An Empirical Study On Moral Intensity

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ABSTRACT

This study invents two images (green detergent powder and non-green detergent powder) of detergent sample for survey instrument. After validity and reliability tests, product attributes questionnaire, and scales of consumer ethics of purchase decision making behavior, concerning about values, moral judgment, moral intensity, and purchase intension are finally constructed. Data of 265 responders of college students are collected. Statistical approach, including factor analysis, T test, and regression is adopted, and research findings are as follows:

1. *The purchase intension of green product is higher statistical significance then non-green product.*
2. *The measures of moral judgment and moral intensity, statistical significantly affect product purchase intension.*
3. *The measures of values, statistical significantly affect moral judgment and moral intensity.*
4. *Either green product or non-green product, the measures of moral judgment and moral intensity, are acted as the moderator mediator variables between values and product purchase intension.*

Keywords: *green product, values, moral judgment, moral intensity, purchase intention*

INTROCUCTION

In a time of environmental quality deterioration, environmentalists urge marketing personnel to not only satisfy the consumers, but also concern them selves with the quality of the environment. Green consumers have boycotted companies that do not value the environment, and refuse to purchase products that fail to meet environmental criteria. Green marketing has thus become a critical issue of academia and business. Since consumers' use of laundry detergents deteriorates water quality and water ecologies, and pollutes the environment, this study aims to discuss the following issues:

1. To determine whether consumers' purchase intentions of green products is higher than that of non-green products.
2. To discuss the factors of purchase intentions of green versus non-green products, from the perspective of moral decisions:
   (1) Relationships between moral judgments and product purchase intentions;
   (2) Relationships between moral intensities and product purchase intentions;
   (3) The possible intervening effects of moral judgments and moral intensities on values and product purchase intentions.

LITERATURE REVIEW

Purchase Intentions of Green Products

1. Green products

"Green" products refer to "no pollution," "no environmental pollution," and "environmental protection", and symbolizes "health" and "sustainability" (Ottman, 1999). The general criteria of green products are as follows: the processes of production, consumption, use and discard would not over-consume energy or resources, damage the environment, affect human or animal health, result in unnecessary wastes due to over-packaging and short product life, or use endangered animal species for raw materials, as well as products that can be reused or recycled.

2. Attributes of green products

Based on the definition of green products and product attributes, this study defines the attributes of green products as follows: product characteristics of "recyclable, low pollution, energy-saving, and no harm to human or animal health" in the product life cycle. For example, green laundry detergent does not contain phosphorous, is highly bio-degradable, and emphasizes on protecting aquatic environments.

3. Purchase intentions of green products

According to the definition of Fishbein (1975), intention is the subjective probability to have specific behaviors; likewise, purchase intention is the probability of the consumers' specific purchase intentions.

Since the use of green products would affect the environment, purchase intentions of green products are not only the consumers' behavior decision-making, but also a moral issue of environmental protection (moral decision). In the "Issue-Contingency Model", Jones (1991) divides consumers' moral decision into 4 steps: 1) Moral Issue: for instance, non-green laundry detergent would pollute rivers and environments; 2) Moral Judgment: for instance, consumers have specific values, which suggest that laundry detergent that pollutes rivers is against morality; 3) Moral Intent: for instance, consumers with high levels of moral intensity are more willing to make moral decision, and thus, select a laundry detergent that does not pollute rivers; 4) Moral Behavior: for instance, after making a moral decision, the consumers would purchase green laundry detergent instead of a non-green product.

4. Relationship between the attributes of green products and product purchase intentions

From the perspective of moral decisions, green products are "recyclable, low pollution, energy-saving, and are not harmful to human or animal health." Comparing with products without green product attributes, green products tend to be the moral priority for the common consumers; thus, green product attributes would influence consumers' product purchase intentions. In an empirical survey, 67 % of the Americans in 1989 were willing to pay more (5-10 %) for eco-friendly products (Coddington, 1990). Suchard and Polonski (1991) suggested that with personal environmental consciousness, consumers are willing to pay more (15-20 %) for green products.

From the perspective of consumers' behavioral decisions, moral decisions, and empirical surveys, this study proposes the hypothesis as follows:

H1: Consumers' green product purchase intentions are significantly higher than that of non-green product intentions.

Variables of Moral Decision

"Morality" refers to the philosophy of human behavior that emphasizes right and wrong decisions (Ferrell, Dresham and Fraedrich, 1989). Thus, moral decision indicates that when a person behaves freely, he/she would consider the harm or benefit for others (Velasquez and Rostankowski, 1985). In other words, before acting, the individual would be concerned about the influence of his/her behavior on others, whether the behavior would be legal and accepted by others; it is a moral decision (Jones, 1991; Kelman & Hamilton, 1989). Since the product life cycle of green products has to be "recyclable, low pollution, energy-saving, and not harmful to human or animal health", the purchase of green products refers to moral decisions of ethical consumption.

Jones' (1991) Issue-Contingency Model indicated that "moral judgment" and "moral intensity" could influence Moral Intent. Values (Table 1) refer to individual views and attitudes, including the views of "morality", as described below:

1. Moral judgment

"Moral judgment" means that individuals judge something as moral or immoral, right or wrong (Trevino, 1986). It is a kind of relative concept, and individuals have different levels of moral identification with specific behaviors (Reidenbach, Robin and Dawson, 1991).

2. Moral intensity

"Moral intensity" refers to the degree of moral intensity related to moral issues in specific situations; it is consisted of the following factors: Magnitude of Consequences, Social Consensus, Probability of Effect, Temporal Immediacy, Proximity, and Concentration of Effect, which reveal the degree of moral intensity (Jones, 1991; Rawls, 1971).

3. Values

"Values" are the most central and persistent abstract concepts in social cognition; they refer to the preference of individuals or society for behavior or ultimate existence, and they influence human attitudes, norms, and desired behavioral results (Rokeach, 1973; Nystrom, 1990; Alder, 1991; Meglino and Ravlin, 1998).

Values are regarded as the individual factors on personal decision-making (Ferrell and Dresham, 1985). Personal values potentially affect the consumers' moral decisions, including the value of deontological theory or teleological theory, as well as perceived results and their probability (Hunt and Vitell, 1986). Nonis and Swift (2001) studied the students of college of business, and measured their values by LOV scale. The results showed that those with inner drive would be likely to make immoral business decision since they are not influenced by others; those with outer drive would not make immoral business decision since they care about others' opinions.

Relationships Between Values, Moral Judgments, Moral Intensity, and Purchase Intentions

1. Moral judgment and product purchase intentions

Dubinsky and Loken (1989) indicated that salespersons' moral judgment would influence their intention of moral or immoral behaviors. Tan (2002) applied the theory of moral decision to the purchase of pirated software, and found that the consumers with higher moral degree were less likely to purchase pirated software. Thus, this study proposes the hypotheses as follows:

H2-1: Moral judgment has negative influence on non-green product purchase intentions.

H2-2: Moral judgment has positive influence on green product purchase intentions.

2. Moral intensity and products purchase intentions

Jones' (1991) Issue-Contingency Model suggested that in moral decision processes, affections, feelings, and emotions would construct "moral intensity", and result in Moral Intent. (Singhapakdi et al., 1999; Singer et al., 1998; Davis et al., 1998; Harrington, 1997). Tan (2002) studied pirated software purchase by "moral decision theory", and suggested that when the consumers have high level of Magnitude of Consequences and Social Consensus (sub-constructs of moral intensity), their pirated software purchase intention would be lower. Bennett et al. (2002) applied moral decision theory to the regulation of the Animal Welfare Act, and indicated that the respondents with high level of moral intensity are willing to pay more for animals under Animal Welfare Act. Thus, this study proposes the hypotheses as follows:

H3-1: Moral intensity has negative influence on non-green product purchase intentions.

H3-2: Moral intensity has positive influence on green product purchase intentions.

3. Values and moral judgment

Values and moral decisions are related, and "moral judgment" is one of the important steps of the moral decision theory. Thus, values could influence or lead to moral judgment (Glover et al., 1997). In addition, according to the finding of Singhapakdi and Vitell (1993), marketing supervisors with high ratings of professional values would not identify with Immoral Behavior; thus, this study proposes the hypothesis as follows:

H4: Values have significant influences on moral judgment.

4. Values and moral intensity

"Values" of "deontological theory" or "teleological theory" would influence perceived results, Probability of Effect of perceived results, deontological theory evaluation, and teleological theory evaluation (Hunt and Vitell, 1986). Wright et al. (1997) studied the undergraduate students of accounting major in an empirical study, and found that in morality dilemmas, values would enhance moral intensity perception. Thus, this study proposes the hypothesis as follows:

H5: Values have significant influences on moral intensity.

5. Intervening effects of moral judgment and moral intensity

Based on Jones' (1991) "Issue-Contingency Model", this study suggests four steps of consumers' moral decisions. Among which, "values" would influence the development of the consumers' Moral Intent, resulting in "moral judgment" and "moral intensity", and affect (non-green versus green) product purchase intention. Thus, this study proposes the hypotheses, as follows:

H6-1: Moral judgment has intervening effect on values and “non-green product” purchase intentions.
H6-2: Moral judgment has intervening effect on values and “green product” purchase intentions.
H7-1: Moral intensity has intervening effect on values and “non-green product” purchase intentions.
H7-2: Moral intensity has intervening effect on values and “green product” purchase intentions.

RESEARCH METHOD

Research Structure

This study treated product purchase intention as the dependent variable, value as the independent variable, moral judgment and moral intensity as the intervening variables, and product attributes as the moderating variable (green and non-green laundry detergent). Among which, independent variables, and intervening variables are “moral decision variables”. The framework of this study is shown in Figure 1.

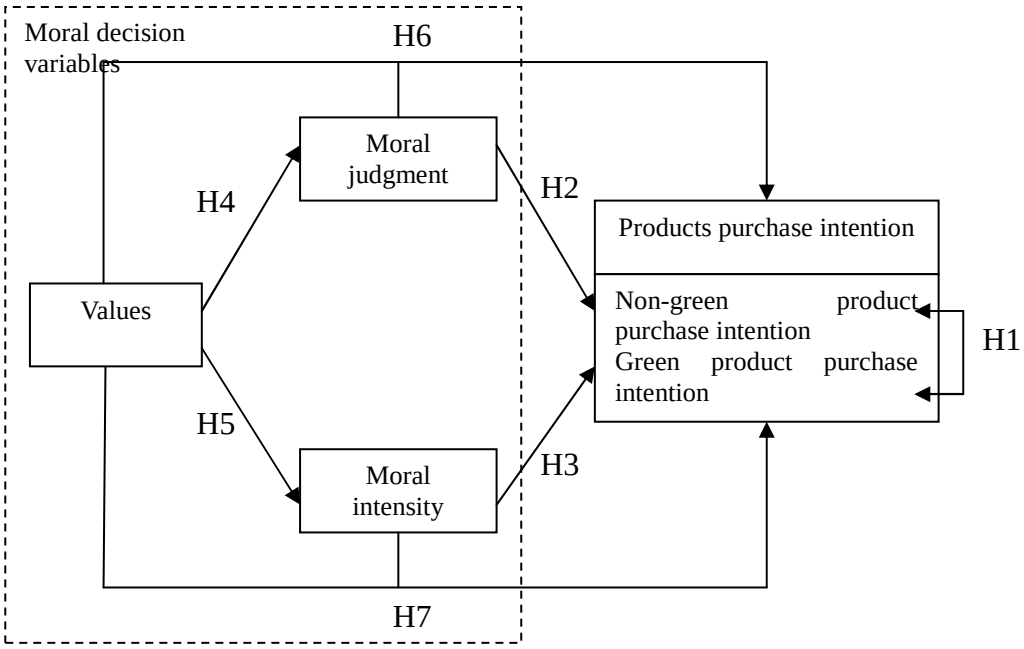

Figure 1: Research framework

Research Hypotheses

Based on literature reviews, this study proposes the hypotheses as shown below:
H1: Consumers’ “green product” purchase intention is significantly higher than that of “non-green product”.
H2-1: Moral judgment has negative influence on non-green product purchase intentions.
H2-2: Moral judgment has positive influence on green product purchase intentions.
H3-1: Moral intensity has negative influence on non-green product purchase intentions.
H3-2: Moral intensity has positive influence on green product purchase intentions.
H4: Values have significant influences on moral judgment.
H5: Values have significant influences on moral intensity.
H6-1: Moral judgment has intervening effects on values and “non-green product” purchase intentions.
H6-2: Moral judgment has intervening effects on values and “green product” purchase intentions.
H7-1: Moral intensity has intervening effects on values and “non-green product” purchase intentions.
H7-2: Moral intensity has intervening effects on values and “green product” purchase intentions.

RESEARCH DESIGN

1. Research targets and sampling: The subjects were consumers, who had purchased laundry detergent before, and were regular Internet users; the sampling was based on Internet convenience sampling. A total of 324 questionnaires were returned; after eliminating the invalid samples, there were 265 valid samples.
2. Operational definitions and measurements of variables
   (1) Purchase intention: is transaction behavior after consumers evaluate products; it is the perceptual response to the target items. Based on Tan's (2002) scale, this study applied the Likert 5-point scale for measurements.
   (2) Moral judgment: is the degree of the individuals' moral identification with specific behavior (Reidenbach, Robin and Dawson, 1991). The measurement was based on Tan's (2002) Likert 5-point scale.
   (3) Moral intensity: is the concept of moral intensity related to Moral Issues in specific situations. The measurement was based on the moral intensity scale modified from Barnett et al. (1999), Frey (2000), Paolillo and Vitell (2002) and Tan (2002).
   (4) Values: is a persistent concept resulting in human behaviors and attitudes. The measurement was based on the LOV scale developed by Kahle and Kennedy (1988), including 9 items.

RESEARCH ANALYSIS AND RESULTS

Descriptive Statistics

There were 265 valid samples, and the characteristics of these samples are below: 1) 100% of the samples had purchased laundry detergent products before; 2) 55.47% had purchased green laundry detergent products before, and the percentage was slightly higher than that (44.52%) of those who did not; 3) males (44.9%) and females (55.1%).

T-Test

It was applied to validate H1 to validate whether green product purchase intention is significantly higher than non-green products. The statistical result showed that the mean of green product purchase intention was 4.11, and that of non-green product was 1.99. Based on paired samples t-test, and subtracting two parameters, the t value was 28.489($p<0.01$; $n=265$). Thus, it is validated that green product purchase intention is significantly higher than non-green product purchases. Thus, H1 is supported.

Regression

1. Moral judgment and non-green product purchase intention (see Table 1): explanatory power of moral judgment on non-green product purchase intention was 4%, F value was 12.090($p<0.01$), which is statistically significant (Model 1-1). Thus, moral judgment has significant and negative influence on non-green product purchase intention. H2-1 is supported.
2. Moral judgment and green product purchase intention (see Table 1): explanatory power of moral judgment on green product purchase intention was 9.9%. F value was 29.859($p<0.01$), which is statistically significant (Model 1-2). Thus, moral judgment has significant and positive influence on green product purchase intention. H2-2 is supported.
3. Moral intensity and non-green product purchase intention (see Table 1): explanatory power of moral intensity (including sub-constructs such as Social Consensus, Actual Benefit Degree, Temporal Immediacy, and Proximity) on non-green product purchase intention was 7.8% and F value was 6.614($p<0.01$), which is statistically significant (Model 2-1).Temporal Immediacy did not reach significance level; Social Consensus, Actual Benefit Degree and Proximity reached significance level. Explanatory power of Social Consensus and Actual Benefit Degree was more significant. The results showed that the consumers' purchase decision of non-green products is mainly affected by Social Consensus and Actual Benefit Degree. H3-1 is partially supported.
4. Moral intensity and green products purchase intention (see Table 1): overall explanatory power of Social Consensus, Actual Benefit Degree, Temporal Immediacy, and Proximity on green product purchase intention was 15.9% and F value was 13.454($p<0.01$), which is statistically significant (Model 2-2). Temporal Immediacy and Proximity did

not reach significance level, while Social Consensus and Actual Benefit Degree were significant. The results showed that the consumers' purchase decision of green products is affected by Social Consensus and Actual Benefit Degree. H3-2 is partially supported.

5. Regression analysis of values and moral judgment (see Table 2): explanatory power of values on moral judgment was 8.8%, and F value was 26.506($p<0.01$), which is statistically significant (Model 3-1), Thus, value intensity has significant and positive influence on green product moral judgment. H4 is supported.
6. Regression analysis of values and moral intensity (see Table 2): explanatory powers of values on sub-constructs of moral intensity (Social Consensus, Actual Benefit Degree, Temporal Immediacy, and Proximity) were 5.5%, 4.6%, 2.7%, and 1.9%, respectively. F values were 16.230($p<0.01$), 13.796($p<0.01$), 8.301($p<0.01$) and 6.013($p<0.01$), respectively, which is statistically significant (Model 3-2~Model 3-5). Normalized β of Social Consensus, Actual Benefit Degree, and Proximity was positive, indicating that values intensity have positive and significant influences on Social Consensus, Actual Benefit Degree, and Proximity of moral intensity; Normalized β of Temporal Immediacy was negative, indicating that values intensity has positive and negative influence on Temporal Immediacy of moral intensity. H5 is supported.

Hierarchical Regression Analysis

This study applied hierarchical regression analysis to validate the intervening effects of moral judgment and moral intensity on values and purchase intentions. According to Baron and Kenny (1986), when validating intervening effects by regression model, three conditions should be fulfilled to support the intervening effect.

Table 1: Regression analysis of the effects of moral judgments and moral intensity on product purchase intentions

		Model 1-1 Non-green product purchase intention	Model 1-2 Green product purchase intention	Model 2-1 Non-green product purchase intention	Model 2-2 Green product purchase intention
Constant		(40.829***)	(104.812***)	(41.668***)	(108.500***)
Moral judgment		-.210(-3.477***)	.319(5.464***)		
Moral intensity	Social Consensus			-.210(-3.511***)	.318(5.578***)
	Actual benefit degree			-.161(-2.717***)	.267(4.725***)
	Temporal Immediacy			.051(.848)	.047(.817)
	Proximity			-.127(-2.145**)	.047(.830)
R-square		.044	.102	.092	.171
Adjusted R-square		.040	.099	.078	.159
F value		12.090***	29.859***	6.614***	13.454***

Note 1: t values are in brackets.
Note 2: ** p <0.05, *** p <0.01.
Note 3: The samples tested are the population.

Table 2: Regression analysis of the effect of values on moral intensity and moral judgments

	Model 3-1 Moral judgment	Moral intensity			
		Model 3-2 Social Consensus	Model 3-3 actual benefit degree	Model 3-4 Temporal Immediacy	Model 3-5 Proximity
Constant	(.008)	(-.025)	(.016)	(-.005)	(.067)
Values	.303 (5.148***)	.241 (4.029***)	.223 (3.714***)	-.175 (-2.881***)	.150 (2.452**)
R-square	.092	.058	.050	.031	.022
Adjusted R-square	.088	.055	.046	.027	.019
F value	26.506***	16.230***	13.796***	8.301***	6.013**

Note 1: t values are in brackets.
Note 2: ** p <0.05, *** p <0.01.
Note 3: The samples tested are the population.

1. Independent variables and intervening variables are respectively and significantly related to dependent variables. In this study, the relationships between moderating variables and dependent variables are shown in Table 1: non-green - Model 1-1, Model 2-1; green -Model 1-2~Model 2-2 are supported. Relationships between independent variables and dependent variables are shown in Table 3: non-green-Model 4-1 and green-Model 5-1 are supported.
2. There is significant correlation between independent variables and moderating variables. In this study, according to Table 2, Model 3-1~Model 3-5 are supported.
3. There is significant correlation between independent and dependent variables. After the involvement of the moderating variables in the regression model, it becomes insignificant; there is significant correlation between moderating and dependent variables. The discussion on "non-green" and "green" products is below:
   (1) Intervening effect analysis of non-green products (see Table 3) -Model 4-1, β of independent variable (values) is reduced from -.220 to -.173 in Model 4-2, -.178 in Model 4-3, -.194 in Model 4-4, and -.206 in Model 4-5. The overall explanatory power of independent variables on dependent variables increases after the involvement of individual moderating variables in the regression model (overall explanatory power increases from 4.5% to 6.4%, 7.0%, 5.5% and 5.0%). Thus, there are moderating effects of moral judgment and moral intensity on values and non-green product purchase intentions. H6-1 and H7-1 are supported. There are negative correlations between independent variables, intervening variables, and dependent variables.
   (2) Intervening effect of green products (see Table 4) --Model 5-1, β of independent variable (values) reduces from 0.269 to 0.190 in Model 5-2, 0.206 in Model 5-3 and 0.221 in Model 5-4. The overall explanatory power of independent variables on dependent variables increases after the involvement of individual moderating variables in the regression model (overall explanatory power increases from 6.9% to 12.8%, 13.0% and 11.0%). Thus, there are intervening effects of moral judgment and moral intensity on values and green product purchase intentions. H6-2 and H7-2 are supported. There is positive correlation between independent variables, intervening variables, and dependent variables.

Table 3: Intervening effects of moral judgments and moral intensity on values and non-green product purchase intentions

		Model 4-1 Non-green product purchase intention	Model 4-2 Non-green product purchase intention	Model 4-3 Non-green product purchase intention	Model 4-4 Non-green product purchase intention	Model 4-5 Non-green product purchase intention
Constant		(40.927***)	(41.342***)	(41.474***)	(41.145***)	(41.050***)
Values		**-.220** (-3.663***)	**-.173** (-2.764***)	**-.178** (-2.915***)	**-.194** (-3.155***)	**-.206** (-3.395***)
Moral judgment			-.157 (-2.519**)			
Moral intensity	Social Consensus			-.174 (-2.854***)		
	actual benefit degree				-.119 (-1.946)	
	Proximity					-.096 (-1.584)
R-square		.049	.071	.077	.062	.058
Adjusted R-square		**.045**	**.064**	**.070**	**.055**	**.050**
F		13.416***	10.018***	10.962***	8.672***	8.001***

Note 1: t values are in brackets.
Note 2: ** p <0.05, *** p <0.01.
Note 3: The samples tested are the population.

Table 4: Intervening effects of moral judgments and moral intensity on values and green product purchase intentions

		Model 5-1 Green product purchase intention	Model 5-2 Green product purchase intention	Model 5-3 Green product purchase intention	Model 5-4 Green product purchase intention
Constant		(103.142***)	(106.582***)	(106.729***)	(105.480***)
Values		**.269** (4.538***)	**.190** (3.156***)	**.206** (3.491***)	**.221** (3.717***)
Moral judgment			.262 (4.341***)		
Moral intensity	Social Consensus			.262 (4.424***)	
	actual benefit degree				.215 (3.616***)
R-square		.073	.135	.137	.117
Adjusted R-square		**.069**	**.128**	**.130**	**.110**
F		20.595***	20.419***	20.811***	17.308***

Note 1: t values are in brackets.
Note 2: ** p <0.05, *** p <0.01.
Note 3: The samples tested are the population.

Validation Results of Hypotheses

Based on the statistical analysis above, the validation results are summarized in Table 5.

Table 5: Validation results of hypotheses

Hypotheses		Results
H 1 :	Consumers' green product purchase intention is significantly higher than that of non-green product.	Supported
H 2 - 1 :	Moral judgment has negative influence on non-green product purchase intention.	Supported
H 2 - 2 :	Moral judgment has positive influence on green product purchase intention.	Supported
H 3 - 1 :	Moral intensity has negative influence on non-green product purchase intention.	Partially supported
H 3 - 2 :	Moral intensity has positive influence on green product purchase intention.	Partially supported
H 4 :	Values have significant influence on moral judgment.	Supported
H 5 :	Values have significant influence on moral intensity.	Supported
H 6 - 1 :	Moral judgment has intervening effect on values and "non-green product" purchase intention.	Supported
H 6 - 2 :	Moral judgment has intervening effect on values and "green product" purchase intention.	Supported
H 7 - 1 :	Moral intensity has intervening effect on values and "non-green product" purchase intention.	Supported
H 7 - 2 :	Moral intensity has intervening effect on values and "green product" purchase intention.	Supported

CONCLUSIONS, CONTRIBUTIONS, AND SUGGESTIONS

Conclusions

1. Consumers' green product purchase intention is significantly higher than that of non-green product intention: This result is consistent with that of Coddington (1990), Suchard and Polonski (1991), and Mario et al. (2002), who indicated that consumers are willing to pay more for green products.
2. Moral judgment has significant influence on product purchase intention: Moral judgment has positive influence on "green" products purchase intention; however, moral judgment has negative influence "non-green" product purchase intention; this result is consistent with Tan (2002), with regard to pirated software purchase intention. "Green" refers to moral decision (or moral judgment) and "non-green" refers to immoral decision (or immoral judgment), and they have positive and negative effects on purchase intentions, respectively. It indicates that with the same conditions, consumers prefer "green" products than "non-green" products.

3. Moral intensity has significant influence on product purchase intention: With regard to "non-green products", sub-constructs of moral intensity ("Social Consensus", "Actual Benefit Degree" and "Proximity" are negatively related to non-green product purchase intentions; when selecting "non-green products", consumers would feel ashamed of their ideas or attitudes after considering moral decision factors such as "Social Consensus", "actual benefit degree" and "Proximity" and thus, their purchase intention would be reduced. However, with regard to "green products", there is positive correlation between sub-constructs of moral intensity ("Social Consensus" and "Actual Benefit Degree" and green product purchase intentions; when selecting "green products", consumers would feel satisfied with their moral consumption after considering moral decision factors, such as "Social Consensus" and "Actual Benefit Degree". Thus, their "green product" purchase intention would be enhanced.
4. Consumers' values intensities have significant influence on moral judgment: With regard to consumers' values, self realization, sense of belonging, positive interpersonal relationships, and self-esteem significantly affect moral judgment.
5. Consumers' values have significant influences on moral intensity: Consumers with higher levels of value intensity would reveal higher levels of sub-constructs of moral intensity (Social Consensus, Actual Benefit Degree and Proximity) (positive and significant correlation) and lower levels of Temporal Immediacy (negative and significant correlation).
6. There are intervening effects of moral judgment and moral intensity on independent variables values and dependent variables, regardless of "green products" or "non-green products": In purchase decision processes, the consumers' purchase intention would be significantly affected when "green products" or "non-green products" involve "moral decision factors (moral judgment and moral intensity)" and consumption morality. It indicates that when managers develop marketing strategies, consumers' moral decisions should be critical factors.

Research Contributions

1. From the perspective of moral decisions, this study validated the effects of moral judgment and moral intensity on product purchase intentions (including non-green and green products): Past studies suggested that, green product purchase decision involves morality, however, they did not treat green product purchase decisions as moral decisions, or probe into the effects of variables related to moral decisions on product purchase intentions (including non-green and green products). This study is the first research that regards green product purchase decisions as moral decisions, and explores the effects of moral judgment and moral intensity on product purchase intentions (including non-green and green products).
2. From the perspective of moral product consumption (green product consumption), this study validated the effects of moral judgment and moral intensity on Moral Intent: Past studies applied a moral decision theory to products purchase decisions. Tan (2002) applied pirated software purchase intentions, by Issue-Contingency Model. From the perspective of moral decision, this study validated the intervening effects of "moral judgment" and "moral intensity" on "values" and "product purchase intentions (including non-green and green products)": Past studies on green product purchase indicated that values have indirect influence on green product purchases through "attitude". This study specified moral decision processes of green products by variables of moral decision (including "moral judgment" and "moral intensity").

Management Implications

1. When basic functions and attributes of green and non-green products are similar, consumers prefer purchasing green products: This study confirmed that, since environmental protection issues are gradually valued by the public, consumers tend to be concerned about the attributes of green products when selecting products. Green products have become a trend, and as long as their functions are similar to those of the products in the same category, consumers would treat them as a priority.
2. In green product purchase decisions, consumers are motivated not only by profits, but also by morality: Green product purchase decisions involve morality, thus, companies can promote environmental protection of green products to enhance consumers' "moral judgment" and "moral intensity". It would associate with the consumers'

"moral decision" and further enhance purchase intentions. Based on moral decisions, consumers would degrade "non-green products", which has negative influence on purchase intentions. Thus, when media reports the hazards of traditional batteries, chemical fertilizer, or other products with illegal or excessive drugs, consumers would treat them as immoral products and reduce their purchase intentions.

REFERENCES

Alder, N. J., (1991), "International dimensions of organizational behavior, 2nd ed.," MA: *PWS Kent Publishing.*

Barnett, T., Brown G., Bass, K. and Herbert, R., (1999), "New measures for proposed dimensions of the moral intensity of ethical issue," *in National Meeting of the Academy of Management*, Chicago, IL.

Baron, R. M. and D. A. Kenny, (1986), The moderator mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations, *Journal of Applied Psychology*, 51(6): 1173-82.

Bennett, R. M., Anderson, J. and Blaney, R. J. P., (2002), "Moral intensity and willingness to pay concerning farm animal welfare issues and the implications for agricultural policy," *Journal of Agricultural and Environmental Ethics*, Vol. 15, pp. 187-202.

Coddington, W., (1990), "It's no fad: Environmentalism is now a fact of corporate life," *Marketing News*, 15 Oct., p.7.

Cooper, D. R., Schindler P. S., (2003), *Business research methods*, 8e, Boston: *Mc-Graw Hill*.

Davis, M. A., Johnson, N. B. and Ohmer, D. G., (1998), "Issue-contingent effects on ethical decision-making: a cross-cultural comparison," *Journal of Business Ethics*, Vol. 17, pp. 373-89.

Dubinsky, A. J. and Loken, B., (1989), "Analyzing ethical decision making inmarketing," *Journal of Business Ethics*, 19, No.2, pp. 83-107.

Ferrell, O. C. and Dresham, L. G., (1985), "A contingency framework for understanding ethical decision making in marketing," *Journal of Marketing*, 49, pp. 87-96.

Ferrell, O. C., Dresham, L. G. and Fraedrich, J., (1989), "A synthesis of ethical decision models for marketing," *Journal of Marcomarketing*, 9(2), pp. 55-64.

Fishbein, M. and Ajzen, I., (1975), "Belief, attitude, intention and behavior: An introduction to theory and research," Boston: *Addison-Wesley*.

Frey, B. F., (2000), "The impact of moral intensity on decision making in a business context," *Journal of Business Ethics*, 26, pp. 181–195.

Glover, S. H., Bumpus, M. A., Logan, J. E. and Ciesla, J. R., (1997), "Re-examining the influence of individual values on ethical decision making," *Journal of Business Ethics*, 16, pp. 1319-1329.

Harrington, S. J., (1997), "A test of a person-issue contingent model of ethical decision making in organizations," *Journal of Business Ethics*, Vol. 16, pp. 363-375.

Hunt, S. D. and Vitell, S., (1986), "A general theory of marketing ethics," *Journal of Macromarketing*, 6(1), pp. 5-16.

Jones, Thomas M., (1991), "Ethical decision making by individuals in organizations: an issue-contingent model," *Academy of Management Review*, Vol. 16, No.2, pp. 366-395.

Kahle, L. R. and Kennedy, P., (1988), "Using the list of values (LOV) to understand consumers," *Journal of Services Marketing*, 2, 4, pp. 49-57.

Kaiser, H. F., (1974), "An Idea of Factorial Simplicity", *Psychometrika*, Vol.39, pp.31-36.

Kelman, H. C., and Hamilton, V. L., (1989), "Crimes of obedience," CT: *Yale University Press.*

Kotler, Philip, (2000), *Marketing management*, N.J.: Merrill/Prentice Hall.

Mario F. T., Stephanie, P., Felicia, N., Joann, B., and Melissa, H., (2002), "Consumer reactions to environmental labels for forest products: A preliminary look," *Forest Products Journal*, 52(1), pp. 44-50.

Meglino, B. M. and Ravlin, E. C., (1998), "Individual values in organizations: concepts, controversies, and research," *Journal of Managent*, 24(3), pp. 351-389.

Nonis, S. and Swift, C. O., (2001), "Personal value profiles and ethical business decisions," *Journal of Education for Business*, 76, 5, pp. 251-256.

Ottman, J., (1999), *Environment consumerism: What every marketer needs to know*, New York: Ottman Consulting Inc.

Paolillo, J. G. P. and Vitell, S. J., (2002), "An empirical investigation of the influence of selected personal, organizational and moral intensity factors on ethical decision making," *Journal of Business Ethics*, 35, pp. 65-74.

Peattie, K., (1992), *Green marketing*, London: Pitman Publishing.

Rawls, J., (1971), *A theory of justice*, MA: Harvard University Press.

Reidenbach, R. E., Robin, D. P. and Dawson, L., (1991), "An application and extension of a multidimensional ethics scale to selected marketing practices and marketing groups," *Academy of Marketing Science Journal*, Vol. 19, Iss. 2, pp. 83-93.

Rokeach, M., (1973), *The nature of human values*, New York: The Free Press.

Singer, M., Mitchell, S. and Turner, J., (1998), "Consideration of moral intensity in ethicality judgments: Its relationship with whistle-blowing and need- for-cognition," *Journal of Business Ethics*, Vol. 17, pp. 473-84.

Singhapakdi, A. and Vitell, S. J., (1993), "Personal and professional values underling ethical judgments of marketers," *Journal of Business Ethics*, Vol. 12, pp. 523-533.

Singhapakdi, A., Vitell, S. J. and Franke, G. R., (1999), "Antecedents, consequences, and mediating effects of perceived moral intensity and personal moral philosophies," *Journal of Academy of Marketing Science*, Vol. 27, pp. 19-35.

Suchard, H. T., and Polonski, M. J., (1991), "A theory of environmental buyer behaviour and its validity: The environmental action-behaviour model," *American Marketing Association*, pp. 187-201.

Tan, B., (2002), "Understanding consumer ethical decision making with respect to purchase of pirated software," *Journal of Consumer Marketing*, Vol. 19, pp. 96-111.

Trevino, L. K., (1986), "Ethical decision making in organizations: A person-situation interactionist model," *Academy of Management Review*, 11, pp. 601-617.

Velasquez, M. G. and Rostankowski, C., (1985), *Ethics: Theory and practice*, NJ: Prentice-Hall.

Wright, G., Cullinan, C. and Bline, D., (1997), "The relationship between an individual's values and perceptions of moral intensity: An empirical study," *Behavior Research in Accounting*, Vol. 9, pp. 26-40.