The Role of Internal LOC in Driving Pro-Environmental Behavior in Hospitality

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Introduction

The hospitality industry contributes significantly to global climate change through its high resource consumption and emissions due to travel. As public pressure for hotels to develop sustainability initiatives to mitigate their footprint grows, a lack of understanding of green behavior and consumption of hotel guests (Baker, Davis, & Weaver, 2013; Millar & Baloglu, 2011) hinders the adoption of effective programs. Most tourism research thus far has focused on the ecotourism segment, rather than the general population of travelers (Dolcinar, Crouch, & Long, 2008), and while research in consumer behavior shows that locus of control (LOC) and guilt can influence guests' environmental behavior (Antonetti & Maklan, 2013; Biswas, Licata, McKee, Pullig, & Daughtridge, 2000), those factors have not been tested with consideration of the subjective norm to measure their interaction and effect on recycling behavior.

This study first examines the importance of internal and external LOC on factors for selecting hotel accommodation and the extent of agreement about hotel practices and, second, examines the differences in recycling behavior among guests with internal versus external LOC under levels of positive versus negative subjective norms and feelings of low versus high guilt.

Internal and External Locus of Control

Rotter's (1966) theory of generalized expectancies for control of reinforcement, more commonly known as locus of control (LOC), helps explain how people perceive and react differently to rewards and reinforcements depending on their LOC orientation. According to Lefcourt (1991), LOC broadly fits two categories: people with internal LOC believe personal actions bring results, while those with external LOC believe they have little influence over

outcomes. McCarty and Shrum (2001) found that the beliefs of those with a higher internal (versus external) LOC were positively related to the propensity to recycle. Thus, we expect that:

H_1 Guests with internal LOC will find hotel environmental practices more important than guests with external LOC when selecting accommodations.

H_2 Guests with internal LOC will find sustainable hotel practices more important than those with external LOC.

LOC Under Levels of Subjective Norms and Feelings of Guilt

Ajzen's theory of planned behavior states that subjective norms guide behavior with perceptions of how "important others" (as cited in Biswas, et al., 2000, p. 94) evaluate that behavior and its positive or negative social consequences. Antonetti and Maklan (2013) found that the emotions of guilt affected sustainable behavior by forcing the guest to connect their actions with sustainability outcomes. As such, we hypothesize that:

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

For this study, we were trained and administered an anonymous digital survey (with tablets) in the field to tourists who stayed at Monterey Bay area hotels and students who had recently stayed in hotels. Respondents were offered the option to complete the brief survey on their own or with help from us, in which case we read the questions verbatim to the respondent.

Measures

Main variables such as guests' level of internal versus external LOC (McCarty & Shrum 2001), emotions such as guilt (Antonetti & Maklan 2014; Biswas, et al., 2000), and subjective norms (Biswas, et al., 2000) were considered. Subjective norm was defined as positive or

negative using a set of three questions (Biswas et al., 2000) that asked guests to estimate how their friends and family felt about recycling behavior on a seven-point scale.

To measure the results, we first looked at the effect of internal and external LOC on importance (1 = not important; 5 = very important) of various factors for selecting hotel accommodations (Han, Hsu, Lee, & Sheu, 2011), and the differences in the extent to which guests agreed (1 = strongly disagree; 5 = strongly agree) on the importance of certain hotel practices (Baker et al, 2013).

We used a median split to create external and internal LOC. To identify their LOC orientation, guests rated four statements related to the effectiveness on their behavior, using a five-point Likert-type scale anchored by "strongly disagree" (1) and "strongly agree" (5) (Antonetti & Maklan, 2014). Scoring low here was defined as having external LOC, while scoring high was defined as having internal LOC.

We then analyzed the results with independent *t*-test and examined the three-way interaction between internal and external LOC effect on levels of guilt under negative and positive subjective norm.

Results

Main Effect (Locus of Control)

When selecting hotel accommodations, LOC played a significant part in the importance of environmental practices ($t(196) = -3.25$ $p = .001$), but not of cost, location, ease of booking, or convenience (see Table 1). Specifically, 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), which supports our first hypothesis that guests with internal LOC would find environmental practices more important than guests with external LOC when selecting hotel accommodations.

Guests with internal LOC reported higher agreement that hotels should perform environmentally friendly practices compared to guests with external LOC (see Table 2). All results for this factor were significant and support our second hypothesis that guests with internal LOC would find sustainable hotel practices more important than those with external LOC.

Two- and Three-Way Interaction

There were significant two-way interactions between LOC and subjective norm on recycling behavior ($F(1, 194) = 8.34$, $p = .004$), LOC & guilt ($F(1, 194) = 8.02$, $p = .005$), and subjective norm and guilt ($F(1, 194) = 9.92$, $p = .002$).

We conducted a factorial ANOVA to identify the interaction main effect of LOC ($F(1, 190) = 5.92$, $p = .016$), those with internal LOC ($M = 6.13$, $SD = 1.01$) reporting significantly more recycling behavior than those with external LOC ($M = 4.82$, $SD = 1.95$). There was also a significant main effect for guilt ($F(1, 190) = 11.80$, $p = .001$), those with high guilt ($M = 6.24$, $SD = 0.91$) reporting significantly more recycling behavior than those with low guilt ($M = 4.86$, $SD = 1.90$). Lastly, there was also a significant main effect for subjective norm ($F(1, 190) = 19.49$, $p = .000$), those with positive subjective norm ($M = 6.28$, $SD = 0.86$) reporting significantly more recycling behavior than with negative subjective norm ($M = 4.67$, $SD = 1.91$).

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; see Figure 1). This supports both parts of our third hypothesis: that there would be no significant differences in recycling behavior among those with internal versus external LOC under negative subjective

norm and high guilt, and that those with internal LOC versus external LOC would display stronger recycling behavior under negative subjective norm and low guilt.

Discussion

We found that, as expected, and consistent with previous research by Levenson (1974) and Rotter (1966) (as cited in Kalamas, Cleveland, & Laroche, 2014), guests with internal LOC considered pro-environmental hotel practices to be more important than did guests with external LOC, both when booking a hotel and in general. Then, in our analysis of the three-way interaction, we found that when guests were not motivated to recycle by guilt or by their peers, those with internal LOC displayed stronger recycling behavior than those with external LOC. When social norms discourage recycling and the guest doesn't feel guilty about not recycling, the internal conviction that recycling will contribute to the guest's environmental goals is what motivates them to act. Building off Cotte et. al., (2005) and Kalamas et. al., (2014), our study suggests that guests with internal vs. external LOC respond differently to environmentally framed messages and this is dependent on the levels of other important factors such as subjective norm and guilt.

Future Research

This study was completed as the initial step of a larger project to evaluate how LOC affects guest perceptions of environmental practices in hotels and guest motivations to recycle. Future studies will explore how message framing around LOC affects recycling behavior to determine how best to promote participation in recycling and potentially other hotel sustainability initiatives.

Appendix A

References

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Appendix B

Tables and Figures

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**

Table 2. The extent of agreement about hotel practices

	LOC external (n=99)	LOC internal (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**

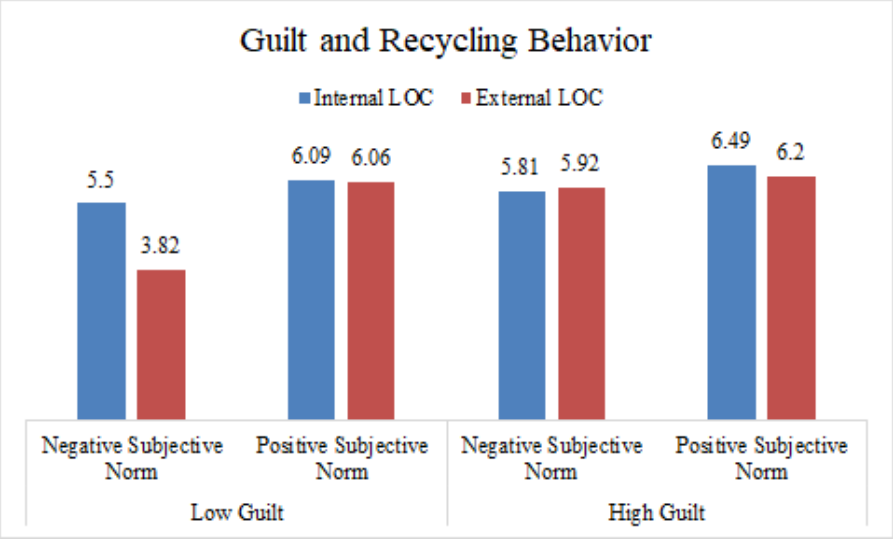

Figure 1. Guilt and Recycling Behavior