



UNIVERSITY OF HAWAII AT MĀNOA

SHIDLER COLLEGE
OF BUSINESS

SCHOOL OF TRAVEL
INDUSTRY MANAGEMENT

Exploring factors contributing to employee-residents' pro-environmental behavior.



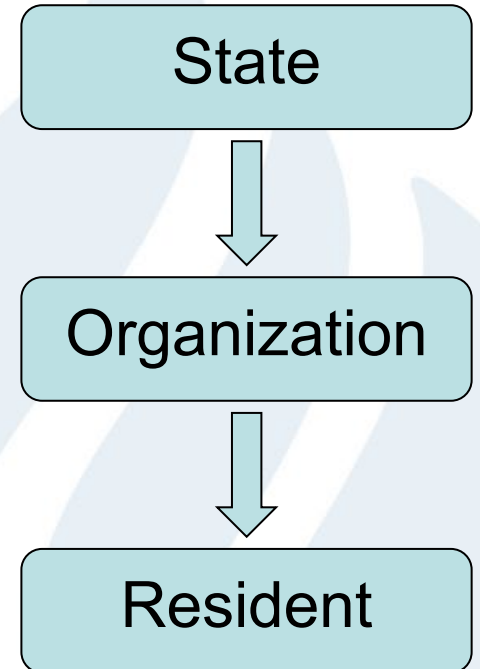
Lenna V. Shulga, PhD and Adiyukh Berbekova, PhD

Purpose of the Study

- MAIN: Examine the Effectiveness of State Sustainability Messaging
- Examine Employee-Residents (frequent travelers and convention goers) HI Sustainability Messaging Perceptions
- Examine how State Sustainability Messaging translates into Green Human Resource Management (Green HRM) for local businesses and into Pro-Environmental Behavior of the employee-residents at work (OCB-E) and in everyday life (PEB)



Identifying the factors leading to employee-residents' PEB is an important step in encouraging such behavior and promoting sustainable development.



Data Collection

- **Context: STATE OF HAWAII**

- Data were collected through an online self-administered survey on the Qualtrics survey platform.
- Members of four statewide professional associations (*Chamber of Commerce, Society of Human Resource Management Hawaii Chapter, Hospitality Sales and Marketing Association International Hawaii, Hawaii Society of Business Professionals*) were invited to participate in the study (n=2,366).

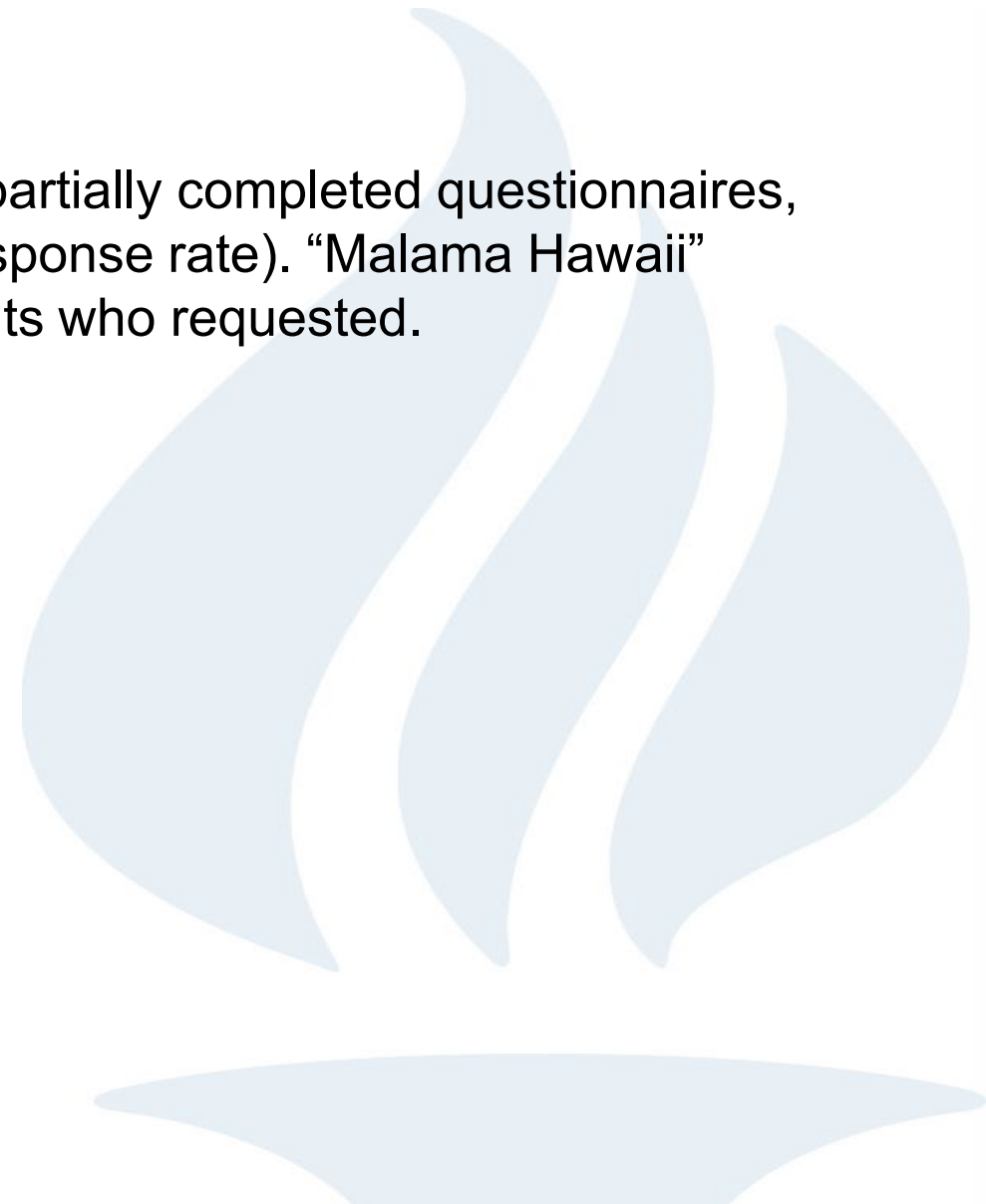


Findings

Demographic information

363 responses were collected, and after excluding data from partially completed questionnaires, **274** questionnaires were retained for further analysis (12% response rate). “Malama Hawaii” sticker was offered as a token of appreciation to all respondents who requested.

- Most (58.1%) respondents were female
- Married (62.8%)
- White (36.5%) and Asian (34.6%)
- Bachelor’s degree (43.3%)
- Earning more than \$150,000 annually (49.6%).
- Full-time employees (92.1%) in management positions (82.6%), in service industries (32.9%)



Findings

Awareness of different sustainability programs

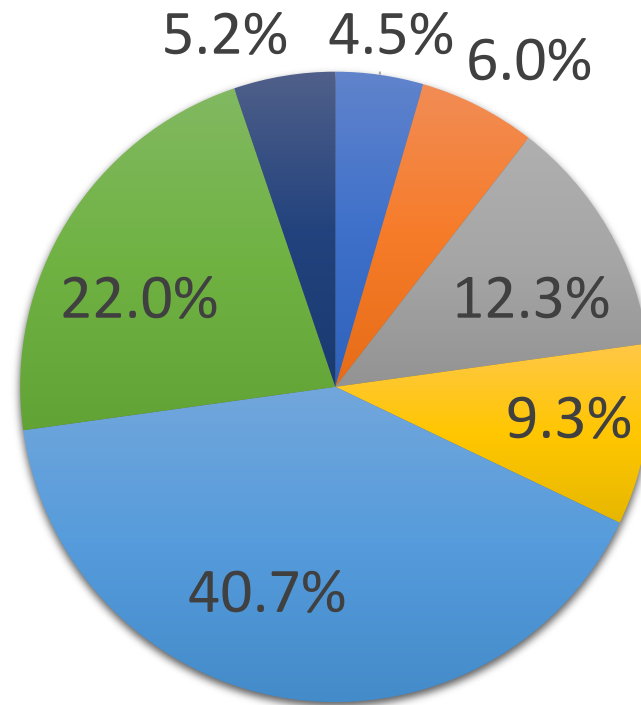
Top 5 Sustainability Programs

Program name	Frequency	Percent	Percent of cases
Malama Hawaii	128	22.4%	67.7%
Sustainable Hawaii	80	14.0%	42.3%
Kupu Hawaii	76	13.3%	40.2%
Statewide Sustainability Program	66	11.6%	34.9%
Hawaiian Legacy Reforestation Initiative	66	11.6%	34.9%

Findings

Perceived Green Image of the State of Hawaii

State of Hawaii has raised awareness about the environmental risks and impacts.



Strongly disagree

Disagree

Somewhat disagree

Neither agree nor disagree

Somewhat agree

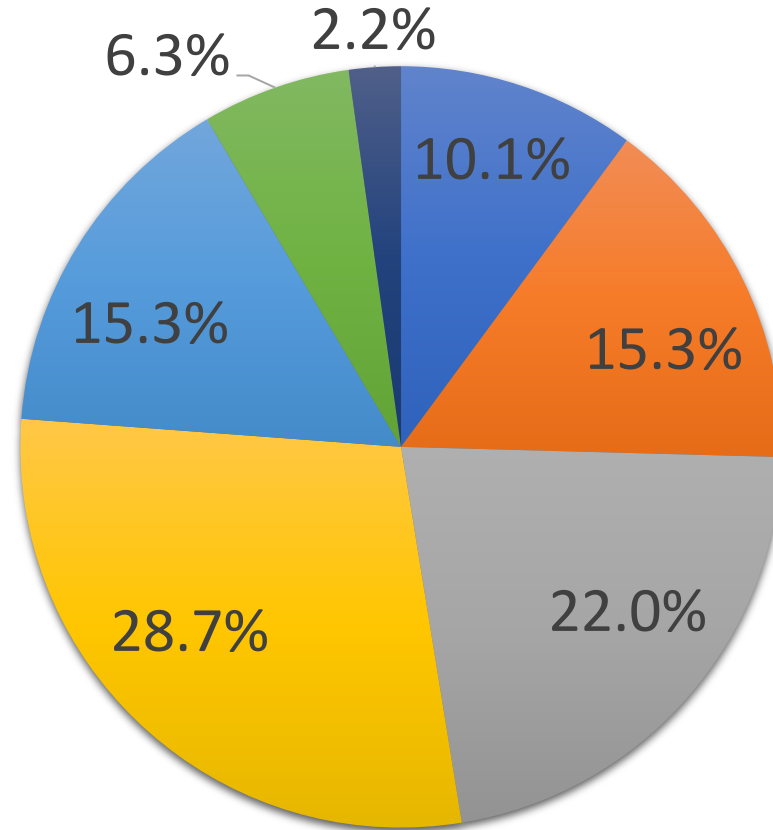
Agree

Strongly agree

Findings

Perceived Green Image of the State of Hawaii

State of Hawaii has been regarded as the best benchmark of environmental management.

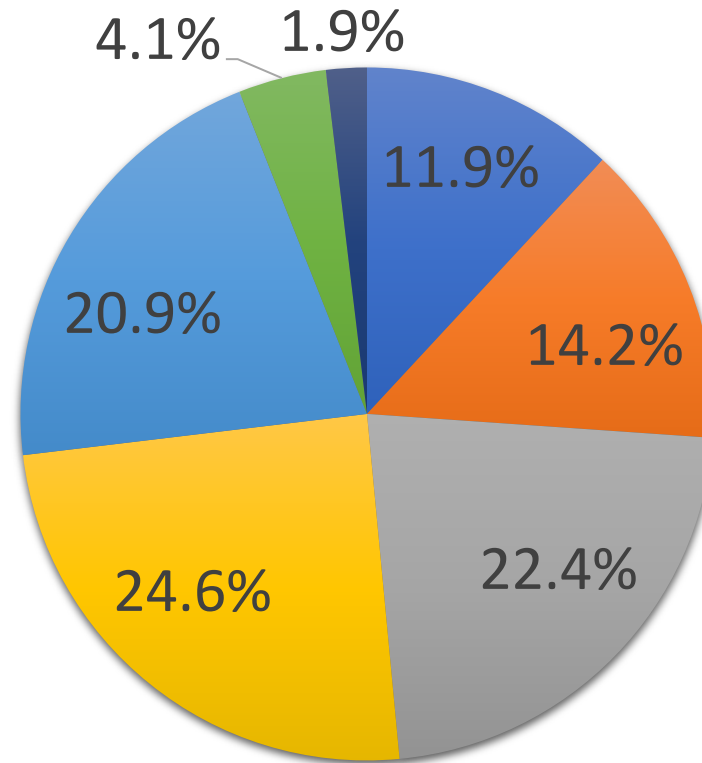


■ Strongly disagree ■ Disagree ■ Somewhat disagree ■ Neither agree nor disagree ■ Somewhat agree ■ Agree ■ Strongly agree

Findings

Perceived Green Image of the State of Hawaii

State of Hawaii has demonstrated the ability to reduce environmental impacts via corresponding environmental performance.

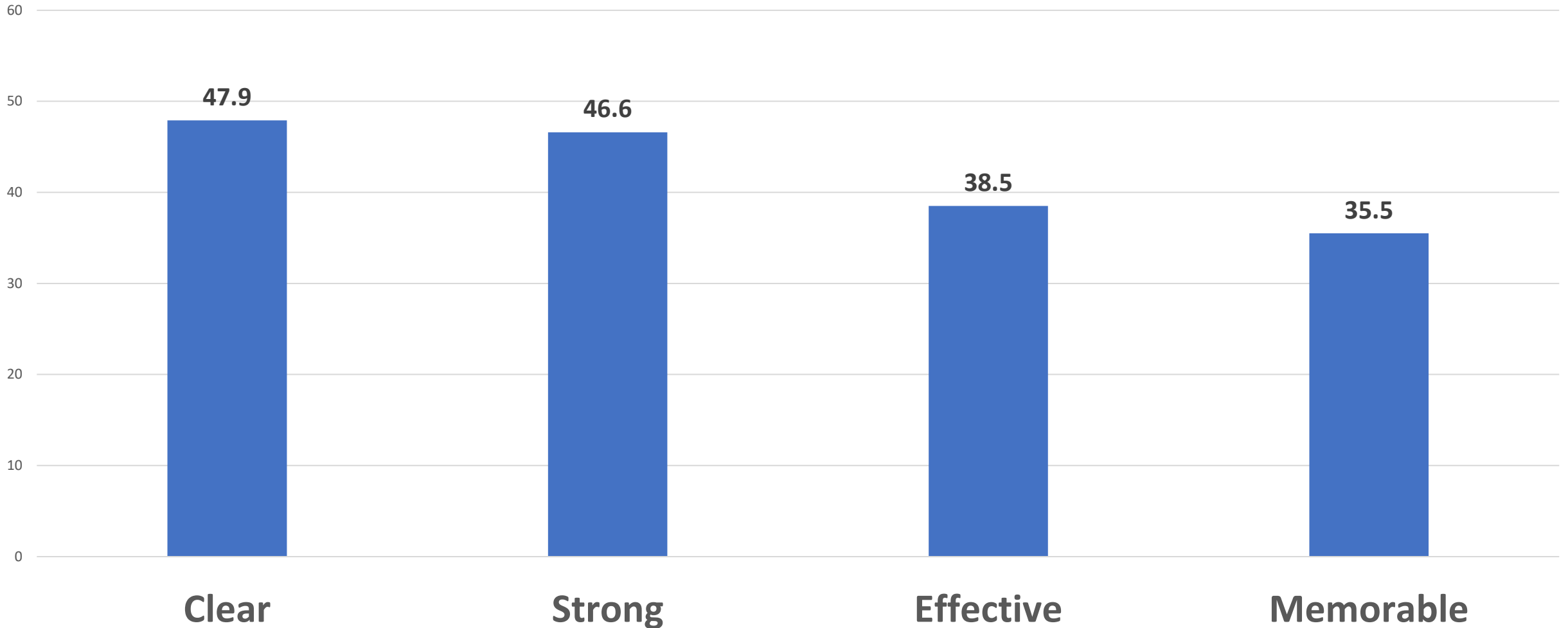


■ Strongly disagree ■ Disagree ■ Somewhat disagree ■ Neither agree nor disagree ■ Somewhat agree ■ Agree ■ Strongly agree

Findings

Perceived Effectiveness of the sustainability message in the State of Hawaii

Message Effectiveness (average scores on 1-100 scale)



Findings

Pro-Environmental Behavior – measure of one’s personal conscious actions aimed at reducing negative impacts of their everyday activities on the environment.

Statement	Mean score (on 1 – 5 scale) M = 2.87
Recycled paper, plastic and metal	4.32
Conserved water or energy in my home	4.18
Bought environmentally friendly and/or energy efficient products	4.09
Made my yard or my land more desirable for wildlife	3.06
Voted to support a policy/regulation that affects the local environment	3.05
Donated money to support local environmental protection	2.79
Talked to others in my community about environmental issues	2.72
Worked with others to address an environmental problem or issue	2.67
Signed a petition about an environmental issue	2.62
Participated as an active member in a local environmental group	2.17
Volunteered to improve wildlife habitat in my community	2.12
Participated (or provided data) in a wildlife study	1.80
Wrote a letter in response to an environmental issue	1.79

Findings

Green Human Resource Management - Standards centered on environmentally-friendly practices and sustainability management within organizations.

Statement	Mean score (on 1 – 7 scale) M = 3.01
My company sets green goals for its employees.	3.32
My company provides employees with green training to promote green values.	3.22
My company provides employees with green training to develop employees' knowledge and skills required for green management.	3.20
My company considers employees' workplace green behaviors in promotion.	3.04
My company considers employees' workplace green behavior in performance appraisals.	2.96
My company relates employees' workplace green behaviors to rewards and compensation.	2.76

Findings

Organizational Citizenship Behavior toward the Environment (OCB-E) - employee's voluntary behavior at work that assists an organization in becoming more environmentally sustainable.

Statement	Mean score (on 1 – 7 scale) M = 4.60
I stay informed of my organization's environmental initiatives	4.86
I undertake environmental actions that contribute positively to the image of my organization	4.74
I encourage my colleagues to adopt more environmentally conscious behavior	4.72
I volunteer for projects or activities that address environmental issues in my organization	4.63
I suggest new practices that could improve the environmental performance of the organization	4.52
I make suggestions about ways to protect the environment more effectively	4.52
I spontaneously give my time to help my colleagues take the environment into account	4.42

Findings

Multiple Regression Results

Does the perceived green image of HI and the message effectiveness of State's sustainability programs have an effect on employee-residents' organizational citizenship behavior toward the environment (OCB-E) within their organizations?

Independent Variables	Standardized Coefficients	t	p-value
<i>Perceived green image of HI</i>	-.046	-.552	.581
<i>Message effectiveness</i>	.202	2.437	.016

Dependent Variable: OCB-E

Findings

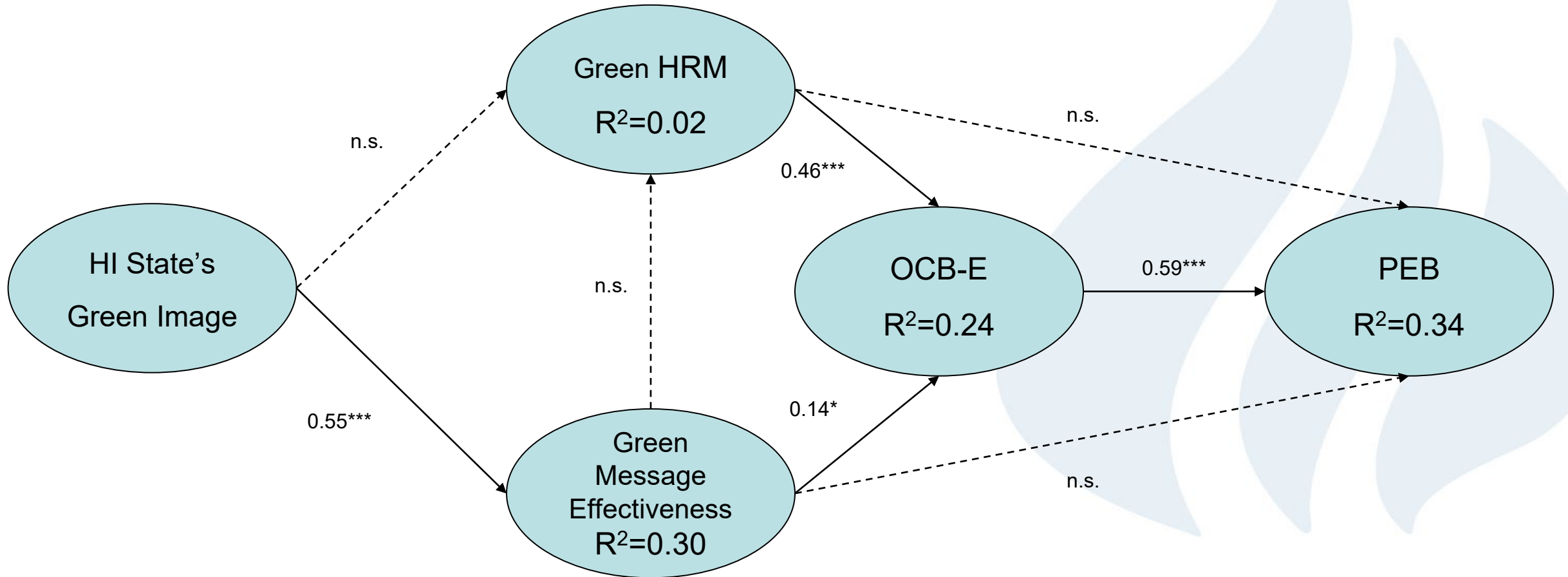
Multiple Regression Results

Independent Variables	Standardized Coefficients	t	p-value
<i>Perceived green image of HI</i>	.002	.033	.973
<i>Message effectiveness</i>	-.132	-1.898	.059
<i>Organizational citizenship behavior toward the environment (OCB-E)</i>	.594	10.579	<.001

Does the perceived green image of HI, the message effectiveness of State's sustainability programs and employee-residents' organizational citizenship behavior toward the environment (OCB-E) affect their individual pro-environmental behavior (PEB)?

Dependent Variable: PEB

Research Model Results (PLS-SEM)



Note: ***p<0.001, **p<0.01, *p<0.05, n.s. – non-significant.

Major Takeaways

- State of Hawaii sustainability programs excelled at explaining the environmental risks and impacts to employee-residents.
- Sustainability messaging should be directed not only at tourists, but also at employee-residents.
- Respondents' awareness of the State of Hawaii's environmental management and environmental performance was below average. State of Hawaii may improve its Green Image by improving messaging about sustainability programs and performance metrics.
- State of Hawaii can encourage and improve the message effectiveness, States' Green Image by working directly with the local organizations to implement Green HRM and improve OCB-E, which will influence residents PEB.

Questions?





UNIVERSITY OF HAWAII AT MĀNOA

SHIDLER COLLEGE
OF BUSINESS

SCHOOL OF TRAVEL
INDUSTRY MANAGEMENT

Mahalo Nui!

CONTACTS:

Lenna Shulga, PhD: shulga@hawaii.edu

Adiyukh Berbekova, PhD: adiyukhb@hawaii.edu



Appendix. Findings

Variable	Frequency*	Percent**
<i>Gender</i>		
Female	143	58.1%
Male	97	39.4%
Prefer not to answer	6	2.4%
<i>Marital Status</i>		
Married	155	62.8%
Widowed/Divorced/Separated	48	19.4%
Never married	34	13.8%
Prefer not to answer	10	4.0%
<i>Children</i>		
Yes	171	69.2%
No	70	28.3%
Prefer not to answer	6	2.4%
<i>Highest Level of Education</i>		
High school graduate/Some college but no degree/Associate degree in college (2-year)	49	19.8%
Bachelor's degree in college (4-year)	107	43.3%
Master's degree/Doctoral degree/Professional degree (JD, MD)	87	35.2%
Prefer not to answer	4	1.6%

Findings

<i>Ethnicity</i>		
American Indian or Alaska Native	7	2.3%
Asian	104	34.6%
Black or African American	2	0.7%
Latin American	8	2.7%
Native Hawaiian or Pacific Islander	49	16.3%
White	110	36.5%
Other	6	2.0%
Prefer not to answer	15	5.0%
<i>Income</i>		
\$30,000 to \$69,999	22	8.9%
\$70,000 to \$99,999	34	13.8%
\$100,000 to \$149,999	46	18.7%
\$150,000 or more	122	49.6%
Prefer not to answer	22	8.9%
<i>Frequency of travel by plane a year (in round trips)</i>		
0	6	2.4%
1-6 times a year	169	68.7%
7-12 times a year	44	17.9%
13 or more times a year	24	9.8%
Prefer not to answer	3	1.2%

Findings

<i>Currently Employed?</i>		
Yes	253	94.8%
No	14	5.2%
<i>Employment Status</i>		
Full-time	233	92.1%
Part-time	3	1.2%
Self-employed	14	5.5%
Other (e.g., consulting)	3	1.2%
<i>Work Tenure</i>		
0 to 4 years	42	16.7%
4-7 years	39	15.5%
7+ years	170	67.7%

Findings

<i>What industry do you currently work in?</i>		
Tourism	15	6.0%
Hospitality (including F&B)	36	14.3%
Airlines, Transportation/Events, Entertainment/Retail	20	7.9%
Financial services (including insurance)	15	6.0%
Other services (e.g., healthcare, energy conservation)	83	32.9%
Manufacturing/Construction	31	12.3%
Government/Education/Military	17	6.7%
Other (e.g., non-profit)	35	13.9%
<i>Department</i>		
Operations	66	26.3%
Human Resources	49	19.5%
Finance	7	2.8%
Sales and Marketing	47	18.7%
Customer Service	5	2.0%
Other (e.g., CEO, design)	77	30.7%
<i>Management/Supervisor Position</i>		
Yes	209	82.6%
No	44	17.4%

Findings

Awareness of different sustainability programs

Program name	Frequency	Percent	Percent of cases
Malama Hawaii	128	22.4%	67.7%
Sustainable Hawaii	80	14.0%	42.3%
Kupu Hawaii	76	13.3%	40.2%
Statewide Sustainability Program	66	11.6%	34.9%
Hawaiian Legacy Reforestation Initiative	66	11.6%	34.9%
The Hawaii Green Business Program	35	6.1%	18.5%
Choice Carbon Offset Program	31	5.4%	16.4%
Hawaii Sustainability Summit	28	4.9%	14.8%
Other (e.g.,)	26	4.6%	13.8%
Ho'omaluo	15	2.6%	7.9%
Green Event Awards	14	2.5%	7.4%
Ka Hei	6	1.1%	3.2%