



EXPLORING DRIVERS OF GREEN WASHING AMONG CORPORATE STAKEHOLDERS

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ABSTRACT

Green washing is the deceptive spin of green marketing. With fierce business competition, firms continuously find themselves compelled to green wash their products to differentiate themselves from their competitors or just trying to keep up with their rivals. Firms also recognize the burden of corporate social responsibility because the public cares about corporate environmental performance. The study seeks to explore drivers of green washing among corporate stakeholders by ways of a factor analysis. Analyzed results revealed three factors (external driver, organizational driver, and individual driver) from the developed 14-items scale, which explained 58.305% of the total variance. One-way ANOVA revealed that the external driver is significantly higher among female stakeholders while the organizational driver is significantly higher among male stakeholders. While statistically insignificant, the individual driver is slightly higher among female stakeholders. The findings imply females being more environmentally conscious while males are more business-driven and more likely to enact upon green washing.

Key Words: green firms; green washing; external driver; organizational driver; individual driver

1. Introduction

With global warming and rapid climate changes around the world, marketers are increasingly promoting their products as being “green” to attract a growing segment of environmentally conscious population. Delmas and Burbano (2011) bucketed firms of positive environmental communication into “vocal green firms” and “greenwashing firms” depending on their environmental performance. More specifically, the term “greenwashing” describes the act of misleading consumers about environmental practices of a firm or the environmental benefits of a product or service. The varieties of greenwashing can range from slight exaggeration to full fabrication. The concern of widespread greenwashing is twofold: (1) eroding of the consumer market where true green products are being questioned (Furrow, 2009), and (2) eroding of the

green investing capital market where the investor confidence of environmentally friendly firms is being negatively affected (Delmas and Burbano (2011).

The phenomenon of widespread greenwashing is evidenced by a *Los Angeles Times* article that “epidemic proportions” of greenwashing have increased consumer skepticism (Hsu, 2011). However, entailed risks can be associated with extreme cases of greenwashing. Consumers, environmental activist groups, or government organizations have targeted greenwashing firms with boycotts or litigations. In a form of backlash, activists have launched creative ways to expose greenwash by categorizing different types of “corporate sins” (TerraChoice, 2010). It is ironic that the backlash is exactly the opposite of what greenwashing firms initially intended. Examples of firms facing backlash or lawsuits for engaging in environmental false advertising include Green Mountain Power Corporation (Anonymous, 2000), Honda (Laufer, 2003; Gillespie, 2008; Lane, 2010), Mazda (Gillespie, 2012), SC Johnson (Hoffman, 2013), Coca-Cola (Lyon and Montgomery, 2013), and Nestle (Bowen and Aragon-Correa, 2014). Nonetheless, studies have shown cumulative abnormal returns (CAR) of the stock market to be negatively associated with the exposure of greenwashing (Du, 2012). Why then do firms continuously keep taking the risk of engaging in greenwashing may be attributed to the current state of lax regulation (Delmas and Burbano, 2011).

A number of studies have addressed the greenwashing phenomenon (Laufer, 2003; Gillespie, 2008), consequential effects of greenwashing on consumers (Furlow, 2009; Lane, 2010) and on firms (Furlow, 2009), disclosure models of greenwashing (Gibson, 2009; Lyon and Maxwell, 2011), implementation of environmental commitments (Ramus and Montiel, 2005), and empirical demonstration of inaccurate packaging information (Polonsky, Bailey, Baker, Basche, Jepson, and Neath, 1998). However, examination of greenwashing attributes among corporate stakeholders has been limited. Hence, the study attempts to fill this void by exploring drivers of greenwashing among corporate stakeholders. Recommendations may be derived from the result for policymakers and/or managers to mitigate corporate greenwashing.

2. Conceptual Framework

To date, there is no consensus of exactly what constitutes greenwashing. In an earlier attempt, Laufer (2003) presented a set of elements that constitute greenwashing: confusion, fronting, and posturing. Later, Delmas and Burbano (2011) offered a more precise definition for vocal firms with poor environmental performance as “greenwashing”. On the flip side, silent green firms are called “brownwashing”, that green firms not doing well financially do not want their investors to think the money is being wasted on environmental causes, thereby the silence. Lyon and Maxwell (2011) offered a more specific definition for “greenwashing”, namely firms distributing “*selective disclosure of positive green information without full disclosure of negative information*”. However, these definitions have mostly focused narrowly on the disclosure of verifiable information while missing vague claims.

The challenge of identifying drivers of greenwashing is to construct a comprehensive measure of attributes in spite of limited empirical literatures. Nonetheless, the study draws from

existing work in strategy, sociology, psychology, and management that influence individual behavior under various circumstances. The current regulatory environment is drawn from the institutional theory that emphasizes the importance of cognitive, normative, and regulatory factors in shaping decisions of adopting specific organizational practices (DeMaggio and Powell, 1983). An example of the regulatory environment is the current state of lax regulation concerning greenwashing. Consumer and investor demand for green products or services may also be the current regulatory environment. The normative context may be related to the current state of the firm individuals associated with, while the cognitive context may be related to the psychological understanding of individuals.

3. Methodology

3.1. Instrument

A self-administrated questionnaire survey was conducted to collect empirical data from corporate stakeholders in Taiwan. The items in the questionnaire are designed based on a review of literatures pertaining to greenwashing (Delmas and Burbano, 2011; Kim and Lyon, 2011; Marquis, Toffel, and Zhou, 2015). The questionnaire was pre-tested and revised to ensure reliability. Apart from respondents' personal information that are measured by a categorical scale, the main questionnaire contains 14 items that are measured by a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). It is by design to minimize the total number of items for encouraging the willingness of responses. The 14-item scale of corporate greenwashing is proposed as follows.

1. "Conscious Intention": *I consciously try to choose products that are environmentally friendly.*
2. "Decision Framing": *Given two choices, I systematically choose the one with lower negative environmental impact.*
3. "Temporal Discounting": *In my lifespan, I don't think environmental issues would concern me.*
4. "Consumer Demand": *The customers I deal with do not demand green products.*
5. "Low Visibility": *Genuine green actions are hard to get noticed.*
6. "Optimistic Bias": *Our firm of being environmentally unfriendly does not concern me.*
7. "Incentive-Driven Culture": *Our firm is all about profitability.*
8. "Activist Demand": *Our firm would act upon green actions if there is pressure from environmental groups.*
9. "Threat of Regulation": *Our firm would act upon green actions if the threat of punishment exists.*
10. "Growing Firm": *Our firm is growing and expanding.*
11. "Relatively Green": *Our firm is greener than others that I know of.*
12. "Firm Size": *It is more beneficial for large firms to be green.*
13. "Lax Regulation": *Being environmentally unfriendly rarely gets punished.*
14. "Positive Image or Publicity": *Being environmentally friendly promotes good publicity.*

3.2. Data Collection and Analysis

Since the sample population is comprised of corporate stakeholders in Taiwan, the questionnaire is presented exclusively in Chinese. From the review of literatures (in English), a blind translation-back-translation technique was performed according to the procedure of Brislin (1976) for the finalized questionnaire in Chinese. A convenient sampling approach was applied on the sample population. Two thousand questionnaires were mailed out to registered firms across Taiwan, attached with returning envelopes. Duration of the survey lasted one calendar year, from March of 2016 to February of 2017. A total of 420 valid returns were obtained from the 2,000 distributions, representing 21% response rate. Then, collected data were analyzed using SPSS 20.0 statistical software for Windows. After performing factor analysis to identify drivers of greenwashing, demographic differences were examined through one-way analysis of variance (ANOVA).

4. Results

4.1. Demographic Characteristics

From 420 valid returns, Table 1 illustrates the sample's demographics. Majority of the respondents are female, at 60.5% ($n = 254$). By age, 51.7% ($n = 217$) of the respondents are between 31 and 40 years old. By marital status, 52.1% ($n = 217$) of the respondents are married. By education, 50.7% ($n = 213$) of the respondents finished a four-year college degree without graduate studies. By personal income, 24.8% ($n = 104$) of the respondents earn 40,000 – 50,000 Taiwan dollars monthly, equivalent of approximately 1,300 – 1,700 US dollars. It is noted that the sample population is comprised of mostly mid-level employees of firms. Although majority of the respondents (60.5%) are females, it does not mean there are more female employees among firms. Females tend to be more willing to participate in the survey and mailing questionnaires back.

Table 1 Demographic characteristics of the respondents

Demographics	Number	Percentage
Gender		
Male	166	39.5
Female	254	60.5
Age		
18 to 30	65	15.5
31 to 40	217	51.7
41 to 50	106	25.2

Over 50	32	7.6
Marital status		
Single	175	41.7
Married	219	52.1
Divorced/Widowed	26	6.2
Education		
High school or less	37	8.8
Junior college	94	22.4
4-year college	213	50.7
Post graduate	76	18.1
Monthly income		
Less than NT\$30,000	98	23.3
NT\$30,000 – 40,000	93	22.1
NT\$40,000 – 50,000	104	24.8
NT\$50,000 – 60,000	73	17.4
More than NT\$60,000	52	12.4

4.2. Mean Ratings of the Attributes

Mean ratings of the 14-item scale are presented in Table 2. Among them, Q7: “our firm is all about profitability” received the highest mean, at $M = 5.58$, followed by Q14: “being environmentally friendly promotes good publicity” ($M = 5.46$), and Q12: “it is more beneficial for large firms to be green” ($M = 5.38$). On the other end of the spectrum, the lowest mean was found in Q2: “given two choices, I systematically choose the one with lower negative environmental impact” ($M = 3.19$), followed by Q1: “I consciously try to choose products that are environmentally friendly” ($M = 3.26$), Q6: “our firm of being environmentally unfriendly does not concern me” ($M = 3.46$), and Q3: “in my lifespan, I don’t think environmental issues would concern me” ($M = 3.65$). It is interesting to note that the standard deviation (SD) is higher among items with the lower mean (i.e. Q1: $M = 3.26$, $SD = 1.513$; Q2: $M = 3.19$, $SD = 1.592$; Q3: $M = 3.65$, $SD = 1.512$; Q6: $M = 3.46$, $SD = 1.553$). Conversely, items receiving higher mean tend to have lower standard deviation (i.e. Q7: $M = 5.58$, $SD = 1.215$). The phenomenon implies

that the respondents tend to agree in unison on items that receive higher mean. For items that received lower mean tend to show greater discrepancy among the responses.

Table 2 Measurement of greenwashing attributes

Items of measurement	Mean	SD
1. I consciously try to choose products that are environmentally friendly.	3.26	1.513
2. Given two choices, I systematically choose the one with lower negative environmental impact.	3.19	1.592
3. In my lifespan, I don't think environmental issues would concern me.	3.65	1.512
4. The customers I deal with do not demand green products.	5.11	1.457
5. Genuine green actions are hard to get noticed.	5.09	1.255
6. Our firm of being environmentally unfriendly does not concern me.	3.46	1.553
7. Our firm is all about profitability.	5.58	1.215
8. Our firm would act upon green actions if there is pressure from environmental groups.	4.96	1.361
9. Our firm would act upon green actions if the threat of punishment exists.	4.95	1.424
10. Our firm is growing and expanding.	5.22	1.328
11. Our firm is greener than others that I know of.	4.70	1.249
12. It is more beneficial for large firms to be green.	5.38	1.337
13. Being environmentally unfriendly rarely gets punished.	5.05	1.373
14. Being environmentally friendly promotes good publicity.	5.46	1.463

4.3. Factor Analysis

Fourteen attributes of “greenwashing” attributes were factor analyzed, as shown in Table 3. The first identified driver of greenwashing can be attributed to “external”, which is explained by 20.214% of the total variance with an eigenvalue of 2.830. The second driver of greenwashing, “organizational”, accounts 19.946% of the total variance with an eigenvalue of 2.792. The last driver of greenwashing, “individual”, explains 18.145% of the total variance with an eigenvalue of 2.540. The Cronbach’s alpha (α) across these three drivers ranged from .860 to .868, indicating adequate consistency (Nunnally, 1994). The factor loadings (λ) ranged from .630 to

.839 across all items. Tabachnick and Fidell (2007) had stated that the variance is explained very well when λ reaches .63 ($\lambda^2 = 40\%$). In the process of extracting factors, the Bartlett's test of sphericity was conducted and found at $\chi^2 = 2952.992$, d.f. = 91, $p = .000 < .001$. In addition, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was found at .827, suggesting appropriateness (KMO value $> .60$) of the factor analysis.

Table 3 Factor analysis of corporate greenwashing

Greenwashing attributes	Factor loadings		
	1	2	3
Factor 1: External driver ($M = 5.106$)			
Q13. Lax regulation	.837		
Q14. Positive image or publicity	.824		
Q9. Threat of regulation	.695		
Q8. Activist demand	.631		
Q4. Consumer demand	.630		
Factor 2: Organizational driver ($M = 5.194$)			
Q5. Low visibility		.797	
Q7. Incentive-driven culture		.730	
Q12. Firm size		.729	
Q10. Growing firm		.709	
Q11. Relatively green		.669	
Factor 3: Individual driver ($M = 3.390$)			
Q3. Temporal discounting			.839
Q6. Optimistic bias			.825
Q1. Conscious intention			.748
Q2. Decision framing			.730
Eigenvalues	2.830	2.792	2.540

Cronbach's alpha	.860	.868	.861
Variance (%)	20.214	19.946	18.145
Cumulative variance (%)	20.214	40.160	58.305

4.4. Demographic Differences

Having explored three drivers of corporate greenwashing (the external driver, the organizational driver, and the individual driver), it is desired to know if any significant difference exists among demographics. By one-way ANOVA, the external driver of greenwashing is significantly higher among female stakeholders than their male counterparts ($M = 5.15 > 5.04$, $p=.002^{**}$), as shown in Table 4. Recall that the external driver is composed of Q4: “the customers I deal with do not demand green products”, Q8: “our firm would act upon green actions if there is pressure from environmental groups”, Q9: “our firm would act upon green actions if the threat of punishment exists”, Q13: “being environmentally unfriendly rarely gets punished”, and Q14: “being environmentally friendly promotes good publicity”. Female stakeholders tend to believe more than their male counterparts that external greenwashing is more prevalent than their own believes of a green firm. An explanation may be that females have higher green attitudes than males for the cause of higher mean on external greenwashing among female stakeholders.

On the other hand, the organizational driver of greenwashing is significantly higher among male stakeholders than their female counterparts ($M = 5.26 > 5.15$, $p=.000^{***}$). Recall that the organizational driver of greenwashing is composed of Q5: “genuine green actions are hard to get noticed”, Q7: “our firm is all about profitability”, Q10: “our firm is growing and expanding”, Q11: “our firm is greener than others that I know of”, and Q12: “it is more beneficial for large firms to be green”. Male respondents appear to agree more with organizational greenwashing than their female counterparts do. Male stakeholders may be more pragmatic toward masking of corporate greenwashing while females may be more idealistic toward green actions.

Table 4 Demographic significance of the mean.

Greenwashing drivers	Gender	Mean	SD	F-value	p
External driver	Male	5.04	1.267	9.287	.002**
	Female	5.15	1.037		
Organizational driver	Male	5.26	1.133	13.538	.000***
	Female	5.15	0.946		
Individual driver	Male	3.34	1.336	0.614	.434

^{**} $p < .01$ indicating intermediate significance; ^{***} $p < .001$ indicating high significance

Although statistically insignificant, the individual driver of greenwashing is higher among female stakeholders than their male counterparts ($M = 3.42 > 3.34, p = .434 > .05$). Recall that the individual driver of greenwashing is composed of Q1: “I consciously try to choose products that are environmentally friendly”, Q2: “given two choices, I systematically choose the one with lower negative environmental impact”, Q3: “in my lifespan, I don’t think environmental issues would concern me”, and Q6: “our firm of being environmentally unfriendly does not concern me”. These four questions measure individual views toward environmentalism. Statistical insignificance is due in part to the fact that Q1 and Q2 are measures green attitude while Q3 and Q6 are measures of green masking. With respect to the respondents’ age, marital status, education, and income level, no statistical significance was identified.

5. Conclusion

The study has successfully explored three drivers of greenwashing among corporate stakeholders. The external driver of greenwashing is comprised of: lax regulation, positive image or publicity, threat of regulation, activist demand, and consumer demand. The organizational driver is comprised of: low visibility, incentive-driven culture, firm size, growing firm, and relatively green. The individual driver of greenwashing is comprised of: temporal discounting, optimistic bias, conscious intention, and decision framing. The findings revealed that the external driver of greenwashing is significantly higher among female stakeholders than their male counterparts. Conversely, the organizational driver of greenwashing is significantly higher among male stakeholders than their female counterparts. Although statistically insignificant, the individual driver is slightly higher among female stakeholders than their male counterparts. The results imply female stakeholders to have higher green attitudes than their male counterparts. Unfortunately, male stakeholders are more likely of being willing participants of greenwashing.

6. Recommendations

Having explored three drivers of greenwashing, authorities should attend to each of the greenwashing drivers with delicate educational policy. The recommended order of emphasis towards reduction of corporate greenwashing is as follows. (1) Strict regulation should reduce external drivers of greenwashing greatly. (2) Genuine green actions should be recognized more to reduce organizational drivers of greenwashing. (3) Focus of environmental issues should be shifted more towards the current state instead of the near future. When stakeholders are made more aware of the concurrent seriousness, reduction in individual drivers of greenwashing may be resulted.

References

- Anonymous (2000), *Boycott Green Mountain Energy!* Retrieved from <http://www.boycottgreenmountain.com>.
- Bowen, F., and J.A. Aragon-Correa (2014), "Greenwashing in corporate environmentalism research and practice: The importance of what we say and do," *Organization & Environment*, Vol. 27(2), pp. 107-112.
- Brislin, R.W. (1976), "Comparative research methodology: Cross-cultural studies," *International Journal of Psychology*, Vol. 11(3), pp. 215-229.
- Delmas, M.A., and V.C. Burbano (2011), "The drivers of greenwashing," *California Management Review*, Vol. 54(1), pp. 64-87.
- DeMaggio, P., W. Powell (1983), "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields," *American Sociological Review*, Vol. 48(2), pp. 147-160.
- Du, X. (2012), "How the market values greenwashing? Evidence from China," *Journal of Business Ethics*, Vol. 128(3), pp. 547-574.
- Furlow, N. (2009), "Greenwashing in the new millennium," *Journal of Applied Business and Economics*, Vol. 10(6), pp. 11-25.
- Gibson, D. (2009), "Awash in green: A critical perspective on environmental advertising," *Tulane Environmental Law Journal*, Vol. 22(2), pp. 423-440.
- Gillespie, E. (2008), "Stemming the tide of greenwash," *Consumer Policy Review*, Vol. 18(3), pp. 79-83.
- Gillespie, E. (2012), "Greenwash and hamming it up: Mazda makes a mess of CX-5 advert," *The Guardian*, Retrieved from <http://www.theguardian.com/environment/blog/2012/feb/27/mazda-advert-dr-seuss-lorax>.
- Hoffman, A.J. (2013), *SC Johnson and the Greenlist Backlash* (Case 1-429-300). William Davidson Institute, University of Michigan: Ann Arbor, MI, USA.
- Hsu, T. (2011), "Skepticism grows over products touted as eco-friendly," *Los Angeles Times* (May 21), Retrieved from <http://articles.latimes.com/2011/may/21/business/la-fi-greenwash-20110521>.
- Kim, E.H., T.P. Lyon (2011), "Strategic environmental disclosure: Evidence from the DOE's voluntary greenhouse gas registry," *Journal of Environmental Economics and Management*, Vol. 61(3), pp. 311-326.
- Lane, E. (2010), "Consumer protection in the eco-mark era: A preliminary survey and assessment of anti-greenwashing activity and eco-mark enforcement," *The John Marshall Review of Intellectual Property Law*, Vol. 9(3), pp. 742-773.
- Laufer, W.S. (2003), "Social accountability and corporate greenwashing," *Journal of Business Ethics*, Vol. 43(2), pp. 253-261.

- Lyon, T.P., and J.W. Maxwell (2011), "Greenwash: Corporate environmental disclosure under threat of audit," *Journal of Economics and Management Strategy*, Vol. 20(1), pp. 3-41.
- Lyon, T.P., and A.W. Montgomery (2013), "Tweetjacked: The impact of social media on corporate greenwash," *Journal of Business Ethics*, Vol. 118(4), pp. 747-757.
- Marquis, C., M.W. Toffel, and Y. Zhou (2015), "Scrutiny, norms, and selective disclosure: A global study of greenwashing," *Organization Science*, Harvard Business School Organizational Behavior Unit Working Paper No. 11-115.
- Nunnally, J.C., and I.H. Bernstein (1994), *Psychometric Theory* (3rd ed.). McGraw-Hill: New York, NY, USA.
- Polonsky, M., J. Bailey, H. Baker, C. Basche, C. Jepson, and L. Neath (1998), "Communicating environmental information: Are marketing claims on packaging misleading?" *Journal of Business Ethics*, Vol. 17(3), pp. 281-294.
- Ramus, C., and I. Montiel (2005), "When are corporate environmental policies a form of greenwashing?" *Business and Society*, Vol. 44(4), pp. 377-414.
- Tabachnick, B.G., L.S. Fidell (2007), *Using Multivariate Statistics* (5th ed.), Allyn and Bacon: Needham Heights, MA, USA.
- TerraChoice (2010), *The Sins of Greenwashing: Home and Family Edition*, Underwriters Laboratories: Northbrook, IL, USA.