

## RESEARCH ARTICLE

# Green apparel buying behaviour: A Stimulus–Organism–Behaviour–Consequence (SOBC) perspective on sustainability-oriented consumption in Japan

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## Abstract

The green apparel literature has previously examined the disparity between consumers' positive purchase intentions and their actual purchase behaviour. This dichotomous behaviour represents the critical 'intention–behaviour gap', which marketers must seek to reduce to increase sales of their products. The current study thus seeks to identify the drivers of green apparel purchase behaviour that may potentially mitigate this gap. The proposed conceptual model is grounded in the Stimulus–Organism–Behaviour–Consequence (SOBC) paradigm and is tested through an analysis of cross-sectional data collected from 387 green apparel product consumers in Japan who were sourced through Macromill Inc. The findings suggest that optimism as the stimulus is positively associated with labelling satisfaction and labelling desire, which, in turn, are positively associated with purchase intentions, representing behaviour. Furthermore, purchase intentions are positively associated with shopping routine and fully mediate the association between shopping routine and buying behaviour. The study provides interesting strategic inputs for green apparel marketers and retailers.

## KEYWORDS

green apparel, green product, green purchase behaviour, green purchase intention, Stimulus–Organism–Behaviour–Consequence (SOBC)

## 1 | INTRODUCTION

The past decade has witnessed an increase in the discussions related to sustainability issues in the clothing and apparel industry (Jacobs et al., 2018). As the second-largest waste-generating industry and the

industry with the second-highest carbon footprint (Conca, 2015), the clothing and apparel sector produced an estimated 18.6 million tonnes of apparel waste in 2020 alone, the majority of which ended up in landfills (Fibre2Fashion, 2020). Consequently, it is essential to take steps to minimise the negative environmental impact of this

**Abbreviations:** ABC, Antecedent–Behaviour–Consequence; AVE, Average variance explained; B, Behavioural response; C, Consequences actions; CFA, Confirmatory factor analysis; CFI, Comparative fit index; CMB, Common method bias; CR, Composite reliability; O, Organism; RMSEA, Root mean square error of approximation; SDGs, Sustainable Development Goals; S, Stimuli; SEM, Structural equation modelling; SOBC, Stimulus–Organism–Behaviour–Consequence; SOR, Stimulus–Organism–Response; TLI, Tucker–Lewis index;  $\chi^2/df$ , Ratio of the chi-square and degrees of freedom.

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industry. Practitioners and policymakers have stressed the need to move towards the production and use of green products in the apparel category (McNeill & Venter, 2019), referring to clothing or fashion products that are manufactured while giving due consideration to various environmental, social and economic factors (Su et al., 2019). For example, if organic and biodegradable raw materials are used to manufacture clothing and fashion, they can significantly reduce the detrimental impact of clothing on the environment (Wiederhold & Martinez, 2018). Similarly, from the consumer point of view, the adoption, reuse and disposal of green products could have a powerful, positive impact on the environment and contribute to the sustainability of the apparel industry (Lundblad & Davies, 2016), as conventional products produce more greenhouse gases on disposal than green products do (Awan, Arnold, et al., 2021; Awan, Nauman, et al., 2021).

It is, therefore, not surprising that green apparel has attracted the attention of consumers, manufacturers and researchers in the recent past. Indeed, scholars have highlighted the growing media coverage of the negative social and environmental effects of non-green products and practices (McNeill et al., 2020), the dissemination of information related to the benefits of green products (McNeill & Venter, 2019) and the growing consumer awareness and concerns about the environment (Gilal et al., 2020; Testa et al., 2019) as the key drivers of this increase in green apparel demand (Diddi et al., 2019). In a recent report, Moore (2019) found that 33% have switched, and 50% of the remaining sample are intending to switch their apparel product consumption from non-green to green apparel brands in the near future. However, scholars have expressed concern that positive purchase intentions towards green apparel have not always translated into actual purchase behaviours, which has caused the green apparel industry to remain in its nascent stages, accounting for less than 3.7% of the total clothing market in the past (Jacobs et al., 2018). This intention-behaviour gap shows that the customers' concerns related to the environment and the manufacturers' efforts to market more sustainable clothing options have failed to transform consumers' intentions into green product purchases. Researchers have also attributed the lower adoption rate of green apparel products (Rausch & Kopplin, 2020) to this gap and stressed the urgent need for empirical investigations to identify ways to reduce it (Diddi et al., 2019).

We argue that to achieve this goal, it is imperative to understand the factors that could drive green apparel purchase intentions and behaviour. In this context, we draw upon the extended consumer behaviour literature, in general, and pro-environmental consumption behaviour, in particular, to propose six variables (optimism, pessimism, labelling desire, labelling satisfaction, perceived effectiveness and shopping routine) that have remained under-researched in the context of green apparel. Of these, perceived effectiveness has been examined to some extent in the green context, but other identified variables have been largely overlooked. In fact, labelling satisfaction and desire have been examined in this context by only one previous study (Dhir et al., 2021), whereas optimism, pessimism and shopping routine have not been examined at all. However, these variables have been investigated in other contexts, where they have been defined in terms

of pessimistic and optimistic individuals. For instance, prior studies have suggested that optimistic individuals have a social orientation and are always willing to contribute to society, while pessimistic individuals are those who behave in an opposite manner, thereby implying that negative environmental consequences do not motivate them to adopt green products (Sadiq et al., 2020). Labelling, meanwhile, is a well-researched variable in the consumer behaviour literature and is very important since product labels act as a medium of communicating product-related information to the customer, who may then use it in making product purchase decisions (Aitken et al., 2020). With reference to the present context, consumers who are high in pro-environmental behaviour are known to consider labelling as a source of differentiation, indicating that labelling satisfaction and labelling desire may be significant variables in predicting such behaviours (Aitken et al., 2020; Ramos & Squeff, 2020). Furthermore, perceived effectiveness is a variable that has been previously examined in connection with environmental psychology (Coelho et al., 2017). Finally, the past literature has highlighted that shopping routine, that is, buying more than required, is related to consumers' pro-environmental intentions (Stefan et al., 2013). We thus bring together these novel variables to better understand consumers' intention-behaviour gap in the context of green apparel through two research questions (RQs):

**RQ1.** How do optimism and pessimism stimulate consumers' labelling satisfaction, labelling desire and perceived effectiveness, and how do these affect their purchase intentions towards green apparel products?

**RQ2.** How does shopping routine drive consumers' intentions and buying behaviour?

Our research questions are grounded in the theoretical framework of the Stimulus-Organism-Behaviour-Consequence (SOBC) paradigm. The SOBC paradigm suits the present context since it proposes an interactive effect among stimuli (S), an organism or internal state (O), the resultant behavioural response (B) and consequential actions (C) (Davis & Luthans, 1980). In the SOBC framework, the effect flows from S to O to B, finally leading to C. Accordingly, we propose optimism and pessimism as stimuli (S) that drive labelling satisfaction, labelling desire and perceived effectiveness, which, in turn, represent the internal or organismic states (O) of consumers. In concordance with the SOBC propositions, these organismic states are hypothesised to drive purchase intentions, representing behavioural response (B), which then drive buying behaviour, representing the consequence (C). In addition to the organismic states, we have proposed another variable, shopping routine, to capture consumers' behaviour. We have hypothesised this variable to drive intentions, as well as a consequence, that is, buying behaviour. Shopping routine, which is also a behavioural response (B), is thus proposed as the antecedent to both intention and green purchase behaviour. The hypothesised associations were tested using data collected from 387 existing users of green apparel in Japan. Japan was specifically chosen as the geography of interest because it might add novel

findings to the existing green product literature, which has primarily focused on individuals living in Europe and North America. These individuals have been shown to be quite concerned about the detrimental impact of the fashion apparel industry on the environment (Albloushy & Hiller Connell, 2019; Gray et al., 2019). In comparison, studies in the same context on the behaviour of individuals living in Asian countries, such as Japan, are rare. Moreover, Japan has made visible efforts to move towards environment-friendly technologies to produce green products in the apparel category (Kim et al., 2020), thereby making it an interesting setting for our study. Furthermore, consumers living in Japan have been found to be optimistic and ready to make efforts to save the environment (Kaida & Kaida, 2019). A Consumer Affairs Agency's (2017) report, however, revealed that while purchase intention of eco-friendly/pro-environmental products accounts for about 62% in Japan, the actual purchase experience accounts for only about 33%, within which the proportion of green apparel products is much lower than that of organic foods. All of these factors make Japan a suitable geography to develop insights related to the intention-behaviour gap.

The novelty of our research lies in the fact that it is the pioneer study for highlighting the importance of the intention-behaviour gap in the green apparel segment using the SOBC paradigm. Second, it introduces optimism and pessimism as stimuli in the pro-environmental setting, specifically the green apparel product context. Third, to our knowledge, the current study is the first to propose variables, such as shopping routine, labelling satisfaction and labelling desire, to explicate the intention-behaviour gap. The findings of our study may thus be insightful for retailers, policymakers and academicians to better understand the green apparel product purchase behaviour of Japanese consumers.

## 2 | THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

### 2.1 | Theoretical framework

The present study proposes a research model based on the SOBC paradigm. The paradigm, proposed by Davis and Luthans (1980) and grounded in the Social Learning Theory (Bandura, 1977), is considered an advancement of the Stimulus-Organism-Response (SOR; Mehrabian & Russell, 1974) and Antecedent-Behaviour-Consequence (ABC; Surratt et al., 1969) models. Compared with other cognitive and operant-based models, such as SOR and ABC, the SOBC framework enables the examination of environmental-cognitive-behavioural events. Here, both the antecedent, that is, S, and the consequence, that is, C, are the environmental events, whereas the cognitive process, that is, O, and behavioural response, that is, B, act as mediators between the environmental variables, that is, S and C. Herein, SOBC extends the ABC model by incorporating the cognitive process (O) and recognising its role as a mediator in the relationship between the stimulus (S) and consequence (C). At the same time, SOBC extends the SOR model by incorporating the consequences

(C) of the behavioural actions taken in the past to represent the reciprocal nature of the environmental events (Davis & Luthans, 1980).

Davis and Luthans (1980) argued that if the reciprocal nature of the environmental events were not considered, then it would limit the behavioural explanations by causing researchers to ignore the interaction effect between the environment, individuals and behaviour, which has been emphasised as a key aspect by social learning theorists. Realising the importance of this reciprocal nature, several studies have thus used the SOBC framework in various contexts to gain a deeper understanding of target behaviours. For example, Talwar, Jabeen, et al. (2021) used the SOBC paradigm to examine buying behaviour towards organic food, while Yuan et al. (2017) used the SOBC model to understand consumers' engagement with new media. Given its application in other pro-environmental contexts and its ability to factor in a wider range of influences on behaviour and conceptualise its consequences, we contend that SOBC is a suitable theoretical lens for our study.

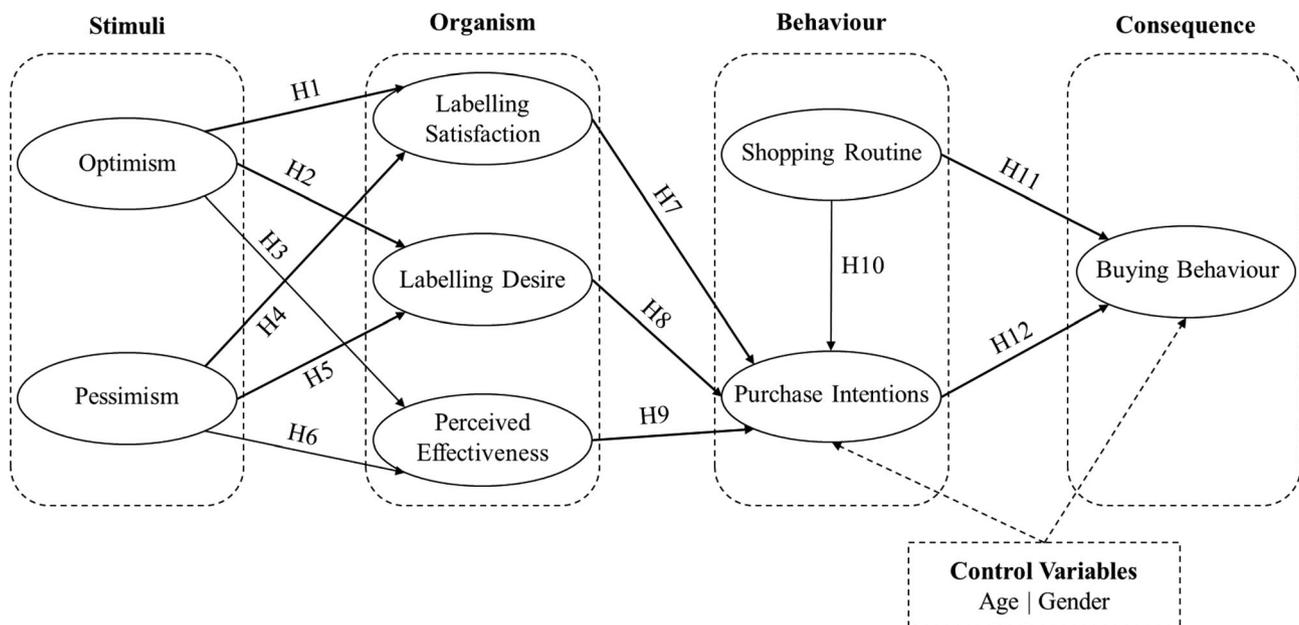
In consonance with the prior consumer behaviour literature, which suggests that individuals' labelling satisfaction and desire and perceived effectiveness are associated with optimism (positive traits) and pessimism (negative traits) (Boileau et al., 2020; Coelho et al., 2017), we conceptualise the two as stimuli (S) in this study. Next, we propose labelling satisfaction, labelling desires (Aitken et al., 2020) and consumer perceived effectiveness (Piligrimienė et al., 2020) as representatives of organismic (O) or internal states, which further affect consumers' purchase intentions. Next, we have theorised two variables related to consumers' behaviour, that is, purchase intentions (J. Wang, Wang, Xue, et al., 2018) and shopping routine (Stefan et al., 2013), to represent the behavioural response (B) that is associated with consumers' buying behaviour, which is the consequence (C) in our research model (see Figure 1).

### 2.2 | Stimuli

#### 2.2.1 | Optimism

Optimism is referred to as an individual's general sense of positive expectations about a certain event (Scheier & Carver, 2018). Since optimistic individuals are considered to be happy with the outcomes (Joshnloo et al., 2017), consumers high in optimism tend to be satisfied with the product they are consuming (Westbrook, 1980). For instance, Pham et al. (2018) reported that optimistic individuals perceive technology adoption to be useful in their personal and professional lives and that such optimism has a positive association with satisfaction. Similarly, Pham et al. (2020) found that optimism positively influenced consumer satisfaction with luxury hotels.

Furthermore, the extant literature has suggested that optimistic individuals tend to exhibit greater desire. For instance, Duffy and Raque-Bogdan (2010) found that optimism is a positive predictor of desire in the context of career development. Similarly, positive traits that have similar characteristics as optimism, such as extraversion (Sadiq, 2019), are also positively associated with consumers' desire



**FIGURE 1** Hypothesised research model

(Greenberg et al., 2020). In the same vein, scholars have argued that consumers' optimism about their future financial conditions may also lead to new desires (Khan et al., 2017). Although there is no a priori evidence for our proposed assertion, we argue that individuals' optimism may drive their labelling desire and satisfaction. We base our speculation on the fact that because consumers tend to seek sustainability-related information from the tags/labels of the product or apparel while making a purchase decision, the presence of information on the label regarding the concerned products' sustainability/environment-friendliness gives assurance and satisfaction to optimistic consumers. In other words, we posit that optimistic individuals desire to have all of the relevant sustainability-related information on the labels and derive satisfaction from the availability of such information. Thus, we propose:

**H1.** Optimism has a positive association with labelling satisfaction.

**H2.** Optimism has a positive association with labelling desire.

Scholars have further noted that individuals high in positive affect tend to approach their environment with more positive expectations (Kuiper et al., 2000). In the same vein, Aspinwall (1998) contended that positive affect provides individuals with the psychological resources to engage in proactive behaviours, such as acting against health threats. The author further argued that perceived effectiveness constitutes a key psychological resource. Advancing this discussion, we can expect individuals with high positive affect to respond effectively when they encounter information about environmental degradation and how they can improve it (Aspinwall, 1998). In consonance with this assertion, the literature on environmental psychology has suggested that perceived effectiveness is positively influenced by positive affect (Coelho et al., 2017). In regard to the present context,

scholars have noted that positive affect is a trait that is quite similar to optimism (Lu et al., 2018; Sadiq, 2019), thereby giving us the basis to extrapolate the association between positive affect and perceived effectiveness to propose a positive relationship between optimism and perceived effectiveness.

Given the association of positive affect with perceived effectiveness in environmental psychology and the similarity between positive affect and optimism, we posit:

**H3.** Optimism has a positive association with perceived effectiveness.

### 2.2.2 | Pessimism

Pessimism is defined as a general negative expectation that individuals have about a certain event (Scheier & Carver, 2018). Pessimistic individuals have a tendency to concentrate more on negative things (Sadiq et al., 2021b) and, thus, expect that things will not happen their way and will result in a bad outcome (Kaida & Kaida, 2019). In addition, consumers high in pessimistic traits tend to be less satisfied with product quality or performance (Westbrook, 1980). Kaida and Kaida (2019) have also reported that pessimistic individuals are less likely to be satisfied with the outcomes. They further observed a negative association between satisfaction and pessimism. Similarly, Seltzer et al. (2017) found that neuroticism, considered as an alternative to pessimism, is negatively associated with individuals' life satisfaction.

In addition, prior studies on pessimism have also revealed that pessimistic individuals are less likely to have the desire for new things. For instance, consumers who are pessimistic have been shown to take fewer risks, particularly financial ones (Sadiq et al., 2020), which may

subsequently inhibit the development of their desire to purchase new products.

Although no previous empirical evidence exists to support our assertion, we anticipate that in the case of green apparel, consumers' pessimism will drive them to have low labelling satisfaction and desire. In other words, we contend that pessimism is likely to have a negative influence on labelling satisfaction and desire. This can be further argued to suggest that despite proper labelling, pessimists would remain doubtful and have a negative perception of the environmental-friendliness of green apparel. Hence, we hypothesise:

**H4.** Pessimism has a negative association with labelling satisfaction.

**H5.** Pessimism has a negative association with labelling desire.

The extant literature on environmental psychology has suggested that negative traits, such as negative affect, significantly reduce consumers' perceived effectiveness (Coelho et al., 2017). Negative traits, such as pessimism, exhibit similar characteristics (Sadiq, 2019). Given that consumers high in pessimism are unable to deviate from the negativity around them, it is highly possible that they are unable to boost their self-psychological resources to adopt pro-environmental behaviours (Akirmak & Ayla, 2019; Sadiq, 2019). Therefore, we argue that consumers' pessimism would reduce their perceived effectiveness, hypothesising:

**H6.** Pessimism has a negative association with perceived effectiveness.

## 2.3 | Organism

### 2.3.1 | Labelling satisfaction

Consumer satisfaction is defined as an internal emotion that depends upon consumers' expectations about the product's capability and its actual performance (Ahrholdt et al., 2019). Satisfaction captures the happiness felt from the fulfilment desires achieved through the consumption of a product or service (J. Wang, Wang, Xue, et al., 2018). Consumer satisfaction as a whole is a widely studied variable in marketing research (Anisimova et al., 2019). However, labelling satisfaction has generally been overlooked, particularly in the context of pro-environmental behaviours (Aitken et al., 2020). Nonetheless, the importance of labelling satisfaction cannot be denied in a pro-environmental context, as revealed by a recent study on green apparel (Dhir et al., 2021).

Satisfaction is an important variable as it has been shown to be a significant predictor of consumers' intentions. For example, scholars have noted that satisfied consumers exhibit the intention to spread positive word-of-mouth about firms (J. Wang, Wang, Xue, et al., 2018). Similarly, Aitken et al. (2020) observed that consumers satisfied with the labelling on organic food demonstrate positive intentions to purchase it, while Wu et al. (2018) found that consumers

who are satisfied with a green brand do not have the intentions to switch. These findings give us reason to speculate that consumers' satisfaction with labelling on green apparel products will have a bearing on their intentions to purchase them. Hence, we hypothesise:

**H7.** Labelling satisfaction has a positive association with intentions to purchase.

### 2.3.2 | Labelling desire

Consumers' desire, considered a significant factor in their decision-making process (Ki & Kim, 2019), may be defined as an internal motivational force that drives consumers to exhibit positive behaviours, such as buying behaviour (Shin & Parker, 2017). While consumer desire is a widely researched variable, its labelling counterpart has been rarely examined, specifically within green consumer research (Dhir et al., 2021). However, the limited studies that have examined it have underscored its importance. For instance, Aitken et al. (2020) found that consumers' desire for labelling was significantly associated with their intentions to consume organic food. In the present study, we argue that pro-environmental consumers' desire for the proper labels, which assure them that the green apparel product is environmentally friendly, will motivate them to harbour positive intentions towards it. Hence, we posit:

**H8.** Labelling desire has a positive association with intentions to purchase.

### 2.3.3 | Perceived effectiveness

Perceived effectiveness is defined as the degree of the consumers' domain-specific self-belief that they will be able to solve the problem at hand (Sharma & Jha, 2017). Consumers who believe their actions could make a significant contribution to solving the problem feel more confident and perform actions intended to solve the issue (Yarimoglu & Binboga, 2019). Indeed, the prior literature on pro-environmental consumer behaviour has revealed that perceived consumer effectiveness is positively associated with consumers' intentions. For example, J. Wang, Wang, Wang, et al. (2018) observed that consumers high in perceived consumer effectiveness tend to show strong intentions of visiting green hotels. Similarly, Ko and Jin (2017) found that consumers' strong perceived ease of buying green apparel results in their positive intentions to do so. Similarly, Han and Yoon (2015) and Jaiswal and Kant (2018) reported that the intentions to adopt green consumerism are positively associated with consumers' perceived effectiveness. These prior findings make it possible for us to contemplate the association of perceived effectiveness with purchase intentions towards green products. Hence, we propose:

**H9.** Perceived effectiveness has a positive association with purchase intention.

## 2.4 | Behavioural response

### 2.4.1 | Shopping routine, purchase intentions and green purchase behaviour

Shopping routine is considered to play a significant role in driving consumers to purchase products (Chuang et al., 2018). A shopping routine is defined as an act of consumption due to routine buying and can sometimes result in more purchases than actually required (Stefan et al., 2013). Prior studies have suggested that shopping routine has a significant influence on consumers' purchase intentions and buying behaviour. For example, Stefan et al. (2013) observed that shopping routine is positively associated with food waste behaviour. Similar results were reported by Stancu et al. (2016), who found that frequent shopping results in food waste behaviour. Moreover, as per the food waste literature, frequent shopping results in non-pro-environmental behaviour because individuals mainly follow a routine of buying more food than necessary due to time constraints, oversized packaging, the difference in taste and bulk purchasing (Schanes et al., 2018). Remarkably, although the literature on food waste has paid increasing attention to shopping routine (Schanes et al., 2018), the variable seems to be largely ignored in other areas concerned with pro-environmental behaviour. In the present study, we attempt to address this gap by including shopping routine as a variable of interest in our model. However, befitting the context, we interpret shopping routine as a positive construct that may drive purchase intentions and buying behaviour towards green apparel. This interpretation is different from food waste studies, where shopping routine is hypothesised as a driver of food waste behaviour. In the present study, we propose that the frequent shopping of apparel, in general, is likely to make consumers aware of the pro-environmental apparel products available on the market, which would lead them to develop purchase intentions and buying behaviour towards these products. Major reasons for such a positive impact on intentions could be the interaction with pro-environmental customers, advertisements and willingness to try new products.

Given that the association of shopping routine with purchase intentions has not previously been examined, we additionally support our argument for the association from the past literature related to the construct of 'habit' by considering shopping routine to be a habit. Habit has been found to be a significant predictor of behavioural intentions and actual behaviour by prior studies (e.g., Chuang et al., 2018; Leung & Chen, 2017; Russell et al., 2017) and has also been found to significantly influence individuals' actual behaviour, such as food waste behaviour (Russell et al., 2017). Building on the preceding discussion, we hypothesise:

**H10.** Shopping routine has a positive association with purchase intention.

**H11.** Shopping routine has a positive association with buying behaviour.

### 2.4.2 | Purchase intentions and buying behaviour

Purchase intentions may be defined as consumers' willingness to purchase pro-environmental products, as motivated by their desire to save the environment (Sharma et al., 2020). In other words, consumers are concerned not only about the pro-environmental qualities of the product but also with the environmental implications linked with the production of the product itself (Wei et al., 2017). Prior studies have suggested that the intention to purchase significantly predicts green product buying behaviour. For instance, S. Wang, Wang, Yang, et al. (2018) observed a positive association between purchase intentions and green product purchase behaviour. Similarly, Jaiswal and Kant (2018) found that green purchase intentions have a significant influence on green purchase behaviour, while Testa et al. (2019) reported that intentions to purchase organic products positively influence green purchase behaviour. In consonance with the prior findings in the domain of pro-environmental behaviours, we anticipate purchase intentions towards green apparel to be associated with consumers' buying behaviour. Hence, we propose:

**H12.** Purchase intentions have a positive association with buying behaviour.

## 2.5 | Mediation effect of purchase intentions

Intentions to purchase are an important factor in understanding consumers' green purchase behaviour (Chen, 2020), making it important to understand the mechanism surrounding it. Although the vast majority of studies have considered intentions to be a dependent variable, some scholars have attempted to examine it as a mediator instead (e.g., Ertz et al., 2016; Liu et al., 2020). Accordingly, scholars have confirmed the mediation effect of intentions on the relationship between the antecedents of green buying and actual behaviour in a pro-environmental context (Bamberg & Möser, 2007; Taufique & Vaithianathan, 2018). In agreement with this limited literature, we expect intentions to play a more complex role in the buying behaviour towards green apparel. Subsequently, we aim to test its mediation effect on the relation between shopping routine and buying behaviour. Hence, we posit:

**H13.** Purchase intentions mediate the association between shopping routine and buying behaviour.

## 2.6 | Demographics as control variables

The current study has employed age and gender as control variables since these have a significant impact on sustainable behaviour (Coşkun et al., 2017). Previous literature has suggested that the gender of consumers significantly influences their sustainable behaviour (Coelho et al., 2017; Nguyen et al., 2017), as does the difference in

age (J. Wang, Wang, Xue, et al., 2018). In addition, the abovementioned variables have been controlled in previous studies, such as the ones by Cheung and To (2019), Coşkun et al. (2017) and Sadiq et al. (2021a), which have investigated consumers' pro-environmental behaviour. In consonance, we used gender and age as control variables in our model to avoid their interference in obtaining the optimum values of association between the concerned variables (Cheung & To, 2019).

### 3 | DATA, METHODS AND ANALYSIS

#### 3.1 | Data collection

We collected the data using a single cross-sectional, online survey method that utilised validated measurements from the green product literature (Table 1). Random sampling was used to recruit respondents through Macromill Inc., a leading marketing research organisation with

**TABLE 1** Measurement of study variables

Study measures (references)	Measurement items	CFA	SEM
Optimism (OPT) (Scheier & Carver, 1985)	OPT1: I always look on the bright side of things.	.70	.71
	OPT2: I'm always optimistic about the future.	.88	.86
Pessimism (PESS) (Scheier & Carver, 1985)	PESS1: I hardly ever expect things to go my way.	.85	.84
	PESS2: Things never work out the way I want them to.	.78	.79
Labelling desire (DES) (Aitken et al., 2020)	DES1: I would like specific information on labelling explaining the ethical impacts of green fashion products.	.76	.75
	DES2: I would like specific information on labelling explaining the ethical impacts of green fashion products on the environment.	.72	.72
	DES3: I would like to see a national standard for green fashion product labelling.	.64	.64
Labelling satisfaction (SAT) (Aitken et al., 2020)	SAT1: Most green fashion products are clearly labelled, so I can tell whether they are green or not from the packaging.	.60	.59
	SAT2: When shopping, I can easily distinguish between green fashion products and non-green fashion products.	.83	.83
	SAT3: It is easy to identify green fashion product labels.	.74	.74
	SAT4: I am confident I understand the information on green fashion product labelling.	.65	.65
Purchase intention (PI) (B. Kumar et al., 2017)	PI1: I plan to purchase green fashion products in the future.	.79	.79
	PI2: I intend to purchase green fashion products soon.	.86	.85
	PI3: I will purchase green fashion products in the near future.	.82	.82
Green purchase behaviour (GPB) (Khare & Sadachar, 2017)	GPB1: I buy clothing made of organically grown natural fibres.	.76	.75
	GPB2: I buy fashion products with low impact or no dye processing.	.71	.73
	GPB3: I buy fashion products with environmentally friendly labelling or packaging techniques.	.70	.69
Perceived effectiveness (PE) (J. Wang, Wang, Wang, et al., 2018)	PE1: It is worthless for individuals to do anything about protecting the environment.	.93	.90
	PE2: An individual's behaviour has no effect on pollutions and natural resource problems. Therefore, it does not make any difference in what they do.	.80	.84
Shopping routine (SR) (Stefan et al., 2013)	SR1: I buy unintended fashion products when I go shopping.	.76	.75
	SR2: I buy too many fashion products when I go shopping.	.88	.88
	SR3: I buy more fashion products than required when a shop offers good value for money.	.66	.67

a large consumer base in Japan (Tandon et al., 2021), that has also been used in a similar context, that is, investigating the reasons for the adoption of green products (Dhir et al., 2021). Data were collected during February–March 2020 by targeting Japanese consumers residing in Tokyo metropolitan area. A total of 412 responses were received in one wave, whereafter we terminated the survey since the desired consumer profile was achieved, which was based on our initial screening regarding their awareness of green apparel products in Japanese markets. We confirm that our study has collected the data by following the rules set by Japanese Industrial Standards to protect the respondents' privacy.

### 3.2 | Analysis

Data analysis was performed using SPSS 27.0 and AMOS 27.0. First, we removed the 25 outliers based on Z-scores and checked the data for normalcy using skewness and kurtosis values. We also evaluated the data for multicollinearity and common method bias (CMB). After ascertaining the data suitability, we analysed the data in SPSS and AMOS using the two-step process, which has been applied by many recent studies (e.g., Kaur et al., 2021; Talwar et al., 2020). In the first step, we performed confirmatory factor analysis (CFA) to establish the validity and reliability of the instrument and to assess the fitness of the measurement model. In the second step, we used structural equation modelling (SEM) to test the proposed hypotheses.

## 4 | RESULTS

### 4.1 | Normality, multicollinearity and CMB

The values of skewness and kurtosis were within the prescribed limit, confirming that the data were normally distributed. The variance inflation factor (less than 5) and tolerance (greater than 0.1) were also as recommended, confirming the absence of multicollinearity. Thereafter, we checked the data for CMB. Two major steps were taken to ensure that the study did not suffer from CMB. First, the respondents were ensured of the anonymity of their participation and were informed that there was no right or wrong answer to any question and that they should answer honestly. Second, the dataset was examined using Harman's single factor test, which showed that only 22.66% of the variance could be explained by a single factor. The obtained value was within the acceptable value, that is, 50%. In addition, following Dhir et al. (2021), we checked for CMB using the marker variable technique. The results reconfirmed that the current study did not have any such issue.

### 4.2 | Measurement model

The validity and reliability of the instrument were established using content validity, convergent validity, discriminant validity and

composite reliability (CR) measures. To ensure content validity, the survey items were drawn from the prior literature on green apparel product adoption, pro-environmental behaviour and consumer behaviour. Statistical measures were used to establish convergent validity. The values for the average variance explained (AVE) (Table 2) and the factor loadings (Table 1) exceeded the recommended threshold value, that is, .50. Similarly, the CR values were greater than .70, suggesting that the survey measure had sufficient convergent validity (Hair et al., 2013). CR values greater than .70 also indicate that the survey instrument was reliable (Fornell & Larcker, 1981).

The average shared variance and maximum shared variance for the study measures were less than their corresponding AVE values. Additionally, the correlations among the various study constructs were less than .80 and also less than the square root of their corresponding AVE values (Table 2), thus providing evidence for the satisfactory discriminant validity of the instrument (Fornell & Larcker, 1981).

The measurement model also returned acceptable goodness-of-fit values (comparative fit index [CFI] = .95, Tucker–Lewis index [TLI] = .94, the ratio of the chi-square and degrees of freedom [ $\chi^2/df$ ] = 1.86 and root mean square error of approximation [RMSEA] = .048). All the goodness-of-fit values were above the required threshold values (Anderson & Gerbing, 1988).

### 4.3 | Control variables

Results of the statistical analysis indicated that neither control variable (age and gender) had any confounding effect on the two dependent variables: purchase intentions (age:  $\beta = -.006$ ,  $p > .05$ ; gender:  $\beta = .07$ ,  $p > .05$ ) and buying behaviour (age:  $\beta = -.005$ ,  $p > .05$ ; gender:  $\beta = -.06$ ,  $p > .05$ ).

### 4.4 | Structural model

The structural model used for validating the proposed hypotheses was found to possess a good model fit ( $\chi^2/df = 2.00$ , CFI = .93, TLI = .92, RMSEA = .051) (Anderson & Gerbing, 1988). The results of the analysis were used to detect whether the proposed hypotheses were statistically supported or not. Specifically, the results show that optimism was positively associated with labelling satisfaction (H1:  $\beta = .34$ ,  $p < .001$ ) and labelling desire (H2:  $\beta = .13$ ,  $p < .05$ ), while it had no association with perceived effectiveness (H3:  $\beta = .03$ ,  $p > .05$ ). Thus, H1 and H2 were supported while H3 was not. Next, pessimism had a positive association with labelling satisfaction (H4:  $\beta = .13$ ,  $p < .01$ ) and labelling desire (H5:  $\beta = .16$ ,  $p < .001$ ). Since we had proposed a negative association in both cases, H4 and H5 were not supported despite the statistically significant results. In addition, pessimism had no association with perceived effectiveness (H6:  $\beta = -.07$ ,  $p > .05$ ), indicating that H6 was also not supported. In comparison, labelling satisfaction (H7:  $\beta = .52$ ,  $p < .001$ ) and labelling desire (H8:  $\beta = .23$ ,  $p < .01$ ) had a positive association with purchase

**TABLE 2** Validity and reliability of study variables

	CR	AVE	MSV	ASV	DES	PE	OPT	PESS	PI	GPB	SAT	SR
DES	.75	.50	.15	.06	.70							
PE	.86	.76	.15	.04	-.39	.87						
OPT	.77	.63	.12	.05	.05	.04	.79					
PESS	.80	.67	.12	.02	.17	-.10	-.35	.82				
PI	.86	.68	.48	.13	.29	-.18	.26	-.05	.82			
GPB	.77	.52	.48	.13	.35	-.28	.15	.08	.69	.72		
SAT	.80	.50	.18	.08	.15	.05	.32	.05	.42	.42	.71	
SR	.81	.59	.09	.03	.01	.14	.22	-.01	.20	.18	.29	.77

Abbreviations: ASV, average shared variance; AVE, average variance extracted; CR, composite reliability; DES, labelling desire; GPB, green purchase behaviour; MSV, maximum shared variance; OPT, optimism; PE, perceived effectiveness; PESS, pessimism; PI, purchase intention; SAT, labelling satisfaction; SR, shopping routine.

**TABLE 3** Hypothesis testing results

Hypothesis	Path	$\beta$	$p$	Support
H1	Optimism → Labelling satisfaction	.34	<.001	Yes
H2	Optimism → Labelling desire	.13	<.05	Yes
H3	Optimism → Perceived effectiveness	.03	>.05	No
H4	Pessimism → Labelling satisfaction	.13	<.01	No
H5	Pessimism → Labelling desire	.16	<.01	No
H6	Pessimism → Perceived effectiveness	-.07	>.05	No
H7	Labelling satisfaction → Purchase intention	.52	<.001	Yes
H8	Labelling desire → Purchase intention	.23	<.01	Yes
H9	Perceived effectiveness → Purchase intention	-.15	<.05	No
H10	Shopping routine → Purchase intention	.11	<.05	Yes
H11	Shopping routine → Green purchase behaviour	.02	>.05	No
H12	Purchase intention → Green purchase behaviour	.61	<.001	Yes

intentions, indicating support for H7 and H8. However, the hypothesis related to perceived effectiveness was not supported since we obtained a statistically significant but negative association with purchase intentions (H9:  $\beta = -.15$ ,  $p < .05$ ), thus indicating a lack of statistical support for H9 in the proposed direction. Furthermore, shopping routine was positively associated with purchase intentions (H10:  $\beta = .11$ ,  $p < .05$ ) but had no association with buying behaviour (H11:  $\beta = .02$ ,  $p > .05$ ). As such, only H10 was supported (Table 3). Finally, purchase intentions had a positive association with buying behaviour (H12:  $\beta = .61$ ,  $p < .001$ ), revealing support for the proposed relationship. The model explained a 4.4% variance in labelling desire, 15.4% variance in labelling satisfaction, 0.8% variance in perceived effectiveness, 28.5% variance in purchase intentions and 50.3% variance in buying behaviour (Figure 2).

#### 4.5 | Mediation analysis

The Process Macro (SPSS) was used to test the mediation effect of purchase intentions on the association of shopping routine with buying behaviour. The results showed that purchase intentions had

a full and significant mediation effect on the proposed association (Tables 4 and 5).

## 5 | DISCUSSION

This study investigates the antecedents of buying behaviour towards green apparel using the theoretical lens of SOBC. Specifically, we proposed and tested 12 direct associations and one mediation effect among (1) optimism and pessimism as stimuli; (2) labelling satisfaction, labelling desire and perceived effectiveness as organismic states; (3) shopping routine and purchase intentions as behaviour; and (4) buying behaviour as a consequence.

The results supported H1, confirming that optimism has a positive association with labelling satisfaction. This is in line with the observation of prior studies (Kaida & Kaida, 2019; Lindblom et al., 2020), implying that individuals who look at the bright side of things and are optimistic about the future tend to think that most green fashion products are clearly labelled, such that they can easily tell while shopping whether the product is green or not from the packaging itself. They also feel confident that they can understand the information on

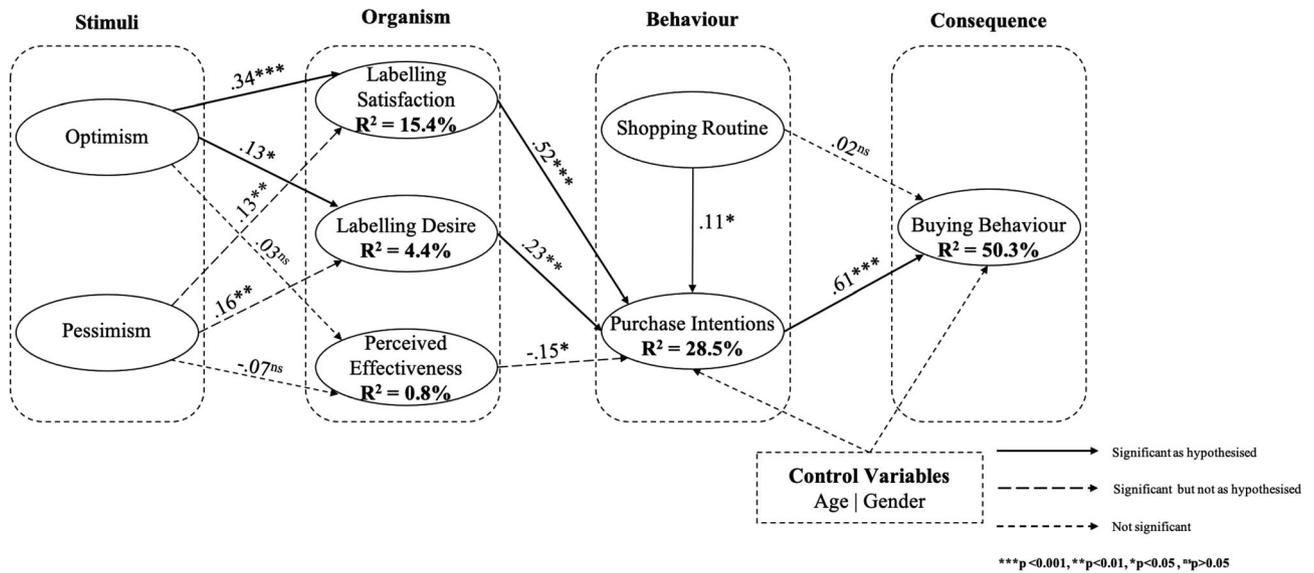


FIGURE 2 Result of hypotheses testing

SR → PI → GPB						
	$\beta$	se	t	p	LLCI	ULCI
SR → PI	.14	.04	3.36	.00	.0595	.2272
SR → GPB	.03	.03	1.06	.29	-.0296	.0989
PI → GPB	.50	.04	13.06	.00	.4271	.5784
Total effect of SR → GPB	.11	.04	2.76	.01	.0307	.1827

TABLE 4 Mediation analysis results

TABLE 5 Indirect effects between dependent and independent variables

	Effect	se	LLCI	ULCI
SR → PI → GPB	.07	.02	.0245	.1219

green fashion product labels. Similarly, H2, proposing a positive association of optimism with labelling desire, was also supported, in line with prior studies (e.g., Duffy & Raque-Bogdan, 2010), thereby reflecting that optimistic consumers tend to desire a labelled green product. This outcome implies that consumers with a positive outlook for the future desire specific information on green product labels that explain the ethical impact of these products, in general, as well as on the environment, in particular. Such optimistic consumers also prefer a national standard for green fashion product labelling. In comparison, H3, proposing a positive relationship between optimism and perceived effectiveness, was not supported by the results. This finding is not in consonance with our anticipation based on the prior extended literature (e.g., Coelho et al., 2017). A possible reason behind this finding could be that optimistic consumers in Japan do not feel that they can protect the environment at an individual level or solve the problems related to pollution and natural resources. Rather, they might optimistically be trusting the government to work on resolving these issues instead. It is also quite possible that the result is

the outcome of the sample under study. Thus, we recommend that further studies with larger and more diverse samples collected from different parts of Japan should be analysed to understand this relationship more clearly.

H4 and H5, proposing a negative relationship between pessimism and labelling satisfaction and labelling desire, were not supported, in contradiction with our proposition based on the prior extended literature (e.g., Kaida & Kaida, 2019). In fact, quite surprisingly, the results revealed a statistically significant positive association, implying that consumers who feel that things hardly go their way also think these products are clearly labelled, which enables them to identify green products easily. Similarly, these consumers have a desire for specific information on green product labels to make both their overall and environmental impact clear. They also show a preference for a national standard for the labelling of these products. A possible reason for these unanticipated findings could be that pessimistic consumers may come under stress due to poor environmental quality, thereby causing them to adopt labelled green products (Kvasova, 2015). These labels, in turn, could possibly result in their satisfaction with such products as it reduces the harm done to the environment by human beings. In the same vein, neurotic individuals, who exhibit similar characteristics to pessimistic individuals, may also be likely to come under stress due to environmental problems and be likely to take part in environmental preservation, as argued by some prior studies

(e.g., Kvasova, 2015). This could possibly result in their desire for proper and informative labelling of green apparel products. Thus, our findings indicate that pessimism stimulates consumers' internal states, as measured by labelling satisfaction and desire. However, despite the plausibility of the unanticipated findings, we are still of the view that the relationship should be tested with diverse samples in varied contexts before putting forth any conclusive statement.

Furthermore, the results do not support H6, which proposed a negative relationship between pessimism and perceived effectiveness. This finding is not in line with our expectations based on the prior extended literature (e.g., Coelho et al., 2017; Sadiq, 2019). A possible reason could be that pessimistic consumers do not even contemplate that they have the self-efficacy or psychological resources to cope with environmental problems, thereby resulting in no association with perceived effectiveness.

The current study proposed labelling satisfaction and desire and perceived effectiveness as internal states of consumers, which were hypothesised to influence the behavioural outcome, that is, purchase intentions (H7–H9). Of these, H7 and H8, proposing a positive association of labelling satisfaction and desire with purchase intentions, were supported by the results. The finding of H7 is in line with prior studies (e.g., Ali et al., 2018; Konuk, 2019), which have stated that consumers' satisfaction positively influences their behavioural intentions. This finding suggests that the clear labelling of green products helps consumers easily identify such products, thus enhancing their satisfaction, which, in turn, results in stronger purchase intention, as argued by prior studies in other pro-environmental contexts (Konuk, 2018; S. Kumar et al., 2021). Similarly, the finding of H8 is in line with existing studies (e.g., de Andrade Silva et al., 2017), arguing that the desire for labelling on green products significantly influences purchase intentions towards them. This finding implies that consumers desire specific information about the general and environmental impact of green apparel products from their labels and that their preference for a national standard for such labelling drives their plans, intentions and willingness to purchase green fashion products in the near future.

In comparison, H9, proposing a positive association of perceived effectiveness with purchase intentions, was not supported by the results. This finding is contradictory to our expectation and is not in consonance with the extant literature (e.g., Jaiswal & Kant, 2018; Taufique & Vaithianathan, 2018; E. S. T. Wang & Chen, 2019), which previously suggested that consumers' belief in their efficacy would result in a solution for issues, such as environmental degradation, by consuming green products. In fact, the data analysis revealed a statistically significant negative association between perceived effectiveness and purchase intentions. This outcome does not make rational sense; hence, the association needs to be explored further. In fact, looking at the results of all of the hypotheses related to perceived effectiveness, we are compelled to admit that this variable is not of much use in explaining consumer behaviour towards green apparel. Consequently, we suggest searching for alternative variables, such as environmental concerns, to better reflect the internal state of consumers in the green apparel context.

Next, H10, proposing a positive association of shopping routine with purchase intentions, was supported by the results. This finding is in line with previous studies (e.g., Ghazali et al., 2018), implying that consumers who have the habit of buying unintended fashion products when they go shopping due to the good value for money offered will have plans to purchase green apparel in the near future. On the contrary, the results did not support H11, which proposed a positive association between shopping routine and buying behaviour. This finding is not in concordance with our expectations based on past studies (e.g., Ghazali et al., 2018; Stancu et al., 2016; Stefan et al., 2013), implying that consumers' habit of indulging in the over-purchase of apparel, in general, does not impact their green apparel buying behaviour. A possible reason behind this finding could be that green apparels are more expensive than conventional apparel (Dhir et al., 2021), as well as less fashionable than conventional ones (Khare, 2019). Furthermore, Japan is one of those countries that is considered to be influencing global fashion style (Fibre2Fashion, 2020), meaning that, on the one hand, consumers driven to over-purchase due to value for money deals may find green apparel to be too expensive. On the other hand, Japanese consumers who indulge in shopping routines while buying fashion apparel may not find green apparel fashionable enough for their liking. Finally, H12 proposed to assess whether the intention–behaviour gap existed in the case of green apparel. This hypothesis, proposing a positive association between purchase intentions and buying behaviour, was supported by the result of the statistical analysis. This finding is in consonance with the results of past studies (e.g., Jaiswal & Kant, 2018; Taufique & Vaithianathan, 2018). Given the strong statistical association between intentions and buying behaviour, we argue that the intention–behaviour gap does not exist in the green apparel context. Thus, if the sales of this apparel are not increasing, it may be due to a lack of intentions instead, because if intentions are positive, buying behaviour is likely to follow. Another reason behind the absence of the expected intention–behaviour gap could be the sample profile, which composed of respondents already familiar with green apparel. We suggest that future studies may be undertaken with non-users of green apparel so that their intentions may be better understood.

In addition to the hypothesised direct associations, we also examined the mediation effect of purchase intentions on the association of shopping routine with buying behaviour (H13). The results indicated full mediation, implying that the apparel buying habits of consumers impinged on their green apparel buying behaviour only through the mediating mechanism of intentions. This finding reveals that purchase intentions play a significant role in motivating consumers to buy green apparel.

## 6 | CONCLUSION

The adoption rate of green apparel products in a country like Japan is low despite high awareness of such products among consumers. However, scholars have not thoroughly investigated the reason for

the low purchase rate of green apparel products. The present study noted this paucity in the research and proposed to investigate a long-existing gap in the pro-environmental behaviour literature, that is, the intention–behaviour gap. Towards this end, we drew upon the novel framework of SOBC in the green context to examine the antecedents of green apparel purchase intentions and buying behaviour. Specifically, the study proposed to address two research questions to better explicate the adoption of green apparel. We answered the research questions by analysing data collected from 387 Japanese consumers. To answer RQ1, we analysed the data to reveal that both optimism and pessimism had a positive association with labelling satisfaction and desire. Although the positive association of pessimism with the two was not anticipated by us based on the prior extended literature, it does offer valuable insights for business strategy. Both optimism and pessimism were not found to have any association with perceived effectiveness, potentially raising questions about the self-efficacy belief of Japanese consumers in the green context. Next, both labelling satisfaction and desire were found to be positively associated with intentions. However, perceived effectiveness was found to have an unexpected negative association, probable reasons for which have been discussed in the preceding part of the study.

With respect to RQ2, we analysed the data to examine the association of shopping routine with intentions and buying behaviour towards green apparel. The results revealed that shopping routine had a positive association with intentions, which, in turn, were positively associated with buying behaviour. However, shopping routine was not directly associated with buying behaviour; rather, it is associated through the mediating mechanism of intentions. Notably, age and gender did not have any confounding effect on the outcome variables. These associations serve as the basis for identifying some actionable strategies for businesses as well as ways of deepening the research in the area from a theoretical standpoint.

## 6.1 | Theoretical implications

The current study offers three theoretical contributions to enrich the accumulated insights in the area and lay the basis for further research. First, it is the first study to use the SOBC paradigm to examine consumer psychology and outcomes in the case of green apparel products. By doing so, the study contributes to expanding the application of SOBC to newer areas, thereby adding to its theoretical usefulness and validity in a variety of settings to explicate consumer behaviour and consolidate its rising prominence in pro-environmental contexts (e.g., Talwar, Jabeen, et al., 2021). Furthermore, by utilising SOBC as the theoretical lens, the study develops a generic and comprehensive framework that can help future researchers conceptualise the drivers of pro-environmental behaviours in varied contexts.

Second, this study began with the basic premise of investigating the intention–behaviour gap in the green apparel product context. By doing so, it has reemphasised the key concern related to consumer behaviour in the case of adopting pro-environmental behaviours. Despite the significant impact of this gap, researchers have

rarely discussed it with reference to green apparel (Diddi et al., 2019). Possessing a better understanding of the gap or even acknowledging the possibility that it may exist may guide future researchers to examine variables that can help them formulate call-to-action strategies for firms that are effective in transforming positive intentions into actual purchases. Furthermore, the majority of the prior literature on green apparel has remained limited to behavioural intentions (such as de Lenne & Vandenbosch, 2017; Ko & Jin, 2017; Nguyen et al., 2019). However, our study conceptualised a model to factor in actual purchase behaviour, thereby providing a deeper insight into the full spectrum of consumer response to green apparel.

Lastly, in a noteworthy theoretical contribution, our study not only proposed novel associations but also theorised novel variables that had not been examined in the present context. For instance, optimism and pessimism are traits that explain consumers' orientation towards the environment. However, they had not been previously examined to explicate consumers' behaviour in the case of green apparel. Similarly, labelling satisfaction and desire have been employed for the first time in our study to examine the intention–behaviour gap in the green apparel context. Previously, only one study has used them in the same context and similarly investigated the attitude–behaviour gap (Dhir et al., 2021). Furthermore, our study is the first to investigate the role of shopping routine on purchase intention and buying behaviour in the apparel context.

## 6.2 | Implications for business strategy and policy

The current study offers three significant implications for green apparel retailers, policymakers and marketers that promote green products in the apparel category. First, the findings underscore the importance of labelling green apparel products since both optimism and pessimism had a positive association with labelling satisfaction and desire. This finding reveals a very cost-effective way for businesses trying to increase their green product sales. Informative labels, bearing the mark of national standards, can convince consumers with different psychological perspectives (optimism and pessimism) about the authenticity of the green product. This is very easy to put into action, particularly as a strategy to overcoming the challenge of greenwashing, wherein consumers feel that firms' claims about the pro-environmental nature of the concerned products are not authentic (Schmuck et al., 2018). Japan, too, has been known to face this problem, despite a vibrant culture of trust. We suggest that in using labels as a communication tool to earn consumer trust, manufacturers can not only provide product and content-related information on the labels but also provide website addresses where the authenticity of their claims can be verified, as well as providing information where complaints can be made. In this regard, manufacturers of green apparel could either lobby with the government to set up common websites where such information could be made available or get together to form a forum that can run the website through a

neutral third party. Such a visible strategy to ensure the consumer that they are not being misled can be expected to not only enhance their purchase intentions but also reduce the intention–buying behaviour gap if it arises.

Second, our findings suggest that perceived effectiveness is not a significant variable that impacts the green apparel-related decision-making of Japanese consumers. One way to interpret this result is that Japanese consumers may lack the confidence in their efficacy to spend psychological resources to take pro-environmental actions. This is a cause for concern from a long-term perspective because this indicates that the consumers are not accepting their individual role in environmental protection or degradation and hence may not find the necessary motivation to indulge in green behaviours. To overcome this, we suggest a two-pronged strategy. One is from the policy perspective, where the government takes the initiative to diffuse a sense of environmental responsibility among citizens. To reach out to the younger population, the school curriculum can be suitably updated. Meanwhile, to engage the adult population, well-placed advertisements and societal and community responsibility messages can be used through social and other media. This would also align with the UN's Sustainable Development Goals (SDGs), which Japan tried to visibly uptake through the sustainability platform created for the Tokyo 2020 Olympics ([tokyo2020.org](http://tokyo2020.org)) that was postponed due to the COVID-19 pandemic. The second way is for firms to engage with consumers to increase their self-efficacy related to green responsibility. In this regard, messages placing the onus on the consumers to feel responsible for the environment and give them the confidence that they can do it may work well.

Lastly, our findings indicate that shopping routine is not directly associated with the green apparel buying behaviour of Japanese consumers but acts through intentions instead. This means that even for Japanese consumers in the habit of shopping for fashion apparel, shopping routine itself does not trigger the purchase of green apparel, implying that there is some impediment to this process. Given the backdrop of our study, we think that the changing economic landscape of Japan in the wake of the 1990s crisis and the global financial crisis of 2008 may factor into this. Individuals across all ages have become frugal (Funakoshi, 2016) and are likely to find green apparel to be expensive. Manufacturers can try to overcome this barrier in the following ways: (a) offering exchange discounts to those who return old fashion apparel, (b) being ready to accept lower profit margins until mass diffusion takes place, (c) start renting green apparel until consumers get into the habit of using them or (d) even opening second-hand clothes store for the consumers to sell their green apparel or buy new ones from. However, firms need to find a balance between the deep-rooted parts of Japanese culture, 'mottainai', on the one hand, and 'tsukumogami', on the other, while strategizing. Mottainai, representing the Japanese culture of not wasting (Crossley-Baxter, 2020), is likely to motivate consumers to accept the idea of renting or second-hand clothes. However, tsukumogami, representing the Shinto belief that mistreated previously owned inanimate objects will come to life to punish the present owner (Starling, 2016), is likely to make them resist the idea.

### 6.3 | Limitations and future research directions

Despite offering insightful findings, our study suffers from some limitations. First, the current study has drawn a sample from a single geography, Japan, whose economic structure is similar to other developed nations but whose social structure and culture are different from other nations, both developed and developing. Therefore, our findings cannot be generalised to other nations, such as the United States and India. Second, the data collection was performed using a single cross-sectional self-report survey method that could restrict the generalisability of our findings. Lastly, the survey method utilised may have issues like socially desirable responses that may restrict the actual reflection of consumer behaviour. In addition to the limitations related to the research design, we acknowledge that our study has considered a linear association between the independent and outcome variables, as also confirmed by the multivariate characteristics of the data under study. However, there is an increasing observation that the variables related to consumer behaviour may have non-linear associations (e.g., Talwar, Talwar, et al., 2021). Furthermore, we have not considered the impact of culture on the traits or behaviour of consumers. Rather, the model is conceptualised to examine the consumer response to green apparel products in a single geography: Japan.

Future researchers can address the abovementioned limitations in the following ways. First, the current study can be replicated in other geographical contexts, such as the United States and India, to test the robustness of our model. Second, the data can be collected using different research designs (e.g., longitudinal) to investigate the intention–behaviour gap to capture the transformation in consumer behaviour with time. Furthermore, our research model can be extended by utilising the impact of situational factors on the intention–behaviour link. Other variables, such as consumer innovativeness, fashion orientation and environmental orientation, might influence the intention–behaviour gap and can therefore be utilised to expand our model. In addition, future researchers should give due consideration to the non-linearity of the associations between the various behavioural variables and then factor in the cultural dimension as well. In this regard, Hofstede's (2001) cultural dimensions can be used in the model as moderating or control variables, depending on the objectives of the study.

#### CONFLICT OF INTEREST

The authors do not have any competing interests to declare.

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#### REFERENCES

- Ahrholdt, D. C., Gudergan, S. P., & Ringle, C. M. (2019). Enhancing loyalty: When improving consumer satisfaction and delight matters. *Journal of Business Research*, 94, 18–27. <https://doi.org/10.1016/j.jbusres.2018.08.040>
- Aitken, R., Watkins, L., Williams, J., & Kean, A. (2020). The positive role of labelling on consumers' perceived behavioural control and intention to

- purchase organic food. *Journal of Cleaner Production*, 255, 120334. <https://doi.org/10.1016/j.jclepro.2020.120334>
- Akirmak, U., & Ayla, P. (2019). How is time perspective related to burnout and job satisfaction? A conservation of resources perspective. *Personality and Individual Differences*, 109667. <https://doi.org/10.1016/j.paid.2019.109667>
- Albroushy, H., & Hiller Connell, K. Y. (2019). Purchasing environmentally sustainable apparel: The attitudes and intentions of female Kuwaiti consumers. *International Journal of Consumer Studies*, 43(4), 390–401. <https://doi.org/10.1111/ijcs.12518>
- Ali, A., Xiaoling, G., Sherwani, M., & Ali, A. (2018). Antecedents of consumers' Halal brand purchase intention: An integrated approach. *Management Decision*, 56(4), 715–735. <https://doi.org/10.1108/MD-11-2016-0785>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Anisimova, T., Weiss, J., & Mavondo, F. (2019). The influence of corporate brand perceptions on consumer satisfaction and loyalty via controlled and uncontrolled communications: A multiple mediation analysis. *Journal of Consumer Marketing*, 36(1), 33–49. <https://doi.org/10.1108/JCM-05-2017-2199>
- Aspinwall, L. G. (1998). Rethinking the role of positive affect in self-regulation. *Motivation and Emotion*, 22(1), 1–32. <https://doi.org/10.1023/A:1023080224401>
- Awan, U., Arnold, M. G., & Gölgeci, I. (2021). Enhancing green product and process innovation: Towards an integrative framework of knowledge acquisition and environmental investment. *Business Strategy and the Environment*, 30, 1283–1295. <https://doi.org/10.1002/bse.2684>
- Awan, U., Nauman, S., & Sroufe, R. (2021). Exploring the effect of buyer engagement on green product innovation: Empirical evidence from manufacturers. *Business Strategy and the Environment*, 30, 463–477. <https://doi.org/10.1002/bse.2631>
- Bamberg, S., & Möser, G. (2007). Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour. *Journal of Environmental Psychology*, 27(1), 14–25. <https://doi.org/10.1016/j.jenvp.2006.12.002>
- Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
- Boileau, L., Gaudreau, P., Gareau, A., & Chamandy, M. (2020). Some days are more satisfying than others: A daily-diary study on optimism, pessimism, coping, and academic satisfaction. *British Journal of Educational Psychology*, 91, 46–62. <https://doi.org/10.1111/bjep.12346>
- Chen, M. F. (2020). The impacts of perceived moral obligation and sustainability self-identity on sustainability development: A theory of planned behavior purchase intention model of sustainability-labeled coffee and the moderating effect of climate change skepticism. *Business Strategy and the Environment*, 29, 2404–2417. <https://doi.org/10.1002/bse.2510>
- Cheung, M. F., & To, W. M. (2019). An extended model of value-attitude-behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services*, 50, 145–153. <https://doi.org/10.1016/j.jretconser.2019.04.006>
- Chuang, L. M., Chen, P. C., & Chen, Y. Y. (2018). The determinant factors of travelers' choices for pro-environment behavioral intention-integration theory of planned behavior, unified theory of acceptance, and use of technology 2 and sustainability values. *Sustainability*, 10(6), 1869. <https://doi.org/10.3390/su10061869>
- Coelho, F., Pereira, M. C., Cruz, L., Simões, P., & Barata, E. (2017). Affect and the adoption of pro-environmental behaviour: A structural model. *Journal of Environmental Psychology*, 54, 127–138. <https://doi.org/10.1016/j.jenvp.2017.10.008>
- Conca, J. (2015). Making climate change fashionable—The garment industry takes on global warming. Retrieved from <http://www.forbes.com/sites/jamesconca/2015/12/03/making-climatechange-fashionable-the-garment-industry-takes-on-global-warming/#395dee26778a> (Accessed on 03 April 2020)
- Consumer Affairs Agency. (2017). Report of ethical consumption in Japan. [https://www.caa.go.jp/policies/policy/consumer\\_education/consumer\\_education/ethical\\_study\\_group/pdf/region\\_index13\\_170419\\_0002.pdf](https://www.caa.go.jp/policies/policy/consumer_education/consumer_education/ethical_study_group/pdf/region_index13_170419_0002.pdf) (Accessed 13 October 2020)
- Coşkun, A., Vocino, A., & Polonsky, M. (2017). Mediating effect of environmental orientation on pro-environmental purchase intentions in a low-involvement product situation. *Australasian Marketing Journal; AMJ*, 25(2), 115–125. <https://doi.org/10.1016/j.ausmj.2017.04.008>
- Crossley-Baxter. (2020). Japan's ancient way to save the planet. Retrieved from <http://www.bbc.com/travel/story/20200308-japans-ancient-way-to-save-the-planet> (Accessed on 04 April 2021)
- Davis, T. R., & Luthans, F. (1980). A social learning approach to organizational behavior. *Academy of Management Review*, 5(2), 281–290. <https://doi.org/10.5465/amr.1980.4288758>
- de Andrade Silva, A. R., Bioto, A. S., Efrain, P., & de Castilho Queiroz, G. (2017). Impact of sustainability labeling in the perception of sensory quality and purchase intention of chocolate consumers. *Journal of Cleaner Production*, 141, 11–21. <https://doi.org/10.1016/j.jclepro.2016.09.024>
- de Lenne, O., & Vandenbosch, L. (2017). Media and sustainable apparel buying intention. *Journal of Fashion Marketing and Management: An International Journal*, 21(4), 483–498. <https://doi.org/10.1108/JFMM-11-2016-0101>
- Dhir, A., Sadiq, M., Talwar, S., Sakashita, M., & Kaur, P. (2021). Why do retail consumers buy green apparel? A knowledge-attitude-behaviour-context perspective. *Journal of Retailing and Consumer Services*, 59, 102398. <https://doi.org/10.1016/j.jretconser.2020.102398>
- Diddi, S., Yan, R. N., Bloodhart, B., Bajtelsmit, V., & McShane, K. (2019). Exploring young adult consumers' sustainable clothing consumption intention-behavior gap: A behavioral reasoning theory perspective. *Sustainable Production and Consumption*, 18, 200–209. <https://doi.org/10.1016/j.spc.2019.02.009>
- Duffy, R. D., & Raque-Bogdan, T. L. (2010). The motivation to serve others: Exploring relations to career development. *Journal of Career Assessment*, 18(3), 250–265. <https://doi.org/10.1177/1069072710364791>
- Ertz, M., Karakas, F., & Sarigöllü, E. (2016). Exploring pro-environmental behaviors of consumers: An analysis of contextual factors, attitude, and behaviors. *Journal of Business Research*, 69(10), 3971–3980. <https://doi.org/10.1016/j.jbusres.2016.06.010>
- Fibre2Fashion. (2020). Fashion waste is rubbish—Yes but this is not the issue. Retrieved from <https://www.fibre2fashion.com/industry-article/8736/fashion-waste-is-rubbish-yes-but-this-is-not-the-issue#:~:text=In%202020%20an%20estimated%2018.6,will%20clog%20landfills%20by%202050.%26text=With%20each%20second%20that%20passes,is%20piled%20into%20a%20landfill>. (Accessed date 06 January 2021)
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388. <https://doi.org/10.1177/002224378101800313>
- Funakoshi. (2016). Japan's frugal millennials a bad omen for its economy. Retrieved from <https://www.reuters.com/article/us-japan-economy-frugality-idUSKBN13Y074> (Accessed on 04 April 2021)
- Ghazali, E. M., Mutum, D. S., & Ariswibowo, N. (2018). Impact of religious values and habit on an extended green purchase behaviour model. *International Journal of Consumer Studies*, 42(6), 639–654. <https://doi.org/10.1111/ijcs.12472>
- Gilal, F. G., Gilal, N. G., Channa, N. A., Gilal, R. G., Gilal, R. G., & Tunio, M. N. (2020). Towards an integrated model for the transference of environmental responsibility. *Business Strategy and the Environment*, 29(6), 2614–2623. <https://doi.org/10.1002/bse.2524>
- Gray, S. G., Raimi, K. T., Wilson, R., & Árvai, J. (2019). Will Millennials save the world? The effect of age and generational differences on

- environmental concern. *Journal of Environmental Management*, 242, 394–402. <https://doi.org/10.1016/j.jenvman.2019.04.071>
- Greenberg, D., Ehrensperger, E., Schulte-Mecklenbeck, M., Hoyer, W. D., Zhang, Z. J., & Krohmer, H. (2020). The role of brand prominence and extravagance of product design in luxury brand building: What drives consumers' preferences for loud versus quiet luxury? *Journal of Brand Management*, 27(2), 195–210. <https://doi.org/10.1057/s41262-019-00175-5>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1–2), 1–12. <https://doi.org/10.1016/j.lrp.2013.01.001>
- Han, H., & Yoon, H. J. (2015). Hotel customers' environmentally responsible behavioral intention: Impact of key constructs on decision in green consumerism. *International Journal of Hospitality Management*, 45, 22–33. <https://doi.org/10.1016/j.ijhm.2014.11.004>
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organisations across nations* (Second ed.). Sage Publications.
- Jacobs, K., Petersen, L., Hörisch, J., & Battenfeld, D. (2018). Green thinking but thoughtless buying? An empirical extension of the value-attitude-behaviour hierarchy in sustainable clothing. *Journal of Cleaner Production*, 203, 1155–1169. <https://doi.org/10.1016/j.jclepro.2018.07.320>
- Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services*, 41, 60–69. <https://doi.org/10.1016/j.jretconser.2017.11.008>
- Joshanloo, M., Park, Y. O., & Park, S. H. (2017). Optimism as the moderator of the relationship between fragility of happiness beliefs and experienced happiness. *Personality and Individual Differences*, 106, 61–63. <https://doi.org/10.1016/j.paid.2016.10.039>
- Kaida, N., & Kaida, K. (2019). Positive associations of optimism–pessimism orientation with pro-environmental behavior and subjective well-being: A longitudinal study on quality of life and everyday behavior. *Quality of Life Research*, 28(12), 3323–3332. <https://doi.org/10.1007/s11136-019-02273-y>
- Kaur, P., Dhir, A., Talwar, S., & Ghuman, K. (2021). The value proposition of food delivery apps from the perspective of theory of consumption value. *International Journal of Contemporary Hospitality Management*, ahead-of-print, 33, 1129–1159. <https://doi.org/10.1108/IJCHM-05-2020-0477>
- Khan, M. T. I., Tan, S. H., & Chong, L. L. (2017). Perception of past portfolio returns, optimism and financial decisions. *Review of Behavioral Finance*, 9(1), 79–98. <https://doi.org/10.1108/RBF-02-2016-0005>
- Khare, A. (2019). Green apparel buying: Role of past behavior, knowledge and peer influence in the assessment of green apparel perceived benefits. *Journal of International Consumer Marketing*, 1–17. <https://doi.org/10.1080/08961530.2019.1635553>
- Khare, A., & Sadachar, A. (2017). Green apparel buying behaviour: A study on Indian youth. *International Journal of Consumer Studies*, 41(5), 558–569. <https://doi.org/10.1111/ijcs.12367>
- Ki, C. W. C., & Kim, Y. K. (2019). The mechanism by which social media influencers persuade consumers: The role of consumers' desire to mimic. *Psychology & Marketing*, 36(10), 905–922. <https://doi.org/10.1002/mar.21244>
- Kim, J., Tanaka, H. S., & Schmöcker, J. D. (2020). Joint car ownership and car type preference model considering engagement in online activities and environmental concern. *Transportation Research Part F: Traffic Psychology and Behaviour*, 68, 293–305. <https://doi.org/10.1016/j.trf.2019.11.012>
- Ko, S. B., & Jin, B. (2017). Predictors of purchase intention toward green apparel products. *Journal of Fashion Marketing and Management: An International Journal*, 21(1), 70–87. <https://doi.org/10.1108/JFMM-07-2014-0057>
- Konuk, F. A. (2018). Price fairness, satisfaction, and trust as antecedents of purchase intentions towards organic food. *Journal of Consumer Behaviour*, 17(2), 141–148. <https://doi.org/10.1002/cb.1697>
- Konuk, F. A. (2019). The influence of perceived food quality, price fairness, perceived value and satisfaction on customers' revisit and word-of-mouth intentions towards organic food restaurants. *Journal of Retailing and Consumer Services*, 50, 103–110. <https://doi.org/10.1016/j.jretconser.2019.05.005>
- Kuiper, N. A., McKee, M., Kazarian, S. S., & Olinger, J. L. (2000). Social perceptions in psychiatric inpatients: Relation to positive and negative affect levels. *Personality and Individual Differences*, 29(3), 479–493. [https://doi.org/10.1016/S0191-8869\(99\)00209-3](https://doi.org/10.1016/S0191-8869(99)00209-3)
- Kumar, B., Manrai, A. K., & Manrai, L. A. (2017). Purchasing behaviour for environmentally sustainable products: A conceptual framework and empirical study. *Journal of Retailing and Consumer Services*, 34, 1–9. <https://doi.org/10.1016/j.jretconser.2016.09.004>
- Kumar, S., Murphy, M., Talwar, S., Kaur, P., & Dhir, A. (2021). What drives brand love and purchase intentions toward the local food distribution system? A study of social media-based REKO (fair consumption) groups. *Journal of Retailing and Consumer Services*, 60, 102444. <https://doi.org/10.1016/j.jretconser.2021.102444>
- Kvasova, O. (2015). The Big Five personality traits as antecedents of eco-friendly tourist behavior. *Personality and Individual Differences*, 83, 111–116. <https://doi.org/10.1016/j.paid.2015.04.011>
- Leung, L., & Chen, C. (2017). Extending the theory of planned behavior: A study of lifestyles, contextual factors, mobile viewing habits, TV content interest, and intention to adopt mobile TV. *Telematics and Informatics*, 34(8), 1638–1649. <https://doi.org/10.1016/j.tele.2017.07.010>
- Lindblom, A., Lindblom, T., & Wechtler, H. (2020). Dispositional optimism, entrepreneurial success and exit intentions: The mediating effects of life satisfaction. *Journal of Business Research*, 120, 230–240. <https://doi.org/10.1016/j.jbusres.2020.08.012>
- Liu, P., Teng, M., & Han, C. (2020). How does environmental knowledge translate into pro-environmental behaviors?: The mediating role of environmental attitudes and behavioral intentions. *Science of the Total Environment*, 728, 138126. <https://doi.org/10.1016/j.scitotenv.2020.138126>
- Lu, X., Xie, B., & Guo, Y. (2018). The trickle-down of work engagement from leader to follower: The roles of optimism and self-efficacy. *Journal of Business Research*, 84, 186–195. <https://doi.org/10.1016/j.jbusres.2017.11.014>
- Lundblad, L., & Davies, I. A. (2016). The values and motivations behind sustainable fashion consumption. *Journal of Consumer Behaviour*, 15(2), 149–162. <https://doi.org/10.1002/cb.1559>
- McNeill, L., & Venter, B. (2019). Identity, self-concept and young women's engagement with collaborative, sustainable fashion consumption models. *International Journal of Consumer Studies*, 43(4), 368–378. <https://doi.org/10.1111/ijcs.12516>
- McNeill, L. S., Hamlin, R. P., McQueen, R. H., Degenstein, L., Wakes, S., Garrett, T. C., & Dunn, L. (2020). Waste not want not: Behavioural intentions toward garment life extension practices, the role of damage, brand and cost on textile disposal. *Journal of Cleaner Production*, 260, 121026. <https://doi.org/10.1016/j.jclepro.2020.121026>
- Mehrabian, A., & Russell, J. A. (1974). In The MIT Press. (Ed.), *An approach to environmental psychology* (first ed.). MIT Press.
- Moore, K. (2019). New report shows sustainable fashion efforts are decreasing. *Forbes*. Retrieved from <https://www.forbes.com/sites/kaleighmoore/2019/05/19/new-report-shows-sustainable-fashion-efforts-are-decreasing/#1bf3a0627a4f> (Accessed date 22 March 2020)
- Nguyen, M. T. T., Nguyen, L. H., & Nguyen, H. V. (2019). Materialistic values and green apparel purchase intention among young Vietnamese consumers. *Young Consumers*, 20(4), 246–263. <https://doi.org/10.1108/YC-10-2018-0859>

- Nguyen, T. N., Lobo, A., & Greenland, S. (2017). The influence of cultural values on green purchase behaviour. *Marketing Intelligence & Planning*, 35(3), 377–396. <https://doi.org/10.1108/MIP-08-2016-0131>
- Pham, L., Nguyen, P. T. H., Le, H. V., & Luse, D. (2018). Technology readiness and customer satisfaction in luxury hotels: A case study of Vietnam. *International Journal of Entrepreneurship*, 22(2), 1–23. <https://www.abacademies.org/articles/technology-readiness-and-customer-satisfaction-in-luxury-hotels-a-case-study-of-vietnam-7248.html>
- Pham, L., Williamson, S., Lane, P., Limbu, Y., Nguyen, P. T. H., & Coomer, T. (2020). Technology readiness and purchase intention: Role of perceived value and online satisfaction in the context of luxury hotels. *International Journal of Management and Decision Making*, 19(1), 91–117. <https://doi.org/10.1504/IJMDM.2020.104208>
- Piligrimienė, Ž., Žukauskaitė, A., Korzilius, H., Banytė, J., & Dovalienė, A. (2020). Internal and external determinants of consumer engagement in sustainable consumption. *Sustainability*, 12(4), 1349. <https://doi.org/10.3390/su12041349>
- Ramos, F. D. A., & Squeff, T. C. (2020). The importance of labelling food items: Information, food security and sustainable consumption. In *Sustainable consumption* (pp. 229–247). Springer.
- Rausch, T. M., & Kopplin, C. S. (2020). Bridge the gap: Consumers' purchase intention and behavior regarding sustainable clothing. *Journal of Cleaner Production*, 278, 123882. <https://doi.org/10.1016/j.jclepro.2020.123882>
- Russell, S. V., Young, C. W., Unsworth, K. L., & Robinson, C. (2017). Bringing habits and emotions into food waste behaviour. *Resources, Conservation and Recycling*, 125, 107–114. <https://doi.org/10.1016/j.resconrec.2017.06.007>
- Sadiq, M. (2019). *Impact of consumer optimism and consumer pessimism on the adoption of pro-environmental consumption behaviour* (MCom dissertation). University of Otago.
- Sadiq, M., Adil, M., & Paul, J. (2021a). An innovation resistance theory perspective on purchase of eco-friendly cosmetics. *Journal of Retailing and Consumer Services*, 59, 102369. <https://doi.org/10.1016/j.jretconser.2020.102369>
- Sadiq, M., Adil, M., & Paul, J. (2021b). Does social influence turn pessimistic consumers green? *Business Strategy and the Environment*, 1–14. <https://doi.org/10.1002/bse.2780>
- Sadiq, M., Paul, J., & Bharti, K. (2020). Dispositional traits and organic food consumption. *Journal of Cleaner Production*, 266, 121961. <https://doi.org/10.1016/j.jclepro.2020.121961>
- Schanes, K., Dobernig, K., & Gözet, B. (2018). Food waste matters—A systematic review of household food waste practices and their policy implications. *Journal of Cleaner Production*, 182, 978–991. <https://doi.org/10.1016/j.jclepro.2018.02.030>
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219–247. <https://doi.org/10.1037/0278-6133.4.3.219>
- Scheier, M. F., & Carver, C. S. (2018). Dispositional optimism and physical health: A long look back, a quick look forward. *American Psychologist*, 73(9), 1082–1094. <https://doi.org/10.1037/amp0000384>
- Schmuck, D., Matthes, J., & Naderer, B. (2018). Misleading consumers with green advertising? An affect–reason–involvement account of green-washing effects in environmental advertising. *Journal of Advertising*, 47, 127–145. <https://doi.org/10.1080/00913367.2018.1452652>
- Seltzer, B. K., Ones, D. S., & Tatar, A. (2017). Using personality facets to understand the nature of personality-satisfaction relationships. *Career Development International*, 22(5), 477–506. <https://doi.org/10.1108/CDI-08-2017-0141>
- Sharma, N., Saha, R., Sreedharan, V. R., & Paul, J. (2020). Relating the role of green self-concepts and identity on green purchasing behaviour: An empirical analysis. *Business Strategy and the Environment*, 29(8), 3203–3219. <https://doi.org/10.1002/bse.2567>
- Sharma, R., & Jha, M. (2017). Values influencing sustainable consumption behaviour: Exploring the contextual relationship. *Journal of Business Research*, 76, 77–88. <https://doi.org/10.1016/j.jbusres.2017.03.010>
- Shin, H., & Parker, J. (2017). Exploring the elements of consumer nostalgia in retailing: Evidence from a content analysis of retailer collages. *Journal of Retailing and Consumer Services*, 35, 1–11. <https://doi.org/10.1016/j.jretconser.2016.11.003>
- Stancu, V., Haugaard, P., & Lähteenmäki, L. (2016). Determinants of consumer food waste behaviour: Two routes to food waste. *Appetite*, 96, 7–17. <https://doi.org/10.1016/j.appet.2015.08.025>
- Starling. (2016). Tsukumogami: Japan's household spirits. Retrieved from <https://thewillowweb.com/2016/02/18/tsukumogami-japans-household-spirits/> (Accessed on 04 April 2021)
- Stefan, V., van Herpen, E., Tudoran, A. A., & Lähteenmäki, L. (2013). Avoiding food waste by Romanian consumers: The importance of planning and shopping routines. *Food Quality and Preference*, 28(1), 375–381. <https://doi.org/10.1016/j.foodqual.2012.11.001>
- Su, J., Watchravesringkan, K. T., Zhou, J., & Gil, M. (2019). Sustainable clothing: Perspectives from US and Chinese young Millennials. *International Journal of Retail & Distribution Management*, 47(11), 1141–1162. <https://doi.org/10.1108/IJRDM-09-2017-0184>
- Surratt, P. R., Ulrich, R. E., & Hawkins, R. P. (1969). An elementary student as a behavioral engineer 1. *Journal of Applied Behavior Analysis*, 2(2), 85–92. <https://doi.org/10.1901/jaba.1969.2-85>
- Talwar, M., Talwar, S., Kaur, P., Islam, A. K. M. N., & Dhir, A. (2020). Positive and negative word of mouth (WOM) are not necessarily opposites: A reappraisal using the dual factor theory. *Journal of Retailing and Consumer Services*, 102396. <https://doi.org/10.1016/j.jretconser.2020.102396>
- Talwar, M., Talwar, S., Kaur, P., Tripathy, N., & Dhir, A. (2021). Has financial attitude impacted the trading activity of retail investors during the COVID-19 pandemic? *Journal of Retailing and Consumer Services*, 58, 102341. <https://doi.org/10.1016/j.jretconser.2020.102341>
- Talwar, S., Jabeen, F., Tandon, A., Sakashita, M., & Dhir, A. (2021). What drives willingness to purchase and stated buying behavior toward organic food? A Stimulus–Organism–Behavior–Consequence (SOBC) perspective. *Journal of Cleaner Production*, 293, 125882. <https://doi.org/10.1016/j.jclepro.2021.125882>
- Tandon, A., Jabeen, F., Talwar, S., Sakashita, M., & Dhir, A. (2021). Facilitators and inhibitors of organic food buying behavior. *Food Quality and Preference*, 88, 104077. <https://doi.org/10.1016/j.foodqual.2020.104077>
- Taufique, K. M. R., & Vaithianathan, S. (2018). A fresh look at understanding green consumer behavior among young urban Indian consumers through the lens of theory of planned behavior. *Journal of Cleaner Production*, 183, 46–55. <https://doi.org/10.1016/j.jclepro.2018.02.097>
- Testa, F., Sarti, S., & Frey, M. (2019). Are green consumers really green? Exploring the factors behind the actual consumption of organic food products. *Business Strategy and the Environment*, 28(2), 327–338. <https://doi.org/10.1002/bse.2234>
- Tokyo 2020.org. (2020). The sustainability concept of the Tokyo 2020 Games. Retrieved from <https://tokyo2020.org/en/games/sustainability/#:~:text=Tokyo%2020%20set%20the%20sustainability,Japan%20and%20around%20the%20world> (Accessed on 04 April 2021).
- Wang, E. S. T., & Chen, Y. C. (2019). Effects of perceived justice of fair trade organizations on consumers' purchase intention toward fair trade products. *Journal of Retailing and Consumer Services*, 50, 66–72. <https://doi.org/10.1016/j.jretconser.2019.05.004>
- Wang, J., Wang, S., Wang, Y., Li, J., & Zhao, D. (2018). Extending the theory of planned behavior to understand consumers' intentions to visit green hotels in the Chinese context. *International Journal of Contemporary Hospitality Management*, 30(8), 2810–2825. <https://doi.org/10.1108/IJCHM-04-2017-0223>
- Wang, J., Wang, S., Xue, H., Wang, Y., & Li, J. (2018). Green image and consumers' word-of-mouth intention in the green hotel industry: The

- moderating effect of Millennials. *Journal of Cleaner Production*, 181, 426–436. <https://doi.org/10.1016/j.jclepro.2018.01.250>
- Wang, S., Wang, J., Yang, F., Wang, Y., & Li, J. (2018). Consumer familiarity, ambiguity tolerance, and purchase behavior toward remanufactured products: The implications for remanufacturers. *Business Strategy and the Environment*, 27(8), 1741–1750. <https://doi.org/10.1002/bse.2240>
- Wei, C. F., Chiang, C. T., Kou, T. C., & Lee, B. C. (2017). Toward sustainable livelihoods: Investigating the drivers of purchase behavior for green products. *Business Strategy and the Environment*, 26(5), 626–639. <https://doi.org/10.1002/bse.1942>
- Westbrook, R. A. (1980). Intrapersonal affective influences on consumer satisfaction with products. *Journal of Consumer Research*, 7(1), 49–54. <https://doi.org/10.1086/208792>
- Wiederhold, M., & Martinez, L. F. (2018). Ethical consumer behaviour in Germany: The attitude-behaviour gap in the green apparel industry. *International Journal of Consumer Studies*, 42(4), 419–429. <https://doi.org/10.1111/ijcs.12435>
- Wu, H. C., Wei, C. F., Tseng, L. Y., & Cheng, C. C. (2018). What drives green brand switching behavior? *Marketing Intelligence & Planning*, 36(6), 694–708. <https://doi.org/10.1108/MIP-10-2017-0224>
- Yarimoglu, E., & Binboga, G. (2019). Understanding sustainable consumption in an emerging country: The antecedents and consequences of the ecologically conscious consumer behavior model. *Business Strategy and the Environment*, 28(4), 642–651. <https://doi.org/10.1002/bse.2270>
- Yuan, S. T. D., Chou, S. Y., Yang, W. C., Wu, C. A., & Huang, C. T. (2017). Customer engagement within multiple new media and broader business ecosystem—A holistic perspective. *Kybernetes*, 46(6), 1000–1020. <https://doi.org/10.1108/K-01-2017-0042>

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