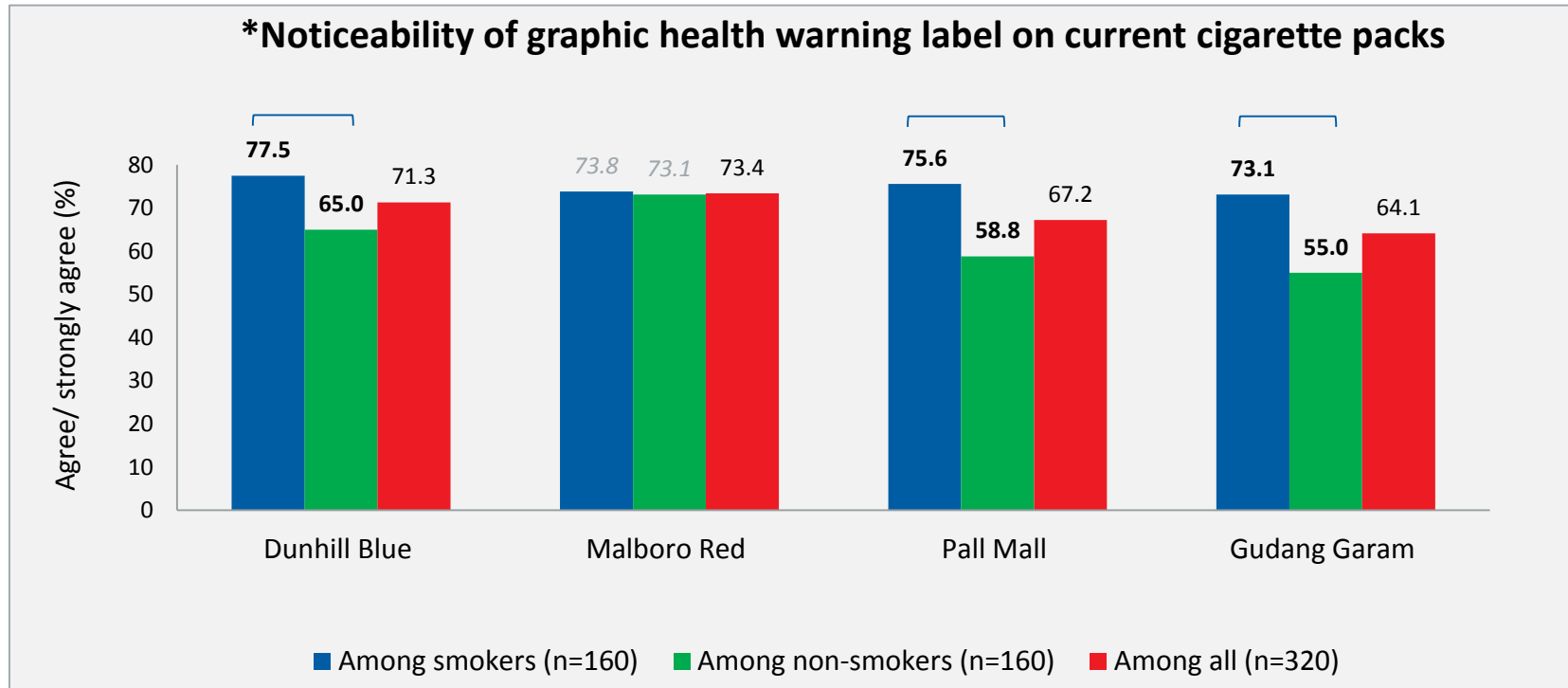
## Other findings...

- Compared to the standardised pack, smokers perceived that current cigarette packs are 4 times more likely to encourage them to try smoking cigarettes.
- However, non-smokers are not likely to try smoking cigarettes regardless of the pack design.
  
- More than one-third of smokers and non-smokers perceived that smokers would like to be seen smoking current packs.
- However, significantly less smokers (7.5%) would like to be seen smoking the mock-up standardised pack.

### **3) Noticeability of graphic health warnings on current cigarette packs and the mock-up standardised pack**



# Significant differences between smokers and non-smokers were observed for noticeability of graphic health warning label on Dunhill Blue, Pall Mall and Gudang Garam



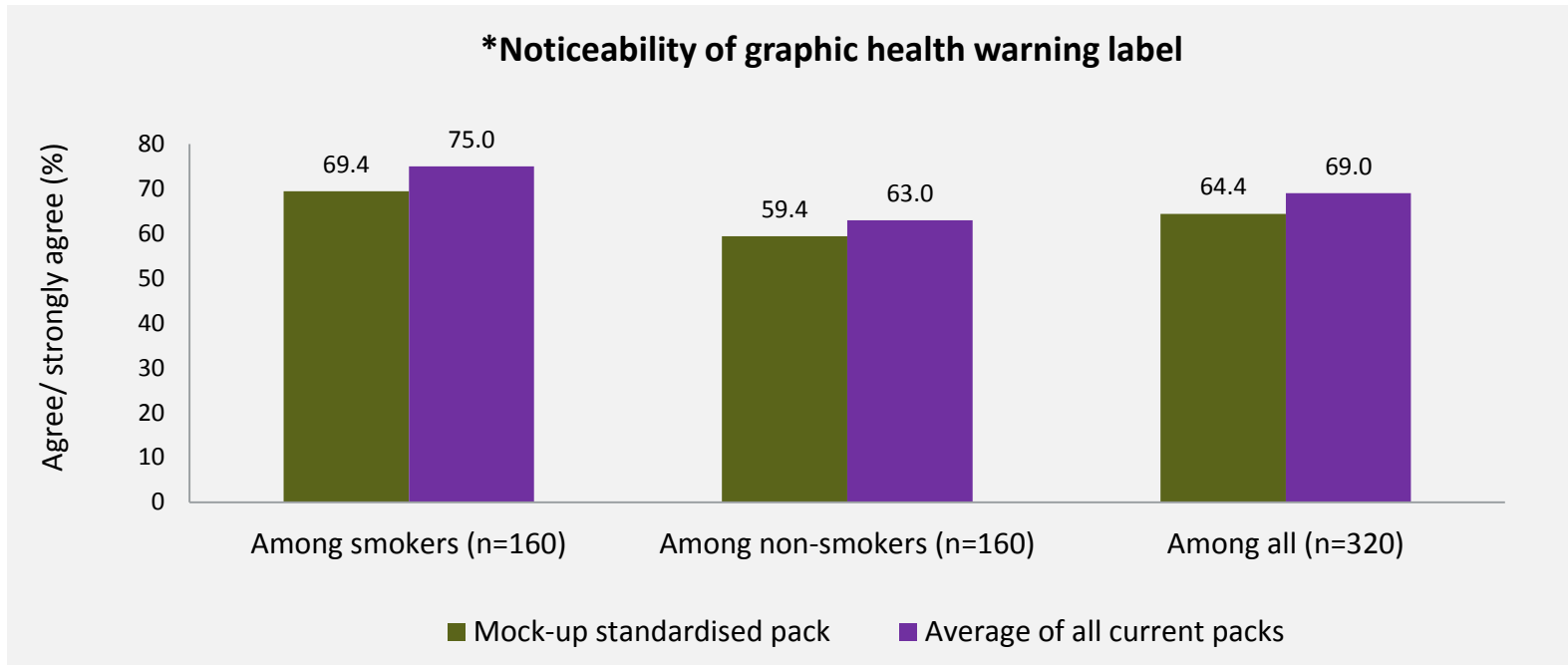
\*Noticeability of GHWL: Those that selected agree/ strongly agree to the statement 'the graphic health warning is noticeable/ stands out visually on the pack'.

**Bold figures: statistically significant differences between smokers and non-smokers ( $p < 0.05$ );**

*Italic figures: statistically not significant ( $p > 0.05$ )*



# Noticeability of graphic health warning did not differ significantly between the mock-up standardised pack and current cigarette packs



\*Noticeability of GHWL: Those that selected agree/ strongly agree to the statement 'the graphic health warning is noticeable/stands out visually on the pack'.

No significant difference between the mock-up standardised pack and current packs ( $p>0.05$ )

# Table of Contents for Annexes:

Annex A: Demographic profile of respondents

Annex B: Cigarette brands and variants used by smokers

Annex C: Perceptions towards individual cigarette packs

Annex D: Association between pack design and other pack attributes for individual cigarette packs

Annex E: Examples of questions



# **Annex A: Demographic profile of respondents**



## Annex A1: Socio-demographics profile of smokers (n=160) and non smokers (n=160)

Characteristics , n (%)	Smokers (n=160)	Non-smokers (n=160)	Total
<b>Nationality</b>			
Singaporean	152 (95.0)	147 (91.9)	299 (93.4)
Permanent resident	8 (5.0)	13 (8.1)	21 (6.6)
<b>Gender</b>			
Male	122 (76.2)	72 (45.0)	194 (60.6)
Female	38 (23.8)	88 (55.0)	126 (39.4)
<b>Age group</b>			
18-24	52 (32.5)	50 (31.2)	102 (31.9)
25-29	26 (16.2)	35 (21.9)	61 (19.1)
30-39	82 (51.2)	75 (46.9)	157 (49.1)
<b>Race</b>			
Chinese	93 (58.1)	114 (71.2)	207 (64.7)
Malay	46 (28.8)	27 (16.9)	73 (22.8)
Indian	11 (6.9)	13 (8.1)	24 (7.5)
Other	10 (6.2)	6 (3.8)	16 (5.0)

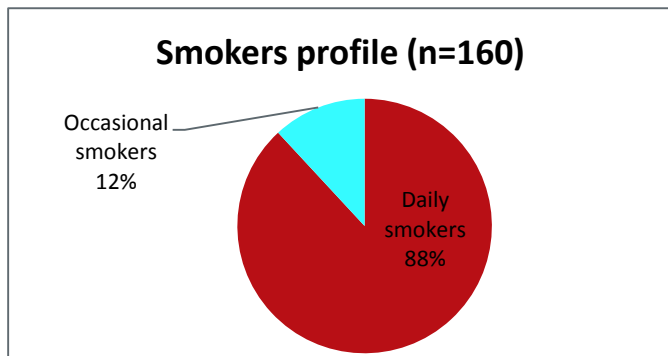
## Annex A2: Socio-economic profile of smokers (n=160) and non smokers (n=160)

Characteristics , n (%)	Smokers (n=160)	Non-smokers (n=160)	Total
<b>Educational level</b>			
PSLE	2 (1.3)	1 (0.6)	3(0.9)
Secondary, GCE 'O'/'N' level	51 (31.9)	23 (14.4)	74 (23.1)
GCE 'A' level, polytechnic & other diploma	91 (56.9)	110 (68.8)	201 (62.8)
Degree and above	16 (10.0)	26 (16.3)	42 (13.1)
<b>Working status</b>			
Working	130(81.3)	100 (62.5)	230 (71.9)
Non-working	30(18.7)	60 (37.5)	90 (28.1)
<b>Housing type</b>			
HDB 1-3 room	55 (34.4)	29 (18.1)	84 (26.3)
HDB 4 room	66 (41.3)	94 (58.8)	160 (50.0)
HDB 5 room & executive	26 (16.3)	31 (19.4)	57 (17.8)
Condominium & private flat	6 (3.8)	4 (2.5)	10 (3.1)
Landed properties & others	7 (4.4)	2 (1.3)	9 (2.8)

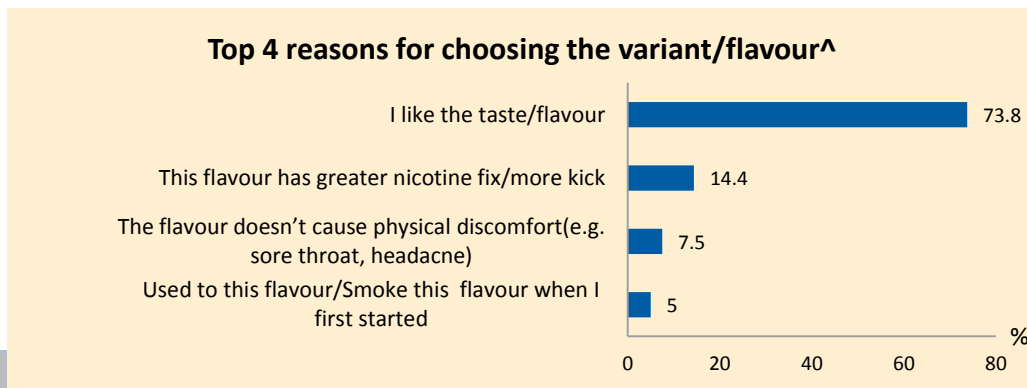
# **Annex B: Cigarette brands and variants used by smokers**



# Annex B: Cigarette brands and variants used by smokers (n=160)



Characteristics	n	%
<b>Cigarette brand smoked most frequently</b>		
Marlboro	52	32.5
Next	30	18.8
Winston	12	7.5
L&M	10	6.3
Pall Mall	10	6.3
Viceroy	10	6.3
LD	8	5.0
Mevius	5	3.1
Break	3	1.9
Dunhill	3	1.9
Lucky Strike	3	1.9
Sampoerna	3	1.9
Gudang Garam	1	0.6
Others*	10	6.3
<b>Cigarette variant smoked most frequently</b>		
Menthol	69	43.1
Regular	57	35.6
Mint	16	10.0
Lights (less strong than regular)	15	9.4
Clove/Kretek	3	1.9



\*Others: Salem, Virginia Slims, U Kretek, Half Time, More, Butterfly  
 ^multiple responses to open-ended questions

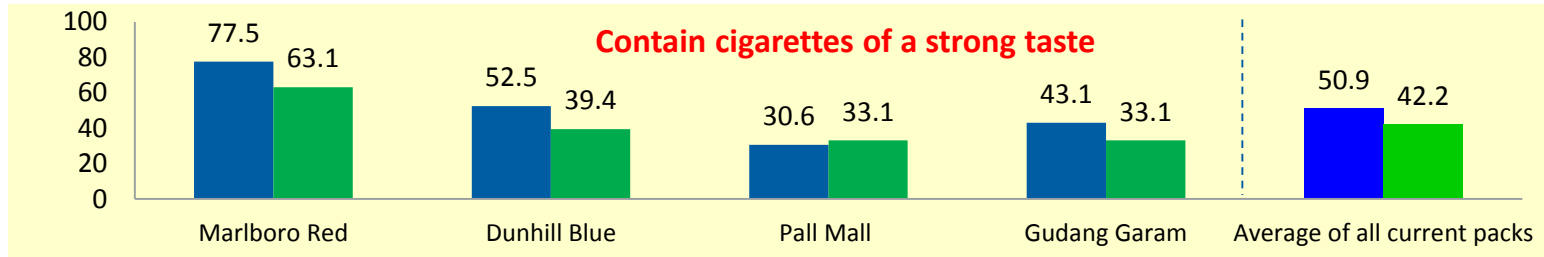
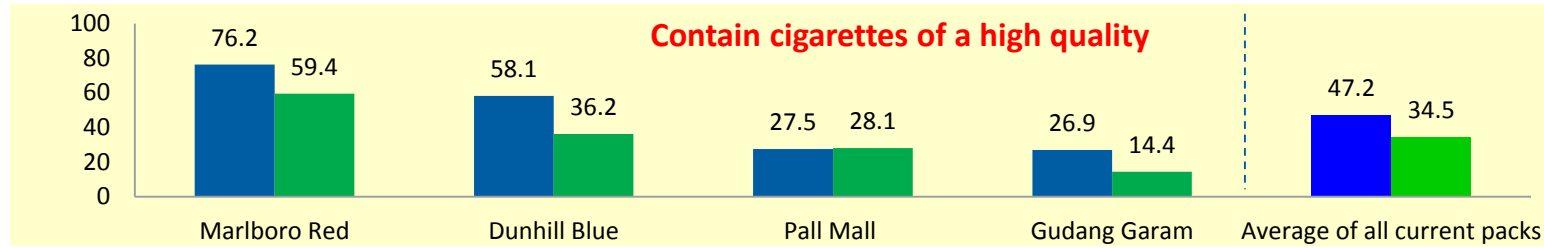
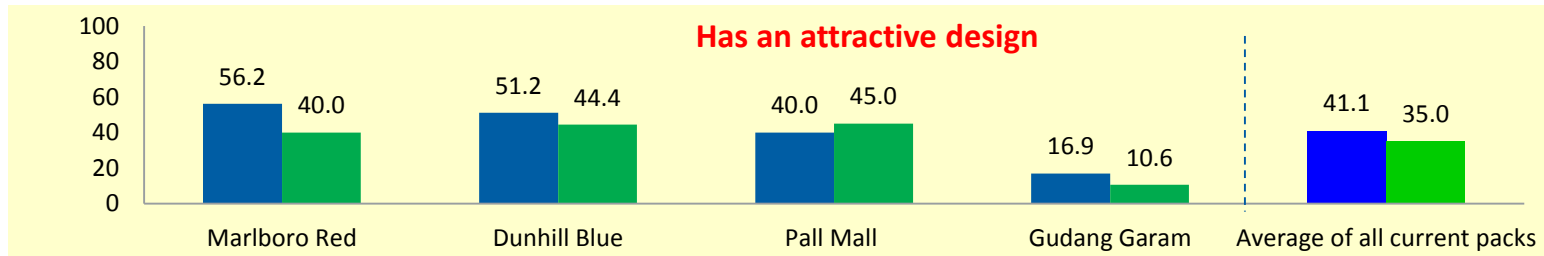
# Annex C: Perceptions towards individual cigarette packs

- Perceptions towards the attributes/characteristics of individual cigarette packs among smokers and non-smokers
  - Attractiveness
  - Quality
  - Taste
  - Cost
  - Social appeal
  - Attempt to try smoking
  - Ease of quitting
  - Perceived harm of smoking

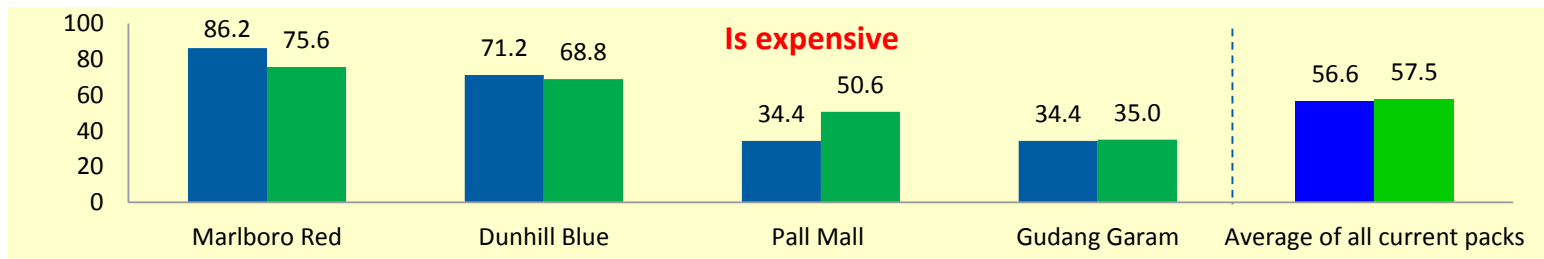


# Annex C1: Perceptions towards individual cigarette packs

Agree/strongly agree (%)

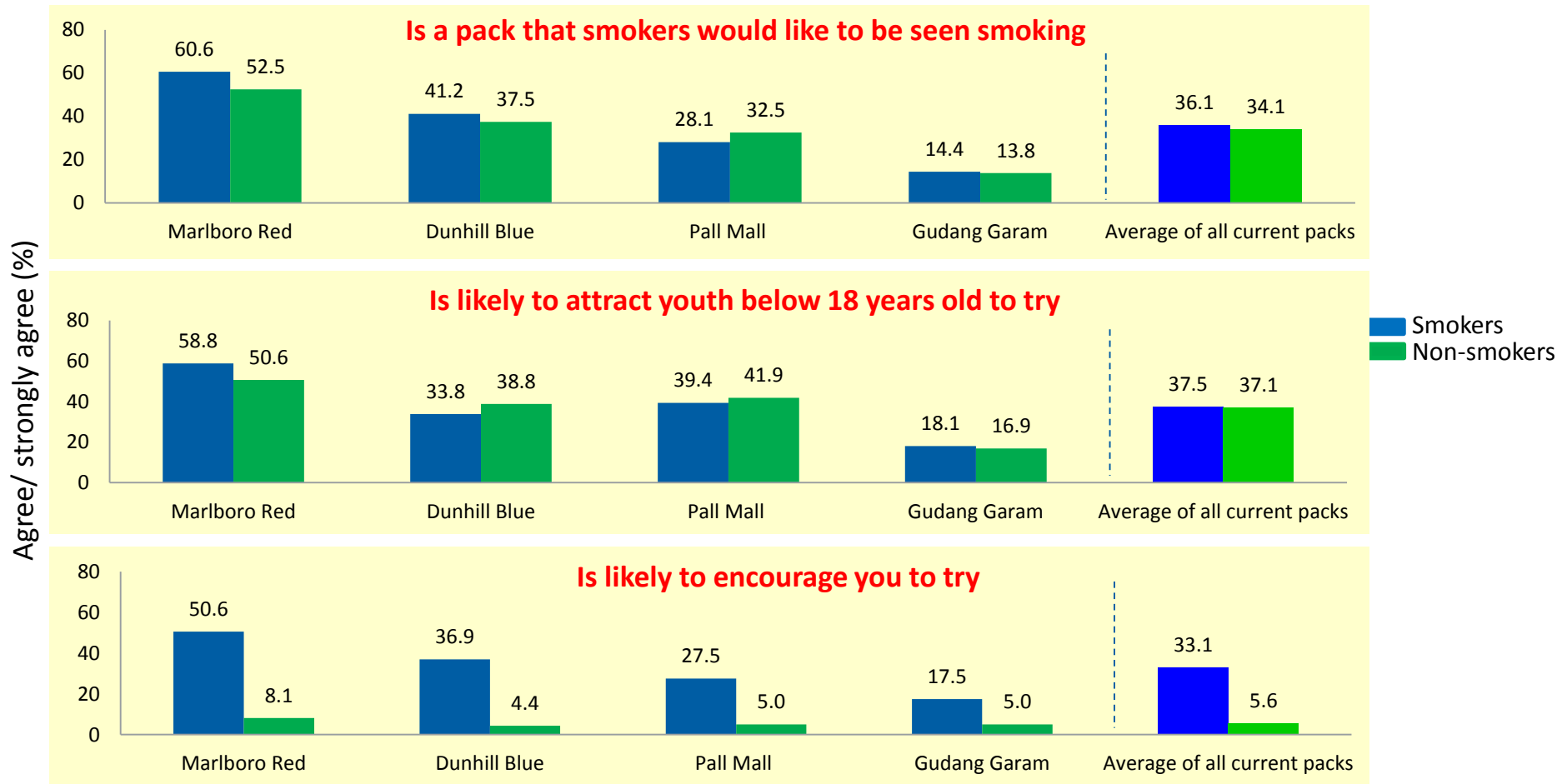


Smokers  
Non-smokers



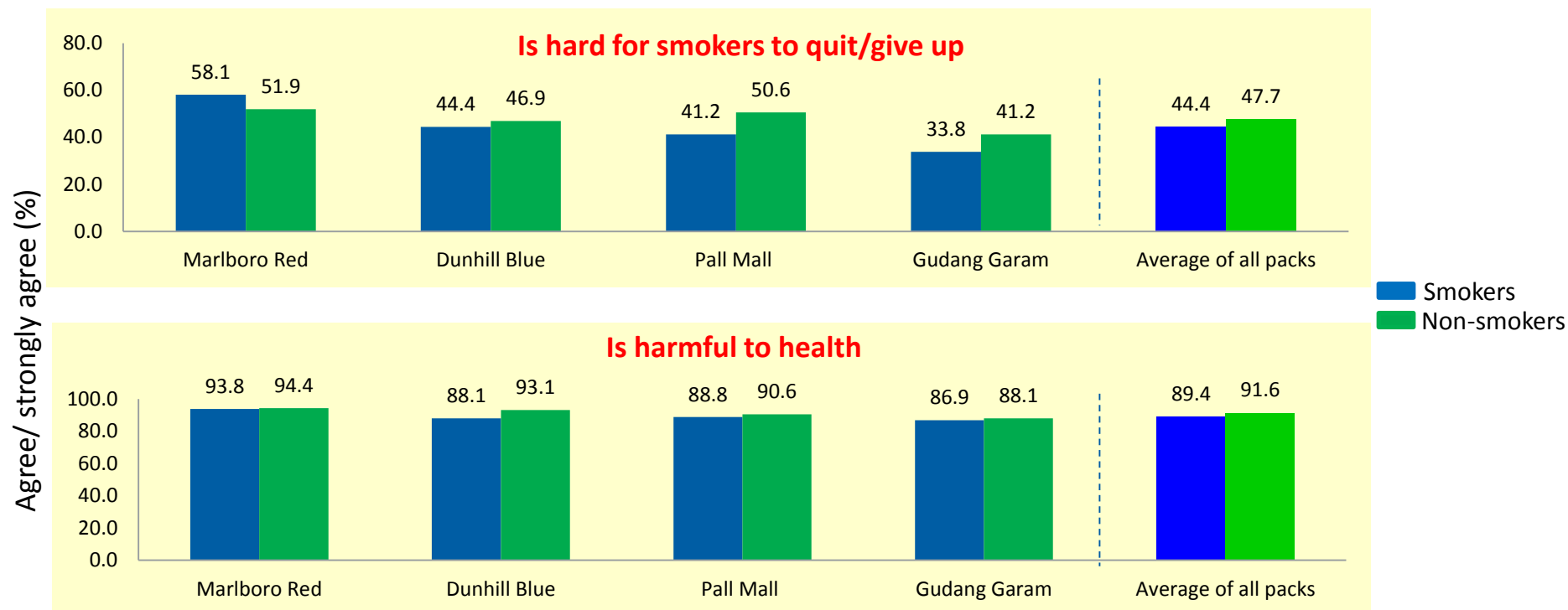
- In general, majority of the smokers and non-smokers agreed /strongly agree that Marlboro Red and Dunhill Blue are more superior in term of attractiveness, quality, taste and cost (above average), with Marlboro Red having the highest rating.
- On the other hand, Pall Mall and Gudang Garam have lower ratings for all the pack attributes (below average).

## Annex C2: Perceptions towards individual cigarette packs



- Marlboro Red and Dunhill Blue were perceived to have greater social appeal (would like to be seen smoking) among both smokers and non-smokers.
- Marlboro Red and Pall Mall were perceived to be more appealing to youth < 18 years old and were more likely to attract youths to try compared to other packs tested.
- Smokers viewed that Marlboro Red and Dunhill Blue were more likely to encourage them to try.
- A large majority of non-smokers (>90%) were unlikely to try smoking regardless of the packaging.

## Annex C3: Perceptions towards individual cigarette packs



- More than half of the smokers and non-smokers considered Marlboro Red as harder to quit compared to other packs.
- The perceived harm of smoking was comparably high across all packs for both smokers and non-smokers (>85%).

# **Annex D: Association between the pack design and other pack attributes for individual cigarette packs**



**For each cigarette pack, a more attractive pack design is perceived to have higher quality cigarettes, stronger taste, more expensive, greater social appeal, more likely to attract people to try and harder to quit smoking.**

**Among Smokers**

Agree/ strongly agree (%)	<u>Dunhill Blue</u>		<u>Marlboro Red</u>		<u>Pall Mall</u>		<u>Gudang Garam</u>		<u>All packs</u>	
	Unattractive design (n=26*)	Attractive design (n= 82)	Unattractive design (n=40)	Attractive design (n= 90)	Unattractive design (n=30*)	Attractive design (n= 64)	Unattractive design (n=102)	Attractive design (n= 27*)	Unattractive design (n=198)	Attractive design (n= 263)
Contains cigarettes of a high quality	<b>38.5</b>	<b>73.2</b>	<b>62.5</b>	<b>86.7</b>	<b>20</b>	<b>39.1</b>	<b>18.6</b>	<b>59.3</b>	<b>30.3</b>	<b>68.1</b>
Contains cigarettes of a strong taste	<b>26.9</b>	<b>73.2</b>	<b>60</b>	<b>92.2</b>	<b>13.3</b>	<b>53.1</b>	<b>38.2</b>	<b>70.4</b>	<b>37.4</b>	<b>74.5</b>
Is expensive	<b>53.8</b>	<b>85.4</b>	<b>75</b>	<b>93.3</b>	<b>13.3</b>	<b>45.3</b>	<b>27.5</b>	<b>59.3</b>	<b>38.4</b>	<b>75.7</b>
Is a pack that you would like to be seen smoking	<b>15.4</b>	<b>57.3</b>	<b>27.5</b>	<b>83.3</b>	<b>3.3</b>	<b>54.7</b>	<b>8.8</b>	<b>37</b>	<b>12.6</b>	<b>63.5</b>
Is likely to attract youth below 18 years old to try	<i>23.1</i>	<i>43.9</i>	<b>37.5</b>	<b>72.2</b>	<b>30</b>	<b>53.1</b>	<b>12.7</b>	<b>40.7</b>	<b>21.7</b>	<b>55.5</b>
Is likely to encourage you to try	<b>15.4</b>	<b>51.2</b>	<b>32.5</b>	<b>64.4</b>	<b>6.7</b>	<b>43.8</b>	<b>6.9</b>	<b>59.3</b>	<b>13.1</b>	<b>54.8</b>
Is hard for you to quit/give up	<b>30.8</b>	<b>54.9</b>	<b>42.5</b>	<b>70</b>	<b>20</b>	<b>62.5</b>	<b>27.5</b>	<b>59.3</b>	<b>29.8</b>	<b>62.4</b>
Is harmful to health	<i>92.3</i>	<i>87.8</i>	<i>97.5</i>	<i>93.3</i>	<b>76.7</b>	<b>92.2</b>	<i>85.3</i>	<i>77.8</i>	<i>87.4</i>	<i>89.7</i>

**Among non-smokers**

Agree/ strongly agree (%)	<u>Dunhill Blue</u>		<u>Marlboro Red</u>		<u>Pall Mall</u>		<u>Gudang Garam</u>		<u>All packs</u>	
	Unattractive design (n=41)	Attractive design (n= 71)	Unattractive design (n=51)	Attractive design (n= 64)	Unattractive design (n=44)	Attractive design (n= 72)	Unattractive design (n=91)	Attractive design (n= 17*)	Unattractive design (n=227)	Attractive design (n= 224)
Contains cigarettes of a high quality	<b>12.2</b>	<b>62</b>	<b>37.3</b>	<b>82.8</b>	<b>2.3</b>	<b>55.6</b>	<b>3.3</b>	<b>52.9</b>	<b>12.3</b>	<b>65.2</b>
Contains cigarettes of a strong taste	<b>14.6</b>	<b>56.3</b>	<b>49</b>	<b>79.7</b>	<b>11.4</b>	<b>59.7</b>	<b>31.9</b>	<b>64.7</b>	<b>28.6</b>	<b>64.7</b>
Is expensive	<b>46.3</b>	<b>87.3</b>	<b>60.8</b>	<b>93.8</b>	<b>36.4</b>	<b>69.4</b>	<i>30.8</i>	<i>52.9</i>	<b>41.4</b>	<b>80.8</b>
Is a pack that you would like to be seen smoking	<b>4.9</b>	<b>57.7</b>	<b>39.2</b>	<b>73.4</b>	<b>6.8</b>	<b>58.3</b>	<b>9.9</b>	<b>41.2</b>	<b>15</b>	<b>61.2</b>
Is likely to attract youth below 18 years old to try	<b>12.2</b>	<b>62</b>	<b>37.3</b>	<b>62.5</b>	<b>22.7</b>	<b>58.3</b>	<b>11</b>	<b>47.1</b>	<b>19.4</b>	<b>59.8</b>
Is likely to encourage you to try	<i>2.4</i>	<i>8.5</i>	<b>2</b>	<b>17.2</b>	<b>0</b>	<b>9.7</b>	<b>3.3</b>	<b>17.6</b>	<b>2.2</b>	<b>12.1</b>
Is hard for you to quit/give up	<b>14.6</b>	<b>67.6</b>	<b>43.1</b>	<b>64.1</b>	<b>29.5</b>	<b>66.7</b>	<b>38.5</b>	<b>64.7</b>	<b>33.5</b>	<b>66.1</b>
Is harmful to health	<i>92.7</i>	<i>97.2</i>	<i>96.1</i>	<i>93.8</i>	<i>86.4</i>	<i>90.3</i>	<i>87.9</i>	<i>88.2</i>	<i>90.3</i>	<i>93.3</i>

\*caution low sample size

Attractive design : Those that selected agree/ strongly agree to the statement 'this pack has an attractive design'.

Unattractive design: Those that selected disagree/ strongly disagree to the statement ' this pack has an attractive design'

**Bold figures: statistically significant differences between comparison groups (p<0.05) ; Italic figures: statistically not significant (p>0.05)**

# **Annex E: Examples of questions**



**Looking at this cigarette pack DESIGN, on a scale of 1 to 5 where 1 is strongly disagree, 3 is neither agree nor disagree and 5 is strongly agree, to what extent would you agree that this pack.....?**

a	Has an attractive design
b	Contains cigarettes of a high quality
c	Contains cigarettes of a strong taste
d	Is expensive
e	<b>[Smoker]</b> Is a pack that you would like to be seen smoking <b>[Non-smoker]</b> Is a pack that smokers would like to be seen smoking
f	Is likely to attract youth below 18 years old to try
g	Is likely to encourage you to try
h	<b>[Smoker]</b> Is hard for you to quit/give up <b>[Non-smoker]</b> Is hard for smokers to quit/give up
i	Is harmful to health