

Study on Impact of Green Perceived Value, Green Trust, and Green Perceived Risk on Consumer Purchase Intention toward Indian Automobile Industry

By

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Abstract

Over the past ten years, numerous research has focused on the problem of green consumerism. According to authors, people are prepared to pay extra for environmental advantages. Researchers have also claimed that consumers' purchase behaviours exhibit a value-action gap. Due to inconsistencies in consumer behaviour and thought processes, there is a gap. The current study investigated the effects of green satisfaction value, green trust, & green behavioral intentions on consumers' purchase intentions for the Indian automobile industry. A sample of owners who own car and has some fundamental knowledge about green products and its uses were approached for collection of data. The provided hypothesised model was examined using a structural equation model, and the results revealed that when green satisfaction risk is lower, green perception value & trust increase buy intention.

Introduction

As a result of the catastrophic environmental degradation caused by global industrial manufacturing activity, the public has become more aware of environmental issues (Chen, 2011). More corporations are thus likely to see environmental preservation as a component of their social responsibility (Peattie, 1995; Dwyer, 2009; Lee, 2009). More forward-thinking firms would want to take advantage of green opportunities since environmental challenges have lately received broad attention as a consequence of global warming (Molina-Azor'n et al., 2009; Haden et al., 2009). Businesses are increasingly focusing on green marketing during the current environmental time in various areas, such as the information & electronics industry (Chen, 2010). However, not every company has the resources required to use green marketing strategies.

If businesses want to successfully implement green marketing, they need include the idea into all elements of their regular marketing efforts (Ottman, 1992).

Organizations should use green marketing strategies to boost the perception value of their goods and lower the perception risk of those goods in terms of environmental issues in order to strengthen their competitive advantage. Since green goods are getting more popular on the market, green marketing is becoming more widespread. Green marketing initiatives include developing, differentiating, pricing, and promoting products and services that satisfy consumers' environmental demands without harming the environment. Green marketing is crucial in deciding how many green products will be sold once they are launched by businesses.

Green marketing can change market marketing standards in addition to offering a strategy for distinction by generating environmental requirements. Since the consumer is more inclined to purchase green goods with appropriate reliable facts, minimising their perceived risk, businesses should provide reliable information for their consumers (Peattie, 1992). Without giving their customers enough information, marketers find it difficult to persuade them to buy their items. Businesses must be more transparent about the sustainability practices of their goods if they want to win the confidence of their consumers.

Additionally, using green marketing can increase customers' intents to make purchases. The idea that green products are inferior quality or don't really live up to their environmental claims frequently lowers consumer expectations for them. Consumers are unwilling to compromise on more conventional product attributes like value, quality, affordability, and performance, therefore marketers must be mindful of how customers perceive the "greenness" of their goods. In order to draw customers, green products must compete on such qualities with nongreen alternatives. Even in the green era, a product's greenness cannot ensure excellent sales. This study makes the case that in order to increase consumer buy intentions, businesses must create items that are both environmentally friendly and high in value. Credibility is also a crucial component of any green marketing plan. Customers' scepticism can be reduced and their trust can be increased by lowering the perceived risk they have regarding the greenness of products.

This study's key research question is: "How can a green marketing model, which takes into account a product's greenness as well as its perceived value and risk in the context of customer scepticism, be used to increase purchase intentions for environmental needs?" Through "the three drivers of green perceived value, green perceived risk, and green trust," this study hopes to assist marketers in creating a framework for green marketing that will improve green buy intentions. Although the pertinent topics of perceived risk and value have been extensively studied in earlier studies, none of them have been examined in relation to environmental or green issues. Therefore, the goal of this study is to close the knowledge gap. This research introduces three novel concepts: "green perceived value, green perceived risk, and green purchase intents" in order to further examine their implications in the area of green marketing. It also includes Chen's (2010) idea of green trust into an integral framework. In the light of stringent international environmental legislation and widespread consumer environmentalism, green purchasing intents are more crucial for automakers. Through its three determinants—"green perceived value, green perceived risk, and green trust"—this study develops the research framework that can assist businesses in enhancing their intents to make green purchases.

Literature Review

Due to consumers' increased awareness of the growth of environmental protection measures and the repercussions of pollution, consumer environmentalism is becoming more and more popular globally (McIntosh, 1991). Customers are thus more likely to buy ecologically friendly items (Chen, 2010). Due to the proliferation of strict environmental regulation and environmentalism, businesses must modify their business strategy in order to capitalise on the green opportunities (Peattie, 1992). A recent development in the marketing industry is green marketing, which has grown significantly to meet customer demand for green products. "Green marketing" refers to any marketing strategies developed to elicit and sustain customers' environmental perceptions and behaviours (Jain and Kaur, 2004).

Perceived value is a consumer's overall perception of the value of an item or service based on their appraisal (Bolton and Drew, 1991; Patterson and Spreng, 1997). Businesses may enhance customer purchase intentions by increasing goods value due to the rising relevance of perception value in today's market (Steenkamp and Geyskens, 2006). According to Patterson and Spreng (1997), the study proposes a novel construct called "green perceived value," which it defines as "a consumer's overall appraisal of the net benefit of a product or service between what is received and what is given based on the consumer's environmental desires, sustainable expectations, and green needs." The degree to which you are willing to rely on something depends on how confident you are in its skill, reliability, and goodness (Ganesan, 1994; Hart and Saunders, 1997). Additionally, trust serves as the justification for accepting vulnerability based on positive assumptions about the competency and character of another person (Rousseau et al., 1998; Lin et al., 2003). The definition of "green trust" according to Chen (2010) is "a readiness to depend on one thing based on the belief or expectation deriving from its credibility, goodness, and capacity about environmental performance."

The evaluation of perceived risk might influence a customer's buying choice since perceived risk is a mix of adverse consequences and ambiguity (Peter and Ryan, 1976; Stone and Gronhaug, 1993; Aaker, 1996). Risk perceptions and unfavourable consumption feelings are strongly correlated, and this has an immediate impact on trust (Chaudhuri, 1997). Therefore, risk-related feelings like fear or concern would have a detrimental impact on trust (Chang and Chen, 2008). Therefore, prior research contends that perceived risk has a detrimental impact on consumer trust (Koehn, 2003; Eid, 2011). The advent of environmental trends and consumers' growing environmental knowledge have enhanced their sense of risk. This study offers a brand-new concept termed "green perceived risk," which it describes as "the anticipation of negative environmental repercussions related with purchasing behaviour" (Peter and Ryan, 1976). This research argues that green trust will suffer as a result of green perceived risk in environmental management.

Trust is the degree to which one has faith that another party will behave in accordance with expectations (Hart and Saunders, 1997). Customer trust is basically what drives long-term consumer behaviour (Lee et al., 2011). According to Chen (2010), consumer buying choices will be impacted by green trust in the age of the environment. The phrase "green buying intentions," which is unique to this research, is defined by Netemeyer et al. (2005) and Morrison as "the possibility that a customer will purchase a given product as a consequence of his or her environmental needs" (1979). Consumer trust affects consumers' propensities to make purchases favourably, claim Lu et al. (2010).

By fusing a variety of qualities, a product's perceived value may boost purchase intentions and foster a positive word-of-mouth impact (Sweeney et al., 1999; Ashton et al., 2010). Customers are reluctant to buy some companies' products because they make false claims about how beneficial they are to the environment (Kalafatis and Pollard, 1999). As a result, the perceived benefit of being green is given increased importance in the contemporary environmental period. Perceived value is one of the most significant factors determining purchasing intentions (Zeithaml, 1988).

If consumers think a product has significant risk, they are less inclined to buy it (Mitchell, 1999). Because of this, previous study shows that reducing perceived risk could persuade buyers to buy (Wood and Scheer, 1996). In other words, perceived risk has a negative influence on the buying intentions of customers (Wood and Scheer, 1996; Chang and Chen, 2008). According to this research, perceived green risk has a detrimental impact on consumers' inclinations to purchase green products.

Research Methodology

Both Descriptive and Exploratory research designs are to be implemented. Study follows descriptive research design to describe the research objectives in relation with major focus on what do Indian consumers perceive about green marketing, green practices etc in automobile industry; How does Green Practices bring a positive perception toward the product value; Which of the green factor could enhance more purchase intention etc. on the other side, study follows exploratory research design since it is evident from the previous research that not many studies were conducted in Indian Context with reference to Automobile industry therefore it is decided form the present research to provide more exploration about green practices and its applications in Indian automobile industry thus there could be much future studies are expected to conduct. Consumers who care about the environment and are interested in purchasing green vehicle items should be taken into account as the sample unit. Selection method of sample would be on the bases of random selection.

Measures

According to a "five-point Likert scale from 1 to 5" grading from strongly disagree to strongly agree, the questionnaire questions in this research were measured. Every responder to this study is asked to identify the information and car product from a particular Indian firm that most impresses them. Then, each responder will be asked to complete the questionnaire with this product as the main focus. The following are the definitions and measures for the constructs used in this study:

Green value perception.

According to Patterson and Spreng (1997), the concept of "green perceived value" is proposed in this study and is described as "a consumer's overall appraisal of the net benefit of a product or service between what is received and what is given based on the consumer's environmental desires, sustainable expectations, and green needs." Additionally, this study uses Patterson and Spreng (1997) to calculate the perceived value of green.

Green perception risk.

According to Peter and Ryan (1976), the concept of "green perceived risk" is proposed in this study and is described as "the anticipation of adverse environmental repercussions linked with buying behaviour." To assess green perceived risk, this research also makes reference to Jacoby and Kaplan (1972), Murphy and Enis (1986), and Sweeney et al. (1999).

The green trust

This study defines "green trust," quoting Chen (2010), as "a readiness to rely on a product, service, or brand based on the belief or expectation deriving from its credibility, kindness, and ability concerning its environmental performance." Additionally, Chen (2010) is cited in this study to assess green trust.

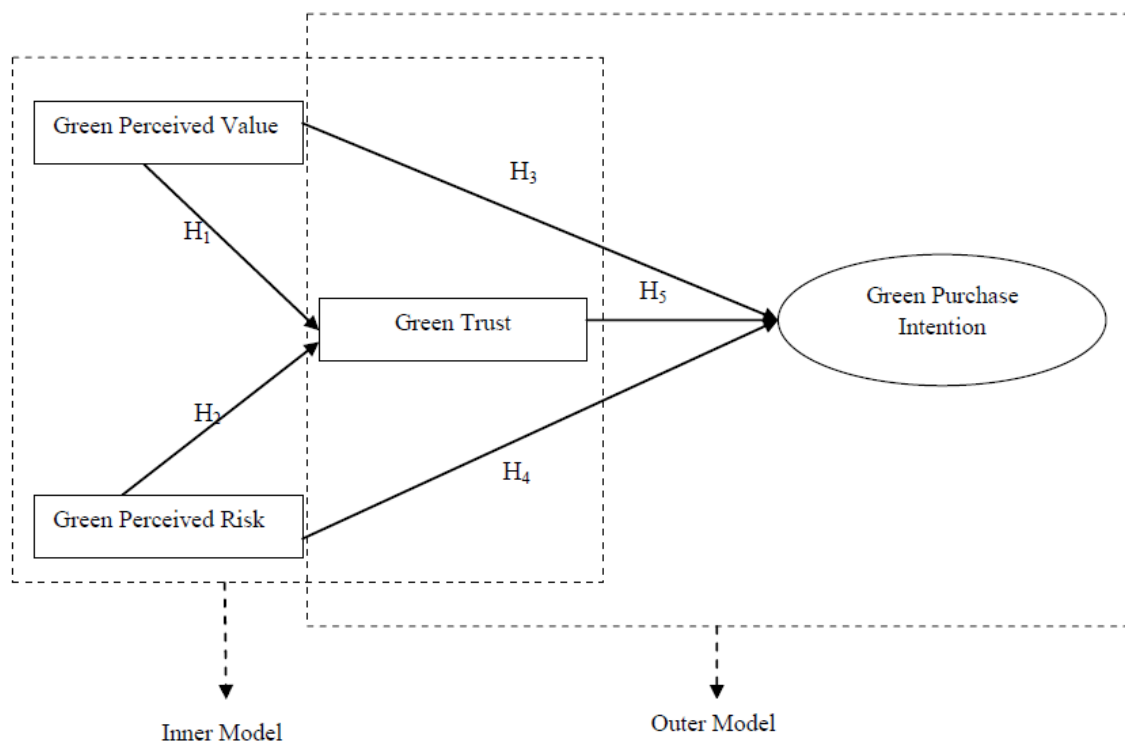
Prospective green purchases.

The term "green purchasing intentions" is original in this research, and it is defined as "the probability that a customer would acquire a certain product as a consequence of his or her environmental demands" by Netemeyer et al. (2005) and Morrison (1979). Additionally, this study uses Pavlou (2003) and Chang and Chen (2008) to quantify readers' intentions to make green purchases.

Proposed Conceptual Model

We built the conceptual model shown in Figure below in accordance with the presented hypotheses, which suggest a causal link between green perceived value, green perceived risk, green trust, and green purchase intention..

Figure -1



Research Objectives

1. To investigate consumer perceptions of the value of green automobile items and how they affect their intentions to make green purchases.
2. To investigate the connection between perceived environmental value and environmental trust for automotive products.
3. To investigate the link between green purchase intention and perceived risk.
4. To track the relationship between Green Trust and Green Perceived Risk.
5. To investigate the connection between green trust and the intention to make green purchases.

Research Hypotheses

- H1:** Green perceived value is positively associated with green trust.
H2: Green perceived risk is negatively associated with green trust.
H3: Green perceived value is positively associated with green purchase intentions.
H4: Green perceived risk is negatively associated with green purchase intentions.
H5: Green trust is positively associated with green purchase intentions.

Results and Discussions

Table No: 1 Demographic Profile

Demographic Variable with Frequency (%)	
Gender	Male (56%); Female (44%)
Age	25-30 Years (9%); 30-35 Years (32%); 35-40 Years (16%) above 40 Years (43%)
Income	Below 50000 (32%); 50000-75000(43%); 75000- 100000(13%); above 100000 (12%)
Qualification	UG (42%); PG (58%)
Family Size	3 Members or less (36%); 3-5 Members (52%); more than 5 members (12%)

Male respondents have participated in the research (56%) than the female respondents (44%) whose age group is between 30 to 35 (32 %) years found majorly. Respondents are drawing 50000 to 75000 (43%) as monthly income who were all qualified with post-graduation degrees (58%). There are 3 to 5 members in the family observed in the majority of the respondents (52 %) (See Table 1).

Table No: 2 Mean, SD and Correlation

Factors	Mean	SD	Correlation			
			GPV	GPR	GT	GPI
GPV	3.86	0.921	1			
GPR	3.79	0.776	0.411***	1		
GT	4.12	0.432	0.341***	0.481***	1	
GPI	4.01	0.981	0.331***	0.501***	0.465***	1

Note: "GPV:Green Perceived Value; GPR: Green Perceived Risk; GT: Green Trust; GPI: Green Purchase Intention & ***: Correlation significant @1 %"

Respondent's responses' mean values were calculated with standard deviation and shown in table no: 2. Respondents have agreed to all the measurement statements toward green perceived value (GPV $\mu= 3.86$ & $SD=0.921$) positively. Green Perceived risk has also got a positive response from the respondents (GPR $\mu= 3.79$ & $SD=0.776$). "Opinion on green trust and green purchase intention was also found positive" (GT $\mu= 4.12$ & $SD=0.432$; GPI $\mu= 4.01$ & $SD=0.981$). Whereas the bivariate correlations between the variables are found positive and significant at one percent level (Correlation coefficient $GPV \& GPR=0.411$; $P <0.001$, Correlation coefficient $GPV \& GT =0.341$; $P <0.001$, Correlation coefficient $GPV \& GPI =0.331$; $P <0.001$, Correlation coefficient $GPR \& GT =0.481$; $P <0.001$, Correlation coefficient $GPR \& GPI =0.501$; $P <0.001$, Correlation coefficient $GT \& GPI =0.465$; $P <0.001$).

Reliability and Discriminant Validity

Table No: 3 Discriminant Validity & Reliability

Factors	Reliability	AVE	GPV	GPR	GT	GPI
GPV	0.781	0.631	0.794			
GPR	0.775	0.689	0.411	0.830		
GP	0.821	0.657	0.341	0.481	0.810	
GPI	0.811	0.721	0.331	0.501	0.465	0.849

Note: "GPV: Green Perceived Value; GPR: Green Perceived Risk; GT: Green Trust; GPI: Green Purchase Intention"

Scale reliability of (1) green perceived value was found at 0.781, (2) green perceived risk was found at 0.775 (3) green trust was found at 0.821, and (4) green purchase intention was found at 0.811, and all these reliability scores are found above the suggested thresholds 0.60 and above. Using the average variance explained, convergence validity was evaluated. Convergence validity has been shown since the AVE of every factor is greater than 0.50. The square root of AVE for each component was larger than the equivalent interfactor correlations, although discriminant validity was also shown in this way. (see table no: 3)

Structural equation model test confirmed the results shown in table no 4. All the fit indices were acceptable as per the suggested thresholds ($\chi^2/df= 2.12$; GFI= 0.921; CFI=0.932; TLI= 0.941; RMR=0.021; RMSEA=0.031). Model standardized results showed that green perceived value is positively associated with green trust ($\beta = 0.311$; $t = 3.651$; $p=0.001<0.05$), green perceived risk is negatively associated with green trust ($\beta = -0.217$; $t = 4.762$; $p=0.001<0.05$), green perceived value is positively associated with green purchase intentions ($\beta = 0.442$; $t = 6.381$; $p=0.001<0.05$), green perceived risk is negatively associated with green purchase intentions ($\beta = -0.309$; $t = 9.821$; $p=0.001<0.05$), and green trust is positively associated with green purchase intentions ($\beta = 0.486$; $t = 8.324$; $p=0.001<0.05$).

Table No 4 Hypotheses Results

Sl.No	Hypotheses	Standardized Coefficient	Hypothesis Accepted
1	H1: Green perceived value is positively associated with green trust.	0.311	Accepted
2	H2: Green perceived risk is negatively associated with green trust.	-0.217	Accepted
3	H3: Green perceived value is positively associated with green purchase intentions.	0.442	Accepted
4	H4: Green perceived risk is negatively associated with green purchase intentions.	-0.309	Accepted
5	H5: Green trust is positively associated with green purchase intentions.	0.486	Accepted

Discussions and Recommendations

The current study aims to investigate the connection between consumer purchase intention in the Indian automobile industry and "green perceived value, green trust, and green perceived risk." Results from the study showed that consumer perceived value from the green products is significantly influenced by the trust they have towards that product. Based on this finding it is recommended that emphasized focus on building trust can bring more potential customers of "green products," especially in automobile industry. It was found from the study that perceived risk towards the green products in automobile industry influence the trust of the customer negatively therefore reducing the risk factors associated the green products could be better strategy to have more consumer trust on green products. However, we have found that green perceived value significantly influences the purchasing decision of green products as this value bring more confidence in consumer such that his/her intention would be more while deciding to purchase a green product. Nevertheless, we have found that green perceived risk significantly influences the purchasing decision of green products negatively as this value bring less confidence in consumer such that his/her intention would be not as much of while deciding to purchase a green product. Furthermore, research revealed a positive correlation between green trust and green purchase intentions, suggesting that building greater trust among prospective buyers of green goods might aid companies that produce them in seeing a rise in purchase intentions.

Limitation and Future Research Scope

Although the goal of the current study was to examine the effects of "green perceived value, green perceived risk, and green perceived trust" on consumer purchase intentions toward the Indian automobile industry, it has certain limitations that may be addressed in future research. Firstly, the study is limited to a select industry i.e., automobile, and generalization of the findings cannot be regarded with other industries. Future research could be done in any other industries like electrical and electronics device manufacturers from India as these industries also contribute a significant volume of business in green products. In order for future research to concentrate on this perspective, green brand value, brand equity, and brand image were not referred to in order to identify the association with green purchasing intention.

Conclusion

Examining the connections between "green perceived value, trust, risk, & purchase intention" is the goal of the current study. The study's findings revealed that although green perceived risk adversely affects green trust and green purchasing intention, green perceived value considerably affects both of these variables. Consumers who have a more favourable opinion of green automotive goods and who have green trust are more likely to make a purchase than consumers who have unfavourable perceptions and are often risk takers.

References

- Abid, M. and Atif, T.A. (2015), "Green marketing towards green purchase behavior", Management Research Report, Vol. 3 No. 7, pp. 44-60.
- Al Mamun, A. and Fazal, S.A. (2018), "Effect of entrepreneurial orientation on competency and microenterprise performance", Asia Pacific Journal of Innovation and Entrepreneurship, Vol. 12 No. 3, pp. 379-398.
- Ali, A. and Ahmad, I. (2012), "Environmental friendly products: factors that influence the green purchase intention of Pakistan consumers", Pakistan Journal of Engineering Technology Science, Vol. 2 No. 1, pp. 84-117.
- Ali, A., Khan, A.A., Ahmed, I. and Shahzad, W. (2011), "Determinants of Pakistani consumers' green purchase behavior: some insights from a developing country", International Journal of Business and Social Science, Vol. 2, pp. 217-226.
- Aman, A.H.L., Harun, A. and Hussein, Z. (2012), "The influence of environmental: knowledge and concern on green purchase intention the role of attitude a mediating variable", British Journal of Arts and Social Sciences, Vol. 7 No. 1, pp. 145-167.
- Bhandari, B.B. and Abe, O. (2000), "Environmental education in the Asia-Pacific region: some problems and prospects", International Review of Environmental Strategies, Vol. 1 No. 1, pp. 57-77.
- Chen, C., Chen, C. and Tung, Y. (2018), "Exploring the consumer behavior of intention to purchase green products in belt and road countries: an empirical analysis", Sustainability, Vol. 10 No. 3, pp. 854-868.
- Farrukh, M., Alzubi, Y., Shahzad, I.A., Waheed, A. and Kanwal, N. (2018), "Entrepreneurial intentions: the role of personality traits in perspective of theory of planned behavior", Asia Pacific Journal of Innovation and Entrepreneurship, Vol. 12 No. 3, pp. 399-414.
- Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", Journal of Marketing Research, Vol. 18 No. 1, pp. 39-50.

- Kaiser, F.G., Wolfing, S. and Fuhrer, U. (1999), "Environmental attitude and ecological behaviour", *Journal of Environmental Psychology*, Vol. 19 No. 2, pp. 1-19.
- Kalafatis, S.P., Pollard, M., East, R. and Tsogas, M.H. (1999), "Green marketing and Ajzen's theory of planned behaviour: a cross-market examination", *Journal of Consumer Marketing*, Vol. 16 No. 5, pp. 441-460.
- Kalamas, M., Cleveland, M. and Laroche, M. (2013), "Pro-environmental behaviors for thee but not for me: green giants, green gods, and external environmental locus of control", *Journal of Business Research*, Vol. 67 No. 2, pp. 12-22.
- Kerlinger, F.N. and Lee, H.B. (2000), *Foundations of Behavioural Research*, 4th ed., Fort Worth, Harcourt.
- Leonidou, C.N. and Leonidou, L.C. (2011), "Research into environmental marketing/management: a bibliographic analysis", *European Journal of Marketing*, Vol. 45 No. 2, pp. 68-103.
- Lukman, R., Lozano, R., Vamberger, T. and Krajnc, M. (2013), "Addressing the attitudinal gap towards improving the environment: a case study from a primary school in Slovenia", *Journal of Cleaner Production*, Vol. 48, pp. 93-100.
- MacDonald, W.L. and Hara, N. (1994), "Gender differences in environmental concern among college students", *Sex Roles*, Vol. 33 Nos 5-6, pp. 369-374.
- Mainieri, T., Barnett, E.G., Valdero, T.R., Unipan, J.B. and Oskamp, S. (1997), "Green buying: the influence of environmental concern on consumer behaviour", *Journal of Social Psychology*, Vol. 137 No. 2, pp. 189-204.
- Makki, M.H., Abd-El-Khalick, F. and BouJaoude, S. (2003), "Lebanese secondary school students' environmental knowledge and attitudes", *Environmental Education Research*, Vol. 9 No. 1, pp. 21-33.
- Manaktola, K. and Jauhari, V. (2007), "Exploring consumer attitude and behaviour towards green practices in the lodging industry in India", *International Journal of Contemporary Hospitality Management*, Vol. 19 No. 5, pp. 364-377.
- Manget, J., Roche, C. and Munnich, F. (2008), *Capturing the Green Advantage for Consumer Companies*, The Boston Consulting Group, Boston.
- Webb, D.J., Mohr, L.A. and Harris, K.E. (2008), "A re-examination of socially responsible consumption and its measurement", *Journal of Business Research*, Vol. 61 No. 2, pp. 91-98.
- Wijne, W., Stienstra, S., Buizert, N. and Borst, J. (2005), *Biologischeigenlijkheologisch', of tochniet ? Hoe denkenjongerenerover?*, Werkstuk, Gymnasium Apeldoorn, Apeldoorn.
- Wiernik, B.M., Ones, D.S. and Dilchert, S. (2013), "Age and environmental sustainability: a metaanalysis", *Journal of Managerial Psychology*, Vol. 28 Nos 7-8, pp. 826-856.
- Wong, V., Turner, W. and Stoneman, P. (1996), "Marketing strategies and market prospects for environmentally-friendly consumer products", *British Journal of Management*, Vol. 7 No. 3, pp. 263-281.
- Xiao, C. and Hong, D. (2010), "Gender differences in environmental behaviors in China", Vol. 32, pp. 88-104.
- Yencken, D. (1993), "Environmental education in Australian schools", *The Environmental Education Journal*, Vol. 5, pp. 154-165.
- Young, W., Hwang, K., McDonald, S. and Oates, C.J. (2010), "Sustainable consumption: green consumer behaviour when purchasing products", *Sustainable Development*, Vol. 18 No. 1, pp. 20-31.
- Zelezny, L., Chua, P.P. and Aldrich, C. (2000), "Elaborating on gender differences in environmentalism", *Journal of Social Issues*, Vol. 56 No. 3, pp. 443-457.