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**Why wouldn't green appeal drive purchase intention? Moderation effects of consumption values in the UK and China**

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## **Why wouldn't green appeal drive purchase intention? Moderation effects of consumption values in the UK and China**

### **ABSTRACT**

Although a positive relationship is expected between consumers' awareness of green benefits in a green product and their purchase intention, several studies have demonstrated otherwise. Against this back-drop, this article investigates how three personal consumption values—namely, environmental, status, and value-for-money consciousness—moderate the relationship between consumers' awareness of a product's green benefits and their purchase intention. From a survey of 956 consumers across the United Kingdom and China, we find a positive and significant relationship between consumers' awareness of green benefits and their purchase intention. However, these consumption values significantly moderate this relationship. In the United Kingdom, environmental consciousness strengthens the relationship. On the other hand, status consciousness and value-for-money consciousness strengthen the relationship in China. The findings make original contributions to the literature by highlighting how to integrate individual consumption values in differing national cultures to refine green marketing theories.

*Keywords:* Green products, Consumption, Purchase intention, Environmental consciousness, Status consciousness, Value-for-money consciousness

## 1. Introduction

Green products (Ottman, Stafford, & Hartman, 2006) have received significant attention in the past four decades owing to the emergence of a more sustainable lifestyle and consumption patterns that minimize environmental harm (Banbury, Stinerock, & Subrahmanyam, 2012). At the same time, companies are increasing their green offerings (Peattie, 1992) and capitalizing on green or environmental benefits in products that appeal to ‘green consumers’ (Webster, 1975). However, the latter’s success is dependent on their ability to convert these green appeals into purchase intentions (Dangelico & Vocalelli, 2017; Peattie, 2001; Rex & Baumann, 2007).

Earlier studies have predicted a positive relationship between a product’s green benefits and consumer’s purchase intention (Cho, Thyroff, Rapert, Park, & Lee, 2013; Cleveland, Kalamas, & Laroche, 2012; Kilbourne & Pickett, 2008), but others show negative or non-significant relationships (Carrington, Neville, & Whitwell, 2010; Leary, Vann, Mittelstaedt, Murphy, & Sherry, 2014; Luchs, Naylor, Irwin, & Raghunathan, 2010; Ramirez, Jiménez, & Gau, 2015). These inconsistent findings may be due to a lack of universal green appeal across products, geographic boundaries, and consumption values. Therefore, a deeper understanding of the divergence in purchase intentions towards green products is required to refine green marketing theories, for companies and products to achieve their sustainability objectives (Nair & Little, 2016).

Green products appear in different guises (Dangelico & Vocalelli, 2017), and among them, remanufactured (RM) consumer products have recently entered the green market. RM products are already-used products that have been restored to as-new condition for resale in the market (Wang & Kuah, 2018). These products are quite different from other green products, such as green (organic) food, green (electric) cars, and even recycled products, which may be marketed

at premium price (Atasu, Sarvary, & Wassenhove, 2008; Blackburn, Guide, Souza, & Van Wassenhove, 2004; Bonini & Oppenheim, 2008). In contrast, RM consumer products are not the ‘premium green products’ that the literature has mostly emphasized (Atasu et al., 2008; Bonini & Oppenheim, 2008). Rather, RM consumer products may be treated as ‘seconds’ by some consumers (Wang & Kuah, 2018). However, they carry several green benefits, including energy savings and lower manufacturing costs (Agrawal, Atasu, & Van Ittersum, 2015; Janse, Schuur, & de Brito, 2010). Similar to the trend in other green products, studies show mixed findings on the influence of green appeal in RM products on purchase intention (Atasu et al., 2008; Gaur, Amini, Banerjee, & Gupta, 2015; Hazen, Wu, Cegielski, Jones-Farmer, & Hall, 2012). Against this back-drop, by drawing from the theory of reasoned action (Fishbein & Ajzen, 1975), we argue that the extent to which consumers’ awareness of green benefits in an RM product converts to purchase intention hinges on their differing consumption values. At the same time, consumption values carry different meanings in different cultures and therefore differ in their salience in influencing purchase intention (Chan, 2001; Mostafa, 2007; Tanner & Kast, 2003). Specifically, this paper investigates how three main consumption values—namely, environmental-conscious (Leary et al., 2014), status-conscious (Eastman, Goldsmith, & Flynn, 1999), and value-for-money conscious (Lichtenstein, Netemeyer, & Burton, 1990) moderate the relationship between the RM consumer product’s green benefits and the consumer’s purchase intention. We also question whether differing national cultures in the United Kingdom and China influence this moderation effect. To test our hypotheses, we surveyed 554 consumers in China and 402 consumers in the United Kingdom (UK).

This paper makes original contributions to the extant literature on green marketing in general, and RM consumer products, in particular. First, this paper resolves the puzzle of inconsistent findings from past research on the relationship between the benefits of green products and purchase intention. Our results suggest that the effects of such a relationship are

moderated by individual consumption values such as environmental consciousness, status consciousness, and value-for-money in the national contexts of China and the UK, thus responding to the call for further understanding the relationship between green benefits and purchase intention (Nair & Little, 2016). Second, this study contributes to the literature on a specific type of green products, which are ‘cheap green products’ rather than ‘premium green products’ on which the literature has placed greater emphasis (Atasu et al., 2008; Bonini & Oppenheim, 2008). Our findings reveal that consumers react to green benefits in RM consumer products depending on their personal consumption values and their moderation effects differ depending on geography and national culture. In the UK, environmentally conscious consumers are more likely to purchase RM products if they are more aware of their green benefits, but status consciousness has a negative moderation effect and value-for-money consciousness has no moderation effect at all. In contrast, status-conscious and value-for-money-conscious consumers are more likely to increase their purchase of RM products if they are more aware of their green benefits in China; while environmental consciousness has a negative moderation effect. Third, the paper supplements the relatively sparse number of works conducted in Asian countries (e.g. Kuah & Wang, 2019; Lee, 2014), despite the importance and gradual spread of sustainable consumerism worldwide (Boztepe, 2012; Gurau & Ranchhod, 2005). The comparison between the UK and China addresses this research gap. It also generates valuable practical insights, specifically by highlighting different motivations of consumers when purchasing green products. Accordingly, we propose a more refined green segmentation by integrating individual consumption values and national culture into the segmentation process of cheaper green products and urge companies to develop different green appeals.

The remainder of the paper is organized as follows. The next section provides a theoretical background, leading to the development of seven hypotheses. This will be followed by the

methodology section. The paper concludes by discussing its results and limitations, and future research directions.

## **2. Theoretical background and hypotheses development**

### *2.1. Purchase intention towards RM products due to green benefits*

Remanufacturing processes transform end-of-life, non-functional, discarded, or traded-in products (Lund & Hauser, 2003) into products with equal or superior specifications as newly produced goods (Guidat, Uoti, Tonteri, & Määttä, 2015). Prior research attributes customers' intention to purchase green products to many environmental-, self-, and social-benefits associated with green purchases (Yang, Lu, Zhu, & Su, 2015).

First, the remanufacturing process involves lower energy and new material usage, and minimal waste of resources (Agrawal et al., 2015; Janse et al., 2010; Michaud & Llerena, 2011), thus, buying RM goods provides good green benefits. Second, RM goods are associated with a lower cost of production and therefore are often lower in price than original products, exemplifying self-gains (Dowlatshahi, 2000). Third, consumers may perceive social benefits from their green purchase; that is, their willingness to sacrifice personal gains for the benefit of society (Griskevicius, Tybur, & Van den Bergh, 2010) and future generations (Peattie & Crane, 2005), signalling a pro-social stance. Correspondingly, companies promote and communicate RM products as green products by conveying these three key benefits. Thus, we assert that consumers who are aware of products' green benefits are more likely to purchase them (McDonald & Oates, 2006; Michaud & Llerena, 2011) and propose the following:

**H1.** The more consumers are aware of the green benefits in RM products, the higher are their purchase intentions.

H1 postulates that consumers' green awareness (or awareness of green benefits) in RM products generally increases their purchase intention. The theory of reasoned action (Fishbein

& Ajzen, 1975) has suggested that consumption values can influence purchase intentions. Thus, H1 serves as a basis to close the knowledge gap on the moderating effect of personal consumption values on purchase intention. However, scant research has paid attention to the effect of consumer values on the relationship between consumers' awareness of green benefits and their purchase intentions.

We argue that consumers are more likely to make real purchases if the green benefits they perceive align with their consumption values. Otherwise, awareness of RM products' green benefits does not necessarily translate to actual purchase. In the following sections, we develop six hypotheses focusing on three common consumption values: environmental consciousness (Kim & Choi, 2005; Learly, 2014), status consciousness (Li et al., 2015; O'Cass & McEwen, 2004), and value-for-money (Lovelock, 2000).

## *2.2. Moderation effect of environmental consciousness*

Environmental consciousness refers to a person's desire to protect and conserve the environment (Leary et al., 2014; Vining & Ebreo, 2002). This value informs environmentally relevant intentions (Kim & Choi, 2005; Leary et al., 2014) and differs from mere awareness of green benefits associated with green products (Laroche, Bergeron, & Barbaro-Forleo, 2001) specified in H1. This is because the awareness by consumers of the green benefits of a product (Michaud & Llerena, 2011) does not necessarily mean that they are concerned about environmental protection, as indicated in environmental consciousness (Learly, 2014; Vining & Ebreo, 2002).

Mixed findings exist on the influence of consumers' environmental consciousness on purchase intention (e.g. Kalamas, Cleveland, & Laroche, 2014; Ramirez et al., 2015), where Bamberg (2003) has suggested that environmental concern may not have a 'direct' effect on purchase intention. Instead, consumers' environmental concerns may influence their situation-specific cognition, such as the extent to which they use the green information and perceive



support for and control of taking green action, which then influences their own actions. Following this line of reasoning, we argue that environmental consciousness may moderate the positive relationship between consumers' awareness of RM products' green benefits and their purchase intentions. More specifically, consumers with higher environmental consciousness are more likely to believe in the green benefits of RM products. In addition, they will perceive fewer barriers or be more motivated to overcome these barriers (e.g. limited time to search for RM products, inconvenience of purchasing RM products, and suspected poorer quality) and ultimately purchase RM products for their green benefits.

However, the moderating effect of environmental consciousness may further depend on consumers' locus of control (LoC), a cultural dimension first investigated by Rotter (1966). LoC (Levenson, 1974) is the extent to which people believe that consequences of events are either a result of their own behaviour (internal LoC) or determined by chance or by the influence of other people (external LoC). Individuals with internal LoC tend to believe that their behaviour can bring about a desirable outcome, whereas those with external LoC are less motivated to work for desirable outcomes (Thompson, Kuah, Foong, & Ng, 2019). We integrate the conceptualization of LoC with that of the moderation effect of environmental consciousness to derive hypotheses as to how the moderation effect may vary depending on national cultures of the UK and China. According to Rotter's (1966) scales tested on different nationalities, the UK demonstrates a higher internal LoC, suggesting that environmentally conscious individuals are more likely to believe that 'individual action' can make a difference. Hence, they might be more likely to contribute to environmental protection and conservation by purchasing RM products for their green benefits. Thus:

**H2a.** In the United Kingdom, environmental consciousness strengthens the likelihood that consumers who are aware of their green benefits will purchase RM products.

By contrast, China shows a higher external LoC on Rotter's (1966) scales. This suggests that Chinese consumers believe that environmental outcomes are the result of extraneous forces, such as the impact of powerful others, particularly the higher powers (Thompson et al., 2019), beyond their 'individual-level' control (Kalamas et al., 2014). Such a high external LoC that ascribes responsibilities to powerful others is deeply rooted in Chinese culture and economic development model. Historically, Confucianism as an ethical philosophy has dominantly shaped the Chinese culture and values (Overmyer, 2003). People are considered as parts of a larger society where everyone has a fixed position in the social ranking; they expect powerful stakeholders, i.e. political officials, who are in a higher position in the society, to take care of them (Thompson et al., 2019). In addition, the dominance of state-owned enterprises in the Chinese economy strengthens the centralistic governance, and therefore people have a greater dependence on the government (Shu et al., 2016). As a result, Chinese consumers tend to ascribe ecological responsibility to the government (Dendler & Dewick, 2016).

Furthermore, past research suggests that the Chinese government plays a significantly lower role in environmental protection (Schroeder, 2014; Wang et al., 2013), which could further hamper environmentally conscious Chinese customers' belief of their purchase resulting in generating green benefits. For example, in 2004, China Green Food Development Centre and Green Food Office of Beijing reported that many 'green food' labels were abused, with enterprises engaging in 'green fraud' to mislead customers (Liao & Li, 2010). The criteria of eco-labelling schemes, despite being present in China, are neither stringent nor transparent (Gao & Zuo, 2008) due to local particularism and abuse of power that impede the implementation of unified regulations (Muldavin, 2000). The impotent actions of the regulatory institutes could cause environmentally conscious consumers to be less confident of whether their green purchase will ultimately make a difference (Sarigöllü, 2009). In fact, Chan

(2000) reported that 34% of Chinese consumers, who have been identified as eco-bystanders, believe that their individual environmental activities are ineffective. Thus:

**H2b.** In China, environmental consciousness weakens the likelihood that consumers who are aware of their green benefits will purchase RM products.

### *2.3. Moderating effect of status consciousness*

Status consciousness drives consumers to purchase conspicuous products to enhance their sense of self, social image, or own personal sense of taste (Li, Zhang, & Sun, 2015; Liao & Wang, 2009; O’Cass & McEwen, 2004). Conspicuous products are usually more expensive and exclusive than other products. Research indicates that the pursuit of higher status motivates not only the demonstration of extravagance but also the display of charity and other pro-social behaviours (Sexton & Sexton, 2014). Griskevicius et al. (2010) noted that buying green products can be construed as a proactive and altruistic behaviour because some green products actually cost more than their conventional counterparts; green goods also carry a message that they benefit the environment. Altruism and pro-social behaviour may thus function as a ‘costly’ signal of social status, providing consumers with perceived higher reputation in society (Vaughan, 2010). Empirical studies confirm that the purchase of green products stems from status motives (Akehurst, Afonso, & Gonçalves, 2012; Griskevicius et al., 2010).

Nevertheless, research also suggests that the perception of status is context dependent (Bian & Forsythe, 2012). British consumers may perceive green products with higher premiums as a status signal. Status-conscious consumers in the UK also tend to be older and have higher disposable income than their counterparts from other regions (Seo, Buchanan-Oliver, & Cruz, 2015). Culturally, consumers in Western developed markets focus more on their actual self-concept (Shukla, 2008; Wong & Ahuvia, 1998); their status consumption, which is driven by their inner self, serves as a means to reinforce their personal self-image

(Wong & Ahuvia, 1998). Consequently, they are likely to choose a status-signalling product that matches their high purchasing power. According to a survey of 27,000 respondents in 27 European countries, approximately 75% of respondents were willing to pay more for green products with a premium price of 5% to 23% (Pirani & Secondi, 2011, p. 69), perceiving such purchases as a worthy cause and as an indicator of environmental performance. In other words, to show pro-social behaviour, status-conscious consumers in the UK may perceive high premiums of green products as an unneglectable component to demonstrate that they sacrifice their economic and functional interests for societal well-being.

However, RM products tend to be priced 20% to 40% lower than equivalent new products (Lund & Hauser, 2003; Neto, 2008). This lower-priced offer does not align with the status signal that some consumers want to project, even though such products are associated with greater green benefits. Instead, these consumers might have an incentive to disassociate from low-status groups by abandoning RM products totally. Thus:

**H3a.** In the United Kingdom, status consciousness weakens the likelihood that consumers who are aware of their green benefits will purchase RM products.

In contrast, Chinese consumers could have less stringent standards for status products. Despite the association of status consumption with an individual's social ranking, it is inaccurate to assume that only the wealthy are prone to status consumption (Eastman et al., 1997; Shipman, 2004). This is particularly true in China, where maintaining social self-esteem and 'saving face' are deeply embedded in the culture. The concept of 'saving face' refers to an individual's public self-image that he or she presents to others (Lebra, 1992; Markus & Cross, 1990). Such public self-image can be achieved by demonstrating behaviour that meets social expectations and fulfils accepted social roles (Kim & Nam, 1998). Chinese consumers are prone to succumb to status consumption to present a better public self (Li & Su, 2007).

Moreover, for those with limited disposable income, high prices stand as a critical barrier to purchasing status symbol products. Prior studies reported that Chinese consumers who have a high need for status (but cannot afford true luxury) purchase counterfeits of luxury brands to emulate the wealthy (Han et al., 2010; Phau & Teah, 2009; Teah et al., 2011). Such findings suggest that status-conscious consumers in China would be willing to purchase status-signalling products at affordable prices. Applied to our study context, RM products, which are green and thus represent pro-social behaviour and altruism, could serve as an affordable status signal for Chinese consumers to showcase their status. As a result, we propose the following:

**H3b.** In China, status consciousness strengthens the likelihood that consumers who are aware of their green benefits will purchase RM products.

#### *2.4. Moderating effect of value-for-money*

Value-for-money reflects ‘a concern for paying low prices, subject to some quality constraint’ (Lichtenstein et al., 1990, p. 56). Value-conscious consumers judge a product to be high in value depending on its higher quality or lower price, and this judgement may reflect a positive attitude towards the product and lead to higher purchase intention (Chang & Wildt, 1994). RM products constitute a value-for-money proposition for consumers. On the one hand, producers claim RM products have the same objective quality (i.e. verifiable technical excellence; Hjorth-Anderson, 1984; Monroe & Krishnan, 1985) as new products (Carter & Ellram, 1998; Thierry, Salomon, van Nunen, & Van Wassenhove, 1995). To convey the same quality, producers also provide the same level of warranty as new products (Tereyağoglu, 2016). On the other hand, RM products are processed using existing resources, with less energy, and therefore sold at a lower price (Lund & Hauser, 2003; Neto, 2008). Dowlatshahi (2000) showed that the cost of remanufacturing is typically 40% to 60% of the cost of a new product. Such value-for-money proposition will be particularly appealing to value-for-money conscious consumers.

Despite producers' claim of like-new quality in RM products, consumers may still perceive lower quality because of the ambiguity or lack of knowledge in the production process (Abbey, Meloy, Guide, & Atalay, 2015; Hazen et al., 2012). For example, some consumers are unable to understand the steps taken to restore a product to as-new condition and hence distrust the quality (Wang & Kuah, 2018). Such ambiguity is intensified because there is a dissonance between lower price and good quality (Milgrom & Roberts, 1986). Because RM products are usually discounted, consumers may take a low price as a signal of low quality (Lichtenstein & Burton, 1989; Ovchinnikov, 2011).

Such ambiguity about RM products may present an area of concern for British consumers. For example, many ordinary consumers are unaware of the steps taken to return a product to as-new condition (Hazen et al., 2012). European countries such as the UK have a historical focus on quality (Cheng et al., 2014), thus British consumers may be more stringent about quality. In addition, they have high uncertainty avoidance (Hofstede et al., 1976), suggesting that British consumers would feel threatened by ambiguous or unknown situations. Given the ambiguity associated with remanufacturing and the assurance process, British consumers perceive higher risks, have greater concerns about the functionality, and devalue RM products even though they are aware of the green benefits in RM products. Thus:

**H4a.** In the United Kingdom, value-for-money consciousness weakens the likelihood that consumers who are aware of their green benefits will purchase RM products.

In contrast, Chinese consumers may give greater weight to price while being more tolerant of quality. First, price traditionally has a greater influence on Chinese consumers' purchase decisions than product quality or brand image (Batra, 1997; Cui & Liu, 2001) because of these consumers' relatively low purchasing power, high price elasticity of demand, and greater tendency to spend their savings rather than buy on credit (Brouthers & Xu, 2002). In fact, Kuah

and Wang (2019) showed that low cost is the second important reason for Asian consumers, including Chinese consumers, to accept remanufactured electronic products. Second, Chinese consumers may be more tolerant of imperfect product quality because of long-standing societal norms. In China, consumers often experience product quality issues. For example, from 2010 to 2012, \$624.79 million worth of poor-quality goods were sold in China (Jourdan, 2013). However, in their survey, Cheng et al. (2014) found that Chinese consumers are still satisfied with (poor) product quality overall. In addition, the Chinese culture, characterized by low uncertainty avoidance (Hofstede et al., 1976), also suggests higher tolerance for the uncertainty associated with RM products. As such, we propose that Chinese consumers will have low expectations of product quality and, correspondingly, perceive higher value-for-money from RM products. Thus:

**H4b.** In China, value-for-money consciousness strengthens the likelihood that consumers who are aware of their green benefits will purchase RM products.

### **3. Methodology**

In our empirical model(s), variables measuring the extent of awareness of green benefits are predicted to explain the purchase intention of RM products. The measures of environmental-consciousness, status-consciousness, and value-for-money are expected to moderate the relationship between consumers' awareness of green benefits in RM products and their purchase intention. It is expected that the UK and China will demonstrate different effects. The empirical investigation follows the data collected from a questionnaire survey.

#### *3.1. Sample and data collection*

A structured questionnaire survey collected data on consumers' consumption values, their purchase intention, and their perceptions of quality and risk associated with RM electronic consumer products (i.e. tablets, laptops, and smartphones), as well as basic demographic

information. We first conducted a pilot study in English with 30 respondents to test the clarity of our questions and then had one set of translators convert the questions into Mandarin. Another set of translators then back-translated the questions into English to ensure consistency of meanings and terms. Conducting a pilot test improved the construct validity of our questionnaire (Bisbe, Batista-Foguet, & Chenhall, 2007).

We posted both the English and Mandarin questionnaires using Qualtrics, targeting British and Chinese consumers, respectively. The sampling technique used was non-probabilistic sampling, with a combination of quota sampling and snowball sampling. Quota sampling ensured good representation in each country (Matthes, Wonneberger, & Schmuck, 2014) and snowball sampling helped increase the number of respondents through the use of personal contacts and word of mouth (Azemia, Ozuem, Howell, & Lancaster, 2019). The intensive data collection exercise ran for four weeks from October to November 2017, with 1,168 responses obtained with the help of several research assistants. After we dropped missing data, 956 observations remained in the analysis, with 554 from China and 402 from the UK. Table 1 shows the demographic information of the samples in the two countries.

-----Insert Table 1 around here-----

### *3.2. Variable construction*

#### *3.2.1. Main variables*

Following Putrevu and Lord (1994), we used two items to measure purchase intention. The survey asked respondents to indicate the extent to which they were interested in buying RM products and how likely they would be to buy these products within the next 12 months, on a 5-point categorical rating scale (1 = not at all interested, 5 = very interested; 1 = not at all likely, 5 = definitely).



Although no widely accepted measure of RM products' environmental benefits exists, most studies agree on several environmental gains from green consumption and remanufacturing, such as conserving resources (e.g. raw material, energy; Michaud & Llerena, 2011; Sundin & Lee, 2012; Wang, Wiegerinck, Krikke, & Zhang, 2013), reducing waste (Michaud & Llerena, 2011), and decreasing pollution from carbon dioxide emission and toxic materials (Hill, 2010; Sundin & Lee, 2012). Therefore, we developed a four-item construct to measure consumers' awareness of RM products' green benefits. Respondents rated (on a 5-point Likert scale) the extent to which they agreed with four statements: 'Remanufactured products are environmentally friendly', 'Remanufactured products help conserve resources', 'Remanufactured products can reduce waste' and 'Remanufactured products can decrease pollution'. We also adapted four items from Rashid (2007) to measure environmental consciousness. Respondents answered four items on a 5-point Likert scale. Sample items were 'Strict global measures must be taken immediately to halt environmental decline' and 'The environment is one of the most important issues facing society today' (see Table 2 for all the items).

We measured status consciousness with three items from Eastman et al. (1999). This measurement focuses on people's tendency to purchase products that convey their social status. Respondents answered all items on a 5-point Likert scale. A sample item was 'I would buy a product just because it is associated with high social status' (see Table 2 for all the items). We used Lichtenstein et al.'s (1990) three-item scale to measure value-for-money consciousness. Respondents answered all items on a 5-point Likert scale. A sample item was 'I am very concerned about low prices, but I am equally concerned about product quality' (see Table 2 for all the items).

### *3.2.2. Control variables*

We controlled for other determining factors that influence consumers' purchase intentions. First, quality perceptions play a strong role in consumers' evaluations of RM products (Debo, Toktay, & Van Wassenhove, 2005; Ferguson & Souza, 2010; Thierry et al., 1995) and purchase intention (Abbey et al., 2015). As a result, we adapted four items from Hazen et al. (2012). Second, research on perceived functional risks posits that when purchasing, consumers face uncertainty and potentially undesirable consequences (Taylor, 1974). Therefore, the more risks they perceive, the less likely they are to purchase (Roselius, 1971). We used three items adapted from Hamzaoui-Essoussi and Linton (2010) to measure functional risks. Third, an awareness of RM products and processes should reduce perceived risk and thus increase purchase intention. We used two items ('I understand what a remanufactured product is very well' and 'I know well how a product is remanufactured') to measure awareness. Fourth, a dummy variable controlled for usage experience, with 1 indicating that the respondent had used RM products before and 0 otherwise. Finally, we controlled for respondents' gender and age. A dummy variable measured gender, with 1 indicating male and 0 indicating female. We identified three age groups of respondents: younger than age 25 years, between the ages of 25 and 40 years, and older than 40 years. Table 2 provides the full list of construct items with factor loadings and reliability measures.

-----Insert Table 2 around here-----

### *3.3. Analysis and robustness tests*

An exploratory factor analysis shows that all items loaded significantly ( $p < 0.001$ ) onto their corresponding factors (greater than 0.60), with Cronbach's alpha value for each construct above 0.60 (Moss, Tylef, Durrant-Peatfield, & Bunn, 1998). We also examined internal validity of the measurement model through composite reliability (CR) and average variance extracted (AVE) (Fornell & Larcker, 1981). As Table 2 shows, all CR and AVE values are above the

suggested threshold (Fornell & Larcker, 1981); values above 0.7 are considered good, while a value of 0.5 is acceptable. Therefore, convergent validity of the constructs is established.

The analysis assessed discriminant validity of the measures by comparing AVE with the squared interconstruct correlation (SIC) estimates (Fornell & Larcker, 1981) (Table 3). If the squared correlation between constructs is less than either of their individual AVEs, each construct has more error-free variance than variance shared with other constructs, suggesting discriminant validity. Table 3 shows that all AVEs were greater than SIC, demonstrating adequate discriminant validity between each construct and any other construct.

-----Insert Table 3 around here-----

After aggregating the variables, we performed multiple regression using SPSS. We ran six models with and without moderation effects. Throughout the research process, we took several measures to address endogeneity (Shadish, Cook, & Campbell, 2002). First, Levene's (1960) test was not significant for either the UK or China sample ( $F = 1.054, p = 0.386$ ;  $F = 1.454, p = 0.204$ , respectively), suggesting that the assumption of homogeneity of variance was met when running regression models. Second, Table 4 shows that the correlations between variables were no more than 0.439, lower than the cut-off of 0.8 (Bagozzi, Yi, & Phillips, 1991), suggesting no multicollinearity. Third, we tried to include as many theoretically justified controls as possible to avoid variable omission (Rubin, 2008; Shadish et al., 2002). Fourth, we took measures to mitigate common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), which may occur when both dependent and independent variables are perceptual measures (Podsakoff & Organ, 1986). The questionnaire was purposefully long, reducing respondents' ability to guess the model. A Harman's one-factor test with all the measurement items in a factor analysis without rotation achieved a solution that accounted for 52.32% of the

total variance, with the first factor accounting for 24.37%. Because one dominant factor did not emerge, common method bias is not a concern in this study (Podsakoff & Organ, 1986).

-----Insert Table 4 around here-----

#### 4. Findings

Table 5 lists the means of all variables for the samples derived from the UK and China. The data show that purchase intentions towards RM products are higher among the British ( $M_{UK} = 2.977$ ;  $SD_{UK} = 0.972$ ) than Chinese consumers ( $M_C = 2.492$ ;  $SD_C = 0.958$ ); in general, British consumers are more aware of green benefits in RM products ( $M_{UK} = 3.877$ ;  $SD_{UK} = 0.625$ ) than their Chinese counterparts ( $M_C = 3.506$ ;  $SD_C = 0.729$ ). They also tend to agree that RM products have greater perceived quality ( $M_{UK} = 3.312$ ;  $SD_{UK} = 0.661$ ) and lower functional risks ( $M_{UK} = 3.068$ ;  $SD_{UK} = 0.817$ ), while the opposite is true for Chinese consumers ( $M_C = 2.951$ ;  $SD_C = 0.632$ ;  $M_C = 3.511$ ;  $SD_C = 0.713$ ). Moreover, British consumers have greater awareness of ( $M_{UK} = 3.491$ ;  $SD_{UK} = 0.875$ ), and experience with ( $M_{UK} = 0.359$ ;  $SD_{UK} = 0.481$ ), RM products than their Chinese counterparts ( $M_C = 2.866$ ;  $SD_C = 0.848$ ;  $M_C = 0.188$ ;  $SD_C = 0.391$ ). Finally, Chinese consumers are more environmental-conscious ( $M_C = 4.191$ ;  $SD_C = 0.702$ ) and status-conscious ( $M_C = 3.301$ ;  $SD_C = 0.842$ ) than the British consumers ( $M_{UK} = 3.998$ ;  $SD_{UK} = 0.706$ ;  $M_{UK} = 2.939$ ;  $SD_{UK} = 0.975$ ) in this respect, who in turn are more value-for-money conscious ( $M_{UK} = 3.849$ ;  $SD_{UK} = 0.803$ ;  $M_C = 3.736$ ;  $SD_C = 0.724$ ).

-----Insert Table 5 around here-----

Table 6 shows six regression models on the effects of awareness of green benefits and consumption values on consumers' purchase intentions towards RM products in the UK and China samples. Model 1 includes only the control variables, while Model 2 adds the main effects of the four variables. Models 3, 4, and 5 add the interaction terms one by one. Finally, Model 6 includes all the main effects and their interactions.

-----Insert Table 6 around here-----

H1 predicts that the more consumers are aware of the green benefits of RM products, the higher are their purchase intentions. In support, Model 2 shows that awareness of RM products' green benefits is positively significant in both the UK and China samples ( $\beta = 0.139, p < 0.1$ ;  $\beta = 0.177, p < 0.001$ ).

We report the results of all the interaction effects in Model 6. In Model 6a, which shows the results for the UK sample, the main effect of the awareness of RM products' green benefits is positive ( $\beta = 0.201, p < 0.05$ ), while the main effect of environmental consciousness is not significant ( $\beta = -0.073, p > 0.1$ ). However, the interaction between awareness of RM products' green benefits and environmental consciousness is positive and significant ( $\beta = 0.169, p < 0.05$ ), in support of H2a. The main effect of status consciousness in the UK is not significant ( $\beta = 0.053, p > 0.1$ ), though the interaction between awareness of RM products' green benefits and status consciousness is negative and significant ( $\beta = -0.163, p < 0.05$ ), in support of H3a. The main effect of value-for-money consciousness is positively significant ( $\beta = 0.190, p < 0.01$ ). The interaction between awareness of RM products' green benefits and value-for-money consciousness is negative but not significant ( $\beta = -0.057, p > 0.1$ ), thus rejecting H4a.

In Model 6b, which shows the results for the Chinese sample, the main effect of the awareness of RM products' green benefits is positive ( $\beta = 0.194, p < 0.001$ ), while the main effect of environmental consciousness is negative and significant ( $\beta = -0.116, p < 0.05$ ). The interaction between awareness of green benefits associated with RM products and environmental consciousness is negative and significant ( $\beta = -0.067, p < 0.1$ ), showing support for H2b. The main effect of status consciousness is not significant ( $\beta = 0.030, p > 0.1$ ); however, the interaction between awareness of RM products' green benefits and status consciousness is positively significant ( $\beta = 0.070, p < 0.05$ ), in support of H3b. Finally, the

main effect of value-for-money consciousness is positive and significant ( $\beta = 0.188, p < 0.001$ ). The interaction between awareness of RM products' green benefits and value-for-money consciousness is positively significant ( $\beta = 0.064, p < 0.1$ ), showing support for H4b. To illustrate further the moderating effect of the consumer values, we plotted the relationship between awareness of RM products' green benefits and purchase intention on the basis of model 6, using one standard deviation below and above the mean of consumer values (see Figs. 1–3).

-----Insert Figures 1, 2, & 3 around here-----

In addition to the main variables, we found that perceived quality is positively related to purchase intention towards RM products, while perceived functional risk is negatively related to purchase intention towards RM products in all the models. Awareness of RM products' green benefits significantly increases purchase intention across all models in the Chinese sample. Usage experience is positively related to purchase intention towards RM products, suggesting that past experience gives consumers more confidence in using these products. In the UK, female consumers are less likely to purchase RM products than male consumers, but we find no gender difference in the Chinese sample. In terms of age, British consumers aged 25 years and above have higher purchase intentions towards RM products than younger consumers, but we find no difference in the Chinese sample.

## **5. Discussion**

### *5.1. Theoretical contributions*

In response to the mixed findings in the literature between purchase intention and green awareness, this study probes further to investigate the moderation effects of consumers' environmental-, status-, and value-for-money consciousness and to explore how these

influence the likelihood that consumers who are aware of the green benefits will purchase RM products in two contexts (i.e. the UK and China). Our findings make original contributions to the literature on green marketing by highlighting how to integrate individual consumption values (i.e. environmental-, status-, and value-for-money consciousness) in differing national cultures to refine green marketing theories.

Past research often equates green consumers or the green market segment to environmental-conscious consumers, for whom environmental considerations are important purchase motivators (Singh, 2011). Thus, the green market is often segmented according to the degree of commitment to the environment (Chan, 1999; Ginsberg & Bloom, 2004) or various consumers' environmental concerns (Ottman, 1991). However, recent studies report a negative, or non-significant, relationship between environmental consciousness and purchase behaviour of green products (Carrington et al., 2010; Cleveland et al., 2012). We contribute to resolving this contradiction by specifically focusing on RM products that are branded as 'cheap green products' and thus differ from 'premium green products' commonly offered in the market. Our results suggest that RM products are appealing to environmental-conscious consumers in the UK but not in China. As discussed in the hypothesis development section, we use the literature on LoC to predict this behaviour, which is another originality of our work. British consumers have a higher internal LoC (Rotter, 1966), and therefore their environmental consciousness helps convert their awareness of green benefits to real purchase action. On the other hand, Chinese consumers, who have a higher external LoC, are less confident in their own 'individual' ability to make a real contribution to environmental protection. Thus, those who are environmentally conscious may question the inaction from powerful others (e.g. government, large corporations). The insignificant role played by the Chinese government in environmental protection weakens the likelihood that they will purchase RM products despite their awareness of the green benefits. Thus, our findings on the moderation effects of

environmental consciousness (i.e. rather than a direct effect) help address why prior research finds no conclusive direct effect of environmental consciousness on purchase intention towards green products (e.g. Carrington et al., 2010; Cleveland et al., 2012). More importantly, we find that the moderation effects differ in the two national contexts we examine. This not only explains the inconclusive results reported in the literature but also makes an important contribution to green marketing theories as to how to refine these by incorporating environmental consciousness of customers in the UK and China.

In addition, prior research typically shows a positive direct relationship between status consciousness and purchase intention towards green products (Akehurst et al., 2012; Griskevicius et al., 2010; Vaughan, 2010). Our findings reveal a context-dependent moderation effect for status consciousness especially in relation to cheaper green products (i.e. RM products) as many earlier studies have focused on premium-priced green products (Akehurst et al., 2012; Griskevicius et al., 2010). For Chinese customers, status consciousness strengthens the likelihood of purchasing RM products if they are more aware of the green benefits. Conversely, status consciousness weakens the likelihood of purchasing RM products despite their awareness of the green benefits for British customers. This could be due to the differential perception of status in two contexts: while Chinese customers are willing to purchase status-signalling products at affordable prices, British customers perceive green products with higher premiums as status signals. Hence, our results on the moderation effect of status consciousness respond to Nair and Little's (2016) call to address the inconclusive relationship between the awareness of green benefits of RM products and purchase intention.

Finally, our study illustrates that value-for-money-conscious customers in China give more weight to price and thus are more likely to purchase RM products for their greenness. Conversely, value-for-money-conscious customers in the UK give more weight to quality (Cheng, Li, & Luo, 2014) and thus show no special interest in RM products. This finding on



the context-dependent moderation effect of value-for-money consciousness on the relationship between green awareness and purchase intention is another important contribution of this study.

Overall, the findings shed light on the convergence–divergence debate in the marketing literature (Holton, 2000), by lending support to a divergent or more contextualized approach to understanding green marketing. We specifically contributed by highlighting how the combination of individual consumption values across national contexts should be used to refine the green segment and green marketing, especially in relation to cheap green products such as RM products.

### *5.2. Practical implications*

The goal of green marketing is to position products or services on the basis of a sustainable approach and message, leading to changes in production processes, packaging, and advertising. However, in reality, companies committed to green marketing often encounter several challenges, such as unfavourable consumer attitude towards green products or lack of awareness of consumer perception towards green products (Kilbourne & Pickett, 2008; Wu, Wu, Lee, & Lee, 2015). International green marketers claim that the lack of foreign market information is a major obstacle to the successful international expansion of green products (Gurau & Ranchhod, 2005). Thus, understanding the uniqueness of each market would help market green products in a more effective way (Lim, Ting, Ng, Chin, & Boo, 2013). Against this back-drop, our study offers several important practical implications for green marketers as to how to refine their green marketing segmentation in China and the UK.

Our findings urge companies to develop different green appeals by integrating other consumption values of consumers in different locales. In China, for example, green marketing practitioners should try to increase the size of the green market by engaging consumers through pro-social and value-for-money appeals. However, adopting such a strategy in the U.K. would

weaken the purchase intention of green products. To make RM products appealing to British consumers, marketers should highlight their eco-friendliness to reach environmentally conscious consumers. Targeting status- and value-for-money-conscious consumers for RM goods might be more challenging because British consumers who are value-for-money conscious tend to put less emphasis on price. British consumers may perceive the higher price as an unavoidable component of pro-social purchase and thus disassociate purchasing RM products from a pro-social stance.

### *5.3. Limitations and future research directions*

This study contains limitations that may offer opportunities for further research. First, we used purchase intention towards RM products, rather than actual purchase, to examine the effect of consumer values. Consumers' stated purchase intentions may be correlated with real purchases but are imperfect predictors of future consumer behaviour (Chandon, Morwitz, & Reinartz, 2001). Instead, actual purchase behaviour may hinge on consumers' personal circumstances, product availability, and other situational factors (Grimmer, Kilburn, & Miles, 2016). Therefore, future research could conduct a similar study by focusing on the actual purchase. Second, our study used remanufactured consumer electronics as an empirical context. Consumer electronics typically have short life cycles and contain module-based printed circuit boards, which are repairable and replaceable. Such characteristics are not the same as in other types of green products, such as recycled products or products from other industries, and thus the impact of consumption values may vary. Therefore, future research could test the generalizability of our study to other industries, product categories, or other green products.

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**Table 1**

Sample demographics.

|                     | U.K. |        | China |        |
|---------------------|------|--------|-------|--------|
| Age                 |      |        |       |        |
| <25 years old       | 264  | 66.33% | 230   | 41.59% |
| 25–40 years old     | 77   | 19.35% | 161   | 29.11% |
| >40 years old       | 57   | 14.32% | 162   | 29.29% |
| Gender              |      |        |       |        |
| Male                | 202  | 50.50% | 274   | 49.46% |
| Female              | 198  | 49.5%  | 280   | 50.54% |
| Education           |      |        |       |        |
| Below undergraduate | 57   | 16.19% | 169   | 22.94% |
| Undergraduate       | 178  | 50.57% | 215   | 51.91  |
| Graduate            | 117  | 33.24% | 129   | 25.15% |

**Table 2**

Variable construction.

| <b>Variables</b>  | <b>Factor loadings</b> |
|---|------------------------|
| <b>Purchase Intention</b> (Cronbach's alpha=0.883; CR=0.945; AVE=0.895)   |                        |
| How LIKELY would you to buy remanufactured tablets, smart phones, or laptops in the next 12 months?                                 | .946                   |
| How INTERESTED would you to buy remanufactured tablets, smart phones, or laptops in the next 12 months?                             | .946                   |
| <b>Awareness of RM products' green benefits</b> (Cronbach's alpha=0.847; CR=0.899; AVE=0.690)                                       |                        |
| Remanufactured products help conserve resources.  | .866                   |
| Remanufactured products can reduce waste.   | .844                   |
| Remanufactured products can decrease pollution.   | .826                   |
| Remanufactured products are environmentally friendly.   | .785                   |
| <b>Environmental Consciousness</b> (Cronbach's alpha=0.865; CR=0.908; AVE= 0.713)   |                        |
| Strict global measures must be taken immediately to halt environmental decline.   | .887                   |
| The environment is one of the most important issues facing society today.   | .856                   |
| Unless each of us recognizes the need to protect the environment, future generations will suffer the consequences.                  | .827                   |
| A substantial amount of money should be devoted to environmental protection.  | .805                   |
| <b>Status Consciousness</b> (Cronbach's alpha=0.828; CR=0.684; AVE= 0.722)  |                        |
| I would buy a product just because it is associated with high social status.  | .881                   |
| I would pay more for a product if it is associated with high social status.   | .876                   |
| I am interested in 'new products' as these are associated with high social status.  | .829                   |
| <b>Value Consciousness</b> (Cronbach's alpha=0.687; CR=0.830; AVE= 0.620)   |                        |
| I am very concerned about low prices, but I am equally concerned about product quality.   | .839                   |
| When purchasing a product, I always try to maximize the quality I get for the money I spend.  | .776                   |
| I generally shop around for lower prices on products, but they still must meet certain quality requirements before I will buy them. | .744                   |
| <b>Perceived Quality</b> (Cronbach's alpha=0.796; CR=0.850; AVE= 0.586)   |                        |
| Remanufactured products have an adequate lifespan.  | .813                   |
| An adequate number of features are available for remanufactured products.   | .771                   |
| Failure of remanufactured products does not occur often.  | .744                   |
| The appearance of remanufactured products meets expectations.   | .732                   |
| <b>Perceived Risk</b> (Cronbach's alpha= 0.814; CR=0.891; AVE= 0.731) 2.  |                        |
| Remanufactured products can lead to bad results.  | .873                   |
| Getting a remanufactured product would cause me to worry.   | .871                   |
| Remanufactured products have uncertain outcomes.  | .820                   |
| <b>Awareness of RM</b> (Cronbach's alpha= 0.719; CR=0.877; AVE= 0.781) 1.562  |                        |
| I understand what a remanufactured product is very well.  | .884                   |
| I know well how a product is remanufactured.  | .884                   |

**Table 3**

Discriminant validity.

|  | <b>Purchase intention</b> | <b>Awareness of RM product's green benefits</b> | <b>Environmental consciousness</b> | <b>Status consciousness</b> | <b>Value consciousness</b> | <b>Perceived quality</b> | <b>Perceived functional risk</b> |
|--|---------------------------|---|------------------------------------|-----------------------------|----------------------------|--------------------------|----------------------------------|
| Purchase intention                       | 0.836                     |   |                                    |                             |                            |                          |                                  |
| Awareness of RM product's green benefits | 0.599                     | 0.87  |                                    |                             |                            |                          |                                  |
| Environmental consciousness              | 0.624                     | 0.845   | 0.891                              |                             |                            |                          |                                  |
| Status consciousness                     | 0.708                     | 0.703   | 0.761                              | 0.944                       |                            |                          |                                  |
| Value consciousness                      | 0.63                      | 0.636   | 0.683                              | 0.924                       | 0.933                      |                          |                                  |
| Perceived quality                        | 0.577                     | 0.759   | 0.829                              | 0.698                       | 0.619                      | 0.899                    |                                  |
| Perceived functional risk                | 0.586                     | 0.78  | 0.864                              | 0.717                       | 0.642                      | 0.781                    | 0.882                            |

**Table 4**

Correlation matrix.

|    |  | 1       | 2       | 5      | 4      | 3      | 6       | 7       | 8      | 9      | 10    | 11 |
|----|--|---------|---------|--------|--------|--------|---------|---------|--------|--------|-------|----|
| 1  | Purchase intention                       | 1       |         |        |        |        |         |         |        |        |       |    |
| 2  | Awareness of RM product's green benefits | .327**  | 1       |        |        |        |         |         |        |        |       |    |
| 5  | Environmental consciousness              | -0.039  | .280**  | 1      |        |        |         |         |        |        |       |    |
| 4  | Status consciousness                     | 0.021   | .261**  | .320** | 1      |        |         |         |        |        |       |    |
| 3  | Value consciousness                      | .115**  | 0.033   | 0.000  | -0.036 | 1      |         |         |        |        |       |    |
| 6  | Perceived quality                        | .441**  | .328**  | -0.009 | 0.045  | -.071* | 1       |         |        |        |       |    |
| 7  | Perceived functional risk                | -.341** | -.190** | .140** | 0.042  | .206** | -.439** | 1       |        |        |       |    |
| 8  | Awareness of RM                          | .347**  | .250**  | -0.039 | 0.037  | 0.001  | .419**  | -.229** | 1      |        |       |    |
| 9  | Usage experience                         | .343**  | .179**  | -0.053 | 0.019  | .083*  | .213**  | -.213** | .255** | 1      |       |    |
| 10 | Age groups                               | 0.058   | 0.05    | 0.006  | -0.044 | 0.019  | 0.059   | -0.052  | .081*  | -0.047 | 1     |    |
| 11 | Gender                                   | 0.053   | -0.047  | -0.038 | -0.026 | 0.039  | 0.031   | 0.03    | .113** | .096** | 0.014 | 1  |

\*\*\* $p \leq .001$ , \*\* $p \leq .01$ , \* $p \leq .05$ , + $p \leq 0.1$ .

Note: Although we treated age group as three dummies in regression, we treated it as a categorical variable (1 = younger than 25 years; 2 = between 25 and 40 years; 3 = older than 40 years) when providing descriptive statistics and the correlation matrix.

**Table 5**

Means of the tested variables with T-test in the U.K. and China.

|  | U.K.  |       | China |       | Diff. between U.K. and China |
|--|-------|-------|-------|-------|------------------------------|
|  | Mean  | S.D.  | Mean  | S.D.  |                              |
| Age groups                               | 1.480 | 0.733 | 1.877 | 0.834 | -0.397***                    |
| Purchase intention                       | 2.977 | 0.972 | 2.492 | 0.958 | 0.485***                     |
| Awareness of RM products' green benefits | 3.877 | 0.625 | 3.506 | 0.729 | 0.371***                     |
| Environmental consciousness              | 3.998 | 0.706 | 4.191 | 0.702 | -0.193***                    |
| Status consciousness                     | 2.939 | 0.975 | 3.301 | 0.842 | -0.363***                    |
| Value consciousness                      | 3.849 | 0.803 | 3.736 | 0.724 | 0.113*                       |
| Perceived quality                        | 3.312 | 0.661 | 2.951 | 0.632 | 0.361***                     |
| Perceived risk                           | 3.068 | 0.817 | 3.511 | 0.713 | -0.443***                    |
| Awareness of RM                          | 3.491 | 0.875 | 2.866 | 0.848 | 0.625***                     |
| Usage experience                         | 0.359 | 0.481 | 0.188 | 0.391 | 0.172***                     |

\*\*\* $p \leq .001$ , \*\* $p \leq .01$ , \* $p \leq .05$ , + $p \leq 0.1$ .

Notes: Although we treated age group as three dummies in regression, we treated it as a categorical variable (1 = younger than 25 years; 2 = between 25 and 40 years; 3 = older than 40 years) when providing descriptive statistics and the correlation matrix.

**Table 6**  
Regression models.

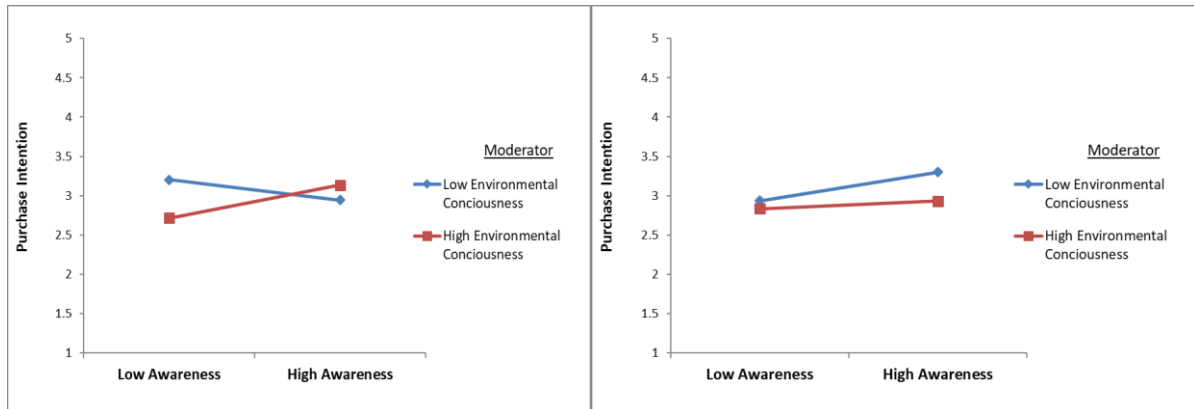
|   | Model 1           |                    | Model 2            |                   | Model 3           |                   | Model 4           |                   | Model 5           |                   | Model 6           |                   |
|---|-------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|   | U.K.              | China              | U.K.               | China             | U.K.              | China             | U.K.              | China             | U.K.              | China             | U.K.              | China             |
| Environ. consciousness × Awareness of RM products' green benefits |                   |                    |                    |                   | .106<br>(.068)    | -.009<br>(.031)   |                   |                   |                   |                   | .169* (.077)      | -.067+<br>(.037)  |
| Status consciousness × Awareness of RM products' green benefits   |                   |                    |                    |                   |                   |                   | -.060<br>(.067)   | .050+<br>(.029)   |                   |                   | -.163*<br>(.080)  | .070*<br>(.033)   |
| Value consciousness × Awareness of RM products' green benefits    |                   |                    |                    |                   |                   |                   |                   |                   | -.036<br>(.064)   | .054+<br>(.033)   | -.057<br>(.070)   | .064+<br>(.035)   |
| Awareness of RM products' green benefits                          |                   |                    | .139 +<br>(.071)   | .177***<br>(.042) | .158*<br>(.072)   | .181***<br>(.044) | .161*<br>(.076)   | .172***<br>(.042) | .121<br>(.078)    | .171***<br>(.042) | .201*<br>(.084)   | .194***<br>(.044) |
| Environ. consciousness  |                   |                    | -.042<br>(.060)    | -.075<br>(.046)   | -.054<br>(.061)   | -.081<br>(.052)   | -.046<br>(.060)   | -.072<br>(.046)   | -.042<br>(.060)   | -.069<br>(.046)   | -.073<br>(.061)   | -.116*<br>(.053)  |
| Status consciousness  |                   |                    | .030<br>(.063)     | .001<br>(.044)    | .039<br>(.063)    | .000<br>(.044)    | .032<br>(.063)    | .032<br>(.047)    | .031<br>(.063)    | -.005<br>(.044)   | .053<br>(.063)    | .030<br>(.048)    |
| Value consciousness   |                   |                    | .160**<br>(.061)   | .186***<br>(.042) | .168**<br>(.061)  | .185***<br>(.042) | .161**<br>(.061)  | .182***<br>(.182) | .169**<br>(.063)  | .199***<br>(.042) | .190**<br>(.063)  | .188***<br>(.042) |
| Awareness of RM   | .063<br>(.057)    | .167***<br>(.044)  | .041<br>(.058)     | .124**<br>(.045)  | .032<br>(.058)    | .122**<br>(.046)  | .045<br>(.059)    | .123**<br>(.045)  | .041<br>(.058)    | .127**<br>(.045)  | .040<br>(.058)    | .115*<br>(.046)   |
| Perceived quality   | .220***<br>(.059) | .249***<br>(.045)  | .189 **<br>(.063)  | .200***<br>(.047) | .170**<br>(.064)  | .199***<br>(.047) | .192**<br>(.063)  | .214***<br>(.048) | .194**<br>(.063)  | .204***<br>(.047) | .178**<br>(.065)  | .220***<br>(.048) |
| Perceived risk  | -.090<br>(.057)   | -.150***<br>(.043) | -.169**<br>(.062)  | -.123**<br>(.047) | -.173**<br>(.062) | -.125**<br>(.047) | -.176**<br>(.063) | -.110*<br>(.047)  | -.162*<br>(.064)  | -.118*<br>(.047)  | -.182**<br>(.064) | -.111*<br>(.047)  |
| Usage experience  | .509***<br>(.115) | .519***<br>(.098)  | .401 ***<br>(.124) | .554***<br>(.101) | .405***<br>(.123) | .553***<br>(.101) | .383**<br>(.383)  | .546***<br>(.101) | .402***<br>(.124) | .127**<br>(.127)  | .359**<br>(.125)  | .544***<br>(.101) |
| Age group (25–40)   | .557***<br>(.140) | .074<br>(.090)     | .497**<br>(.156)   | -.033<br>(.099)   | .479**<br>(.156)  | -.036<br>(.099)   | .504**<br>(.157)  | -.018<br>(.099)   | .493**<br>(.164)  | -.027<br>(.099)   | .482**<br>(.156)  | -.031<br>(.099)   |
| Age group (>40)   | .563***<br>(.161) | .049<br>(.096)     | .513**<br>(.164)   | .073<br>(.097)    | .499**<br>(.163)  | .073<br>(.098)    | .515**<br>(.164)  | .073<br>(.097)    | .507**<br>(.157)  | .071<br>(.097)    | .485**<br>(.163)  | .073<br>(.097)    |
| Gender (female)   | -.161<br>(.104)   | -.101<br>(.076)    | -.256*<br>(.108)   | -.085<br>(.080)   | -.249*<br>(.108)  | -.086<br>(.081)   | -.259*<br>(.108)  | -.092<br>(.080)   | -.252*<br>(.108)  | -.084<br>(.080)   | -.248*<br>(.107)  | -.094<br>(.080)   |
| Constant  | -.416**<br>(.132) | -.156*<br>(.078)   | -.251+<br>(.151)   | -.196*<br>(.081)  | -.268+<br>(.151)  | -.190*<br>(.084)  | -.241<br>(.151)   | -.213**<br>(.082) | -.244<br>(.152)   | -.209*<br>(.081)  | -.237<br>(.152)   | -.191*<br>(.083)  |
| R <sup>2</sup>  | .237              | .250               | .280               | .320              | .284              | .319              | .279              | .323              | .278              | .323              | .290              | .328              |

\*\*\* $p \leq .001$ , \*\* $p \leq .01$ , \* $p \leq .05$ , + $p \leq 0.1$ .

**Fig. 1.** Moderation effect of environmental consciousness.

A: U.K.

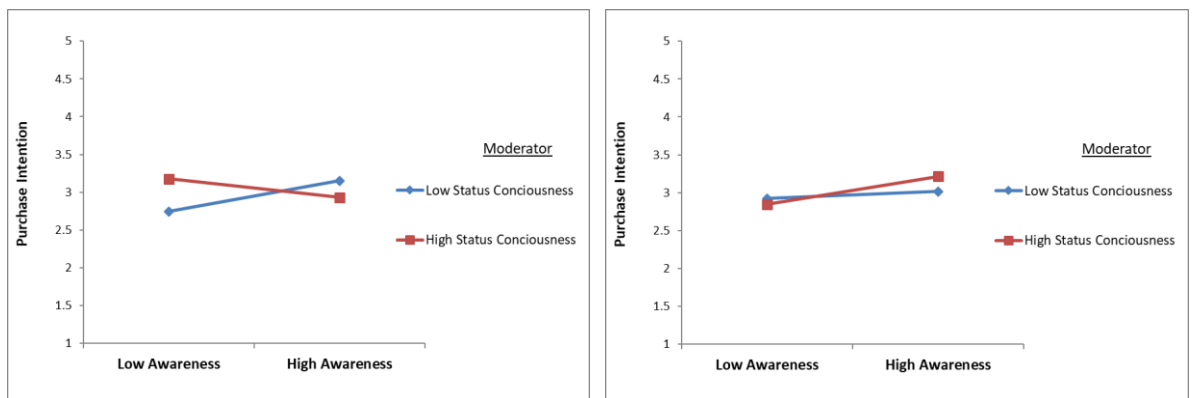
B: China



**Fig. 2.** Moderation effect of status consciousness.

A: U.K.

B: China



**Fig. 3.** Moderation effect of value consciousness.

A: U.K.

B: China

