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The Role of Locus of Control in Driving Pro Environmental Behavior in Hospitality

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The Role of Locus of Control in Driving Pro-Environmental Behavior in Hospitality

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Business, Economics and Public Administration Session
Friday, April 26, 2019



Background



From Big Sur Coast, by Monterey County & Convention Visitors Bureau, n.d.
Retrieved from <https://seemonterey.com>



Research Questions

- How do guests' beliefs about their ability to influence environmental outcomes influence the factors they find important when booking and staying at a hotel?
- How does that belief interact with their feelings of guilt and the beliefs of important others to affect sustainable behavior, particularly recycling?



Locus of Control

Locus of Control

*Perception and reaction
towards rewards and
reinforcements (Rotter, 1966)*

Internal LOC

*Belief that personal
actions bring results
(Lefcourt, 1991)*

External LOC

*Belief that external
actions bring results
(Lefcourt, 1991)*



Internal Locus of Control



BAD grade

"I must not have studied enough. I can do better next time."

GOOD grade

"I'm so glad I studied hard!"

External Locus of Control



BAD grade

"The test was flawed. There's no way to do well."

GOOD grade

"The instructor must have graded wrongly."

Internal and External Locus of Control, by University of Washington, n.d. Retrieved from <https://canvas.uw.edu/courses/908827/pages/internal-and-external-locus-of-control>



Guilt

Guilt

*Increases perceived
consumer effectiveness
(Antonetti & Maklan, 2014)*

Stimulate pro-social, pro-
environmental behavior

*(Granzin and Olsen, 1991, Steenhaut &
Van Kenhove 2005, 2006)*

Self-control

*(Blasi, 1999; Mellers & McGraw, 2001;
Baumeister, 2002)*



Subjective Norm

Subjective
Norm

*Perception of how important
others evaluate behavior
(Ajzen & Fishbein, 1980)*

Positive

*Approval of
important others*

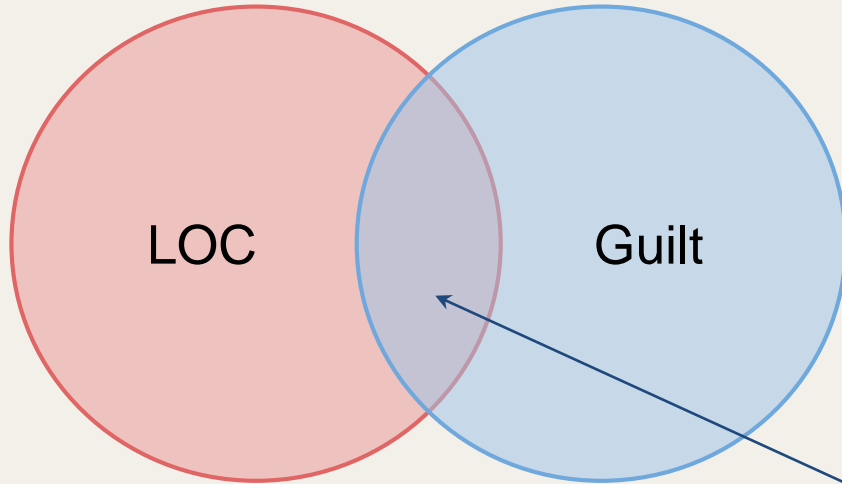
Negative

*Disapproval of
important others*

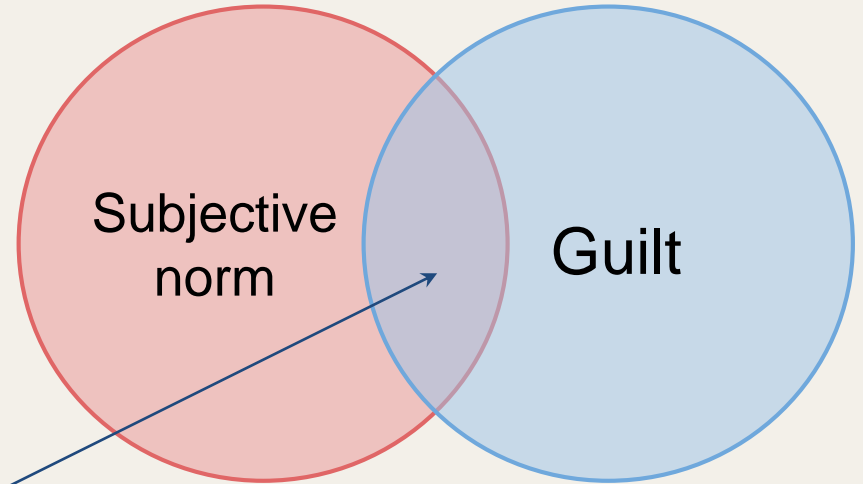


Literature Review

Antonetti & Maklan (2014)



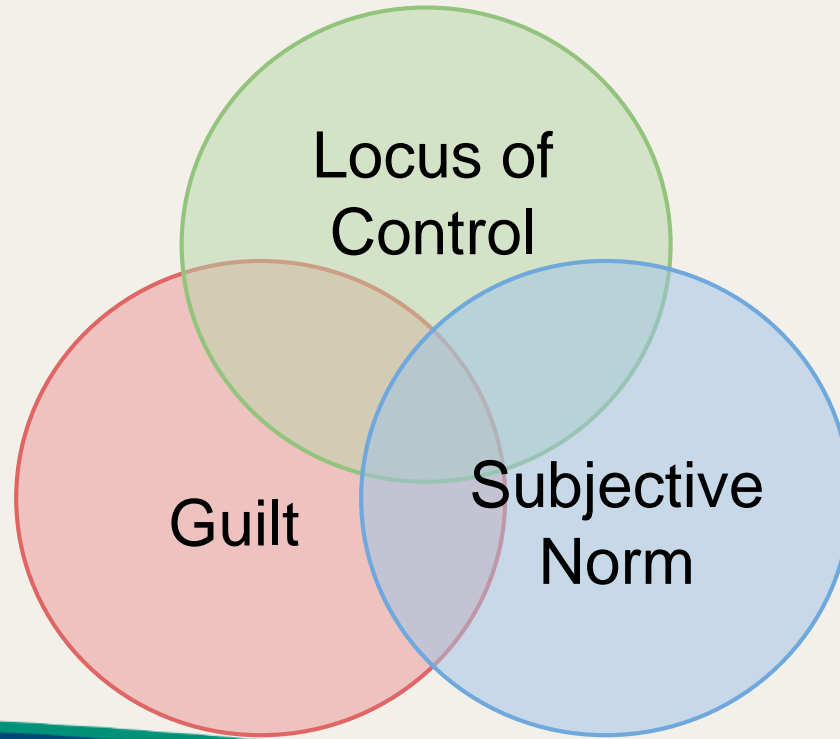
Biswas, Licata, McKee,
Puling, & Daughtridge (2000)



Purchasing and recycling behavior



Literature Review (cont'd)



Hypotheses

H₁: When *selecting accommodations*, guests with **internal LOC** will find **hotel environmental practices more important** than guests with external LOC.

H₂: During their stay, guests with **internal LOC** will find **sustainable hotel practices more important** than those with external LOC.



Hypotheses

H_{3a}: Under the negative subjective norm with feelings of **high guilt**, there will be **no significant differences in recycling behavior** among those with internal vs. external LOC.

H_{3b}: Under the negative subjective norm with feelings of **low guilt**, those with **internal LOC will display stronger recycling behavior** compared to those with external LOC.



Methods

- Data collection
 - Digital survey
 - 200 respondents

- Participants
 - Tourists to Monterey, CA
 - Students from CSUMB
- Sample descriptives
 - Age: 18-25 (49%)
 - Gender: Female (48.5%)
 - Median income: <\$30k (35.5%)



Measures

| Independent Variable | Example of Item | Scale | Reference | Median Split |
|----------------------|---|---|---|-----------------------------------|
| Locus of Control | Through my personal choices, I can contribute to the solution of environmental issues | “Strongly disagree” (1) to “Strongly agree” (5) | Antonetti & Maklan (2014) | Low (external) High (internal) |
| Guilt | When I fail to recycle I feel guilty | “Strongly disagree” (1) to “Strongly agree” (7) | Antonetti & Maklan, (2014) Biswas, Licata, McKee, Puling, & Daughtridge (2000) | Low High |
| Subjective Norm | If I recycle on a regular basis, most people who are important to me would: | “Disapprove”(1); “Approve” (5) | Biswas, Licata, McKee, Puling, & Daughtridge (2000) | Low (negative) High (positive) |



Measures

| Dependent Variable | Example of Items | Scale | Reference |
|---|-------------------------------------|---|-------------------------------|
| Importance of factors in selecting accommodations | Location Environmental practices | “Not at all important” (1) and “very important” (5) | Han, Hsu, Lee, & Sheu (2011) |
| Importance of sustainable hotel practices | Reuse sheet Reuse towel | “Strongly disagree” (1) to “Strongly agree” (5) | Baker, Davis, & Weaver (2013) |
| Frequency of recycling behavior | To which extent do you recycle? | “Never recycle” (1) and “always recycle” (7) | Antonetti & Maklan (2014) |



Analysis

- Median split
 - High/Low
 - 2 (LOC: internal vs. external) x 2 (Subjective norm: internal vs. external) x 2 (Guilt: high vs. low) ANOVA
- ANOVA tests
 - Main effects
 - Interaction effects



Analysis

- Three-way ANOVA
 - 2 (LOC: internal vs. external) x 2 (Subjective norm: positive vs. negative) x 2 (Guilt: high vs. low) ANOVA
 - Median split
 - Main effects
 - Interaction effects

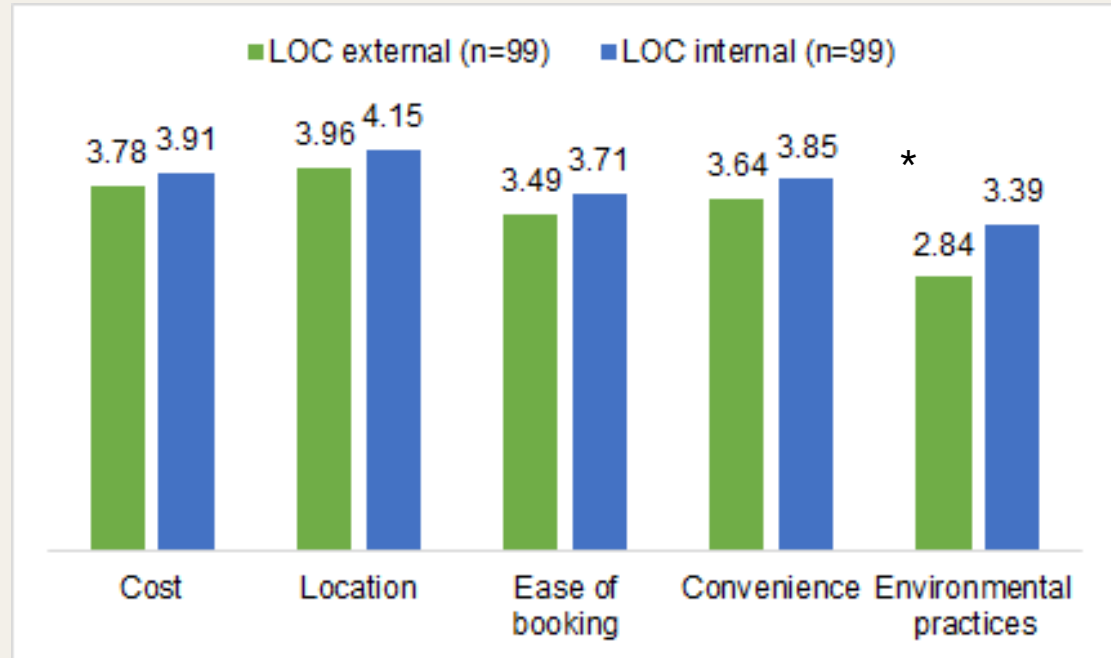


Results



Factors for Selecting Hotel Accommodations

- When booking a hotel, **environmental practices** are more important for **internal LOC** than external LOC
- Supports H1

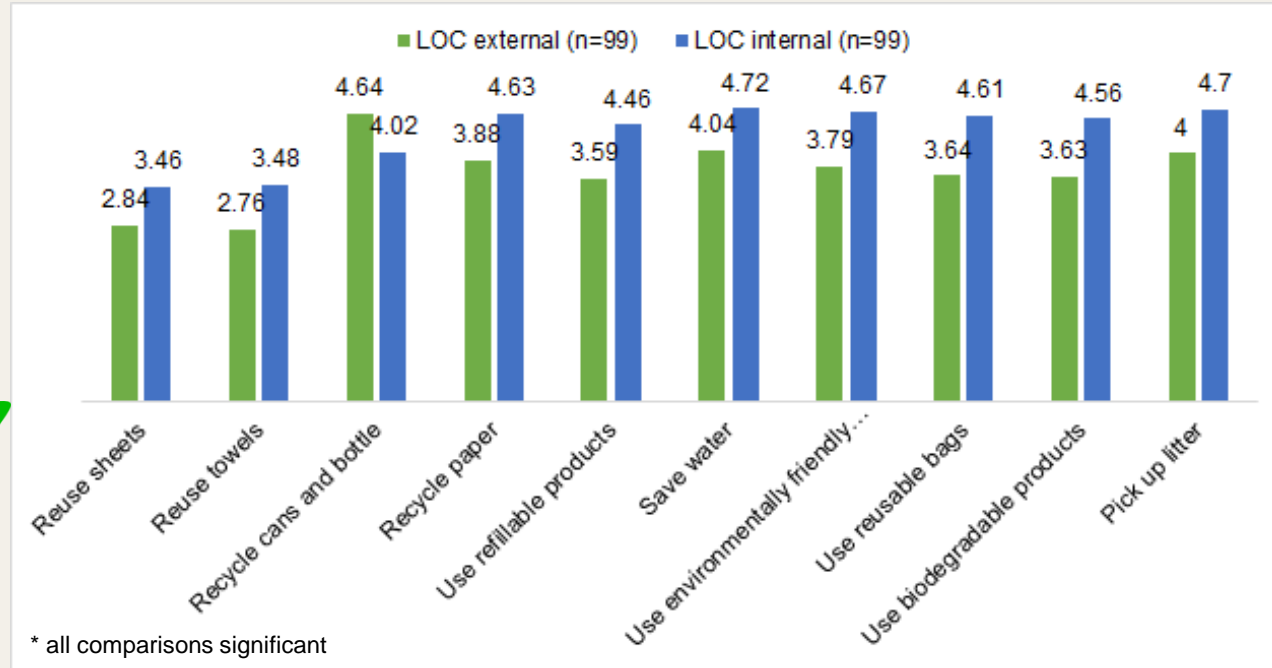


$t(196) = -3.25$ $p = .001$



Importance of Sustainable Hotel Practices

- **Internal LOC** rated all **hotel sustainable practices** as more important than external LOC
- Supports H2



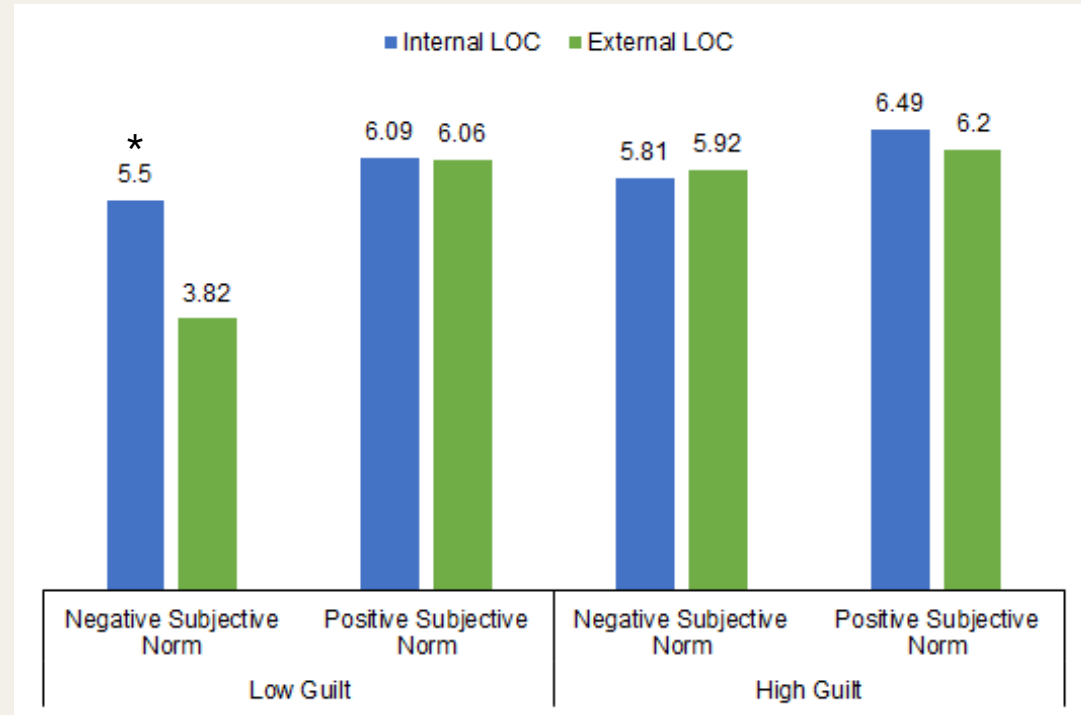
Conclusion: H1 & H2

Guests with internal LOC (vs. external LOC) consider pro-environmental practices **more important** when 1) **booking a hotel**, and also 2) **during their stay**.



Guilt and SN on Recycling Behavior

- **Recycling behaviors** of internal vs. external LOC differ under the influence of **negative SN** under **low guilt**
- Recycling behavior of **internal LOC** is significantly higher than external LOC
- Support H3a & H3b



Conclusion: H3a & H3b

Even *without* motivation of their peers (negative SN) and under feeling of low guilt, **internal locus of control** encourages consumers to recycle more



Discussion

- Implications
 - Guilt messaging
- Limitations
 - Convenience sample
 - Students & tourists
- Future research
 - Comparing student vs. tourist samples
 - Experiment with message framing
 - Field study at local hotel



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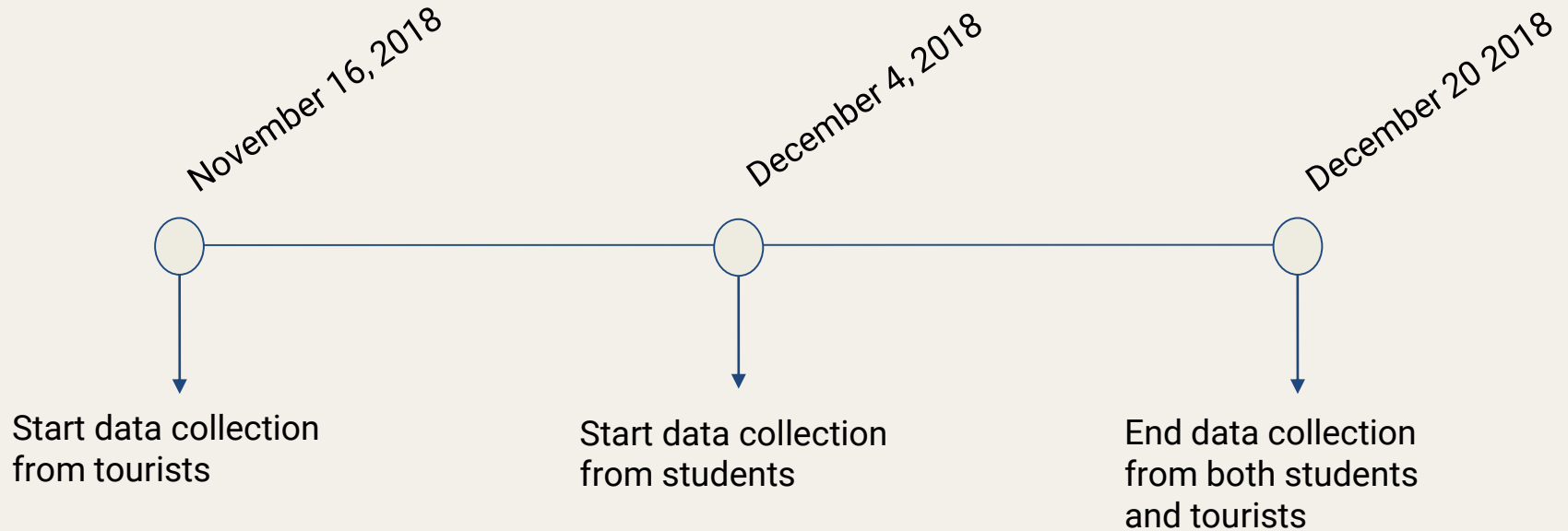


Thank You!



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MONTEREY BAY

Data Collection Timeline



LOC Scale

Please read and rate the following statements:

| | Strongly disagree (1) | Somewhat disagree (2) | Neither agree nor disagree (3) | Somewhat agree (4) | Strongly agree (5) |
|---|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|
| Through my personal choices, I can contribute to the solution of environmental issues | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



Subjective Norm Scale

If I recycled on a regular basis, most people who are important to me would:

| | 1 | 2 | 3 | 4 | 5 | |
|------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------|
| Disapprove | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Approve |



Guilt Scale

Please rate the following statements :

| | Strongly disagree (1) | Disagree (2) | Somewhat disagree (3) | Neither agree nor disagree (4) | Somewhat agree (5) | Agree (6) | Strongly agree (7) |
|--------------------------------------|--------------------------|-----------------------|--------------------------|-----------------------------------|-----------------------|-----------------------|-----------------------|
| When I fail to recycle I feel guilty | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



When selecting a hotel accommodation, how important are each of the following factors:

| | Not at all important (1) | Slightly important (2) | Moderately important (3) | Very important (4) | Extremely important (5) |
|-------------------------|--------------------------|------------------------|--------------------------|-----------------------|-------------------------|
| Environmental practices | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



The following is a list of hotel practices. To what extent do you agree or disagree that hotels should perform these routine:

| | Strongly disagree (1) | Somewhat disagree (2) | Neither agree nor disagree (3) | Somewhat agree (4) | Strongly agree (5) |
|--------------|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|
| Reuse sheets | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



To which extent do you recycle

| | Never recycle (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|-----|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| (1) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



T-Test H1 & H2

- When selecting hotel accommodations, LOC played a significant part in the importance of environmental practices ($t(196) = -3.25$ $p = .001$).
- Guests with internal LOC placed a higher importance on environmental practices than did guests with external LOC (internal $M=3.39$; external $M=2.84$)



T-Test H3

- **Under low guilt & negative subjective norm**, there is a **significant differences** between internal vs. external LOC ($t(69) = -3.21$ $p = .002$) (Internal $M= 5.50$; External $M=3.82$)
- **Under low guilt & positive subjective norm**, there is **non significant differences** between internal vs. external LOC ($t(37) = -.103$ $p = ,010$) (Internal $M= 9.09$; External $M=6.06$)
- **Under high guilt & negative subjective norm**, there is **non significant differences** between internal vs. external LOC ($t(26) = ,25$ $p= ,806$) (Internal $M= 5,81$; External $M=5,92$)
- **Under high guilt & positive subjective norm**, there is **non significant differences** between internal vs. external LOC ($t(58) = -1,27$ $p = ,208$) (Internal $M= 6,49$; External $M=6,20$)

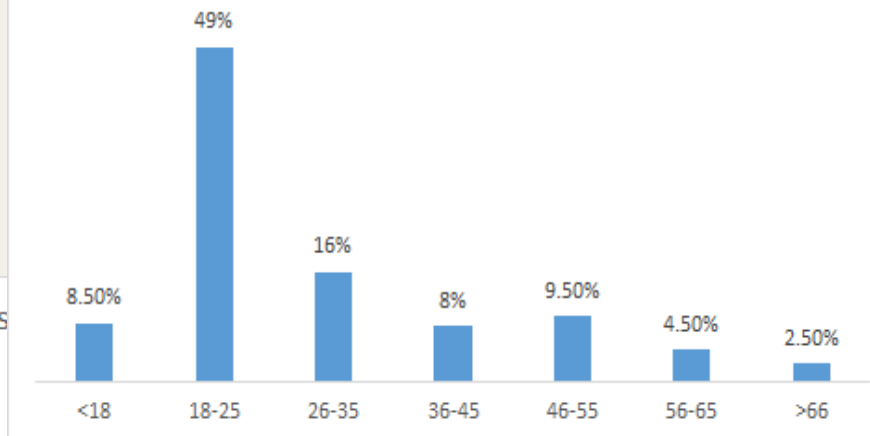


Three-way ANOVA

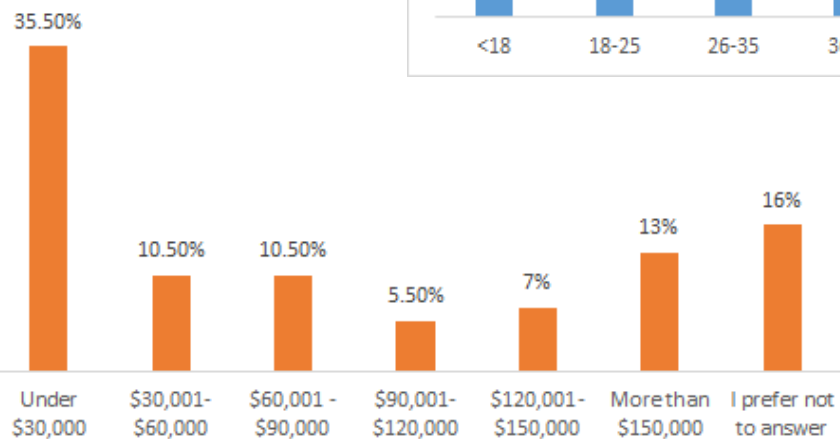
- Subjective norm (positive & negative) * Guilt (high & low) ($F(1, 190) = 4.75 p = .031$)
- Subjective norm (positive & negative) * LOC (internal & external) ($F(1, 190) = 2.14 p = .145$)
- Guilt (high & low) * LOC (internal & external) ($F(1,190) = 3.17 p = .077$)
- Subjective norm (positive & negative) * Guilt * LOC ($F(1,190) = 5.66, p = .018$)



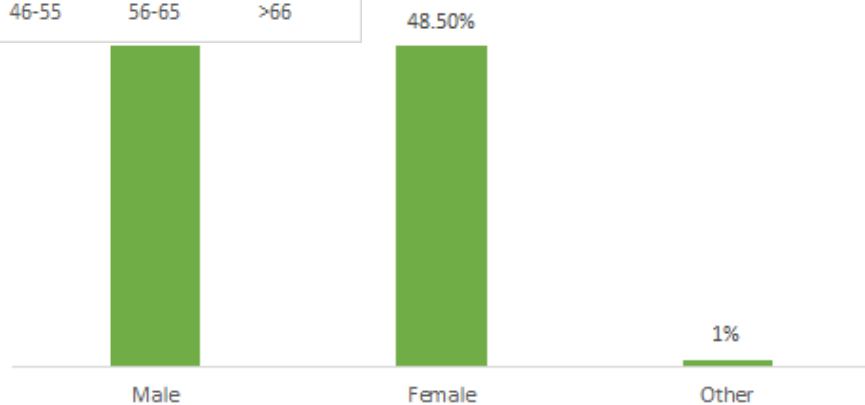
Age



Annual household income



Gender



Main effect

- LOC ($F(1, 190) = 5.92, p = .016$)
 - Internal LOC ($M = 6.13, SD = 1.01$) vs. external LOC ($M = 4.82, SD = 1.95$)
- Guilt ($F(1, 190) = 11.80, p = .001$)
 - High guilt ($M = 6.24, SD = 0.9$) vs. low guilt ($M = 4.86, SD = 1.90$)
- Subjective norm ($F(1, 190) = 6.28, SD = 0.86$)
 - Positive SN ($M = 6.28, SD = 0.86$) vs. negative SN ($M = 4.67, SD = 1.91$)



Interaction effects

Two-Way Interaction

- LOC and subjective norm on recycling behavior ($F(1, 194) = 8.34, p = .004$)
- LOC and guilt ($F(1,194) = 8.02, p = .005$)
- Subjective norm and guilt ($F(1, 194) = 9.92, p = .002$)

Three -way interaction

- The three-way interaction is driven by the negative subjective norm, particularly when comparing internal versus external LOC under low guilt ($F(1, 190) = 5.66, p = .018$). In these cases, the recycling behavior among those with internal LOC is significantly higher than those with external LOC (internal $M=5.50$; external $M=3.82, t(69) = -3.21, p= .002$). This



Table 2. Importance of Sustainable Hotel Practices

| | External LOC (n=99) | Internal LOC (n=99) | t | df | Sig |
|---------------------------------------|------------------------|------------------------|---------------|------------|------------------|
| Reuse sheets | 2.84 | 3.46 | -2.989 | 196 | 0.003 |
| Reuse towels | 2.76 | 3.48 | -3.569 | 196 | <0.001 |
| Recycle cans and bottle | 4.64 | 4.02 | -4.199 | 196 | <0.001 |
| Recycle paper | 3.88 | 4.63 | -4.879 | 196 | <0.001 |
| Use refillable products | 3.59 | 4.46 | -5.489 | 196 | <0.001 |
| Save water | 4.04 | 4.72 | -4.837 | 196 | <0.001 |
| Use environmentally friendly products | 3.79 | 4.67 | -6.206 | 196 | <0.001 |
| Use reusable bags | 3.64 | 4.61 | -6.583 | 196 | <0.001 |
| Use biodegradable products | 3.63 | 4.56 | -6.205 | 196 | <0.001 |
| Pick up litter | 4 | 4.7 | -4.578 | 196 | <0.001 |



Results

Table 1. Factors for selecting hotel accommodation

| | LOC external (n=99) | LOC internal (n=99) | t | df | Sig |
|--------------------------------|------------------------|------------------------|---------------|------------|--------------|
| Cost | 3.78 | 3.91 | -0.806 | 196 | 0.421 |
| Location | 3.96 | 4.15 | -1.309 | 196 | 0.192 |
| Ease of booking | 3.49 | 3.71 | -1.458 | 196 | 0.146 |
| Convenience | 3.64 | 3.85 | -1.471 | 196 | 0.143 |
| Environmental practices | 2.84 | 3.39 | -3.253 | 196 | 0.001 |

