Supplementary figures and tables to research findings announced on Friday, 14 September 2012

Study 1: Assessing the Impacts of the Macao 2012 Smoking Ordinance
(Conducted by ITRC)

Study 2: Factors affecting the smoking behavior of tourists
(Conducted by IFT academics Mr. Samson Leong and Dr. Cindia Lam)

IFT Tourism Research Centre (ITRC)
Institute for Tourism Studies, Macao

http://www.ift.edu.mo/itrc
Supplementary to the first study: Assessing the Impacts of the Macao 2012 Smoking Ordinance

(1) Responses within 2-month after the ordinance took effect

1.1 Awareness and general opinions towards smoking ordinance

Fig. 1.1.1 Awareness of smoking ordinance

<table>
<thead>
<tr>
<th>Visitors</th>
<th>Residents (n=537)</th>
<th>Visitors overall (n=531)</th>
<th>First-time (n=179)</th>
<th>Repeat (n=349)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Residents</td>
<td>98.1</td>
<td>1.9</td>
<td>74.2</td>
<td>25.8</td>
</tr>
<tr>
<td>Visitors overall</td>
<td></td>
<td></td>
<td>69.3</td>
<td>30.7</td>
</tr>
<tr>
<td>First-time</td>
<td></td>
<td></td>
<td>77.1</td>
<td>22.9</td>
</tr>
<tr>
<td>Repeat</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Fig. 1.1.2 In general, do you agree to legislate against smoking?

<table>
<thead>
<tr>
<th>Visitors</th>
<th>Residents (n=538)</th>
<th>Visitors overall (n=531)</th>
<th>First-time (n=179)</th>
<th>Repeat (n=349)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
<td>Disagree</td>
<td>No comment</td>
<td></td>
</tr>
<tr>
<td>Residents</td>
<td>78.1</td>
<td>16.9</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Visitors overall</td>
<td>79.3</td>
<td>14.7</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>First-time</td>
<td>79.9</td>
<td>14.5</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Repeat</td>
<td>78.8</td>
<td>14.9</td>
<td>6.3</td>
<td></td>
</tr>
</tbody>
</table>
1.2 Perceived air quality in 2-month after the ordinance took effect in ten areas

The following charts presents the air quality due to smoking perceived by 1) residents compared to pre-ordinance period; 2) First-time visitors compared to their expectation; and 3) Repeat visitors compared to their last visit to Macao prior to the ordinance:

Fig. 1.2.1 Public services and facilities

Fig. 1.2.2 Restaurants and F&B outlets

Fig. 1.2.3 Transportation hub and bus stop

Fig. 1.2.4 Parks

<table>
<thead>
<tr>
<th></th>
<th>Residents (n=530)</th>
<th>First-time (n=137)</th>
<th>Repeat (n=242)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>38.5</td>
<td>46.0</td>
<td>50.4</td>
</tr>
<tr>
<td>First-time</td>
<td>1.9</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Repeat</td>
<td>59.6</td>
<td>53.3</td>
<td>48.8</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Residents (n=540)</th>
<th>First-time (n=179)</th>
<th>Repeat (n=299)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>14.3</td>
<td>83.1</td>
<td>27.1</td>
</tr>
<tr>
<td>First-time</td>
<td>2.6</td>
<td>74.3</td>
<td>71.2</td>
</tr>
<tr>
<td>Repeat</td>
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<td>74.3</td>
<td>58.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Residents (n=540)</th>
<th>First-time (n=178)</th>
<th>Repeat (n=294)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>30.2</td>
<td>29.8</td>
<td>35.0</td>
</tr>
<tr>
<td>First-time</td>
<td>14.3</td>
<td>6.2</td>
<td>8.8</td>
</tr>
<tr>
<td>Repeat</td>
<td>55.6</td>
<td>64.0</td>
<td>56.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Residents (n=533)</th>
<th>First-time (n=155)</th>
<th>Repeat (n=252)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>34.0</td>
<td>33.5</td>
<td>36.9</td>
</tr>
<tr>
<td>First-time</td>
<td>6.6</td>
<td>4.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Repeat</td>
<td>56.1</td>
<td>59.5</td>
<td>58.7</td>
</tr>
</tbody>
</table>
Fig. 1.2.5 Entertainments (e.g. cinemas, theaters, Karaoke etc.)

Fig. 1.2.6 Casinos

Fig. 1.2.7 Hotels (public area)

Fig. 1.2.8 General indoor area

Fig. 1.2.9 General outdoor area

Fig. 1.2.10 Workplace (residents only, n=504)
1.3 Influences on residents' behaviors

Fig. 1.3.1 Smoking behavior (smokers only, n=111)

Fig. 1.3.2 Dining out (n=536)

Fig. 1.3.3 Concerning about own health (n=538)

Fig. 1.3.4 Concerning about others' health (n=539)

Fig. 1.3.5 Since the smoking-ban was implemented in 2012, in choosing places for dining:

- **Go to the same restaurants and bars (n=538)**
  - More often: 49.6%
  - Less often: 50.4%

- **Try new or different restaurants and bars (n=538)**
  - Yes: 66.0%
  - No: 34.0%

- **More specific in choice (n=537)**
  - Yes: 45.1%
  - No: 54.9%
1.4 Influences on visitors’ behaviors

Fig. 1.4.1 Will the smoking ordinance affect your intention to visit Macao again?

1.5 Demographics

Fig. 1.5.1 Gender
Fig. 1.5.2 Education

Fig. 1.5.3 Age

Fig. 1.5.4 Visitors’ place of residence (n=537)
(2) 6-month later responses

2.1 Awareness and general opinions towards smoking ordinance

Fig. 2.1.1 Awareness of smoking ordinance

<table>
<thead>
<tr>
<th></th>
<th>Residents (n=479)</th>
<th>Visitors Overall (n=479)</th>
<th>First-time (n=151)</th>
<th>Repeat (n=328)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Awareness</strong></td>
<td>97.7</td>
<td>64.5</td>
<td>57.6</td>
<td>67.7</td>
</tr>
<tr>
<td><strong>Residents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Visitors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>First-time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Repeat</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 2.1.2 In general, do you agree to legislate against smoking?

<table>
<thead>
<tr>
<th></th>
<th>Residents (n=479)</th>
<th>Visitors Overall (n=479)</th>
<th>First-time (n=151)</th>
<th>Repeat (n=328)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agree</strong></td>
<td>73.3</td>
<td>73.9</td>
<td>75.5</td>
<td>73.2</td>
</tr>
<tr>
<td><strong>Disagree</strong></td>
<td>7.9</td>
<td>6.7</td>
<td>6.0</td>
<td>7.0</td>
</tr>
<tr>
<td><strong>No comment</strong></td>
<td>18.8</td>
<td>19.4</td>
<td>18.5</td>
<td>19.8</td>
</tr>
</tbody>
</table>
2.2 Perceived air quality in 6-month after the ordinance took effect in ten areas

The following charts presents the air quality due to smoking perceived by 1) residents compared to pre-ordinance period; 2) First-time visitors compared to their expectation; and 3) Repeat visitors compared to their last visit to Macao prior to the ordinance:

**Fig. 2.2.1 Public services and facilities**

<table>
<thead>
<tr>
<th>Visitors</th>
<th>Residents (n=472)</th>
<th>First-time (n=122)</th>
<th>Repeat (n=92)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35.8</td>
<td>36.9</td>
<td>53.3</td>
</tr>
<tr>
<td></td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>64.2</td>
<td>63.1</td>
<td>46.7</td>
</tr>
</tbody>
</table>

**Fig. 2.2.2 Restaurants and F&B outlets**

<table>
<thead>
<tr>
<th>Visitors</th>
<th>Residents (n=478)</th>
<th>First-time (n=146)</th>
<th>Repeat (n=112)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13.8</td>
<td>19.2</td>
<td>26.8</td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>1.4</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>85.4</td>
<td>79.5</td>
<td>72.3</td>
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</table>

**Fig. 2.2.3 Transportation hub and bus stop**

<table>
<thead>
<tr>
<th>Visitors</th>
<th>Residents (n=477)</th>
<th>First-time (n=146)</th>
<th>Repeat (n=108)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>32.7</td>
<td>36.3</td>
<td>48.1</td>
</tr>
<tr>
<td></td>
<td>16.4</td>
<td>2.1</td>
<td>4.6</td>
</tr>
<tr>
<td></td>
<td>50.9</td>
<td>61.6</td>
<td>47.2</td>
</tr>
</tbody>
</table>

**Fig. 2.2.4 Parks**

<table>
<thead>
<tr>
<th>Visitors</th>
<th>Residents (n=467)</th>
<th>First-time (n=135)</th>
<th>Repeat (n=103)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>33.2</td>
<td>40.7</td>
<td>46.6</td>
</tr>
<tr>
<td></td>
<td>4.7</td>
<td>0.0</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>62.1</td>
<td>59.3</td>
<td>51.5</td>
</tr>
</tbody>
</table>

Legend: Notably better, Notably worse, The same as
Fig. 2.2.5 Entertainments (e.g. cinemas, theaters, Karaoke etc.)

Fig. 2.2.6 Casinos

Fig. 2.2.7 Hotels (public area)

Fig. 2.2.8 General indoor area

Fig. 2.2.9 General outdoor area

Fig. 2.2.10 Workplace (residents only, n=446)
2.3 Influences on residents’ behaviors

**Fig. 2.3.1 Smoking behavior (smokers only, n=105)**

- More often: 54.3%
- Less often: 42.9%
- The same: 2.9%

**Fig. 2.3.2 Dining out (n=473)**

- More often: 69.8%
- Less often: 24.5%
- The same: 5.7%

**Fig. 2.3.3 Concerning about own health (n=473)**

- More often: 54.3%
- Less often: 45.0%
- The same: 6.0%

**Fig. 2.3.4 Concerning about others’ health (n=473)**

- More often: 48.2%
- Less often: 50.7%
- The same: 1.1%

**Fig. 2.3.5 Since the smoking-ban was implemented in 2012, in choosing places for dining:**

- Go to the same restaurants and bars (n=472)
  - Yes: 41.7%
  - No: 58.3%

- Try new or different restaurants and bars (n=472)
  - Yes: 39.4%
  - No: 60.6%

- More specific in choice (n=472)
  - Yes: 38.1%
  - No: 61.9%
2.4 Influences on visitors’ behaviors

Fig. 2.4.1 Will the smoking ordinance affect your intention to visit Macao again?

2.5 Demographics

Fig. 2.5.1 Gender
Fig. 2.5.2 Education

Fig. 2.5.3 Age

Fig. 2.5.4 Visitors’ place of residence (n=474)
Supplementary to the second study: Factors affecting the smoking behavior of tourists

(3) Factors affecting the smoking behavior of tourists

Table 3.1 Demographics of the sample

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>791</td>
<td>78.39%</td>
<td>18-20</td>
<td>29</td>
<td>2.87%</td>
</tr>
<tr>
<td>Female</td>
<td>218</td>
<td>21.61%</td>
<td>21-30</td>
<td>461</td>
<td>45.69%</td>
</tr>
<tr>
<td>Total</td>
<td>1009</td>
<td>100%</td>
<td>31-40</td>
<td>263</td>
<td>26.07%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>41-50</td>
<td>170</td>
<td>16.85%</td>
</tr>
<tr>
<td>Place of Origin</td>
<td></td>
<td></td>
<td>51-60</td>
<td>74</td>
<td>7.34%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>326</td>
<td>32.31%</td>
<td>&gt;=61</td>
<td>12</td>
<td>1.19%</td>
</tr>
<tr>
<td>Mainland China</td>
<td>533</td>
<td>52.82%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>150</td>
<td>14.87%</td>
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</table>

Fig. 3.1 Correlations among constructs in the TPB model

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<table>
<thead>
<tr>
<th>Construct</th>
<th>Correlation</th>
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</thead>
<tbody>
<tr>
<td>Attitude Toward the Behavior</td>
<td>+0.63</td>
</tr>
<tr>
<td>Subject Norm</td>
<td>+0.42</td>
</tr>
<tr>
<td>Perceived Behavioral Control</td>
<td>+0.38</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>+0.59</td>
</tr>
<tr>
<td>Behavior</td>
<td></td>
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```

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Fig. 3.2 Percentage of smoking ordinance violations as at 2012 August


Contact

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