Environment, Development and Sustainability
https://doi.org/10.1007/s10668-022-02732-6

Intention to purchase sustainable craft products: a moderated mediation analysis of the adoption of sustainability in the craft sector

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Received: 12 March 2022 / Accepted: 21 October 2022

Abstract
In the modern world, the management of companies has evolved from a model characterized by the extraction, transformation, and generation of waste towards a more sustainable model. This transition affects even more traditional sectors, such as crafts. A key aspect of the transition towards more sustainable models is knowledge of the disposition of consumers with respect to these new artisan products. To date, few works have addressed this research problem, so this paper analyses consumer behaviour towards sustainable craft products empirically. To accomplish this goal, the effect of the image of sustainable craft products as perceived by consumers on their purchase intention is studied. Attitudes towards sustainable crafts, purchase intention, degree of consumer involvement and degree of knowledge concerning sustainability are considered as moderating variables. A questionnaire was distributed to a sample of handicraft consumers, and confirmatory factor analysis and an ordinary least squares regression model were used to study the data thus obtained. The results showed that the image of sustainable craft products as perceived by consumers influences their purchase intentions. In addition, this influence is increased when consumer attitudes towards and involvement with sustainable craft products increase. The results of this study can be useful for the sustainable crafts sector with respect to incorporating more sustainable products and designing marketing and communication strategies to help consumers learn about sustainability.

Keywords Sustainable crafts · Image of craft products · Purchase intention · Handmade products · Sustainability · Moderated mediation analysis

1 Introduction

Society as a whole is becoming increasingly aware of social, environmental and economic concerns, leading to a growing interest in mitigating the externalities resulting from globalization, climate change, social and economic inequality and the depletion of natural

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resources by designing new production models that are more efficient and respectful of the environment.

Large supranational institutions have established guidelines in this context. In this sense, in 1987, the World Commission on Environment and Development (WCED) defined sustainability as "a response to the needs of the present without compromising the ability of future generations to meet their needs" (WCED, 1987). Subsequently, the United Nations has shown its commitment through Agenda 21 (UN, 1992) and the Millennium Development Goals (UN, 2000); in addition, recently, as a consequence of the failure to achieve the expected results, the United Nations defined the 142 goals highlighted by the 17 Sustainable Development Goals (UN, 2015). In this way, sustainability continues to have special relevance both in the institutional sphere and in terms of practical application (Nguyen et al., 2021).

In the 1970s, the concept of sustainable design began to gain enter into the craft sector (Bamford, 2011), and the body of academic literature that addresses this concept has increased in the twenty-first century (Väänänen & Pöllänen, 2020). According to these authors, sustainable craft is a multidisciplinary concept that can be applied to policies and practices, markets and economics, materials, and life cycles in intertwined contexts of use with the aim of reconciling and reviving traditions and craft production to develop a style of sustainable living in the industrial world. On the other hand, according to Cox and Bebbington (2014), the relationship between crafts and sustainable development can be focused on the ways in which sustainable development can support and empower the craft sector. According to Cox & Bebbington, craft products whose raw material is wood can be considered in general, with some exceptions, to be the results of sustainable crafts. Hand skills and human energy itself are considered to be important parts of this process (Zhan & Walker, 2019). In addition, according to Nugraba (2012), sustainable crafts tend to have a long and useful life, and their traditional designs give them a timeless appearance.

The craft sector has made important contributions to sustainability. Zhang et al. (2010) proposed a model to improve energy efficiency and reduce dependency on fossil fuels in the artisan sector, while Pao et al. (2015) encouraged the use of renewable energy. In this context, Huang (2015) was the first author to align the sustainability of the artisan sector with the new paradigm of the circular economy.

The circular economy (CE) is a new paradigm based on the principles of sustainability, according to which "waste" is considered to be a new productive factor that provides new inputs that are incorporated back into the supply and production chain, thus allowing such products to extend their useful life (Rodríguez et al., 2022; Smol et al., 2015; Tukker, 2015; Del Duque et al. 2020). Thus, the status of waste as a productive resource is maintained, in line with the proposals of the Cradle to Cradle philosophy (Braungart et al., 2007). In this sense, the main objective of the CE-based production model is the optimization of natural capital, thus establishing more balanced relationships among the economy, society and environment (Ghisellini et al., 2016; Giampietro, 2019; Murray et al., 2017). Under this new paradigm, companies base their production models on the considerations mentioned by Bag et al. (2021) and adopt the 10r philosophy, which optimizes this balance by reference to the circularity of natural capital (reduce, reuse, reject, rethink, redistribute, repair, restore, recycle and recover).

In addition, the ‘CE involves a more efficient use of recycling, considering closed circular cycles that allow materials and energy to be recovered, either to incorporate them back into the cycle or to favour their natural absorption (Bag et al., 2021; Fischer & Pascucci, 2017; Gorecki et al. 2022). Another key aspect related to the CE that should be taken into account is the importance of regenerative design, which allows products and services to

be used more intensively and develops awareness among stakeholders, thus leading to less consumption of natural resources (Gupta et al., 2019; Jabbour et al., 2020).

These recommendations have already been incorporated into the craft sector. Kabongo and Boiral (2011) propose up to five types of recovery for the efficient management of residual resources in the sector. On the other hand, Da Silva et al. (2010) orient their conclusions on the reincorporation of the cycle into the productive cycle of sawmill waste, and Bozkurt and Lara-Cohen (2019) highlight the importance of repair in the artisanal sector.

In this sense, the craft sector should be aware of these issues and transition from its current focus on the linear economy model, which is characterized by extracting, transforming, and generating waste and has thus led to a situation of unsustainability (Frosch & Gallopoulos, 1989; Ness, 2008). Society and consumers themselves exhibit disruptions and inefficiencies that push the sector to transition to new sociotechnical systems that are more sustainable than the existing systems (Markard et al., 2012; Seiffert & Loch, 2005). In this sense, the sustainable crafts sector must promote initiatives that rely on a new model of economic development. This shift requires consideration of the concept of economic, environmental and social sustainability, i.e., three dimensions that are required to create a balanced production system, and technological advances must also be taken into account (Ren et al., 2013), thereby aligning the production model with the principles of the CE and strengthening the balance among these three dimensions (Birat, 2015; EMF, 2012).

Previous works have highlighted the fact that knowledge and the acceptance of sustainability by the market are key to achieving a transformation of the production model (Cadez et al., 2019). An adequate relationship between supply and demand must be guaranteed; therefore, consumers should be encouraged to transition towards sustainability (Alonso-Almeida et al., 2020; Venugopal & Shukla, 2019). This requirement affects most new business models, in which context the application of sustainability and CE is at an early stage (Awan & Sroufe, 2022). Consumers play a very important role in the implementation of sustainable business models. However, despite this relevance, due to their use and consumption of products and services, consumers have not been considered as key players in sustainable crafts (Repo & Anttonen, 2017). These authors note that, for consumers to become active actors and to contribute to the development of sustainable crafts, it is necessary to clearly identify the ways in which they respond to its key elements. Similarly, Hazen et al. (2017), Moody and Nogrady (2010), and Stewart and Niero (2018) indicate that the development of sustainability depends on attaining a deeper understanding of consumer attitudes and behaviours. Thus, Núñez-Cacho et al. (2020) indicate that consumers' purchasing decisions are conditioned by factors such as age, sustainable behaviour, knowledge of the sustainable craft and perceptions of product utility. Other recent studies indicate that the adoption of sustainability is not advancing at an appropriate rate due to the lack of acceptance by consumers (Camacho-Otero et al., 2017). Marketing efforts are a success factor associated with a transition to sustainability-based business models (Awan & Sroufe, 2022), as is the impact of knowledge of environmental benefits on the efficiency of companies in their transition to sustainability (Awan, 2019). Awan, Sroufe & Bozan (2022), after conducting a deep review of CE literature, conclude that marketing and sales strategies improve CE performance. Since this topic has rarely been addressed by academics, there is an evident lack of empirical studies examining consumer behaviour and attitudes towards remanufactured, recycled, repaired and refurbished products. Therefore, to ensure the adequate transition and development of sustainable crafts, it is necessary to investigate consumer behaviour and design marketing and communication strategies that offer sustainable products in accordance with the wishes and preferences of consumers (Hazen et al., 2017).

Despite the relevance of the role of consumers to the development of sustainability, academic studies concerning consumer behaviour are scarce, and empirical studies are even less common (Hazen et al., 2017; Repo & Anttonen, 2017). A literature review reveals empirical studies that focus on consumer attitudes towards refurbished second-hand electronic devices and remanufactured auto parts (Repo & Anttonen, 2017). Similarly, Camacho-Otero et al. (2018) report that, to date, most studies focusing on consumer perceptions of sustainability are aimed at identifying the consumer's response to certain types of products, especially products related to fashion and clothing. This review allows us to identify a gap that we try to address with this work. Therefore, based on this gap, this work addresses the following research questions:

RQ1: What is the relationship between the image of sustainable craft products and the intention to purchase these products?

RQ2: Is the relationship between the image of sustainable handmade products and the intention to purchase these products mediated by the consumer's attitude towards sustainable products and the environmental benefits perceived by the consumer?

RQ3. Is it possible that the consumer's involvement with sustainability and degree of knowledge moderate this relationship?

In this manner, we intend to reach our objective, which is to gain knowledge concerning the relationship between sustainable craft products and consumers' purchase intentions. To accomplish this goal, a moderated mediation analysis is conducted, including attitudes towards sustainable crafts and perceived environmental benefits as mediating variables and the implication of sustainability and degree of knowledge concerning sustainability as moderating variables. In this way, the existing research gap pertaining to knowledge of consumer behaviour and perceptions of sustainability is addressed.

In addition, this work contributes to the development of the literature in the following ways. First, it examines, in an innovative way and in the field of sustainability, the effect of consumer perceptions, specifically the perceived image of sustainable craft products, on their intentions to purchase products designed in accordance with the principles of sustainability. On the other hand, proposing a moderated mediation model allows us to examine the mediating effect of attitudes towards sustainable craft products and perceived environmental benefits as antecedent variables of purchase intention. In addition, we measure the moderating effects of consumer involvement in sustainable craft products and their degree of knowledge in these relationships.

2 Literature review

2.1 Image of sustainable craft products

"Brand image refers to the set of associations linked to the brand that consumers hold in memory" (Keller, 1993). According to this author, brand associations can be conceptualized based on type (level of abstraction and qualitative nature), favourability and strength as well as depending on their relationships with other associations. According to Keller, brand associations permit the establishment of a favourable attitudinal or affective and behavioural link.

Chang (2011) shows that the image of "green products" represents the beliefs that people have regarding the effectiveness of these products with respect to reducing threats to the environment. Similarly, Calvo-Porral and Lévy-Mangin (2020) indicate that recycled

products can be presented in the minds of consumers as environmentally friendly products and "green economy" products. Therefore, such products can be perceived positively by consumers, and a favourable consumer attitude towards these products can influence their positive image. Calvo-Porral & Lévy-Mangin show that a positive/favourable image of recycled products has a positive influence on the purchase intentions of consumers. Therefore, we formulate the following hypotheses:

H_1 The image of sustainable craft products has a positive effect on consumers' purchase intentions of sustainable craft products.

H_2 The image of sustainable craft has a positive effect on attitudes towards sustainable craft products.

2.2 Consumer attitudes towards sustainable craft products

Attitude is understood as an evaluative judgement regarding a given object that can be favourable, unfavourable, or neutral (Lutz, 1991). Eagly and Chaiken (1993) define attitude as "a mental state of disposition towards people or objects that has a strong influence on perception, thought and behavior at the individual, social and cultural level". Similarly, Armstrong et al. (2011) argue that attitude involves a person's relatively consistent evaluations, feelings and tendencies towards an object or idea.

The importance of attitudes in consumer buying behaviour is partly the result of the assumption that they are good predictors of purchase intention (MacKenzie et al., 1986; Mitchell & Olson, 1981). Joshi and Rahman (2019) show that attitudes towards sustainable purchasing positively affect sustainable purchase behaviour.

At the level of sustainability and specifically in the context of remanufactured products, Jiménez-Parra et al. (2014) show that attitude is a significant predictor of consumer adoption. In this same context, Hazen et al. (2017) show that the attitudes of participants towards remanufactured products positively influence their intentions to change in the sense of their intentions to buy remanufactured products instead of new products. Taking this situation into account, we formulate the following hypothesis:

H_3 A positive attitude towards sustainable crafts influences consumers' purchase intention of sustainable craft products.

2.3 Perceived environmental benefits

Consumers' pro-environmental behaviours are influenced by environmental worldviews and personal effectiveness (Núñez-Cacho et al., 2020). Consumers evaluate their behaviours based on their contributions to solving environmental problems (Chen et al., 2012). The EU, in its report "Behavioural study on consumer engagement in the circular economy" notes that consumers are, to a certain extent, willing to participate in sustainable purchasing practices. This commitment is mainly the result of their concern regarding the environmental impact generated by the linear economy and, to a lesser extent, their desire to save money through reuse or repair (European Commission, 2018). Additionally, Harms and Linton (2016) show that consumers who are concerned about protecting the environment engage in positive purchasing behaviour. Keller (1993) highlights the fact that "brand

image refers to the set of associations linked to the brand that consumers keep in memory". These associations can be related to the product, such as by highlighting its functional and experiential benefits. Chen (2010) indicates that a consumer's perception of a sustainable brand image implies that the associations he or she has in his mind result in commitments and environmental concerns. Gaspar-Ferreira and Fernandes (2022) add that the sustainable brand image implies, in addition to environmental commitments and concerns, economic and social commitments and concerns. On the other hand, Chen (2008) reports that when companies can offer products or services that meet the environmental needs of their consumers, they are more predisposed to purchase, with concern for environmental problems being the main driver of sustainable consumption. Similarly, White et al. (2019) indicate that consumer awareness of environmental problems is key to moving towards more sustainable consumption. Finally, Gadenne et al. (2011) note that consumers who are concerned about the environment associate themselves with "green" brands and show a higher purchase intention regarding these brands. Concern for environmental impact implies that consumers commit to purchasing sustainable products to ensure sustainability.

Therefore, we formulate the following hypotheses:

H4 The image of a sustainable craft product has a positive and significant effect on perceived environmental benefits.

H5 Perceived environmental benefits have a positive effect on consumers' intention to buy sustainable craft products.

2.4 Consumer involvement

Consumer involvement is defined by Zaichkowsky (1985) as "a person's perceived relevance of an object based on inherent needs, values and interests". Accordingly, the degree of the individual's involvement affects a series of behavioural decisions, and there is generally a positive relationship between involvement and attitude (Eren-Erdogmus et al., 2018). In addition, there may be important differences in the evaluation of a product by consumers due to different levels of involvement (Petty & Cacioppo, 1984; Chaudhuri, 2001).

Therefore, consumer involvement plays an important role in sustainability, and a new and more active role on the part of consumers is necessary (Knošková, 2020; Sijtsema et al., 2019). However, according to these authors, consumers' levels of knowledge, interest and involvement related to sustainability are low, so it is necessary to explore their perceptions to identify the activities and key messages that can help them become involved in sustainability.

Taking this situation into account, we formulate the following hypothesis:

H_6 Customer involvement in sustainable craft products positively moderates the antecedent relationships of consumers' purchase intention.

2.5 Knowledge

According to theories of consumer behaviour, what we know and have stored in our memory affects the way in which we process and evaluate new incoming information. The degree of knowledge concerning a topic has been considered an important moderator of

consumer behaviour in the academic literature (Chu et al., 2019; Gregan-Paxton & John, 1997). Various studies indicate that the knowledge that a consumer has regarding a product or brand influences the process of communicative persuasion (Haugtvedt & Kasmer, 2008; Petty & Cacioppo, 1986) and results in more positive attitudes towards the advertised brand when consumers have a high degree of knowledge (Gregan-Paxton & John, 1997).

At the level of sustainability, according to Kuzmina et al. (2019), the main factor that affects the acceptance of these products by consumers is their knowledge of the benefits associated with sustainability. Specifically, in their study concerning remanufactured products, Wang and Hazen (2016) show that most consumers are unfamiliar with remanufactured products and thus prefer new products over remanufactured products. Similarly, Sijtsema et al. (2019) y Alonso-Almeida et al. (2020) indicate that a lack of information is one barrier to consumer acceptance of sustainable craft products among others. Consumers exhibit more positive attitudes towards recycled products as long as they are aware of the possibilities of recycling and using "waste" material in new products (Magnier et al., 2019). Additionally, Núñez-Cacho et al. (2020) find that knowledge of sustainability influences consumers' decisions to make sustainable purchases. Therefore, in accordance with this situation, we formulate the following hypotheses:

H_7 The degree of knowledge of sustainable crafts moderates the relationship between attitude towards sustainable craft products and the intention to purchase sustainable craft products.

H_8 The degree of knowledge of sustainable crafts moderates the relationship between perceived environmental benefits and the intention to purchase sustainable craft products.

H_9 The degree of knowledge of sustainable crafts moderates the relationship between the perceived image of sustainable craft products and the intention to purchase these products.

Taking into account these hypotheses, in Fig. 1, we propose a theoretical model of purchase intention of sustainable craft products:

3 Methods

The fieldwork was carried out between March and April. The data were obtained using a personal online survey. The questionnaire was implemented electronically using LimeSurvey survey software. The target population was handicraft consumers from the geographical area of Europe. Given the impossibility of reaching the entire population, we recruited a nonprobabilistic sample using the "snowballing" sampling technique. Information provided by the researchers and members of the project was used as a starting point for the software RRREMAKER, and contacts provided by companies and associations in the craft sector were subsequently added. In this way, nonprobabilistic convenience sampling was used.

The questionnaire was administered by sending emails that included a link to it. Previously, the questionnaire was tested by the research group and associations working in the craft sector.

A response rate of 10.17% was obtained, for a total of 140 valid questionnaires. The age distribution of the participants was as follows: under 25 years of age, 14.6%; between

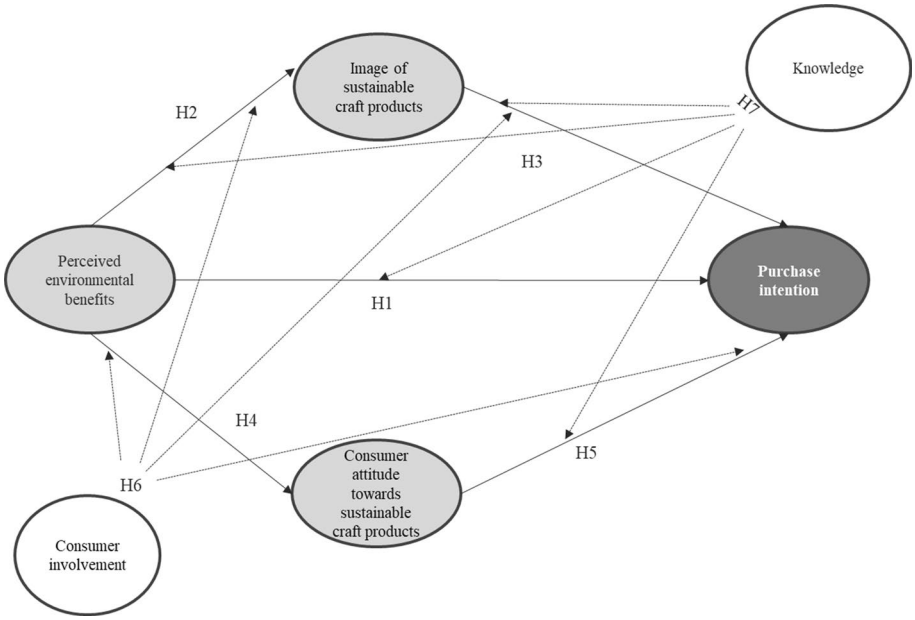

Fig. 1 Model of intention to buy sustainable handicraft products

25 and 40 years old, 25.4%; between 41 and 55 years old, 37.7%; and over 55 years old, 22.3%. Among respondents to the survey, 34% were men and 66% were women.

3.1 Measurement scales

In this study, measurement scales previously tested by other authors and in other contexts were used. Thus, to measure the degree of knowledge regarding sustainable crafts, a Likert-type scale adapted from Mitchell & Dancin (1996) was used. Regarding the measurement of the degree of involvement with a sustainable craft product manufactured in accordance with sustainable practices, a scale adapted from Zaichkowsky (1994) was used. The variable attitude towards sustainable craft products was measured using a scale adapted from previous research by Mitchell & Dancin (1996). The perceived image of the sustainable craft products was measured using a scale adapted from García et al. (2012). To measure the perception of environmental benefits, a scale was adapted from Hazen et al. (2017). Finally, the intention to buy a sustainable craft product was measured using a scale adapted from Wang et al. (2013).

The chosen measurement scales have been referenced by numerous research studies not only in the field of marketing but also in other subject areas, indicating that their content validity is suitable. However, it is necessary to examine the psychometric properties of the scales to confirm that they are reliable and valid with respect to the constructs they are intended to measure. Although the measurement scales used in most cases are based on scales that have previously been tested and validated in other contexts by different authors, given that they are adapted to our field of study and applied to different topics than those for which they were initially created, it is necessary to examine their adequacy in terms of

the reliability and validity of the measurement. To analyse the convergence and discriminant validity criteria, in the following section, following the recommendations of Del Barrio and Luque (2012) and Hair et al. (2010), we use confirmatory factor analysis (CFA) to estimate the relationship between the concepts to be measured and the indicators used to measure them; the measurement errors of each indicator are also included since no measure by itself is a perfectly valid measure of a multidimensional construct.

3.2 Confirmatory factor analysis (CFA)

First, the validity and reliability of the multi-item scales used were examined. For this purpose, a confirmatory factor analysis (CFA) was conducted. The software used was Lisrel version 8.8. The variables analysed did not follow a multivariate normal distribution, so according to Del Barrio and Luque (2012), it was necessary to use the RML estimation method. The results are shown in Table 1. As seen in Table 1, the standardized loads, in all cases, had a value > 0.70 and were significant ($p < 0.01$). The individual reliability of each indicator (R2) as well as the indicators of composite reliability (CR) and extracted variance (AVE) presented values above those recommended in the literature, i.e., 0.50, 0.80 and 0.50, respectively (Del Barrio & Luque, 2012) (see Table 1). The global indicators of goodness of fit were within the recommended limits (SB chi-square: 356.20; *p*-value: 0.00; RMSEA: 0.05; CFI: 0.99). Likewise, the application of the criterion suggested by Fornell and Larcker (1981) revealed that the different constructs had adequate discriminant validity (see Table 2).

4 Results

The hypothesis contrast was conducted by producing a moderately mediated regression model using ordinary least squares (OLS) regression and bootstrap estimation by means of PROCESS 3.5 software (10,000 subsamples) (Hayes, 2017).

The perceived image of sustainable craft products was included as the independent variable in the research model, while the dependent variable was the intention to purchase sustainable craft products. On the other hand, the mediating variables were attitudes and environmental benefits as perceived by the consumers of sustainable craft products, and the moderating variables were the level of involvement with this type of product and the level of knowledge regarding craft sustainability.

Tables 3, 4 and 5 show the results obtained from the analysis of the direct and interaction effects.

As seen in Table 5, the image of sustainable crafts does not have a direct effect on purchase intention, as proposed by H_1, leading to its rejection. ($\beta_{ImagenPurchaseintention}$: -0.10; *p*_value: 0.75 > 0.05).

However, attitude towards sustainable craft products mediates the relationship between the perceived image of these products and the purchase intention of sustainable craft products. As Table 3 shows, the image of these products directly, positively and significantly influences attitude ($\beta_{Imagenattitude}$: 0.91; *p*_value: 0.00 < 0.05). According to these results, H2 is confirmed. In addition, Table 5 shows that attitude has a positive and significant effect on purchase intention $\beta_{attitudePurchaseintention}$: 0.54; *p*_value: 0.04 < 0.05). According to these results, H3 is confirmed.

Table 1 CFA. Analysis of the psychometric properties of the scales

	Loads Standardized	R^2	Composite reliability	Extracted variance
Knowledge				
How knowledgeable do you consider yourself? (Cono01)	0.87 (***)	0.76	0.93	0.81
In relation to most people, how knowledgeable do you consider yourself to be? (Cono02)	0.92(***)	0.84		
Compared to most people, how familiar do you consider yourself to be with sustainable crafts? (Cono03)	0.92(***)	0.84		
Implication				
It is something that matters a lot to me (Impl01)	0.91(***)	0.83	0.97	0.76
It is of great relevance to me (Impl02)	0.94(***)	0.89		
It has a great value for me (Impl03)	0.91(***)	0.83		
It means a lot to me (Impl04)	0.91(***)	0.83		
It is very necessary for me (Impl05)	0.82(***)	0.68		
It is of great interest to me (Impl06)	0.91(***)	0.82		
It is something that attracts me a lot (Impl07)	0.89(***)	0.8		
It is very exciting (Impl09)	0.79(***)	0.62		
All the information about those products worries me (Impl10)	0.74(***)	0.55		
Attitude				
In general, I think buying sustainable handicraft products is a good idea (Act01)	0.83(***)	0.69	0.93	0.76
Buying sustainable craft products is a good choice in terms of sustainability (Act02)	0.85(***)	0.72		
I have a favourable attitude towards the purchase of sustainable handicraft products because of what they transmit (Act03)	0.91(***)	0.83		
I like the idea of buying sustainable handicraft products because socially it contributes to maintaining the sector (Act04)	0.89(***)	0.79		
Purchase intent				
You are likely to buy sustainable craft products in the near future (6 months from now) (Intc01)	0.80(***)	0.64	0.85	0.65
I will encourage my family and friends in their decision to buy sustainable craft products (Intc02)	0.85(***)	0.73		
When I have to choose between new products and sustainable craft products, I will choose the version based on those that are linked to sustainability (Intc03)	0.75(***)	0.57		

Table 1 (continued)

	Loads Standardized	R^2	Composite reliability	Extracted variance
Image				
The overall image of a sustainable craft product is good (Imag01)	0.92(***)	0.84	0.93	0.81
The overall image of a sustainable craft product is positive (Imag02)	0.95(***)	0.91		
The overall image of a sustainable craft product is favourable (Imag03)	0.82(**)	0.67		
Environmental benefits				
Buying the product is a rational use of used products, which could otherwise be wasted (Befa01)	0.80(***)	0.64	0.89	0.74
Buying the product can reduce the environmental cost of disposing of garbage (Befa02)	0.91(***)	0.82		
Buying the product can generate other jobs (in the process of creation and recycling) (Befa03)	0.87(**)	0.76		

+Parameter set to the unit; ***$p < 0.01$; **$p < 0.05$

The standardized loads in all cases had a p value greater than 0.70 and were significant (p value less than 0.01)

Table 2 Discriminant validity

	Knowledge	Implication	Attitude	Purchase intention	Image	Functional benefits
Knowledge	0.90					
Implication	0.54	0.87				
Attitude	0.20	0.65	0.87			
Purchase intent	0.50	0.75	0.70	0.80		
Picture	0.14	0.46	0.74	0.55	0.90	
Functional benefits	0.2	0.47	0.6	0.6	0.54	0.86

The individual reliability of each indicator (R2) and the indicators of composite reliability (CR) and extracted variance (AVE) presented values that were higher than those recommended in the literature, i.e., 0.50, 0.80 and 0.50, respectively

Table 3 Moderate mediation analysis. Outcome variable: Attitude towards the extended brand

Effects	Coeficient	SE	t	*p*_value	95% CI
Constant	−0.50	0.60	−0.85	0.40	−1.68 to 0.68
Imagen (X)	0.91(***)	0.14	6.29	0.00	0.62–1.19
Involvement (W)	0.93(***)	0.22	4.16	0.00	0.49–1.37
Imagen (X)* Involvement (W)	−0.14(***)	0.05	−2.87	0.01	−0.24 to 0.05

R^2: 0.78; SE: 0.29; F: 71.95; p: 0.00

Note: ***p_value < 0.01; 95% CI (does not include 0)

The coefficients, SE, t, p values and confidence intervals are presented. All variables are 99% significant

Table 4 Moderate mediation analysis. Outcome variable: Perceived environmental benefits of sustainable crafts

Effects	Coeficient	SE	t	*p*-value	95% CI
Constant	0.84	0.91	0.92	0.36	−0.97 to 2.65
Imagen (X)	0.60 (***)	0.22	2.74	0.01	0.17–1.04
Involvement (W)	0.60 (*)	0.34	1.75	0.08	−0.08 to 1.28
Imagen (X)* Involvement (W)	−0.08	0.08	−1.04	0.30	−0.23 to 0.07

R^2: 0.54; SE: 0.68; F: 18.5; p: 0.00

***p_value < 0.01; 95% CI (does not include 0)

The coefficients, SE, t, p values and confidence intervals are presented. The variables image and involvement are significant

Regarding the mediating effect of perceived environmental benefits between the perceived image of sustainable crafts and intention to purchase, on the one hand, it can be observed that the image of such products has a direct, positive and significant effect on the perceived environmental benefits of sustainable crafts, as shown in Table 4 ($\beta_{\text{imagenPerceivedenvironmentalbenefits}}$: 0.60; p_value: 0.01 < 0.05). On the other

Table 5 Moderate mediation analysis. Outcome variable: Purchase intention

Effect	Coef	SE	t	*p*-value	95% CI
Constant	−0.12	0.99	−0.12	0.91	−2.09 to 1.85
Image (X)	−0.10	0.31	−0.32	0.75	−0.702 to 0.51
Attitude (M1)	0.54 (**)	0.25	2.13	0.04	0.04–1.04
Environment benefit (M2)	0.08	0.24	0.34	0.73	−0.39 to 0.55
Involvement (W)	0.07	0.33	0.20	0.84	−0.587 to 0.72
Image (X)*W Involvement (W)	−0.09	0.09	−0.98	0.33	−0.268 to 0.09
Attitude (M1)* Involvement (W)	−0.04	0.09	−0.46	0.65	−0.22 to 0.13
Environment benefit (M2)* Involvement (W)	0.18 (***)	0.06	3.11	0.00	0.06–0.29
Knowledge (Z)	0.15	0.33	0.46	0.65	−0.50 to 0.80
Image (X)* Knowledge (Z)	0.14	0.10	1.34	0.18	−0.07 to 0.35
Attitude (M1)* Knowledge (Z)	0.03	0.09	0.33	0.74	−0.15 to 0.21
Environment benefit (M2)* Knowledge (Z)	−0.16(**)	0.08	−2.09	0.04	−0.313 to −0.01

R^2: 0.83; SE: 0.39; F: 26.34; p: 0.00

***p_value < 0.01; **p_value < 0.05; *p_value < 0.10 95% CI (does not include 0)

The coefficients, SE, t, p values and confidence intervals are presented. Attitude towards sustainable artisan products mediates the relationship between the perceived image of these products and the purchase intention of sustainable artisan products, whereas the image of sustainable artisan products does not have a direct effect on purchase intention

hand, the same description does not apply to the effect of perceived environmental benefits on purchase intention (see Table 5). In the latter case, a direct and significant effect of perceived environmental benefits on purchase intention is not observed ($\beta_{\text{PerceivedenvironmentalbenefitsPurchaseintention}}$: 0.08; p_value: 0.73 > 0.05). Therefore, the perceived environmental benefits that sustainable crafts can offer do not mediate the effect of the perceived image of these products on purchase intention. Therefore, according to these results, H4 is confirmed, while H5 is rejected.

On the other hand, the sixth hypothesis proposed that the level of involvement in sustainable crafts has a moderating effect on the antecedent relationships of purchase intention (see Table 5). The results show that level of involvement has a direct and positive influence on attitude towards sustainable crafts ($\beta_{\text{InvolvementAttitude}}$: 0.93; p_value: 0.00 < 0.05) and a positive and quasi-significant effect on perceived environmental benefits ($\beta_{\text{InvolvementPerceivedenvironmentalbenefits}}$:0.60; p_value:08 > 0.05) but not on purchase intention ($\beta_{\text{InvolvementPurchaseintention}}$: 0.07; p_value: 0.84 > 0.05). Therefore, when the consumer's degree of involvement in sustainable crafts is high, the consumer's attitude towards sustainable craft products is more positive, and greater environmental benefits are perceived, but these changes do not translate into increased purchase intention. On the other hand, when analysing the interaction effects of level of involvement with image, attitude and perceived environmental benefits, it was only possible to observe a positive and significant effect of the relationship between level of involvement and perceived environmental benefits on purchase intention ($\beta_{\text{Involvement X PerceivedenvironmentalbenefitsPurchaseintention}}$: 0.18; p_value: 0.00 < 0.05).

Figure 2 shows the moderating effect of level of involvement on the relationship between attitude towards sustainable crafts and purchase intention. The increase in purchase intention as a consequence of the increase in attitude towards sustainable crafts

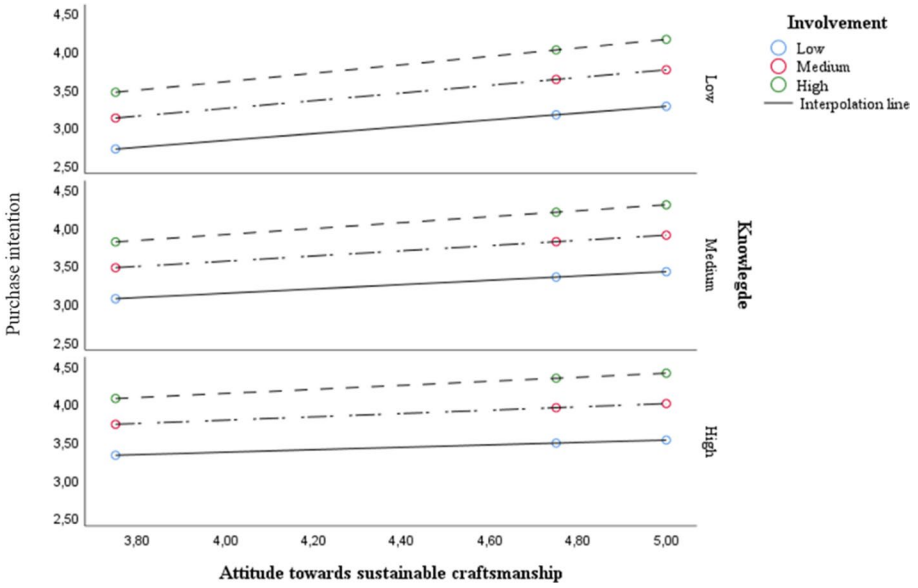

Fig. 2 Interaction effects for the level of involvement. Attitude towards sustainable handicraft products

applies at all levels of involvement, and the greater the purchase intention is, the greater the involvement.

The moderating effect of level of involvement on the relationship between perceived environmental benefits and purchase intention is shown in Fig. 3. As can be seen, the increase in purchase intention as a consequence of the increase in the perceived environmental benefits of sustainable crafts applies only when the consumer has a medium to high level of involvement and is higher in cases of greater involvement. These results confirm H6.

No moderating effect on purchase intention was observed for the degree of knowledge or attitude was observed, and the interaction effect was not significant ($\beta_{\text{Conocimiento X actitudIntencióncompra}}$: 0.03; p_value: $0.74 > 0.05$); thus, H7 was rejected.

On the other hand, the degree of knowledge positively moderates the relationship between environmental benefits and purchase intention ($\beta_{\text{Conocimiento X BeneficiosambientalesIntencióncompra}}$: -0.16; p_value: $0.04 < 0.05$). As seen in Fig. 3, the intention to purchase sustainable craft products increases with perceived environmental benefits and the degree of knowledge of sustainable crafts. These results allow us to accept H8.

Finally, H9 proposed that the degree of knowledge positively moderates the relationship between the image of sustainable crafts and purchase intention. The results show that the degree of knowledge has no moderating effecton the relationship between image and purchase intention ($\beta_{\text{Conocimiento X ImagenIntencióncompra}}$: 0.14; p_value: $0.18 > 0.05$). Therefore, H9 is rejected (see Table 6).

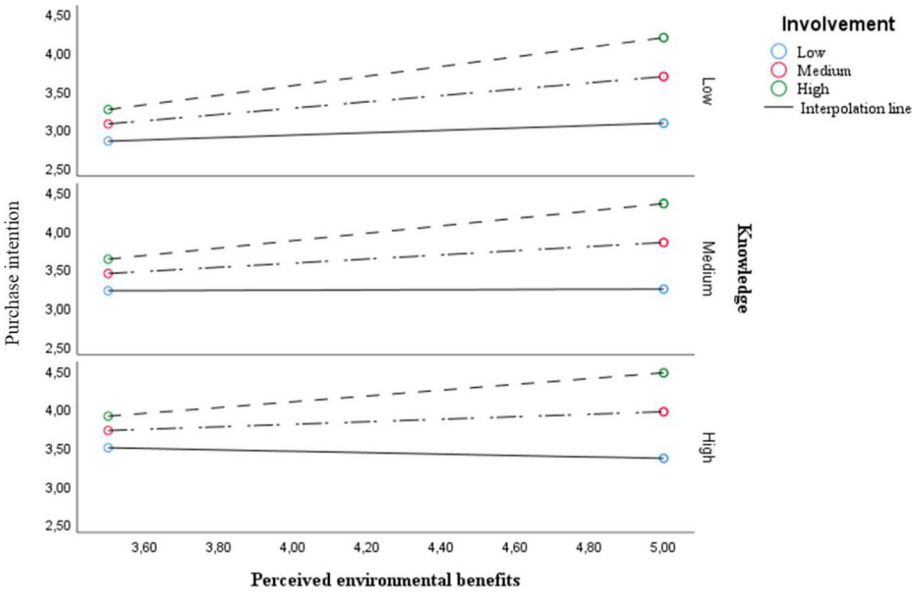

Fig. 3 Interaction effects for the level of involvement. Environmental benefits

Table 6 Hypotheses confirmed / rejected

Hypotheses	Result
H1	Rejected
H2	Confirmed
H3	Confirmed
H4	Confirmed
H5	Rejected
H6	Confirmed
H7	Rejected
H8	Confirmed
H9	Rejected

Hypotheses 2, 3, 4, 6 and 8 are confirmed

Subsequently, the direct and indirect effects of the image of sustainable craft products on purchase intention are analysed using the PROCESS macro, which allows us to calculate the conditional direct and indirect effects of the independent variable (the image of sustainable craft products) on the dependent variable (purchase intention) by taking into account various levels of the moderators (level of involvement and degree of knowledge) (see Table 7).

Table 7 Conditional direct and indirect effects of X (Image) on Y (Purchase Intention)

Conditional direct effects						
Involvement level	Knowledge degree	Effect	SE	t	p	LLCI–ULCI
Low	Low	0.00	0.12	0.03	0.98	− 0.24 to 0.24
Low	Medium	0.14	0.13	1.13	0.26	− 0.11 to 0.39
Low	High	0.28	0.20	1,42	0.16	− 0.11 to 0.67
Medium	Low	− 0.12	0.14	− 0.84	0.40	− 0.39 to 0.16
Medium	Medium	0.02	0.10	0.24	0.81	− 0.17 to 0.22
Medium	High	0.16	0.15	1.09	0.28	− 0.13 to 0.46
High	Low	− 0.21	0.21	− 1.01	0.32	− 0.63 to 0.21
High	Medium	− 0.07	0.17	− 0.45	0.65	− 0.40 to 0.25
High	High	0.07	0.18	0.37	0.71	− 0.28 to 0.41
Conditional indirect effects						
Through attitude towards sustainable craftsmanship						
Involvement level	Knowledge degree	Effect	SE	LLCI–ULCI		
Low	Low	0.32**	0.11	0.12–0.55		
Low	Medium	0.34**	0.15	0.14–0.75		
Low	High	0.36**	0.25	0.09–1.05		
Medium	Low	0.20	0.10	− .02 to 0.36		
Medium	Medium	0.21**	0.07	0.09–0.37		
Medium	High	0.23**	0.12	0.07–0.54		
High	Low	0.11	0.11	− 0.18 to 0.30		
High	Medium	0.12	0.08	− 0.04 to 0.29		
Through environmental benefits						
Involvement level	Knowledge degree	Effect	Se	LLCI–ULCI		
Low	Low	0.05	0.06	− 0.07 to 0.20		
Low	Medium	− 0.02	0.07	− 0.12 to 0.18		
Low	High	− 0.09	0.11	− 0.23 to 0.20		
Medium	Low	0.12**	0.06	0.00–0.24		
Medium	Medium	0.06	0.05	− 0.01 to 0.18		
Medium	High	0.01	0.06	− 0.07 to 0.18		
High	Low	0.14	0.12	− 0.09 to 0.38		
High	Medium	0.10	0.09	− 0.06 to 0.29		
High	Medium	0.06	0.07	− 0.05 to 0.24		

**p_value < 0.05

Image has no direct effect on conditional purchase intent. As shown in these Table concerning the conditional direct effects of the independent variable (the image of sustainable craft products) on the dependent variable (purchase intention), regardless of the degree of involvement (low, medium or high) and the degree of knowledge (low, medium or high), the effect of image on purchase intention is not significant, with p value > 0.05. The indirect conditioned effect of the image of sustainable crafts on purchase intention via attitude is significant and positive in cases of low involvement regardless of the degree of knowledge. As these Table shows, when the degree of involvement is low, for a low, medium and high degree of knowledge, the effect is positive and significant (p value <0.05 and β=0.32, 0.34, 0.36, respectively). The indirect effect via environmental benefits is positive only in cases of a medium level of involvement and a low degree of knowledge. In these cases, p value < 0.05 and β=0.12 (see these Table)

5 Discussion and conclusions

This research study is novel in the literature concerning the sustainability of the craft sector; although works such as this study are common in the field of marketing and have already been produced in other sectors to analyse the degree to which sustainability is adopted by consumers, these relationships have not yet been addressed in the context of the artisanal sector (Prados-Peña et al., 2022).

We present a conceptual model of the theoretical relationships underlying consumers' purchase intentions regarding sustainable craft products, thereby proposing an empirical investigation that addresses the research gap from the perspective of the consumer of sustainable craft products. We provide valuable information concerning the relationship between the image of sustainable craft products (the independent variable) and the intention to purchase these products (the dependent variable) and take into account both moderating variables, such as consumer involvement and knowledge, and mediating variables, such as consumer attitudes towards sustainable crafts and the perceived environmental benefits. Consequently, we propose and validate a model of the antecedent factors to intention to purchase sustainable craft products, which has important implications not only in theoretical terms but also in managerial terms, both for the craft sector, in relation to the design and marketing of sustainable products, and for the administrations in charge of regulating and promoting the adoption of sustainability by companies and consumers.

A fundamental contribution of this work is the finding that the perceived image of sustainable craft products does not have a direct effect on the purchase intentions of consumers. However, the perceived image of craft products is mediated by a positive effect of attitudes towards sustainable craft products. Consequently, the image of the products generates a transfer of affect that translates into more positive attitudes towards these products, which ultimately leads to a significant improvement in purchase intentions, a finding which is in alignment with previous studies of consumer behaviour towards sustainable products (Chaudhuri & Holbrook, 2001; Jiménez-Parra et al., 2014). Additionally, this effect is moderated by individuals' level of involvement in sustainable crafts and by their degree of knowledge, albeit only in certain cases: in conditions featuring a low level of involvement, the effect of image transfer on the intention to purchase is greater, even when awareness is low, and this effect increases with the degree of knowledge. In the context of a medium level of involvement, this effect occurs only when the individual has a medium or high level of knowledge of sustainable crafts.

The lack of a relationship between the image of sustainable craft products and the consumer's purchase intention implies that craft companies must be more careful in their design, as such design does not translate into higher levels of purchase or recommendation on the part of consumers. However, the positive effect of the mediation of purchasing attitude provides valuable information for craft companies, which could design marketing strategies to generate positive emotions in potential customers by focusing, for example, on the art and design associated with sustainable craft products, which could lead to a more favourable image of these products and improve their marketing. Additionally, artisan companies should focus on improving sustainable artisan attributes, since according to Chang (2011), the image of "green products" represents the beliefs that people have regarding the effectiveness of these products in reducing threats to the environment.

As a second contribution, this work reports that although the image of sustainable craft products directly and positively influences the perceived environmental benefits, its influence as a mediator in the relationship between the image of these products and the

purchase intention is uncertain. It was also not possible to demonstrate the direct effect of perceived environmental benefits on purchase intentions, which in this case does not allow us to adopt the conclusions obtained in previous studies (Hazen et al., 2017; Teles et al., 2015). However, this relationship is moderated by the level of involvement, such that in cases of medium–high involvement, the transfer between perceived environmental benefits and purchase intentions is greater. The degree of knowledge moderates the relationship between image and purchase intention positively only when the consumer has a medium level of involvement and little knowledge of sustainable crafts.

This finding implies that craft companies and public administrations must promote strategies and policies that emphasize the benefits and implications of this type of product with respect to its impact on the environment. Following the recommendations of Sijtsema et al. (2019), we propose that for consumers with low involvement, specific communication strategies should be designed that can contribute to increasing these levels. In this way, an improvement in the perception of environmental benefits could translate into an improvement in the image of sustainable craft products and thereby result in more favourable attitudes towards the adoption and acquisition of these products. Additionally, these strategies must be reinforced by the development of policies that promote greater awareness and, ultimately, consumer behaviour that is more respectful of the environment.

Finally, our research faces some limitations that suggest avenues for future research. The first such limitation pertains to the size and geographic location of the sample. The breadth of the sample, in terms of both number and territorial expansion, could establish other relationships between the variables considered, for example, in the mediation of perceived environmental benefits. Additionally, the measurement tool used (the survey) does not allow for the collection of qualitative information; accordingly, in future research studies, it could be interesting to study the needs and underlying motivations that lead consumers to purchase or recommend sustainable craft products in greater detail.

Acknowledgements This article is included in the RRREMAKERS project, funded by the European Union 2020 Research and Innovation program under the Marie Sklodowska Curie grant agreement nº 101008060

Funding Funding for open access charge: Universidad de Granada / CBUA.

Data availability The datasets generated and/or analysed as part of the current study are available from the corresponding author upon reasonable request.

Declarations

Conflict of interest All authors certify that they have no affiliations with or involvement in any organization or entity with any financial or nonfinancial interest in the subject matter or materials discussed in this manuscript.

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