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Public Cleanliness Satisfaction Survey 2021

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Public Cleanliness Satisfaction Survey 2021 Executive Summary

The Singapore Management University undertook the fourth wave of the Public Cleanliness Satisfaction Survey (PCSS) with 2,007 Singapore resident respondents providing responses to the survey from February 2021 to May 2021, amidst the COVID-19 pandemic.

The 2021 wave of the PCSS continued to reflect the overall satisfaction with public cleanliness in Singapore, similar to the last PCSS in 2019. Majority of survey respondents (92%) were satisfied with the cleanliness of public spaces that they had recently visited, a 1% decrease from the findings in 2019.

There was a substantial drop in satisfaction with the cleanliness of food outlets, with a 9% decrease in respondents' satisfaction with the cleanliness of coffeeshops compared to a year ago (77% in 2021 vs 86% in 2019). This is reflected in the results where 32% of respondents felt that the thoroughness of cleaning in coffeeshops was insufficient, an increase from 16% in 2019. The decrease could be attributed to the heightened awareness of the importance of cleaning during the COVID-19 pandemic.

Regarding the cleanliness of public toilets in various establishments, 82% of respondents were satisfied. Coffeeshops were also identified to have the lowest satisfaction, with 61% indicating that they were satisfied.

In addition to understanding public cleanliness, the 2021 wave of survey also asked about public hygiene. Over 90% of respondents indicated satisfaction with hygiene standards in most of the categories, except hawker centres and coffeeshops where the proportions of respondents indicating satisfaction were 69% and 67%, respectively.

The study also examined public opinion about personal responsibility for public cleanliness. Questions were asked regarding tray return practices at various food outlets, handwashing behaviour, and the maintenance of cleanliness in neighbourhoods.

On average, majority (64%) of respondents would return their trays more than half the time, with the lowest proportion doing so in coffeeshops. This is largely attributed to cleaners clearing respondents' trays before they have left the table. In addition, 58% of respondents felt that individual patrons using the tables were primarily responsible for tray return.

Handwashing seems to be a prevalent practice for Singaporeans after they have used the public toilet or when their hands are visibly dirty. In other cases where handwashing was not so prevalent, an alternative to maintaining hygiene (like hand sanitisers or anti-bacterial wet wipes) was used.

Majority of survey respondents expected residents in the neighbourhood to be responsible for the cleanliness of their environment, with 91% of respondents agreeing that residents should bring their litter to another disposal area rather than add to the full bins. On the other hand, despite 98% of respondents agreeing that residents should be encouraged to be involved in the upkeep of their environment, only 55% indicated a willingness to actually do so.

The results also indicated that the reliance on cleaning services remains high, with 90% of respondents acknowledging that Singapore is clean only because of the efficiency of its cleaning services. Nevertheless, 97% of respondents agreed that residents must work together with cleaners to keep the neighbourhood clean.

Lastly, 73% of respondents believed that it is the government's responsibility to keep Singapore clean, an increase from 58% in 2019. Perceptions of the effectiveness of various government efforts were generally high, except for signages where it is comparatively lower.

FINDINGS FROM THE PUBLIC CLEANLINESS SATISFACTION SURVEY (2021)

Introduction

The Singapore Management University (SMU) undertook the fourth wave of the Public Cleanliness Satisfaction Survey¹. The study was led by Professor Paulin Tay Straughan, Professor of Sociology (Practice) at SMU and Dr Mathew Mathews, Principal Research Fellow at the Institute of Policy Studies, National University of Singapore. The survey was conducted from February 2021 to May 2021 and sought the views of about 2,000 Singapore Citizens and Permanent Residents² aged 21 years and above. The first wave of this study was conducted between October 2016 to March 2017, the second wave from August 2018 to December 2018 and the third wave from December 2019 to April 2020.

The 2021 wave of the PCSS continues to reflect an overall satisfaction with public cleanliness in Singapore. It showed that satisfaction with cleanliness and cleaning services has generally remained consistent across almost all the domains. This wave also examined the satisfaction of Singaporeans regarding public toilets, and the extent to which the public believes that personal responsibility in public cleanliness is important. The survey also examined the importance of and respondent's satisfaction regarding public hygiene and personal cleanliness behaviours such as tray return and handwashing, which are important topics amidst the COVID-19 pandemic.

Satisfaction with the Cleanliness of Public Spaces

Survey results revealed that there was a high level of satisfaction with the cleanliness of public spaces in Singapore. Based on our Public Cleanliness Satisfaction Index (“Index”), 92% of the respondents were satisfied³ with the cleanliness of public spaces that they had recently visited, a 1% decrease from what was found in 2019⁴ (see [Table 1](#) for details). While the results were similar to those of 2019, with transport and leisure spaces having the greatest satisfaction, food outlets saw a comparatively lower level of satisfaction. Details of the results can be found in [Annex A](#).

There was an overall decrease of 4% in cleanliness satisfaction in food outlets, with an 8% drop in coffeeshops and 4% drop in hawker centres.

Wet markets and hawker centres have the lowest proportion of respondents who were satisfied at 84% and 83% respectively. Although there was a 4% decrease in satisfaction with cleanliness of hawker centres from 87% compared to 2019, the proportion of respondents who were satisfied is still significantly higher than the 62% in 2018 and 60% in 2017.

¹ This study was made possible through funds from the Ministry of Sustainability and the Environment (MSE).

² We refer to Singapore citizens and permanent residents in this report as Singaporeans.

³ This includes respondents who indicated that they are “satisfied” or “very satisfied”.

⁴ We use only responses of those who had visited a place recently (i.e. not more than two weeks before responding to the survey). This is to counter recall biases and ensure that responses accurately reflected the opinions of only those who had used particular spaces. Those who had visited a place a long time ago may not be able to accurately rate the level of cleanliness in that space. This was our practice in the previous versions of PCSS.

Table 1: Public Cleanliness Satisfaction Index

Domains / Spaces	Proportion Satisfied (%)	Overall Satisfaction (%) [Public Cleanliness Satisfaction Index]
<p>Transport (roads, bus stops, bus interchanges, MRT/LRT stations)</p>	<p>Slight decrease</p> <ul style="list-style-type: none"> • 2021: 96.3% ↓ • 2019: 98.4% • 2018: 94.9% • 2017: 93.4% <p>Most significant decrease from roads (-4.3% to 94.0%)</p>	<p>2021: 92% 2019: 93% 2018: 84% 2017: 82%</p>
<p>Leisure (parks/park connectors, shopping malls in housing estates, playgrounds)</p>	<p>Slight increase</p> <ul style="list-style-type: none"> • 2021: 97.3% ↑ • 2019: 97.1% • 2018: 89.4% • 2017: 88.9% 	
<p>Food Outlets (coffeeshops, air-conditioned food courts, hawker centres, wet markets)</p>	<p>Slight decrease</p> <ul style="list-style-type: none"> • 2021: 84.8% ↓ • 2019: 88.5% • 2018: 71.4% • 2017: 68.9% <p>Coffeeshops and hawker centres saw a decrease of 8.2% and 3.8% respectively.</p>	
<p>Neighbourhood (HDB town centres, void decks, corridors, lifts and lift lobbies)</p>	<p>Slight increase</p> <ul style="list-style-type: none"> • 2021: 89.7% ↑ • 2019: 89.5% • 2018: 79.3% • 2017: 78.8% 	
<p>Commuter Paths (pavements, walkways, overhead bridges, foot bridges, underpasses, roadside drains, grass patches next to pavements)</p>	<p>Slight decrease</p> <ul style="list-style-type: none"> • 2021: 91.7% ↓ • 2019: 92.8% • 2018: 84.8% • 2017: 82.6% <p>Overhead bridges / foot bridges decreased by 5.8% to 91.4%</p>	
<p>After Public Events (public spaces after events such as National Day Parade (NDP), concerts, marathons etc)</p>	<p>Significant increase⁵</p> <ul style="list-style-type: none"> • 2021: 94.1% ↑ • 2019: 87.9% • 2018: 74.3% • 2017: 62.6% 	

⁵ Note that the sample size for public events is small, potentially due to fewer public events held during the COVID-19 situation.

Respondents were asked to rate their satisfaction with the cleanliness of 20 public spaces they frequented in their everyday lives, on a scale of “1” (not satisfied at all) to “4” (very satisfied). To construct the Index, we used a weighted average⁶ of our respondents’ responses regarding the satisfaction with cleanliness in the 20 public spaces.

Transport

Respondents were mostly satisfied with the level of cleanliness at transport spaces such as roads, bus stops, bus interchanges and MRT/LRT stations. An average of 96% of respondents reported that they were satisfied or very satisfied with the levels of cleanliness in transport spaces, a drop from 98% in 2019 but higher than in 2018 (95%) and 2017 (93%). In particular, there were fewer respondents (94% compared to 98% in 2019, 95% in 2018 and 95% in 2017) who were satisfied or very satisfied with cleanliness on roads.

Commuter Paths

Fewer respondents were satisfied with the cleanliness of commuter paths such as pavements/walkways, overhead bridges/foot bridges, underpasses, roadside drains and grass patches next to pavements. An average of 92% of respondents reported that they were satisfied or very satisfied with the levels of cleanliness of commuter paths, a drop from 93% in 2019 but higher than in 2018 (85%) and 2017 (83%). The largest drop in satisfaction was with overhead bridges/ footbridges, from 97% in 2019 to 91% in 2021. On the other hand, 93% of respondents were satisfied or very satisfied with the cleanliness of grass patches, a slight increase from 91% in 2019.

Neighbourhoods

Satisfaction with cleanliness of neighbourhood spaces such as HDB Town Centres, void decks/corridors/lift lobbies and lifts to homes remained the same at 90% compared to 2019, although higher than in 2018 (79%) and 2017 (79%). More respondents were satisfied with the cleanliness in HDB Town Centres, an increase from 95% in 2019 to 97% in 2021.

Public Events and Leisure

Significantly more respondents (6% increase) reported satisfaction with the level of cleanliness after public events (e.g. National Day Parade, Concerts, Sporting events etc.). A total of 94% of respondents reported that they were satisfied or very satisfied with cleanliness after public events compared to 88% in 2019, 74% in 2018 and 63% in 2017.

Levels of satisfaction with the cleanliness of leisure spaces such as parks, playgrounds and shopping malls in housing estates remained high - an average of 97% of the respondents reported that they were satisfied or very satisfied with the cleanliness of such spaces, similar to 2019 and higher than 2018 (89%) and 2017 (89%). Similar to trends observed in previous waves, there were more respondents who reported that they were satisfied with the cleanliness of shopping malls in housing estates (99%) compared to cleanliness at playgrounds (97%).

⁶ A weighted average takes into account that some indicators may not have the same weight. In the case of the PCSS, a substantial portion of respondents have no experience of some public spaces. We did not include a respondent’s opinion about a public space if s(he) stated that s(he) had never been to that space.

Food Outlets

An average of about 85% of respondents reported that they were satisfied or very satisfied with levels of cleanliness of food outlets, a 4% drop from that of 2019 but higher than 2018 (71%) and 2017 (69%). This includes coffeeshops, hawker centres, food courts (air-conditioned) and wet markets. There is a significant decrease of 9% from 86% in coffeeshops in 2019 to 77% in 2021.

Satisfaction of the Cleanliness of Toilets

In the 2021 wave, respondents were asked about their satisfaction of the cleanliness of toilets in various establishments. Overall, 81.6% of Singaporeans reported feeling satisfied or very satisfied with public toilets in various establishments⁷ (see [Table 2](#) for details).

The greatest majority (96%) reported that they were satisfied with the cleanliness of public toilets in shopping malls. On the other hand, the lowest proportion of respondents were satisfied with the cleanliness of public toilets in coffeeshops (61%) and hawker centres (68%), where younger respondents aged 21-34 years old were more likely to indicate dissatisfaction.

The top three most common issues respondents cited with regards to public toilets were that toilet seats or urinals were dirty or stained, the toilet floor in the common area was wet or stained, and toilets had bad smells or odour.

When asked who respondents thought was the party primarily responsible for the cleanliness of public toilets, 48% responded that individual users were responsible. The remaining respondents were split between citing that cleaners were responsible (19%), operators of public toilets (18%) and operators of premises where public toilets are located (13%). Only 1% of respondents felt that the government was responsible for the cleanliness of public toilets.

⁷ We use only responses of those who had visited a place recently (i.e. not more than two weeks before responding to the survey). This is to counter recall biases and ensure that responses accurately reflected the opinions of only those who had used particular spaces. Those who had visited a place a long time ago may not be able to accurately rate the level of cleanliness in that space.

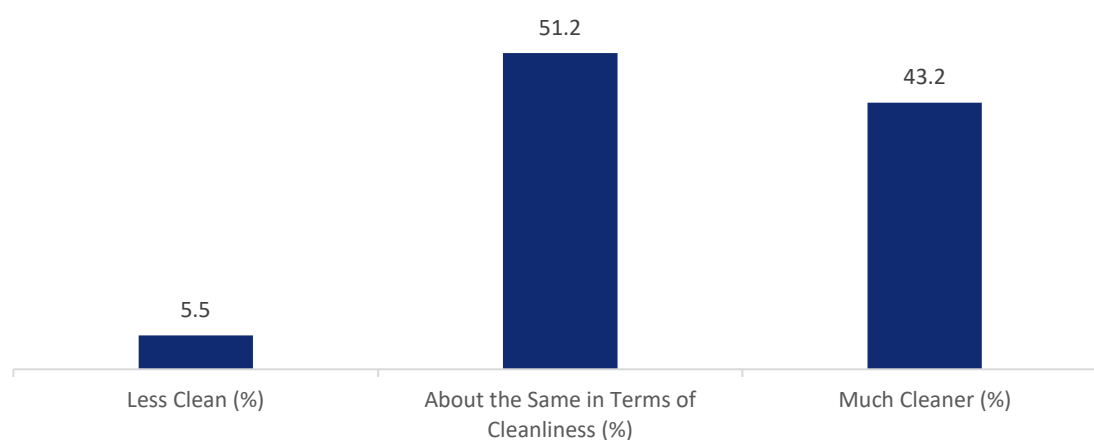
Table 2: Satisfaction of Cleanliness of Toilets

Establishment Toilets are located in	Proportion Satisfied (%)	Overall Satisfaction (%)	Top 3 Most Common Issues
Shopping Malls	95.6%	81.6%	<ul style="list-style-type: none"> • Bad Smell or Odour (58.0%) • Litter on toilet floor in common areas, cubicles or urinal areas (41.1%) • Toilet floor in common areas is wet/stained (39.2%)
Hawker Centres	67.5%		<ul style="list-style-type: none"> • Toilet seats or urinals are dirty/stained (66.2%) • Toilet floor in common areas is wet/stained (64.5%) • Toilet floor in cubicles or at urinal is wet/stained (61.2%)
Coffeeshops	61.3%		<ul style="list-style-type: none"> • Bad Smell or Odour (76.0%) • Toilet seats or urinals are dirty/stained (68.7%) • No toilet paper (64.6%)
MRT Stations	86.4%		<ul style="list-style-type: none"> • Toilet seats or urinals are dirty/stained (63.0%) • Toilet floor in common areas is wet/stained (55.9%) • Toilet bowls or urinals are unflushed/choked (53.0%)
Bus Interchanges	87.3%		<ul style="list-style-type: none"> • Toilet seats or urinals are dirty/stained (56.5%) • Litter on toilet floor in common areas, cubicles or urinal areas (51.1%) • Bad Smell or Odour (48.9%)
Outdoor Parks	84.2%		<ul style="list-style-type: none"> • Toilet floor in common areas is wet/stained (52.3%) • Toilet seats or urinals are dirty/stained (52.1%) • Toilet floor in cubicles or at urinal is wet/stained (45.7%)

Perceptions of Cleanliness Now as Compared to 1 year ago

When respondents were asked to compare the cleanliness levels now to a year ago, 43% responded that Singapore was much cleaner and 6% responded that Singapore was less clean. (refer to Figure 1).

Figure 1: Perceptions of cleanliness now as compared to 1 year ago



Public's Satisfaction Regarding Public Cleaning Services

The 2021 wave of survey sought respondents' feedback on the efficiency of public cleaning efforts across various public spaces such as common areas in their neighbourhood, hawker centres and coffeeshops, and along public pavements/walkways (see [Figure 2](#) for details).

For each of these public spaces, respondents were allowed to report on the thoroughness and frequency of cleaning as well as the sufficiency of trash bins. Respondents were asked whether cleaning efforts were insufficient, adequate or excessive for each of these areas. (see [Table 3](#) for details). Respondents reported that the thoroughness of cleaning was mostly adequate with the highest proportion reporting this for MRT/LRT stations as well as bus stops (93%), and the lowest for coffeeshops (67%).

Overall, we see a higher number of respondents indicating that cleaning efforts were insufficient compared to that reported in 2019. The proportion indicating 'insufficient' in thoroughness and frequency of cleaning as well as sufficiency of trash bins increased by 4%, 2% and 2% respectively.

For thoroughness of cleaning, 15% of respondents reported that this was insufficient. The highest proportion reported that thoroughness of cleaning was insufficient at coffeeshops (32%) and wet markets (27%). Few people reported that thoroughness of cleaning was insufficient at MRT/LRT stations (3%).

On average, 13% reported that the number of trash bins was insufficient, especially at wet markets where 18% reported so. Only 6% reported that there were insufficient trash bins at air-conditioned food courts.

The great majority found the frequency of cleaning in most places adequate, with just 12% reporting that it was insufficient. The highest proportion indicated that frequency of cleaning at coffeeshops (24%) and wet markets (24%) was insufficient, and the lowest at MRT/LRT stations (3%).

Figure 2: Thoroughness of Cleaning Services across Public Spaces

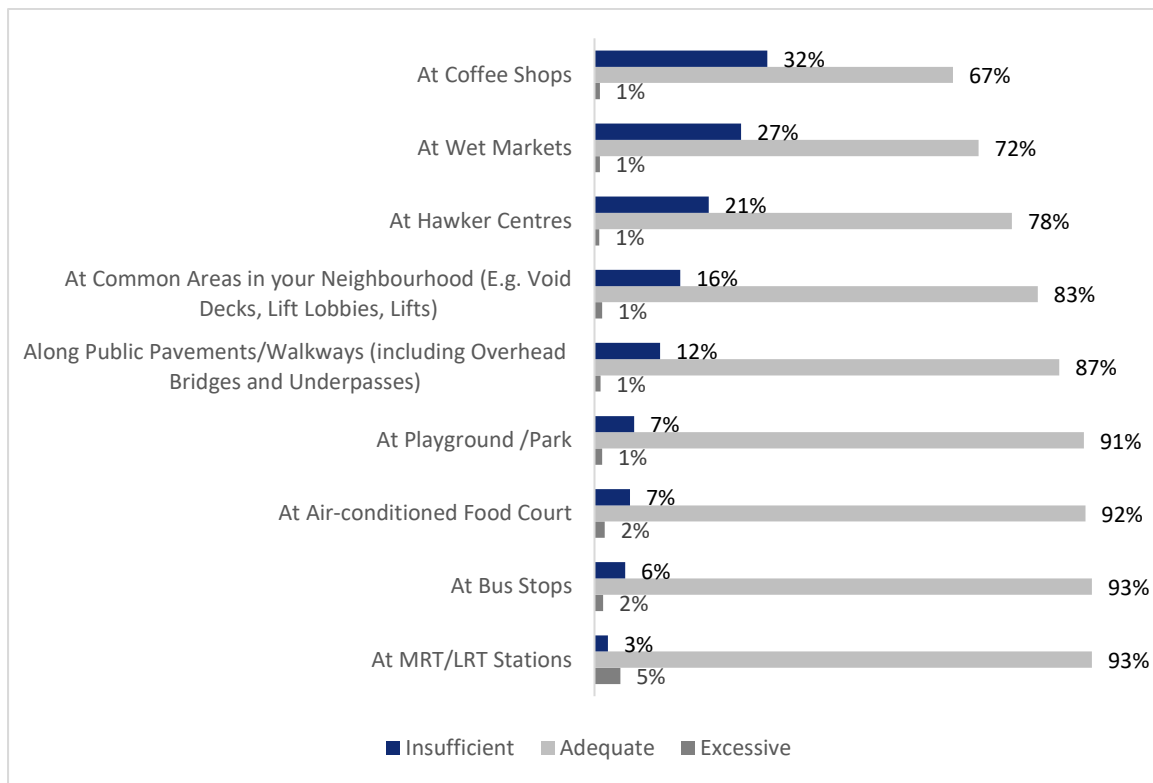


Table 3: Adequacy of Cleaning Services across Public Spaces

Domain	Average Proportion indicated Insufficient	Component deemed most insufficient	Component deemed least insufficient
Thoroughness of cleaning	14.6% ↑ (10.2%)	At Coffeeshops 32.2%	At MRT/LRT Stations 2.5%
Number of trash bins	12.4% ↑ (10.6%)	At Wet Markets 17.5%	At Air-conditioned Food Courts 6.3%
The frequency of cleaning	11.8% ↑ (10.2%)	At Coffeeshops 24.2%	At MRT/LRT Stations 2.5%

Figures in parenthesis refer to proportions from the 2019 wave of PCSS. Figures in bold refer to proportions from the 2021 wave of PCSS.

Opinion on the State of Cleanliness in Singapore

Similar to results in the 2019 wave of the PCSS, most respondents (98%) held the opinion that Singapore is a clean city, a slight drop from 99% in 2019 (see Table 4). Sentiments that Singapore is a clean city because of the efficiency of its cleaning services remained consistently high with 90% of respondents reporting so, up from 87% in 2019⁸.

Table 4: Proportion of respondents agreeing to statements on Singapore cleanliness identity⁹

	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	Agree/ Strongly Agree (%)
I take pride in doing my part to keep Singapore clean	0.2 <i>0.1</i> 0.5 (0.6)	0.6 <i>0.7</i> 2.3 (1.1)	60.2 <i>73.2</i> 52.6 (58.0)	38.9 <i>26.0</i> 44.6 (40.2)	99.1 <i>99.2</i> 97.2 (98.2)
Visitors who come to Singapore admire how clean the city is	0.2 <i>0.2</i> 0.9 (1.3)	1.4 <i>2.5</i> 2.8 (4.6)	56.9 <i>59.1</i> 55.2 (57.8)	41.5 <i>38.2</i> 41.1 (36.2)	98.4 <i>97.3</i> 96.3 (94.0)
Singapore is a clean city	0.1 <i>0.2</i> 0.9 (1.0)	1.9 <i>1.3</i> 4.7 (5.1)	57.2 <i>60.7</i> 54.7 (62.4)	40.7 <i>37.8</i> 39.7 (31.5)	97.9 <i>98.5</i> 94.4 (93.9)
Other Singaporeans take pride in doing their part to keep Singapore clean	0.4 <i>0.5</i> 1.3 (1.5)	2.9 <i>4.3</i> 10.0 (11.0)	61.1 <i>65.6</i> 55.1 (59.4)	35.6 <i>29.6</i> 33.6 (28.1)	96.7 <i>95.2</i> 88.7 (87.5)
Singapore is clean only because of the efficiency of its cleaning services	1.7 <i>0.2</i> 1.6 (1.5)	8.7 <i>12.9</i> 10.9 (13.3)	70.4 <i>69.5</i> 54.8 (54.5)	19.1 <i>17.5</i> 32.6 (30.7)	89.6 <i>87.0</i> 87.4 (85.2)
I regularly interact (e.g. greet, talk) with the cleaners in my neighbourhood	2.5 <i>1.3</i>	30.9 <i>31.1</i>	55.5 <i>59.0</i>	11.1 <i>8.5</i>	66.6 <i>67.5</i>
I know how to provide feedback on the quality of cleaning services	2.8 <i>1.3</i>	24.9 <i>20.3</i>	59.6 <i>68.3</i>	12.7 <i>10.0</i>	72.4 <i>78.3</i>
I take pride when visitors who come to Singapore admire how clean the city is.	0.2	0.8	62.4	36.6	98.9

Figures in parenthesis refer to proportions from the 2017 wave of PCSS. Figures in black ink refer to proportions from the 2018 wave of PCSS. Figures in red ink refer to proportions from 2019 wave of PCSS. Figures in black ink and bold refer to the proportions from 2021 wave of PCSS.

⁸ This includes respondents who indicated that they “agree” or “strongly agree”.

⁹ Figures in tables may not always add up to 100% because of rounding of numbers.

In addition, a large proportion of respondents felt that Singaporeans in general took pride in keeping Singapore clean. A great majority of respondents took pride in doing their part to keep Singapore clean (99%), with 97% agreeing that other Singaporeans also took pride in doing their part to keep Singapore clean.

To better understand the contributions of cleaning services, respondents were asked if they regularly interacted with the cleaners in the neighbourhood and if they knew how to provide feedback on quality of cleaning services. In terms of respondents who regularly interact with cleaners, 67% reported doing so, a 1% drop from 2019. Additionally, 72% agreed that they knew how to provide feedback on quality of cleaning services, a drop of 6% from 2019. Those who do not agree with the statement tend to be seniors (> 65 years old) or those with lower levels of educational attainment.

Opinion on Personal Responsibility for Public Cleanliness

In this wave, specific questions were asked regarding personal responsibility for public cleanliness.

The survey sought to understand (a) Singaporean's tray return habits in hawker centres, coffeeshops, air-conditioned food courts and school/ staff canteens, (b) what the reasons were for not returning their trays, and (c) who Singaporeans think should be responsible for tray returns.

Furthermore, given that the 2021 wave of the PCSS took place during the COVID-19 pandemic, questions were asked to understand (a) Singaporean's handwashing behaviour in six different scenarios, and (b) what the reasons were for not washing their hands.

In addition, the survey sought to understand the littering behaviours of Singaporeans and determine if respondents believed that cleanliness in their neighbourhood was something that they should take responsibility for and not merely leave to cleaning services.

Attitude and Perception on Tray Return

In the 2021 wave, we examined personal responsibility for tray returns in various food establishments (see [Figure 3](#)). For those who did not return their tray all the time, we asked for the top three reasons for not returning the trays (see [Table 5](#)).

On average, majority of respondents (64%) would return their tray more than half the time¹⁰. In schools/staff canteen, 94% of respondents returned their trays more than half the time. However, only 46% of Singaporeans returned their trays more than half the time in coffeeshops. Furthermore, seniors (>65 years old) have a higher tendency to return the tray half the time or less. The top reason stated for respondents not returning their trays was that the cleaners cleared their tray/crockery during or after their meal, before they left the table (72%).

Overall, 58% of respondents think that the primary responsibility of returning trays should belong to the individual patrons using the tables. In addition, 23% of respondents felt that cleaners should be responsible for tray return while 16% of respondents reported that operators

¹⁰ This includes respondents who indicated that they return trays "all the time" or "more than half the time".

of premises should be responsible for tray return. Only 1% reported that it should be the responsibility of the patron who used the table after they did.

Figure 3: Proportion of Singaporeans Returning Tray

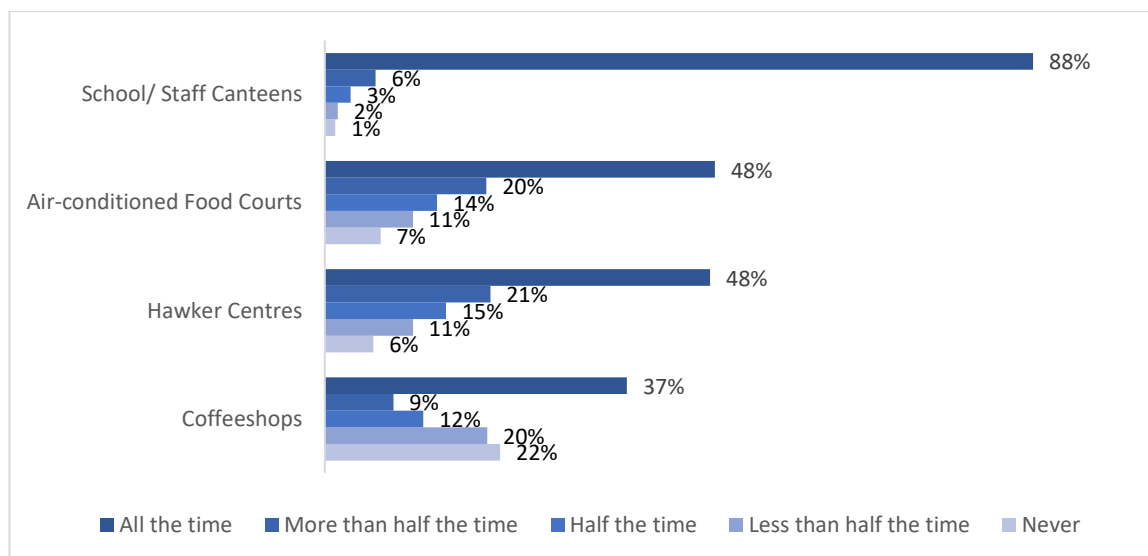


Table 5: Reasons for Not Returning Trays

Establishments	Top 3 Most Common Reason for Not Returning Trays
Hawker Centres	<ul style="list-style-type: none"> The cleaner clears my tray/crockery during or after my meal, before I leave my table. (69.2%) The tray return point is either not within visible sight or unavailable. (46.4%) There is no visible signage on where to return trays/crockery. (41.1%)
Coffeeshops	<ul style="list-style-type: none"> The cleaner clears my tray/crockery during or after my meal, before I leave my table. (71.2%) There is no visible signage on where to return trays/crockery. (45.2%) The tray return point is either not within visible sight or unavailable. (44.6%)
Air-conditioned Food Courts	<ul style="list-style-type: none"> The cleaner clears my tray/crockery during or after my meal, before I leave my table. (79.3%) The tray return point is either not within visible sight or unavailable. (44.8%) There is no visible signage on where to return trays/crockery. (39.2%)
School/ Staff Canteen	<ul style="list-style-type: none"> There is no visible signage on where to return trays/crockery. (50.7%) The tray return point is either not within visible sight or unavailable. (40.0%) The cleaner clears my tray/crockery during or after my meal, before I leave my table. (37.0%)

Attitude and Perception on Handwashing Behaviour

In the survey, respondents were asked about the frequency of their handwashing behaviour in the following 6 different scenarios: (1) before eating at food outlets, (2) after eating at food outlets, (3) after using a public toilet, (4) after blowing your nose in a public area, (5) after sneezing or coughing in a public area, and (6) when your hands are visibly dirty while you are in a public area. In cases where respondents did not wash their hands all the time, they were asked to share the top 3 reasons for not doing so.

A great majority of respondents washed their hands more than half the time¹¹ after using a public toilet (91%) or when their hands were visibly dirty (92%) (See [Table 6](#)).

Table 6: Handwashing Behaviour in Various Scenarios

Scenarios	Never (%)	Less than half the time (%)	Half the time (%)	More than half the time (%)	All the time (%)	Top Reason for Not Washing Hands
Before eating at food outlets	4.4	14.1	21.8	15.1	44.7	I clean my hands with hand sanitizers or anti-bacterial wet wipes. (54.1%)
After eating at food outlets	3.5	12.5	18.8	17.1	48.1	I clean my hands with hand sanitizers or anti-bacterial wet wipes. (58.5%)
After using a public toilet	0.1	2.2	6.4	7.7	83.6	Soap is not available. (44.6%)
After blowing your nose in a public area	4.8	21.3	16.4	18.6	38.8	I clean my hands with hand sanitizers or anti-bacterial wet wipes. (57.9%)
After sneezing or coughing in a public place	5.1	22.8	16.4	17.5	38.2	I clean my hands with hand sanitizers or anti-bacterial wet wipes. (60.0%)
When your hands are visibly dirty while you are in a public area	0.8	1.9	5.3	12.6	79.4	Hand-washing facilities (e.g. sink, soap dispenser etc.) are not within visible sight. (56.9%)

¹¹ This includes respondents who indicated that they wash their hands “more than half the time” or “all the time”.

However, results favouring handwashing were more muted in the other scenarios. Sixty percent of respondents reported washing their hands more than half the time before eating at food outlets and 65% reported washing their hands more than half the time after eating at food outlets. In addition, 57% of respondents would wash their hands more than half the time after blowing their nose in a public area, while 56% of respondents would wash their hands more than half the time after sneezing or coughing in a public area. Most respondents also indicated that in the 4 scenarios above, they would clean their hands with hand sanitisers or anti-bacterial wet wipes.

Overall, this indicates that there is a consensus amongst Singaporeans on the importance of handwashing. In cases where there was less handwashing behaviour, it was because there were alternatives like hand sanitisers or anti-bacterial wet wipes (56%), or tissue or cloth (48%) which may be perceived as more convenient considering that 47% of respondents reported that handwashing basins are not always within visible sight.

Attitude and Perception on Littering

Nearly 90% of respondents reported that they would never throw litter in public spaces while 6% shared that they would do so only if there was no litter bin nearby (See [Table 7](#)). While the proportion of respondents reporting that they would never throw litter in public spaces is lower than that in 2019, we note that it is higher than the proportion in the 2018 wave. This could be due to a heightened awareness of the need to maintain cleanliness as well as the effect of reduced opportunities to be outdoors during the early stage of the COVID-19 pandemic - when the 2019 wave was conducted.

Table 7: Proportion of Singaporeans who would litter

	Never (%)	Only when there is no nearby litter bin (%)	Only when there is no one around (%)	Sometimes (%)	Most of the time (%)
Do you throw litter in public spaces?	89.9 (96.1) <i>80.4</i>	5.6 (2.6) <i>9.3</i>	1.1 (0.5) <i>1.7</i>	2.9 (0.6) <i>8.1</i>	0.5 (0.2) <i>0.6</i>

Figures in italics refer to proportions from the 2018 wave of PCSS. Figures in parenthesis refer to proportions from the 2019 wave of PCSS. Figures in bold refer to proportions from the 2021 wave of PCSS.

Personal Responsibility for Cleanliness in the Neighbourhood

We further examined personal responsibility for the cleanliness of the neighbourhood by presenting respondents with a scenario. Respondents were shown a picture of trash bins which were overflowing and given the following statement:

It is 6.30pm. You see overflowing trash bins in your neighbourhood as you return from work. It was clean in the morning when you left for work. There is a central bin centre 50 metres away.

Respondents were then asked their views on a number of statements.

Most respondents believed that residents in this scenario should have been responsible for the upkeep of their surroundings, with 91% of respondents agreeing that residents should bring their litter to another disposal area rather than add to the full bins (see [Table 8](#)). Although the majority of respondents expected residents who saw overflowing trash bins to contact the town council so cleaners could clear the bins promptly (88%), or to help move the excess trash to the central bin centre rather than wait for the cleaners to clear it the next morning (67%), this proportion has dropped by 9% and 14% respectively compared to 2019.

In addition, an increased proportion of respondents (87%) felt that the situation reflected that a number of inconsiderate people lived in this neighbourhood, up from 77% in 2019.

The results also seem to indicate an increase in reliance on cleaning services to ensure cleanliness of the surroundings. Nearly all respondents (95%) expected that the authorities should demand higher standards of cleaning contractors to make sure the trash bins were always cleared promptly, an increase of less than 1% from 2019. Almost all respondents (94%) also expected that cleaners should clear trash throughout the day so that bins would not overflow, an increase of 8% from 2019. There has also been an increase in the proportion of people who agree that cleaners are not efficient in their work, from 35% in 2019 to 46% in 2021.

While there seems to be an increase in reliance on cleaning services, there also seems to be fewer people who agree that more money should be spent on cleaning services, from 71% in 2019 to 60% in 2021.

Table 8: Responses to scenario with overflowing trash bins

Statement	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)
Residents should help move the excess trash to the central bin centre rather than wait for the cleaners to clear it the next morning.	9.1 (1.2)	24.0 (17.8)	57.7 (67.4)	9.2 (13.6)
The cleaners should clear trash throughout the day so that bins do not overflow.	1.2 (0.6)	4.8 (13.8)	61.0 (72.1)	33.0 (13.6)
A number of inconsiderate people live in this neighbourhood.	2.3 (4.1)	10.7 (19.2)	46.5 (41.3)	40.4 (35.5)
The cleaners are not efficient in their work.	6.4 (12.3)	47.2 (52.8)	36.6 (32.6)	9.8 (2.3)
Residents should bring their litter to another disposal area rather than add to the full bins.	0.5 (0.1)	8.4 (5.9)	65.1 (78.3)	26.0 (15.7)
The authorities should demand higher standards of cleaning contractors to make sure the trash bins are always cleared promptly.	0.7 (0.3)	4.6 (5.3)	63.2 (64.1)	31.5 (30.2)
Residents who see overflowing trash bins should contact the town council so cleaners can clear the bins promptly.	1.0 (0.2)	11.4 (3.2)	72.1 (84.4)	15.4 (12.3)
More money should be spent on cleaning services.	4.9 (1.5)	35.5 (27.3)	47.8 (57.2)	11.8 (13.9)

Figures in parenthesis refer to proportions from the 2019 wave of PCSS. Figures in bold refer to proportions from the 2021 wave of PCSS.

In order to further probe respondents' beliefs about whether they could be personally involved in the maintenance of cleanliness in their neighbourhood, a series of questions was posed. In addition, the scenario below was presented as a follow-up to the one regarding the overflowing trash bins:

Following this incident, some residents decide to form a group to ensure the cleanliness of the neighbourhood. They regularly encourage residents to pick up the trash they see, explain to litterbugs why littering is bad for the environment, and work with the cleaning crew to ensure that the neighbourhood is kept clean.

Similar to 2019, there was near unanimous support (98%) that residents should be encouraged to help maintain the cleanliness of the neighbourhood (see [Table 9](#)). Although an increase from 46% in 2019, only 55% of respondents surveyed in 2021 would volunteer with such a group.

On the other hand, there was a greater proportion of respondents who felt that residents should not have to work to keep the neighbourhood clean. Compared to 29% of respondents in 2019, 48% of respondents agreed that it is the job of the cleaners to keep neighbourhoods clean. In addition, 48% of respondents felt that residents should not have to work to keep the neighbourhood clean as they already pay for cleaning services. This is an increase from 32% of respondents in 2019.

Notwithstanding, 97% of respondents agreed that residents must work together with cleaners to keep the neighbourhood clean.

Table 9: Responses to resident activism regarding public cleanliness

Statement	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)
I would volunteer with such a group.	4.0 (0.8)	41.2 (52.8)	49.2 (44.4)	5.6 (1.9)
Residents should not be doing this - it is the job of the cleaners to keep neighbourhoods clean.	12.9 (17.3)	39.2 (54.1)	44.0 (28.2)	3.9 (0.5)
Residents should be encouraged to help maintain the cleanliness of the neighbourhood.	0.6 (0.1)	1.6 (1.0)	75.7 (81.9)	22.1 (16.9)
Residents already pay for cleaning services and should not have to work to keep their neighbourhood clean.	13.6 (16.9)	38.9 (51.0)	43.2 (29.1)	4.3 (3.0)
Residents must work together with the cleaners to keep the neighbourhood clean.	0.3 (0.4)	3.1 (3.8)	77.3 (76.9)	19.4 (18.9)

Figures in parenthesis refer to proportions from the 2019 wave of PCSS. Figures in bold refer to proportions from the 2021 wave of PCSS.

Public Hygiene

Respondents were also asked about *public hygiene*. Respondents were informed that while maintaining *public cleanliness* involves removing dirt/litter from public spaces, maintaining *public hygiene* is stricter; it also involves disinfecting public spaces to kill germs so as to minimise the spread of infectious diseases.

Respondents were asked to indicate their opinion on the level of importance and satisfaction of the current level of public hygiene in ten places; preschools, public schools, eldercare facilities, hawker centres, coffeeshops, air-conditioned food courts, hotels, shopping malls, bus interchanges and MRT/LRT Stations.

Overall, 99% of respondents indicated that public hygiene was important or very important across all the domains (see [Table 10](#)). In addition, a larger proportion felt that it was very important in domains like preschools, public schools and eldercare facilities.

Table 10: Importance of level of hygiene across public spaces

Domains / Spaces	Not Important at all (%)	Slightly Important (%)	Important (%)	Very Important (%)
Preschools	0.0	0.2	34.4	65.4
Public schools (e.g. Primary and Secondary Schools)	0.0	0.3	36.1	63.6
Eldercare facilities (e.g. nursing homes, hospices)	0.0	0.2	34.2	65.6
Hawker Centres	0.0	0.3	47.1	52.6
Coffeeshops	0.0	0.4	46.9	52.8
Air-conditioned Food Courts	0.0	0.2	47.0	52.8
Hotels	0.0	0.5	42.7	56.8
Shopping Malls	0.0	0.6	46.2	53.2
Bus Interchanges	0.0	0.8	47.8	51.4
MRT/LRT Stations	0.0	0.5	46.5	53.0

Over 90% of respondents indicated that they were satisfied or very satisfied with the level of public hygiene in all spaces except hawker centres and coffeeshops (see [Table 11](#)). Only 69% of respondents felt satisfied or very satisfied with the hygiene levels at hawker centres, while 67% of respondents felt satisfied or very satisfied with the hygiene levels at coffeeshops.

Table 11: Satisfaction of current level of hygiene across public spaces

Domains / Spaces	Not Satisfied at all (%)	Slightly Satisfied (%)	Satisfied (%)	Very Satisfied (%)
Preschools	0.2	1.2	73.5	25.0
Public schools (e.g. Primary and Secondary Schools)	0.2	2.8	72.7	24.3
Eldercare facilities (e.g. nursing homes, hospices)	0.1	3.9	73.8	22.3
Hawker Centres	5.5	25.3	59.7	9.5
Coffeeshops	5.9	26.7	57.6	9.9
Air-conditioned Food Courts	0.6	8.0	77.6	13.9
Hotels	0.0	1.5	73.3	25.3
Shopping Malls	0.1	2.2	77.3	20.4
Bus Interchanges	0.6	6.9	80.7	11.8
MRT/LRT Stations	0.5	4.9	79.8	14.9

Public Perception of Government Efforts

Respondents were asked about the extent of their agreement with the following statement: “It is the government’s responsibility to keep Singapore clean.” Overall, 73% of Singaporeans agreed with the statement. As such, the majority of the population felt that the government had a role to ensure public cleanliness, an increase from 58% in 2019.

The respondents were also asked about the effectiveness of various government efforts to understand the public’s perception toward these efforts. Overall, over 85% of respondents felt that all the listed government efforts would be effective¹², except for putting up signage (See Table 12).

In order to understand the perceived effectiveness of signage in various scenarios, the questionnaire asked for the effectiveness of signage in reminding people to (1) not litter, (2) return their trays, (3) wash their hands and (4) keep public toilets clean. Only 66% of respondents felt that having more signage to remind people to keep public toilets clean would be effective and 71% reported that having more signage at food outlets to remind people to wash their hands before and after eating would be effective. In addition, 78% indicated that having more signage to remind people not to litter in public places would be effective and 81% of respondents felt that having more at hawker centres, school/staff canteens and air-conditioned food courts to remind people to return their trays would be effective.

¹² This includes respondents who indicated that the measures were “quite effective” or “very effective”.

Table 12: Public perception of effectiveness of various government efforts

Government Efforts	Not effective at all (%)	Only slightly effective (%)	Quite effective (%)	Very effective (%)
Have more signage to remind people not to litter in public places	3.1	19.2	64.4	13.3
Having more signage at hawker centres, school/staff canteens and air-conditioned food courts to remind people to return their trays	2.6	16.9	65.2	15.3
Having more signage at food outlets to remind people to wash their hands before and after eating.	3.3	26.1	52.9	17.7
Have more signage to remind people to keep public toilets clean	7.5	26.5	50.4	15.7
Public education through schools on the importance of keeping Singapore clean	0.3 (0.3)	5.4 (4.8)	46.2 (44.0)	48.1 (50.9)
Public education through community on the importance of keeping Singapore clean	0.7 (0.4)	7.9 (7.1)	52.3 (53.7)	39.0 (38.8)
Public campaigns on the importance of keeping Singapore clean	1.1 (0.7)	8.4 (9.4)	69.1 (61.1)	21.5 (28.7)
Have more enforcement officers on the ground	1.3 (2.1)	6.8 (11.8)	51.8 (48.1)	40.2 (38.1)
Increase fines for littering	2.2 (3.9)	12.8 (14.4)	46.1 (50.2)	38.9 (31.4)
Having persistent litterers pick up litter through Corrective Work Orders	0.7 (1.6)	3.8 (10.2)	47.2 (50.2)	48.2 (38.0)
Stronger government regulations on public toilet operators to keep toilets clean and well-maintained	0.4	2.9	62.2	34.5
Promote ground up initiatives (i.e. citizen-driven initiatives) on keeping Singapore clean	3.8 (0.3)	7.8 (13.9)	62.5 (69.0)	25.8 (16.8)
Investing in more cleaning technology to keep Singapore clean	1.1	13.1	55.9	29.9

Figures in parenthesis refer to proportions from the 2019 wave of PCSS.

Conclusion

The survey findings reveal that there remains a widespread satisfaction in public cleanliness in Singapore. However, satisfaction has dropped slightly due to the decreased satisfaction in the cleanliness of coffeeshops and hawker centres. A new question added in this wave regarding satisfaction of cleanliness of public toilets also shows lower satisfaction in coffeeshops and hawker centres, which amplifies the limited satisfaction respondents have regarding the cleanliness of these two areas.

One explanation for the decreased public satisfaction in cleanliness could be linked to the increased perception that there is insufficient thoroughness and frequency of cleaning. This is likely due to the heightened awareness of the importance of cleaning during COVID-19.

While there are increased expectations of cleaners, more Singaporeans are wary of taking personal responsibility to keep public areas clean if such tasks can be fulfilled by cleaners. When presented with a scenario of overflowing trash bins, fewer Singaporeans feel that residents should be clearing the trash away or providing feedback to cleaners that the bins need to be cleared compared to 2019. Given that the majority of Singaporeans attribute the cleanliness of Singapore to the efficiency of cleaning services, by extension possibly, the lack of cleanliness is viewed as a lack of cleaning.

On the other hand, Singaporeans recognise that it is important for residents to take ownership of neighbourhood cleanliness. In the same scenario, almost all the respondents feel that residents should be encouraged to maintain neighbourhood cleanliness. Perhaps some of the hesitation to taking personal action for neighbourhood cleanliness stems from respondents' beliefs that others were not fulfilling their part – (a) that there were more inconsiderate people living in the neighbourhood (who should perhaps then be penalised for their lack of pro-cleanliness behaviour) and (b) that cleaners are not efficient and should clear the bins more often.

To tackle the first issue, respondents continue to maintain the importance of punitive measures such as fines and Corrective Work Orders to manage those who are irresponsible.

On the concerns about cleaning efficiency, there seems to be an entrenched reliance on cleaning services. Most respondents (95%) agree that the government should ensure higher cleaning standards for cleaning contractors. Often, better cleaning services translate to higher costs owing to more supervision, training and better equipment. However, fewer respondents were willing to spend public monies on cleaning services (71% in 2019 vs 60% in 2021).

Respondents were also unanimous that residents and cleaners must work together to keep Singapore clean. More than half of respondents were amenable to volunteering to help with cleanliness efforts in their neighbourhood. However, if collaboration between cleaners and residents are to happen, there needs to be a good feedback mechanism – for instance to report overflowing bins. The survey showed that there is a decrease in the number of people who know how to provide feedback on the quality of cleaning services. While the majority (72%) know how to provide feedback, there still remains room for such feedback channels to be improved, both in awareness and effectiveness.

On their part, respondents indicated that they were mindful of pro-social public cleanliness behaviours such as returning trays and handwashing. Many people reported that they returned

their trays, although less so at coffeeshops, and most of those who did not attributed it to the cleaners doing so before they left the tables. Singaporeans also washed their hands often or used alternatives like hand sanitisers or anti-bacterial wet wipes. In light of the COVID-19 situation, it is important that Singaporeans continue to practise these pro-social behaviours to reduce the risk of disease transmission.

Given the results of this wave of the survey, some interventions could be adopted by the general public, cleaning contractors and the government.

The general public should take more ownership of public cleanliness, especially in places like coffeeshops and hawker centres. Hawker centres are essentially community dining rooms. Relying less on cleaners to return trays will be one way to ensure that the cost of eating in such places can be kept reasonable for people from all socio-economic backgrounds, amidst ageing cleaners and increasing cleaning costs. Other pro-social cleanliness practices such as hand washing practices, and proper disposal of litter are equally important. On a community level, Singaporeans can volunteer to help maintain neighbourhood cleanliness and persuade neighbours to keep the neighbourhood and other shared spaces such as hawker centres clean. By working together with cleaners, such as providing timely feedback when there are, for instance, overflowing trash bins, or places which are persistently dirty, cleaning resources can be better allocated to areas where it is most needed.

While citizens should cooperate with cleaners and display prosocial behaviour in public cleanliness, cleaning contractors are expected to be effective in their service delivery. In addition to proper training and sufficient allocation of manpower, cleaning companies should ensure that cleaners are aware of their responsibilities. For example, cleaners in food outlets could focus less on clearing trays to allow patrons to do their part, and focus more on maintaining the general cleanliness of the area.

Lastly, it is important for the government to continue its public education role to emphasise the importance of safeguarding public cleanliness and hygiene. This narrative should call on both personal responsibility and community spirit to ensure the cleanliness of shared spaces. Besides stipulating standards and enforcement, government efforts can also be directed at empowering the public. The government can partner the community to mobilise “ambassadors” to emphasise cleanliness norms to the public, and promote active citizenry in keeping public spaces clean. While there are established feedback channels which many are familiar with to report on cleaning matters, the government should further look at improving the public’s access to, and their confidence in, these channels.

Methodology

This study received clearance from the Singapore Management University Institutional Review Board (IRB). The survey sample was obtained using a Department of Statistics (DOS) listing of households. The identified households were approached by interviewers from a market research company, Nexus Link Pte. Ltd. with a tablet containing the survey. The survey carried a Singapore Management University Participant Information Sheet, which assured prospective participants of the confidentiality and anonymity of their responses.

Those who agreed to participate in the study completed the survey on their own except for those who were illiterate in any official language. Upon completion, interviewers would retrieve the tablet from the respondents. In total, there were 2007 completed responses. This provided an overall response rate of approximately 67% of eligible households. The survey sample is representative of the demographics of the Singapore resident population. Details are provided in Table 1A.

Table 1A: Profile of Respondents

Sample Characteristics	2017 (%)	2018 (%)	2019 (%)	2021 (%)
<i>Age</i>				
21-34 years old	27	25	26	26
35-49 years old	30	29	29	28
50-64 years old	28	28	28	27
65 > years old	16	17	17	19
<i>Gender</i>				
Male	49	50	48	45
Female	52	50	52	55
<i>Ethnicity/Race</i>				
Chinese	76	76	76	76
Malay	12	13	12	13
Indian	9	9	9	9
Others	3	3	3	3
<i>Educational Attainment</i>				
Secondary and below	43	41	39	38
Diploma/ 'A' -Levels/post sec	33	32	26	29
Degree & Prof qualification	23	25	35	34
<i>Housing Type</i>				
3 room or smaller HDB	27	23	26	26
4 room or bigger HDB	66	59	57	58
Private	7	19	17	17

Details of Public Cleanliness Satisfaction index

Table 2A: Public Cleanliness Satisfaction Index

Domains / Spaces		Proportion Satisfied (%)	Proportion Satisfied with Domain (%)	Overall Proportion Satisfied across all Spaces (%) [Public Cleanliness Satisfaction Index]
Transport	Roads	94 98 95 (95)	2021: 96 2019: 98 2018: 95 2017: 93	2021: 92 2019: 93 2018: 84 2017: 82
	Bus Stop	95 98 92 (88)		
	Bus Interchange	98 99 95 (94)		
	MRT/LRT Station	99 99 98 (97)		
Leisure	Parks/Park Connectors	96 97 88 (89)	2021: 97 2019: 97 2018: 89 2017: 89	
	Shopping Malls in Housing Estates	99 99 95 (93)		
	Playgrounds	97 95 83 (82)		
Food Outlets	Coffeeshops	77 86 65 (65)	2021: 85 2019: 89 2018: 71 2017: 69	
	Hawker Centres	83 87 62 (60)		
	Food Courts (Air-Conditioned)	96 95 87 (86)		
	Wet Markets	84 85 73 (65)		
Neighbourhood	HDB Town Centre	97 95 90 (89)	2021: 90 2019: 90 2018: 79 2017: 79	
	Void decks /Corridors /Lift lobbies	86 86 74 (73)		
	Lift to your home	90 90 79 (79)		
Commuter Paths	Pavements / Walkways	93 94 87 (87)	2021: 92 2019: 93 2018: 85 2017: 83	
	Overhead Bridges /Foot Bridges	91 97 91 (90)		
	Underpasses	92 94 88 (84)		
	Roadside Drains	89 89 78 (71)		
	Grass Patches next to Pavements	93 91 82 (81)		
Public Events	After Public Events (e.g. NDP, Concerts, Sporting events, etc.)	94 88 74 (63)	N.A.	

Figures in parenthesis refer to proportions from the 2017 wave of PCSS. Figures in black ink not bolded refer to proportions from 2018 wave of PCSS. Figures in red ink refer to proportions from 2019 wave of PCSS. Figures in black ink and bolded refer to proportions from 2021 wave of PCSS.