

Article

Marketing Tactics for Sustainable Fashion and the Circular Economy: The Impact of Ethical Labels on Fast Fashion Choice

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Abstract: This study aimed to contribute to the empirical literature on ethical fashion labelling. It investigates if complex, ethical, point-of-sale labels that ‘rate’ products’ ethical status on an ordinal scale influence consumer evaluations of fast-fashion garments (a) in any significant way at all and (b) in a way that is consistent with their reported ethical scores. In an experiment, 400 consumers evaluated a set of four fast-fashion garments with two levels of the Tearfund ordinal ethical label, a generic binary ethical label and garments with no label. Purchase intention was the dependent variable. The presence of a Tearfund label promoted significantly higher fast-fashion garment purchase intention, whatever ethical status the label was indicating. Thus, the rating label did significantly influence fast-fashion garment purchase intention, but not in any useful way. This is a novel and significant finding that indicates that fashion ethical labels are evaluated by using similar subconscious heuristic decision processes to those found in fast-moving consumer goods (FMCG) markets. Ethical labels that rely on cognitive processing by the consumer may therefore be ineffective, and simpler iconic brand-like label systems that can support subconscious processing may be more useful in a fast-fashion setting.

Keywords: sustainability; ethical; labelling; fast fashion; consumer behaviour; decision making; fashion marketing



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1. Introduction

Background

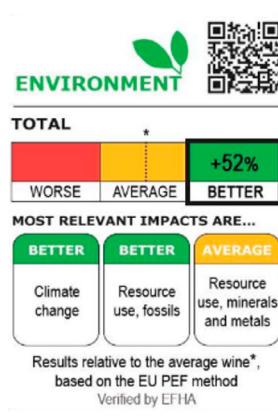
Can ethical POS labels be effectively applied to the apparently ethically incorrigible fast-fashion market? At the moment, significant empirical literature has yet to develop with regard to these labels’ capacity to influence fast-fashion consumer behaviour, with the current research output focussing on conceptual work [1]. The answer to the above question is thus ‘maybe’, but only if the specific consumer evaluation and decision mechanics of the fast-fashion market are understood, and if this understanding is incorporated into any label that seeks to influence the fast-fashion consumer’s evaluation and purchase behaviour [2].

Fast fashion per-item prices and purchase cycles are now comparable to many fast-moving consumer goods (FMCG). While a fast-fashion garment is not structurally perishable like a food item, it may be functionally perishable in that the currency of its style dictates its desirability/utility, and this currency/desirability is a function of the style cycle rate, which is now approaching the weekly/fortnightly rate seen in FMCG purchasing situations [3,4]. Consequently, a fast fashion apparel item may be perceived to be an FMCG item, rather than a consumer durable.

There is therefore a strong possibility that fast-fashion purchase decision structures do not resemble the structured, reasoned processes that are associated with consumer durable items such as ‘mainstream fashion apparel’. The combination of low unit value, high perishability and fast purchase cycles suggests that they may be more akin to the less structured and subconscious ‘low involvement’ consumer decision processes that are associated with FMCG purchase decisions [5]. The tensions that exist between the motive

to buy (and dispose of) fashion garments for reasons other than functional utility and the motive to behave in an environmentally ethical manner has been noted in many published studies [6,7]. Consequently, over the last 20 years, considerable research has been generated on the use of ethical point-of-sale (POS) labels in the fashion industry [8]. Ethical fashion labels may address social and environmental issues. Nevertheless, the same period has seen the emergence of ‘fast fashion’ with a focus on the rapid acquisition and disposal of garments, which is the antithesis of the objectives of these ethical POS labels [9].

A mandatory and exclusive ethical POS system of exactly this type has been proposed by the European Union with its ‘Product Environment Footprint’ (PEF) system [10]. The European Union proposes to introduce the PEF label across a wide variety of goods, including fashion apparel, with accompanying directives to member states to apply penalties to those who use competing systems [11,12]. The PEF label’s format has yet to be finalised, but all alternative current formats of it are based upon complex cue systems of a type that has demonstrated very mixed effectiveness as an arbiter of consumer evaluation and choice in FMCG purchase situations [13,14] (Figure 1).



This is an ordinal cue (label) that communicates a product’s environmental performance via the ordinal ‘states’ red (worse), amber (average), and green (better). The top bar expresses three states, but this is further subdivided along three dimensions below to give nine (3×3) colour-coded states in total. It also incorporates a ratio (percentage scale from 0–100% in the top right hand measure). Further information can be accessed via the QR code.

This label format absolutely requires attention and cognitive processing by the consumer.

Figure 1. One proposed design for the European product Environment Footprint label (PEF).

FMCG decision behaviour in fast fashion may become a major issue if an ethical POS label based on a communication system that is compatible with mainstream fashion consumers’ durable-type decision processes is introduced to a fast-fashion market, as it is unlikely that such a label would be effective in the fast-fashion environment [15]. If the POS label in question is made both mandatory and exclusive, and thereby suppresses alternative ethical POS label systems that may be more effective in fast-fashion markets, then the outcomes of its introduction could be negative [16].

As the compulsory introduction of these complex ordinal labels into major fast-fashion markets now seems to be imminent, this article focuses on an issue of some urgency: if fast-fashion decisions are based on FMCG processes of evaluation and choice, are complex ordinal point-of-sale ethical label systems that require cognitive processing effective at communicating ethical messages to fast-fashion consumers as they evaluate fast-fashion products at the point of sale? In response to this question, this research reports on an aggressive experimental test of the impact that one of these complex ethical POS label systems has on consumer evaluations and purchase intent of fast fashion apparel items.

2. Background and Context

2.1. The Major Cue Types Used in POS Communication

When a consumer is evaluating a product at the point of sale, they are presented with an array of cues which transmit relevant information to them. The three major cue types (nominal, binary and ordinal) are shown applied to a garment in Figure 2.

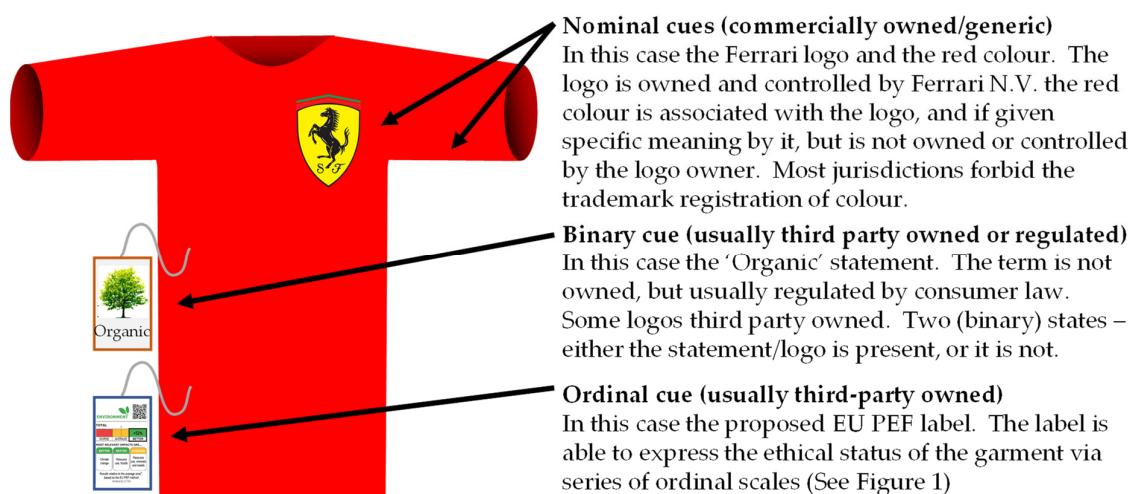


Figure 2. Nominal, binary and ordinal cues as applied to a fast-fashion product.

The first type, nominal cues, transmit their information via a single picture or icon. In Figure 2, the example nominal cue is the Ferrari logo of a black prancing horse on a yellow background, which has its origins in the luxury motor trade, but which has been successfully transferred, along with its immediate associations of performance style and luxury, to a wide variety of other products including garments. In this case, the red colour of the garment is also a supporting nominal cue associated with Ferrari.

The vast majority (99%+) of cues that are encountered and used by consumers are nominal, consisting of a visual icon that can be consistently processed and interpreted consciously or subconsciously by the consumer [17–19]. This includes nearly all commercial brand names, logos and branded designs. Thus, the image of the Ferrari logo on the T shirt in Figure 2 is a nominal brand cue belonging to Ferrari N.V., which, like other brand cues, is both registered [20] and strictly specified by a brand style guide [21]. The word 'Ferrari' is also a nominal brand cue, as we read words by recognising them as picture shapes [22], and the shape/font and colour of the word 'Ferrari' is thus kept absolutely consistent in order to facilitate this iconic response [21]. That these nominal cues are effective is evidenced by the current 8.75 billion USD capital value attached to the Ferrari brand [23] and the vigour with which Ferrari and any other major FMCG commercial operator defends these iconic cues as their routes to influencing subconscious consumer evaluation and choice [24]. Nominal cue types are overwhelmingly privately controlled and deployed for commercial gain, but there are small number of nonprofit examples (e.g., 'Trade Aid'®).

The second type, binary cues, are a distinct form of nominal cue that communicate by being in one of two states: either they are 'present' or 'absent'. When they are present, they act on consumer evaluation and choice processes in the same way as a nominal brand cue [25]. Binary cues are far less common than commercial nominal brand cues, but still operate in significant numbers. They may be controlled by third parties, which may be operating for profit or not (e.g., the 'Fairtrade' mark [25]) or by regulation (e.g., 'Organic' [26] or 'Free Range' [27]). The example in Figure 2 is the 'Organic' statement, which allows the consumer to make broad inferences about a product's nature and environmental status by whether it is present or not.

The third type, ordinal or ratio cues, are the most complex and rarest of the three cue types encountered by a consumer at the point of sale. These cues 'score' products on a visual ordinal scale that is related to their merit. The red (bad)/amber (average)/green (good) traffic light system is a very popular method of presenting such an ordinal scale at three levels [28]. The example of this type of cue in Figure 2 is the proposed European Union PEF label (shown in more detail in Figure 1). This is an elaborate example of a label that uses this approach. Regardless of how simple it is, interpreting the information that

is presented by any ordinal cue requires active attention and cognitive processing by the consumer.

Complex ordinal cues are extremely rare in commercial marketing practice—quite plausibly because commercial practitioners agree with the academic research community regarding their effectiveness, especially in FMCG markets [29,30]. The various colour grades of Johnnie Walker whisky: red, black, double black, gold, green, platinum and blue, are one of the few commercial examples known [31]. The few systems that do operate within the FMCG industry tend to be simple (as above) and operate on the nominal/ordinal cue boundary.

2.2. Ethical Fashion Labelling and FMCG/Food Marketing Practice

The concept of a fast-fashion garment as an FMCG item rather than a consumer durable is a novel one, and the majority of ethical labelling researchers have assumed quite reasonably that they are dealing with a structured consumer durable evaluation and decision process [32]. Consequently, there is no relevant background literature on fashion choices in an FMCG environment. However, extensive literature on ethical labelling in FMCG environments does exist with the food and nutrition literature [33], and this may be applicable to the use of ethical labelling in fast fashion.

The ethical POS apparel fashion labels that are referred to in this article are close analogues of the FoP ethical (nutrition and environmental) labels that are seen on food products. Both ethical fashion and ethical food front of pack (FoP) labels are presented on the visible (prime) facing of the product at the point of sale. Both label types are usually evaluative in that they convey some form of score, status or endorsement, often in the form of an ordinal score. Both label types are currently nonmandatory and are additional to the mandatory purely informational labels that appear on the product's nonprime facings. These mandatory informational labels include the fibre content and care labels on apparel and the nutritional information and ingredients panels in the case of food and food products [34].

While ordinal cues are rare in commercial food marketing practice, they dominate food ethical labelling practice. This significant divergence from commercial PoS cue practice has yet to be widely discussed in the food ethical labelling research literature. This divergence continues despite the fact that after the expenditure of enormous sums of money to develop and promote multiple ordinal ethical cue systems, and a similarly enormous body of research literature that describes both the development and testing of these systems, there is still very little evidence that they consistently and significantly affect food consumer evaluations or decisions [15,16]. This is in sharp contrast to the commercial nominal cue formats whose effectiveness is expressed via capital values that run into the hundreds of billions of dollars.

While the majority of FoP nutritional labels in food markets have used an ordinal cue format similar to the proposed EU PEF label, more recent programmes in South America, most notably the Chilean Warning Label system, have chosen to base their communication on a binary cue (a black octagon) [35]. These systems, which are closer in their design to the proven commercial nominal and binary cue types, do seem to have achieved some consistent level of impact on food consumer behaviour, and they are attracting significant research attention as a result [36].

Can ethical fast fashion labelling learn from the ethic food labelling experience? Can the two markets be considered to be comparable? The authors would argue that they can. Perishability may be structural (food) or it may be functional (fast fashion)—but both product types are equally perishable, and thus subject to rapid purchase cycles. Structural perishability is related to the physical instability of an item (e.g., a ripe peach lasts only 2–3 days before becoming rotten) and functional perishability is related to an item's utility and usage patterns (a bus ticket may physically last for decades but may only be functional/valid for one day).

Likewise, a fast fashion T shirt may structurally last for years, but if the wearer has no intention of cleaning it, its functional perishability is determined by the number of uses before it becomes soiled/smelly, probably no more than two or three occasions that may be equivalent to a week or less. The functional perishability of the fast-fashion item mandates a matching purchase cycle. However, a feedback loop may also exist here. With fashion cycles of up to 26 cycles a year, ‘last week’s’ T shirt may have lost its functional desirability as a social statement even if it is still clean and in perfect condition.

2.3. Applying Ordinal Ethical Cues to Fast-Fashion Garments—The Case for Caution

The failures of food ethical labels regarding their ordinal cue systems, despite enormous investments and increasing levels of compulsion, indicate that a strong case can be made for caution when a proposal is made to apply complex, ordinal cues to fast-moving fashion consumer situations. The process of active attention and cognitive evaluation that such labels require may well apply to ‘mainstream’ and ‘slow’ fashion garments that are expensive and that may be purchased ‘carefully’ in a relatively long cycle [37]. However, fast-fashion garments are designed to be cheap and are purchased on a time cycle and in a manner that is much more akin to fast-moving consumer goods (FMCG) such as food. Food products are characteristically purchased on a weekly cycle. Researchers have noted that fast-fashion labels can cycle their collections up to 26 times a year [7], which is approaching the base FMCG cycle rate. However, ‘ultra-fast fashion’ items can cycle in days [8], which actually exceeds the standard cycle time for FMCG goods.

The fashion research literature has yet to address in depth the implications of this situation with regard to how marketing communications, including ethical POS labels, might best be framed in the fast-fashion environment. For example, the article “An exploratory study of the decision processes of fast versus slow fashion consumers” has been cited 296 times, but none of these articles appear to have considered the possibility that a fast-fashion decision could be processed by the consumer in a similar subconscious manner as an FMCG item—despite the very clear commonalities between fast fashion and FMCG products, markets and behaviours [6]. Likewise, a 2006 article [38] that examined the role of category management in fast-fashion marketing has been cited 156 times, but none of these cited articles address the role of the category or the key strategic platform/environment of FMCG marketing [39] in the context of how it might support/influence the specific decision processes of the fast-fashion consumer [38].

The fashion and fast-fashion literature tends to focus strongly on inputs to attitudes and the decision process rather than the process itself [1,2]. This focus on inputs also applies to articles that claim in their titles to be comparative studies on the processes themselves [6]. This observation also applies to research into fashion [37,40,41] and to research that looks at the impact of ethical labels on FMCG items [42,43]. This is not in and of itself a weakness, as it is clearly important to establish what type of information is important to the ethically conscious fast-fashion consumer. However, the best manner in which to present this information to them, particularly at the point of sale, will be determined by the structure of the fast-fashion purchase decision itself, and it is here that a critical gap in our knowledge exists.

This situation is perhaps best expressed by the final sentence of an article that does explicitly address the fashion decision process [44]: “*... future research is essential to investigate the need for a one-fits-all label in the fashion industry itself, as well as issues of design relating to the overall decoding mechanism of labels from the consumer side.*”

All human communication is a code to a greater or lesser degree; even language, the most basic platform of human-to-human communication, is a code, and this is manifested by the fact that multiple codes/languages exist in the World that are incomprehensible to humans who have not been trained to that code. Thus, an English speaker will not understand a message in Mandarin at all, and vice versa. Labels likewise are human-to-human coded messages, which may use language or nonlingual icons and scales to

communicate with consumers. The same issues of compatibility and comprehension exist as with languages. If the appropriate code for the target consumer and purchase situation is not used by a POS label, then the label's message will be incomprehensible to the consumer, even if it is apparently crystal clear to the person who designed that code. If the basic communication code is wrong, then increasing the volume by using larger labels and more frequent exposures will not help matters, just as speaking slowly and loudly in English to a Mandarin speaker will not aid their comprehension of what the English speaker is trying to communicate.

It is therefore essential to get the basic communication code right for any specific consumer and decision environment if consumer behaviour is to be influenced in any significant and useful way by communications that are delivered by labels and other forms of POS communication. At present, there is no strong basis of research within the fashion literature upon which the selection of an appropriate POS label code/format for fast-fashion purchases can be based if fast-fashion consumers are thinking in an 'FMCG mode'.

2.4. Research Hypotheses

While complex ethical POS label formats may well inform and support mainstream and slow fashion decision processes perfectly satisfactorily, this may not be case for fast fashion if its consumer decision processes resemble those that are used to evaluate and select FMCG items. One approach to establishing whether this is the case is to see whether a complex ethical POS label malfunctions under controlled conditions when applied to a fast-fashion garment in a manner that is consistent with observations in other FMCG situations. This would suggest that fast fashion choices do indeed resemble FMCG evaluation and purchase decisions, which would be a finding of considerable importance.

It has been observed that ordinal cues that are deployed in FMCG purchase situations can malfunction in a very specific manner as the consuming public (mis)interpret the ordinal cue by processing it in the same subconscious manner as they would a nominal or binary cue. The consumer simply subconsciously processes the score cue as an image, with a consistently positive or negative reaction to this icon, regardless of its expressed score, thus rendering it functionally useless [45]. This result is best understood by looking at the hypothetical experimental outcome shown in Figure 3.

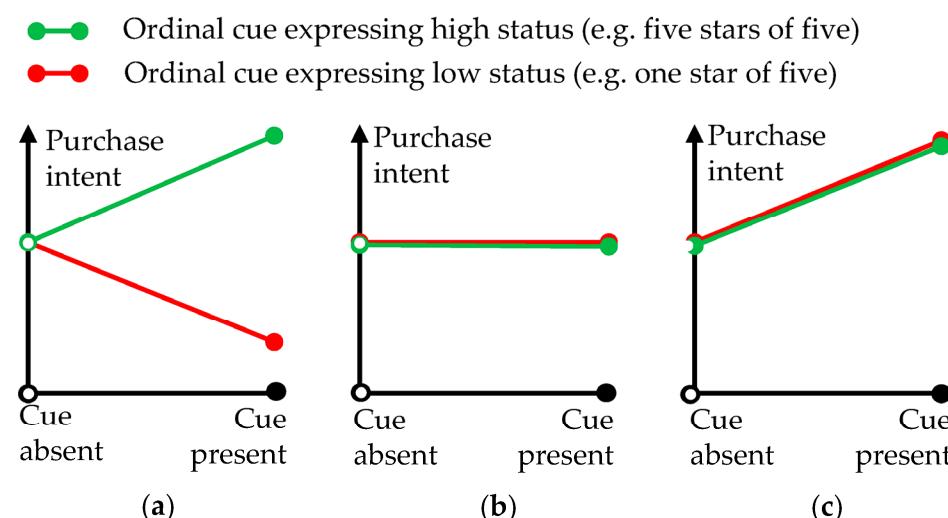


Figure 3. Hypothetical outcomes when testing performance of an ordinal POS cue. (a) Result if an ordinal POS cue is effective. When present, the cue increases purchase intent when expressing a high status, and reduces purchase intent when expressing a low status. (b) Result if an ordinal POS cue is ineffective. Purchase intent is not altered if the cue is present or absent, and regardless of whether cue is expressing a high or low status. (c) Result if an ordinal POS cue malfunctions. Purchase intent increases (or declines) consistently if the POS cue is present, whatever status the cue is expressing. Indicates the cue is being processed by the purchaser as a nominal/ binary rather than ordinal cue.

In the hypothetical experiment shown in Figure 3, an ordinal ethical POS label (cue) is attached to a fast-fashion item. Two versions of the label are attached to the garment. One shows a high ethical status and the other a low ethical status. If such a label is effective, the plot shown in Figure 3a should be seen, where the high-scoring ethical label increases purchase intent, while the low-scoring ethical label reduces purchase intent for the item. If the label is generally ineffective, the plot shown in Figure 3b will be seen, with purchase intent unaffected by both versions of the label. Plot 3c shows the plot that is characteristic of the specific malfunction described above. The label has a significant (positive in this case) effect on purchase intent, but this is the same for both versions of the label. This can only occur if the consumer takes notice of the label but then processes it as an iconic nominal or binary cue and does not notice or process the score/ethical status that it expresses.

While this type of malfunction has been observed in FoP nutritional labelling in the food industry [46,47], it has not yet been observed in the fast-fashion industry. The research described in this article thus aimed to establish if a similar pattern of ordinal label malfunction could be observed when such ordinal cues were deployed on fast-fashion items.

The opportunity to make a research contribution in this area by testing the performance of an ethical garment label that was based on an ordinal/ratio format that had also received sufficient exposure in the media and in the marketplace to create a required basis of consumer awareness for it arose in New Zealand in late 2019/20. In order to conduct a test of this nature, the ethical POS label and the ethical message that it is associated with must be well known to the research sample; otherwise, the outcome will inevitably be inconclusive, as shown in Figure 3b.

Tearfund NZ was registered as a charity in 1975 and was developed from the Tearfund UK model, which was a Christian charity that focussed on the welfare of refugees created through wars or disasters. Over time, Tearfund NZ has grown to become one of the largest aid agencies in New Zealand. In 2013, an ‘ethical fashion report’ was introduced in Australia by Baptist World Aid Australia, following the Dhaka garment factory collapse, as a response to the social and ethical problems in the fashion industry. Adopting the Australian concept, the Tearfund NZ ‘Ethical Fashion Guide’ and rating system was launched in 2018 with the aim of addressing the multitude of different certifications in the fashion market, providing New Zealand consumers with an overarching score for fashion brands on five key points, namely policies and governance, tracing and risk, supplier relationships and human rights monitoring, worker empowerment and environmental sustainability.

In 2018–2019, Tearfund ethical fashion report had received prominence in New Zealand and had achieved a high level of media exposure on the radio, TV, print and online media. An incident in early 2019 involving a NZ fashion designer Trelise Cooper (who was controversially awarded an ‘F’ by Tearfund) is characteristic of the level and nature of coverage [48]. The label also had wide retail exposure to the younger New Zealand demographic from which the research sample was drawn.

The Tearfund system grades fashion brands on an A+ to F rating scale by using an average score across the six categories of assessment. This is then expressed as an ordinal score combined with a ratio ‘pie’ supporting profile (Figure 4). Companies can opt in to an assessment and then use the Tearfund label and rating on their garments or choose not to participate and be assessed by publicly available information only (having their rating published in the Tearfund Ethical Fashion Guide each year).

Tearfund does this largely to eliminate distortion by cherry picking (selectively displaying positive ratings). Cherry picking is a risk with any nonmandatory ordinal cue system and any binary system that has a negative positioning (e.g., warning labels). Producers thus cannot actually ‘opt out’ of the Tearfund rating system; they are rated anyway, but the consumer has to take the extra trouble of looking them up in the directory. The rating in either case is the same. While this is not ideal, it does address this issue.

This study thus utilised the Tearfund ordinal labelling system and aimed to address two specific hypotheses relating to its impact upon purchase intent for a cheap ‘fast fashion’

garment. While the Tearfund label is organised in a different way, its level of information complexity is comparable to that of the proposed EU PEF (Figure 1). The first hypothesis investigated if the label had any effect at all on unprompted consumer purchase intent for a fast-fashion garment. This hypothesis would be supported by any outcome that resembled Figure 3a,c.

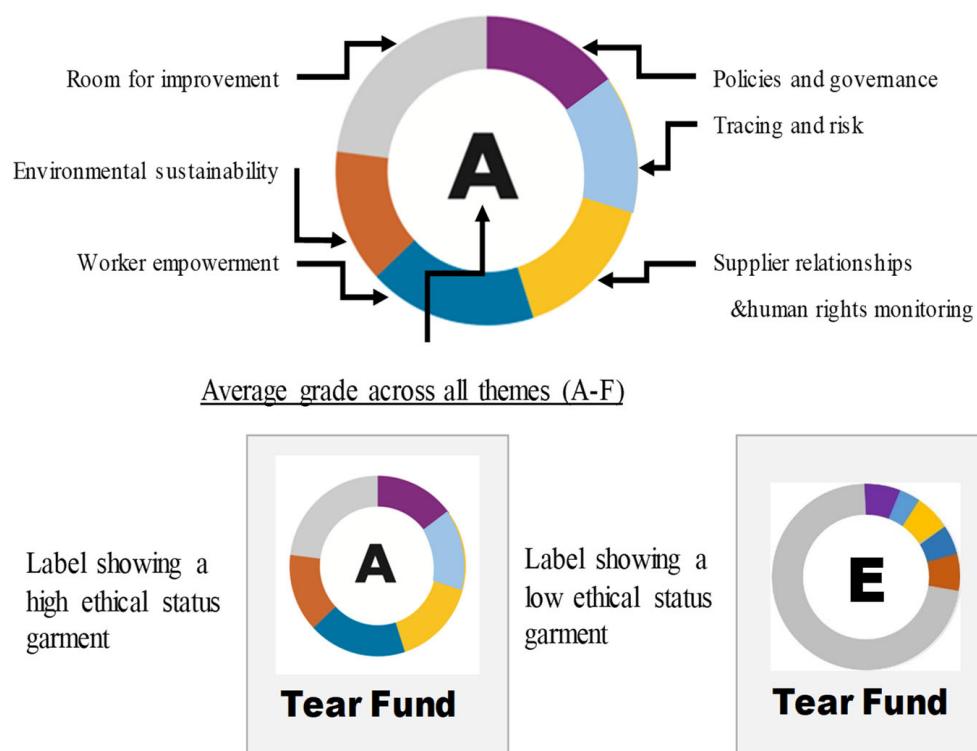


Figure 4. Tearfund logo showing its ordinal/ratio mechanics and high- and low-score examples.

H1. *The presence of a ‘Tearfund’ ethical label on a fast-fashion product significantly changes unprompted consumer purchase intent for a fast-fashion garment.*

The second hypothesis investigated if the purchase intent for the garment was moderated to any significant degree by the status of the garment as expressed by the ordinal/ratio format ‘Tearfund’ label, and whether the impact on purchase intent was consistent with the intent of the communication. This hypothesis would be supported by any outcome that resembled Figure 3a. Any other outcome would indicate a malfunction consistent with Figure 3c.

H2. *The ethical status of the garment as expressed by the ‘Tearfund’ ethical label on a fast-fashion product has a significant and consistent moderating effect that is consistent with its indicated ethical status on unprompted consumer purchase intent for that garment.*

Tearfund’s objectives are to “work for a just and compassionate world” [49]. Therefore, the Tearfund ordinal label has specific objectives. It does not seek to eliminate or suppress fast-fashion garment purchases but seeks to guide consumer choice towards more ethical apparel as evaluated by the algorithm score that is expressed by the label. To be demonstrably effective in that role, the label would have to be supported by H1 and H2.

The Tearfund is a small label operating in a small country. Thus, an observed failure of the Tearfund label would be a highly specific and local result. However, as the Tearfund label has many similarities with other proposed ordinal ethical label formats that may be applied to fast-fashion markets Worldwide, and as New Zealand is a developed economy that has many commonalities with these larger markets, it would be a specific finding with far-reaching implications.

3. Materials and Methods

Experimental Design

A 4×5 fractionally replicated Latin Square [50] was used to test these hypotheses (Table 1a) and was deployed in accordance with the principles outlined in the prior literature [51]. The fractionally replicated Latin Square experimental design shown in Table 1a with 200 respondents was fully replicated twice to give a final sample of 400 respondents. This design allowed for the measurement of the effects of one independent variable (the ethical mark) while allowing the control of two unavoidable, extraneous variables: firstly, the cue vehicle (in this case, a branded 'T' shirt), and secondly, the consumer groups, as this was a between-subjects design. The fractional replication allowed a check for the interaction between these three variables to be conducted. If a significant interaction is present, no conclusions about the significance of any main effects can be drawn.

The four levels of the independent variable are shown in Table 1b. The first level was a control with no ethical label attached to the garment. The second level was a Tearfund label with a high ethical score (A), while the third level was the same Tearfund label with a low ethical score (E). The fourth level was a generic 'Organic' label that had no presence in the New Zealand market. The labels were presented as $5\text{ cm} \times 5\text{ cm}$ card tags on the garment.

The four levels of the cue vehicle, the first extraneous variable, are also shown in Table 1b. As the purpose of the research was to test the impact of the labels on consumer purchase intent for a fast-fashion garment, these garments had to form part of the experimental procedure. These garments, or 'cue vehicles', were four types of a branded T shirts that came within the 'fast-fashion' category. The cotton 'T' shirt has in fact become the icon for this industry both for its supporters and its detractors. The shirts used were all genuine fast-fashion branded products. As they were an extraneous variable, the variation within the four garments was kept to the minimum level necessary to conceal the actual purpose of the research from the research subjects; hence, a similar style, colour, quality and gendered product was selected.

The five levels of the second extraneous variable were the five consumer groups used in each replication of the experimental design. In order to reduce the chances of an interaction and to maximise the internal validity, these groups were kept as closely equivalent to each other as possible [51]. Four hundred young women were recruited in two samples of 200 over two days on a local university campus. Each day, participants were recruited if they were regular buyers of the type of garment used as the cue vehicle and if they were female and aged between 18–22. They were then randomly allocated to one of five groups of 40 respondents. The use of a young, educated consumer sample is supported by previous work in this field, which notes that young consumers are more ethically conscious [52], are more receptive to ecofashion [53], are more sensitive to environmental and social issues [54] and are generally more concerned with ethical decision making in apparel choice [55].

The main reason for using the fractionally replicated Latin Square design in this manner was to ensure the validity of the results that were obtained [45,51]. It is essential that the consumers were not prompted—which means that they were not aware that the ethical label was the subject of the researcher's interest. If they do become aware that it is, then their responses do not represent their direct evaluation of the garment with the label as part of its cue set, but instead they become their direct evaluation of the ethical label, rather than the garment upon which it appears. This latter outcome does not represent a valid test of the label's efficacy.

The design concealed the research purpose via confounding. Each individual only saw the products in one row per design (Table 1a), with each row containing four different T shirts with one ethical label treatment on each of them, but never the same type of shirt with two different ethical labels on it and vice-versa. Thus, the entire product cue set continuously varied between each product that the consumer saw, with the ethical label being just one of several variations—any individual consumer simply did not have enough information to determine any specific pattern in the variation for any of these cues and was

thus ‘confounded’ and remained unaware of the purpose of this research. This process is completely reliable if an experimental design of this type is used and is properly set up.

Table 1. Experimental design.

(a) Fractionally replicated Latin Square showing replication pattern [50,51]				
Replicated treatments shown with an asterisk *.				
Each group 40 respondents	Cue vehicle 1	Cue vehicle 2	Cue vehicle 3	Cue vehicle 4
Consumer Gp. 1	Cue treatm't. 1 *	Cue treatm't. 2	Cue treatm't. 3	Cue treatm't 4
Consumer Gp. 2	Cue treatm't. 3	Cue treatm't. 4	Cue treatm't. 1	Cue treatm't 2 *
Consumer Gp. 3	Cue treatm't. 4	Cue treatm't. 3 *	Cue treatm't. 2	Cue treatm't 1
Consumer Gp. 4	Cue treatm't. 2	Cue treatm't. 1	Cue treatm't. 4 *	Cue treatm't 3
C. Gp. 5 (Replication)	Cue treatm't. 1 *	Cue treatm't. 3 *	Cue treatm't. 4 *	Cue treatm't 2 *
(b) Independent variable and extraneous variable 1 (cue vehicle)				
Independent variable 1				
Level 1. Control (No label)	Level 2. Tearfund (High Score)	Level 3. Tearfund (Low Score)	Level 4. Generic organic	
				
Tear fund Tear fund	Tear fund Tear fund	Tear fund Tear fund		
Extraneous variable 1—showing placement of independent variable for row 1 of the design in ‘a’				
Level 1. 'Cotton On' (white)	Level 2. 'Cotton On' (grey)	Level 3. 'Cotton On' (body)	Level 4. 'Factorie'	
				
(c) Dependent variable				
How likely would you be to purchase the T-shirt '1'?				
1	2	3	4	5
I would never purchase this t-shirt.	It is very unlikely I would purchase this t-shirt.	I probably would not purchase this t-shirt.	Neutral	I might purchase this t-shirt.
				It is very likely I would purchase this t-shirt.
				I would definitely purchase this t-shirt.
6	7			

There was a single dependent variable, ‘purchase intent’, measured with a Likert scale (Table 1c). The four ‘T’ shirts presented to each respondent were numbered 1–4 and are referred to as such for each response. As the Latin Square is a complex design with several sources of variation in its analysis of variance table, the entire procedure was fully replicated twice in as similar circumstances as possible in order to increase the sensitivity of the design by increasing the degrees of freedom in the error term [56]. The final number of consumers recruited over two days was thus 400 (10×40).

4. Results

The data were analysed in Excel by using the adjusted analysis of variance for a fractionally replicated Latin Square [50] and the test for significance of multiple means after Tukey. These results are summarised numerically in Table 2 and visually in Figure 5.

Table 2. Analysis of results (numerical).

(a) Analysis of Variance					
	Sum of Squares	Mean Squares	df	F	Sig (<i>p</i>) < 0.05 */0.01 **
Total	3.15		39		
Consumer sample	0.01	0	3	0.36	NS
Cue vehicle	2.31	0.77	3	59.2	**
Cue treatment	0.38	0.13	3	9.76	**
Interaction	0.15	0.03	6	0.51	NS
Replications			1		
Error	0.3	0.01	23		
(b) Analysis of Significance of Means (after Tukey)					
Cue treatment av. diff.	Control	TF (high score)	TF (low score)		
TF (high score)	0.13				
TF (low score)	0.14	0.01			
Organic	0.07	0.19	0.20		
Significance (Tukey)	Control	TF (high score)	TF (low score)		
TF (high score)	*				
TF (low score)	*	NS			
Organic	NS	**	**		
Cue vehicle avg. diff.	'Cotton On' (White)	'Cotton On' (Grey)	'Cotton On' (Body)		
'Cotton On' (gray)	0.60				
'Cotton On' (body)	0.31	0.91			
'Factorie'	0.08	0.68	0.23		
Significance (Tukey)	'Cotton On' (White)	'Cotton On' (Grey)	'Cotton On' (Body)		
'Cotton On' (gray)	**				
'Cotton On' (body)	**	**			
'Factorie'	NS	**	**		
Cons. Gp. av. diff.	Cons. Gp. 1	Cons. Gp. 2	Cons. Gp. 3	Cons Gp. 4	
Cons. Gp. 2	0.02				
Cons. Gp. 3	0.12	0.09			
Cons. Gp. 4	0.04	0.02	0.07		
Cons. Gp. 5	0.03	0.01	0.08	0.01	
Significance (Tukey)	Cons. Gp. 1	Cons. Gp. 2	Cons. Gp. 3	Cons Gp. 4	
Cons. Gp. 2	NS				
Cons. Gp. 3	NS	NS			
Cons. Gp. 4	NS	NS	NS		
Cons. Gp. 5	NS	NS	NS	NS	

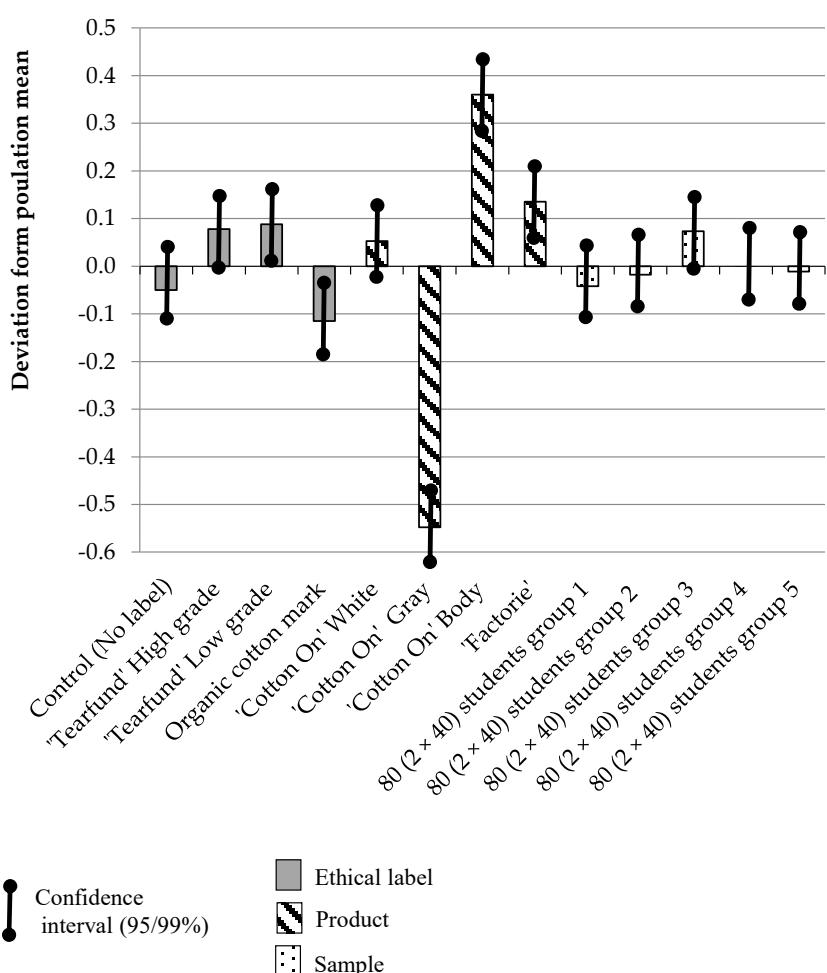


Figure 5. Analysis of results (visual).

The results supported H1 “The presence of a ‘Tearfund’ ethical tag on a fast fashion product significantly changes unprompted consumer purchase intent for a fast fashion garment” in that there was a clear and significant difference between the control condition and the two conditions that included the Tearfund ethical label. The purchase intent was increased in both cases beyond the $p < 0.05$ level.

The results did not support the second hypothesis H2: “The ethical status of the garment as expressed by the ‘Tearfund’ ethical tag on a fast-fashion product, has a significant and consistent moderating effect on unprompted consumer purchase intent for that garment”. The difference in the consumer responses to the high- and low-score Tearfund labels was not significant at the $p < 0.05$ level, nor was it anywhere close to it. This lack of significance might be due to nonadditivity. However, the effect of the nonadditivity (interaction) between cues, cue vehicles and consumer groups was negligible in all cases and was well below the threshold of significance. Therefore, the results and analysis for the main effects of these independent variables could therefore be considered meaningful.

The peripheral observations were that the impact of the products (cue vehicles) on purchase intent was relatively massive compared to those of the ethical labels, with a significance well below $p < 0.01$. This was the expected outcome, and it is normally observed in such research, even when the variations in the product set are quite mild, as they were in this instance. The impact of the consumer groups on the purchase intent for all treatments was negligible, which reflected a positive outcome for efforts to keep them equivalent between the five groups within each replication and the two replications themselves.

The impact of the fourth label treatment (generic organic) was not entirely in accordance with expectations, which were primarily that the label would have no effect at all or possibly for a mildly positive effect. The observed impact was statistically not significant relative to the control condition, but it was both negative and quite large, not far below $p < 0.1$.

5. Discussion

These results represent the outcome of an aggressive test on the effectiveness of an ordinal/ratio format ethical label with a good level of in-market awareness regarding its capacity to influence purchase intent for a fast-fashion garment. The results were quite clear cut and are in accordance with the results obtained in earlier labelling research within the food industry, which examined the impact of similar formats of nutritional labels on consumer purchase intent [12,46,57]. The results of this study indicated that the ordinal/ratio format label was interpreted as a binary format label by consumers. In this case, it was processed and evaluated positively, leading to a significant increase in purchase intent. This positive evaluation occurred regardless of the product status that was communicated by the ratio/ordinal label, and it was not significantly moderated by it.

This outcome was in accordance with the observation that consumers have been trained by the marketing industry to acquire and process information via an array of iconic (pictorial) nominal cues, which are the primary basis of PoS communication in nearly all consumer goods markets. It was therefore expected that the participants would tend to process all cues nominally—even if some such cues were not intended by their creators to be interpreted in such a way.

Thus, the results of this study suggest that the Tearfund label could be described as a success and a failure at the same time. It was a success in that it could convert consumer awareness of the Tearfund’s ethical garment campaign into a significant change in consumer purchase intent at the point of sale. However, it was a failure in that it relied upon an ordinal/ratio endorsement rating that was completely unprocessed by those same consumers—a truly unethical garment would benefit from carrying a Tearfund label to much the same degree as a highly ethical one would.

This was a counterintuitive outcome from the perspective of ethical labelling, yet it is also an eminently addressable one. Were Tearfund to move to a binary system where it only allowed garments rated from A+ to B to carry the Tearfund label at the point-of-sale, then the consistent positive evaluation would become an asset rather than an issue, as only those garment vendors that achieved this ethical rating can access the significant commercial point-of-sale advantage that this label represents.

The relative failure of the generic organic label, compared to the Tearfund label, is also of particular interest in this study. The Tearfund label has nothing like the truly global scale of awareness or marketing support that the term ‘organic’ does. However, the Tearfund label does perhaps possess two advantages regarding the specific context of this research: firstly, Tearfund labelling is very precisely targeted at the specific type of fast-fashion product that was used by the researchers as a cue vehicle, and the very precise type of consumers (young, educated New Zealand female apparel buyers) that were recruited to evaluate these products. Thus, this outcome can be explained in part by the benefits of effectively focusing any communication investment through a lens of a specific ethical cues that is targeted at a specific consumer group and purchase situation. Secondly, the term ‘organic’ is a generic ‘ownerless’ term that has been applied to a very wide range of products and that has also been misapplied to many more [58]. Many of these misapplications have been reported in the public domain, and a sizeable number of these relate to international trade in food and textiles [59]. Thus, this result may reflect a degree of loss of apparel buyers’ consumer faith and credibility in this generic term, which has been reported in some research [55,60].

When the observations above are placed in the context of the research literature on the ethical labelling of fast fashion outlined in Section 2, some specific points can be made with regard to this literature:

Firstly, it was noted that the large body of fast-fashion research that cited the article by Zarley-Watson and Yan on the high- and low-involvement consumer processing of fashion garments [6] had failed to appreciate that fast-fashion purchase decisions may well use noncognitive, low-involvement, FMCG-like pathways of evaluation and choice, and that this may well have significant implications for the effectiveness of some of the more popular ‘ordinal format’ ethical fashion label types. This research strongly indicates that this is the case and that these low-involvement pathways are indeed used by fast-fashion consumers. Consequently, if a complex ordinal ethical label format is applied to such decision processes, a very significant, distinctive and predictable pattern of failure of fast-fashion consumer processing with regard to such labels can be observed.

Secondly, it was noted that labels that seek to transmit FMCG decision processes require very precise targeting of supporting messages in order to be effective and that this usually occurs within the context of the category as the principle strategic unit of FMCG marketing [38]. It was noted in the review section that this targeting issue has yet to receive significant attention in the fast-fashion research literature. The observation that the relatively puny but targeted Tearfund Logo was able to outperform the much more widely supported but also more generic ‘Organic’ logo suggest that this issue also deserves greater attention.

6. Conclusions

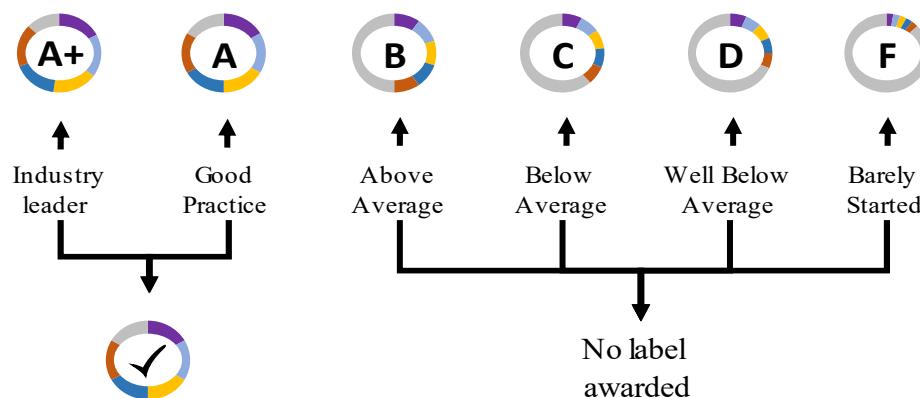
Many ethical labelling initiatives seek to oppose and undo the work of commercial marketers. Those that do not are usually owned or controlled by the commercial marketing activity that they supposedly endorse [61]. While this may be an honourable objective, it should not be forgotten that commercial consumer marketing creates ethical problems because it works [62]. It thus behoves researchers in this area to pay respectful attention to the knowledge and weaponry that commercial marketers use to successfully persuade consumers to conduct their bidding.

In this case, the Tearfund logo both succeeded and failed, and this success and failure can both be associated with the degree to which it conforms with the practices of commercial branding and point-of-sale communication. It succeeded in achieving ‘cut-through’ to the point where it significantly impacted fast-fashion consumer behaviour because it followed the commercial marketing dictum of focussing market communication efforts very tightly on a single iconic cue that was focussed on a single market (fast fashion) and consumer group (young adults). It then failed because the ordinal/ratio cue that achieved this ‘cut-through’ was not correctly engineered to convert that consumer response into purchasing behaviours that were consistent with the aims of the Tearfund organisation. Consumers are both evolutionarily adapted to and trained to react to nominal cues, and this training has reached a point where even overtly ordinal cues may be (mis)interpreted in a nominal manner [63].

However, it would only take a minor modification on the basis of these results to convert this ordinal/ratio format cue into a commercial format nominal/binary cue that would successfully convert consumer awareness in the fast-fashion market into the desired consumer action, thus fulfilling the intention of the ethical label—prompting positive consumer change at the point of sale (Figure 6).

This research is also relevant to the more general and topical case of the proposed EU PEF label. The EU proposes this ethical label as a universal label to be applied to a very wide range of products. It is a complex ordinal system that rates performance in a variety of ways. This research along with other similar experimental results [45,47] indicate that this may be beyond the FMCG consumer’s capacity to process in any useful way. There is thus a case for caution.

Current ordinal/ratio cue system. Requires consumer cognitive recall and processing of the letters (ordinal), and/or the pie segments (ratio). Not in accordance with consumer processing at point of sale and commercial brand practice



Potential alternative binary cue system.
Only requires recognition and non-cognitive consumer processing of a single ‘trade-markable’ iconic, nominal cue (the pie).
Consistent with consumer processing at point of sale and commercial brand practice

Figure 6. Conversion of the ineffective ‘Tearfund’ ordinal cue into an effective binary cue.

7. Limitations and Further Research

This research reports upon a very specific result with a highly homogenous sample. It thus has a high level of internal validity that only applies to the highly specific situations within which it was conducted. The results themselves have limited direct generalisability. The boundary conditions for any such generalisations can only be established by replication within other highly specific environments [64].

However, the specific cue malfunction that was observed by this research does have generalisable implications for both fast-fashion consumer behaviour theory and public good marketing practice within the fast-fashion industry. Complex cognitive decision processes are represented in consumer behaviour by the theories of reasoned action and planned behaviour, where they are correctly applied to major purchases and decisions that occur infrequently and have significant value attached to them (***)]. While complex cognitive decision making is not a characteristic of FMCG decisions, these models of them are routinely applied to FMCG decision situations for reasons that were best expressed by Henry Assael [9]:

“If low involvement characterizes so much of purchasing, why have marketers focused on high involvement decisions (i.e., complex decisions and brand loyalty)? There are two reasons. First, because marketers are highly involved with their products, they easily assume consumers are also highly involved. A second reason that marketers tend to focus on high-involvement decisions is that it is easier for them to understand and influence consumers if they assume consumers employ a cognitive process of brand evaluation. Complex decision making assumes a sequence in the consumers’ choice process (referred to as a hierarchy of effects) that leads consumers to think before they act. The assumption that such a high-involvement hierarchy of effects describes consumer choice has dominated marketing thought since consumer behavior became an integral field of study.” [9] (pp. 96–97).

To the two reasons outlined by Assael above can be added a third: the remarkable fact that the consumer behaviour research literature cannot at present offer a widely

accepted model of low-involvement decision making [65], which leads to the application of high-involvement decision models to low-involvement FMCG decisions by a process of default [66].

It would appear that a similar process is occurring in the related field of fast-fashion consumer research, and probably for the same reasons. The outcome is that there is a widely held assumption that planned behaviour and reasoned action represents the mindset of fast-fashion consumers. The outcomes of this research indicate that this assumption may not be reliable. Thus, a key field for further fast-fashion research is a thorough and open-minded investigation of the nature of the decision process itself.

The principal arena for further research targeted at these objectives is replication and closely allied developmental research in order to establish the stability of these results and the boundary conditions for the outcomes described in this article. There is no doubt that while fast-fashion and FMCG purchase decisions may be similar to one another, there will be significant differences between them. This naturally leads to the investigation of the degree to which the tools of FMCG marketing can be applied to fast fashion and the degree to which the best practice of application areas may differ.

One other area, identified by the reviewers of this article, where further research might yield valuable insights is in research that examines the impact that consumer review summaries (usually presented as an ordinal 1–5 star score) have on the online consumer evaluation and purchase of fast-fashion items, as the online environment becomes a more significant arena for online fast-fashion purchasing.

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