

ADOPTING SOCIO-DEMOGRAPHIC CHARACTERISTICS IN PROFILING GREEN CONSUMERS: A REVIEW OF HYPOTHESES

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Abstract

In the last three decades worldwide environmental consciousness has increased dramatically as well as profiling green consumers have gained tremendous attention in the past. Segmenting and targeting markets base on pro-environmental purchase behavior are essential when companies positioning their green products. Socio-demographic characteristics have gained a lot of attention as the key profiling variables. Such characteristics have been employed by many scholars more frequently for the bases of segmenting and profiling green consumers. However, most existing studies of green consumers' socio-demographic were US based. The present article attempts to review the common hypotheses of socio-demographic characteristics in profiling green consumers. The present article reviews five general hypotheses relating to socio-demographics and environmental consciousness of green consumers, namely the gender, age, education level, income, and occupation hypotheses, as well as the theoretical explanation for each hypothesis. Most previous studies tend to have the same conclusion in the gender, age, education level, and income characteristics. Critics to socio-demographic characteristics and a need to conduct green marketing research in Indonesia was also reviewed.

Key words: *profiling, socio-demographic, green consumer, hypotheses.*

INTRODUCTION

In the last three decades worldwide environmental consciousness has increased dramatically. The increase has had a great impact on consumer behavior; therefore marketers should understand environmental issues and be able to integrate this consideration into an appropriate marketing strategy. Market segmentation simply means dividing the whole of a market into separate homogeneous groups. As suggested by Schlegelmilch *et al.* (1996) that segmenting and targeting markets base on proenvironmental purchase behavior are essential when companies positioning their green products.

Profiling green consumers have gained tremendous attention in the past (e.g. Chan, K., 1999; Cornwell *et al.*, 1995; Dia-

mantopoulos *et al.* 2003; Jain *et al.*, 2006; Roberts, 1996). A various characteristics have been adopted to profile green consumer segments in the literature of green marketing (Kilbourne *et al.*, 1998). The characteristics include *geographic* (e.g. Pickett *et al.* 1993; Samdahl *et al.*, 1989), *cultural* (e.g. Anderson *et al.* 1974; Murphy *et al.* 1978; Webster, 1975), *personality* (e.g. Crosby *et al.* 1981; Kinnear *et al.* 1974), and *socio-demographic* (e.g. Diamantopoulos *et al.* 2003; Jain *et al.*, 2006; Roberts, 1996).

Socio-demographic characteristics have gained a lot of attention as the key profiling variables (Diamantopoulos *et al.* 2003). In addition, socio-demographic characteristics have been employed by many scholars more frequently for the bases of

segmenting and profiling green consumers (Jain & Kaur, 2006). Previous scholars such as Roberts (1996), Chan (1999), and Diamantopoulos *et al.* (2003) have conducted a comprehensive review of studies relating impact of the socio-demographic characteristics on green consumers. Diamantopoulos *et al.* (2003) argue that most existing studies of green consumers' socio-demographic were US based. In Asia, such studies were undertaken since the 1990s. To the best author knowledge, there is relatively few of published literature which examines Indonesian green consumers' characteristics. As a result, there is lack of knowledge into the studies in Indonesia. The most common socio-demographic characteristics that have been employed in the past studies include gender, age, education level, income, and occupation.

Based on above, it might be useful to review existing literature of socio-demographics of green consumers with the hope that many parties in Indonesia such as students, lecturers, and researchers can use such review to conduct study in green marketing field. The present article attempts to review the common hypotheses of socio-demographic characteristics in profiling green consumers. The paper is organized in five sections. The first section defines green marketing and green consumer. The second section provides a brief review of environmental consciousness constructs. The next section examines the common hypotheses and theoretical explanations relating environmental concern and socio-demographic. The fourth section describes critics into socio-demographic characteristics studies. The last section provides a call to conduct research in green marketing area in Indonesia.

DEFINITION OF GREEN MARKETING AND GREEN CONSUMER

The term "green marketing" has been widely used in popular and professional

presses in the past, especially in western world. However, there has been no precise academic effort to define it (Polonsky, 1995). In the present article, the term "green marketing" and "environmental marketing" are used interchangeably. According to (Pride *et al.*, 1993), the term "green marketing" describes an organization's efforts at designing, promoting, pricing and distributing products that will not harm the environment. The number of companies which have produced green products in the world has been increased (Carson & Fyfe, 1992). For instance, in the US in 1989, 5% of all new products launched were identified as green products, while in 1990 the figure increased 10% (Davis, 1992).

According to Peattie (2001), green consumer has been the central character in the development of green marketing, as businesses attempt to understand and respond to external pressures to improve their environmental performance. However, there is little agreement of the identity and nature of green consumers (Peattie, 2001). The term of "green" in the present article means "pro-environment", therefore green consumers can be defined as consumers who consider the environment to be important when they purchase products and services.

ENVIRONMENTAL CONSCIOUSNESS' CONSTRUCTS

Many scholars have studied and adopted the environmental consciousness construct in a wide range of social science fields, such as *psychology* (e.g. Manrai *et al.* 1997; Stone *et al.* 1995), *sociology* (e.g. Buttel *et al.*, 1978; Macnaghten *et al.*, 1995), *environmental studies* (e.g. Dunlap & Van Liere, 1978; Stern *et al.* 1993, 1995; Thøgersen, 1996), *business research* (e.g. Balderjahn, 1988; McCarty *et al.*, 1994; Shrivastava, 1994; Roberts, 1996; Roberts *et al.*, 1997), and *marketing* (e.g. Diamantopoulos *et al.* 2003; Kilbourne *et al.* 1997).

A wide range of environmental consciousness constructs have been employed in the past studies. The constructs include “environmental awareness” (Buttall *et al.*, 1978), “environmental knowledge” (Balderjahn, 1988), “environmental concern” (Kinneer *et al.* 1974; Tognacci *et al.* 1972; Zimmer *et al.* 1994), “perceived environmental effectiveness” (Ellen *et al.* 1991), and “environmental behavior” which is expressed in “recycling behavior” (Anderson *et al.* 1974; Vining *et al.*, 1990), “conservation behavior” (Geller, 1981; Leonard-Barton, 1981), “environmentally friendly purchase behavior” (Davis, 1993; Ottman, 1992; Schwegler *et al.*, 1991) and “ecologically conscious consumer behavior (ECCB)” (Roberts, 1996). However, there is an existing problem in the past studies; that is only one or select aspects of the environmental consciousness construct have been examined (Schlegelmich *et al.* 1996; Diamantopoulos *et al.*, 2003). To deal with the problem, Diamantopoulos *et al.* (2003) recommended environmental consciousness constructs: environmental knowledge, environmental attitude, and environmental behavior.

REVIEW OF HYPOTHESES AND EXPLANATIONS

In this section the author reviews five general hypotheses relating to socio-demographics and environmental consciousness of green consumers, namely the gender, age, education level, income, and occupation hypotheses, as well as the theoretical explanation for each hypothesis.

The Gender Hypothesis

The large majority of authors agreed that gender and environmental knowledge have significant relationship. In addition, males tend to have higher and better knowledge about green issues than females. It might be because “males are generally more outgoing, and, hence, more exposed to the

environmental information than females” (Jain *et al.*, 2006). Regarding environmental attitude and environmental behavior, a different phenomenon emerge in the past studies, with on the whole females have been found to exhibit more both higher concern and participate in various types of green behavior. Straughan *et al.* (1999) added that “the development of unique sex roles, skills, and attitudes has led most researchers to argue that women are more likely than men to hold attitudes consistent with the green movement”.

The Age Hypothesis

With regard to age, there is general belief that age has significant and negative relationship with environmental knowledge (e.g. Anderson *et al.* 1974; Arcury *et al.* 1987; Diamantopoulos *et al.* 2003). In line with the major belief in environmental knowledge, both environmental attitudes (e.g. Diamantopoulos *et al.* 2003; Scott & Willits, 1994; Van Liere & Dunlap, 1981) and environmental behaviors (e.g. Arcury *et al.* 1987; Diamantopoulos *et al.* 2003; Samdahl & Robertson, 1989; Van Liere & Dunlap, 1981; Zimmer *et al.* 1994) are significantly and negatively related with age.

Few exceptions were found in the past studies. The studies reported a non-significant relationship (e.g. Chan, 1999; Kinneer *et al.* 1974; Ostman & Parker, 1987; Shrum *et al.* 1995) and significantly positive relationship (e.g. Roberts, 1996; Samdahl & Robertson, 1989) between age and environmental consciousness. In addition, influence of age on environmental behavior was found tend to be country specific (Chan, 1996).

Despite the few exceptions, it can be concluded that generally there is a reverse relationship between the age and environmental knowledge, attitudes, and behaviors. Straughan & Roberts (1999) argue that possible reason why among the younger consumers have a greater sensitivity towards the

environmental issues might be they have grown up at a time when the environmental concerns have already become a prominent issue.

The Education Level Hypothesis

With exceptions of Samdahl & Robertson (1989) (negative relationships between the education level and both environmental attitudes and behavior) and Arbuthnot & Lingg (1975) (negative relationships between the education level and self-reported behavior), many studies reveal that there is a positive relationship between education and environmental knowledge (e.g. Arbuthnot *et al.*, 1975; Arcury *et al.* 1987; Chandler, 1972; Diamantopoulos *et al.* 2003; Maloney *et al.*, 1973; Maloney *et al.* 1975; Moore, 1981; Ostman *et al.*, 1987). In term of environmental attitudes, the education level has been found to be positively related with environmental attitudes (e.g. Aaker *et al.*, 1982; Leonard-Barton, 1981; Murphy *et al.* 1978; Roberts, 1996; Tognacci *et al.* 1972; Van Liere *et al.*, 1981; Zimmer *et al.* 1994). With regard to environmental behavior, a positive relationship has been revealed (e.g. Arbuthnot, 1977; Chan, T. S., 1996; Devall, 1970; Harry *et al.* 1969; Jolibert *et al.*, 1981; Maloney *et al.*, 1973; Ostman *et al.*, 1987; Scott *et al.*, 1994; Webster, 1975). Therefore, it can be concluded that consumers who hold the better education tend to have higher score on all components of environmental consciousness.

The possible reason related to the above findings is “the very nature of ecology with its complex interactions between organisms and environment serves to make its subject matter difficult to understand and assimilate” (Maloney *et al.* 1975). As a result, the higher-educated person has better understanding of the environmental issues, and then are more concern and more motivated to participate in environmentally responsible behaviors.

The Income Hypothesis

In regard to income, there is existing general belief that income is positively related to the environmental consciousness, with the reason that the higher income consumers able to pay additional costs associated with supporting the green causes and favoring green products (Straughan *et al.*, 1999). There is relatively few studies report a non-significant impact of income on environmental knowledge (e.g. Buttell *et al.*, 1978), attitudes (e.g., Kassarjian, 1971; Van Liere *et al.*, 1981) and behaviours (Anderson *et al.* 1974; Antil, 1984; Pickett *et al.* 1993).

The Occupation Hypothesis

Compared to socio-demographic characteristics reviewed above, there is no general belief on the occupation, “the results are too diverse to permit any conclusive inference” (Jain & Kaur, 2006:116). With respect to environmental knowledge, there is no significant relationship between occupation and environmental knowledge (Buttell *et al.*, 1978). Scholars, such as Anderson *et al.* (1972), and Balderjahn (1988) report a significant relationship between the occupation and the environmental attitudes; whereas a non-significant relationship found on the studies conducted by Kassarjian (1971), Kinnear *et al.* (1974), Samdahl *et al.* (1989), Van Liere *et al.*, (1981), and Webster (1975). In term of environmental behavior, inconsistent results also reported in the past studies. Anderson *et al.* (1974) reported occupation as an important determinant of environmental behavior, while others have found no statistically significant relationship (e.g., Antil, 1984; Roberts, 1996; Samdahl *et al.*, 1989; Straughan *et al.*, 1999; Vining *et al.*, 1990). Having inconsistent result in the past studies, it would be better to create exploratory hypotheses in the future studies.

Multivariate Analysis

Past studies of socio-demographic of green consumers tend to perform multiple regression analysis to examine joint effect of all the socio-demographic variables on environmental consciousness constructs. The environmental consciousness variables were used as dependent variables, while the socio-demographics as independent variables. Prior to the multiple regression analysis, several socio-demographic variables have to be converted to dummy (dichotomous) variables.

CRITIQUES ON SOCIO-DEMOGRAPHIC CHARACTERISTICS

Despite many scholars have employed socio-demographic characteristics in profiling green consumers, critiques to the characteristics exist. Diamantopoulos *et al.* (2003) argues that it needs to call fresh analysis to the characteristics due to several reasons. First, “many earlier studies failed to investigate the impact of socio-demographic variables on all components of environmental consciousness” (p.466). Second, “many measures of environmental consciousness used in past research have not been subjected to sufficient dimensionality, reliability, and validity tests” (p.466). Third, “many previous studies have been based upon data collected in the 1970s and 1980s. This is a potentially serious problem, as environmental knowledge, attitudes, and behaviors have undergone substantial changes during the last three decades” (p.466). Finally, “the large majority of environmental studies focusing on socio-demographic characteristics are US-based” (p.466).

CALLING TO CONDUCT GREEN MARKETING RESEARCH IN INDONESIA

Profiles of green consumers have been found differing across countries (e.g. Chan, 1999; Diamantopoulos *et al.* 2003).

The differences of green consumers' profile and culture contribute to a non-standardized of green marketing strategy throughout the world (Tai & Tam, 1996), therefore it needs country-specific investigations (Jain *et al.*, 2007).

Taking the critiques and the needs to conduct country-specific investigations into considerations, it might be useful profiling and segmenting Indonesian green consumers. Therefore, findings of the study might be use in addressing the question: who are Indonesian green consumers? To the very best author knowledge, there is relatively few studies into Indonesian green consumers. Findings of such studies, might be provide insight into green marketing. Others topics of green marketing area, such as green marketing strategy, green marketing advertising, green labelling, also can be explored by Indonesian researchers in order to enrich marketing literature in Indonesia.

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