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Consumer skepticism towards organic beauty products Cross-country research

Raja Kifaya[1*]

Abstract

Based on the attitude–behaviour–context (ABC) theory, the present study addressed consumer skepticism as one of the inhibitors of organic purchasing behaviour. More specifically, it investigated the role of environmental concern and environmental knowledge as a mediator, in the organic cosmetics background. Data gathered from consumers in Tunisia ($N=736$), Italy ($N=720$) and France ($N=715$) and analysed using a structural equation modelling approach. The findings revealed that green skepticism is a strong inhibitor towards adoption of organic cosmetic products among consumers in the three countries. On the other hand, findings revealed that environmental knowledge and environmental concern fully mediate the relationship between green skepticism and organic purchasing behaviour. The ultimate goal is to provide valuable insights for business leaders, policymakers and marketers fully understand consumers' resistance to organic cosmetic products. Further, it offers a comprehensive framework to support strategies to reduce consumers' skepticism towards organic products, in different market segments.

Keywords Green skepticism, Organic purchase behaviour, Organic cosmetic, Environmental knowledge, Environmental concern

Introduction

Today, beauty and cosmetic industry are increasingly interacting with the food market, because consumers are concerned not only with what they put into their bodies in terms of food, but also with what they apply to their bodies to ensure a healthy lifestyle [1]. All over the world, organic and natural cosmetics and skincare products are gaining more and more importance, as they symbolize both a smart choice for body health and an environmentally friendly alternative [2]. In this context, Lin et al. [1] stated that the purchase of organic cosmetic products is considered by the consumer to be both a personal and environmental issues. Similarly, Kumar et al. [3] have asserted that organic personal care products are gaining admiration due to their benefits in terms of well-being and health. This rising interest in these products has, therefore, motivated global cosmetic companies to develop more cosmetics and personal care products to include organic ingredients and natural product lines [3]. According to Allied Market Research [3],[1] the Global Market of natural and organic cosmetics offers was valued at $33.396.0 million in 2020 and assessed to reach $58,615.6 million by 2031, growing at a CAGR of 5.3% from 2022 to 2031. However, despite the increase in organic offerings, the vast majority of consumers are wary of these products [4]. This could be because consumers are increasingly concerned that companies are spreading misleading environmental information to improve their sales and reputation [5]. In this context, the European Commission assessed the environmental features of 150 items and found out that 53% gave "misleading, vague, and unfounded information" [6], causing increasing concern among consumers [7]. The findings of the Forbes Insights report indicated that 79% of beauty buyers have doubts about sustainability claims Research [8][2] This phenomenon, in which consumers doubt or

*Correspondence:
Raja Kifaya
Raja.kifaya@unicatt.it
[1] Università Cattolica del S. Cuore Milano Italia, Largo Fra Agostino Gemelli, 1, 20123 Milano, MI, Italie

[1] https://www.alliedmarketresearch.com.

[2] https://www.forbes.com.

disbelief companies' environmental claims, is called "green skepticism" [4, 5, 9].

According to Nguyen et al. [10], green scepticism may pose a barrier to the companies' investment returns. It may prevent consumers from purchasing organic products [7], Thi et al. 11, and could, in turn, prevent the development of the organic market [5, 6]. Furthermore, Sadiq et al. [12] suggested that consumer skepticism towards organic cosmetic products may be one of the most significant barriers to product adoption. Similarly, Lin et al. [1] argued that organic cosmetics companies should be particularly attentive to the gap revealed between consumers' favourable attitudes towards organic cosmetics and their actual purchasing behaviour and which is caused by skepticism.

It should also be noted that prior studies suggested that there is some disagreement regarding the process by which this phenomenon impacts consumer purchasing behaviour [13]. For instance, while environmental concerns have been identified as a strong predictor of organic purchasing behaviour, the effect of consumer scepticism on environmental concerns remains incomprehensible and unclear 14. In this context, many researchers found that environmental knowledge positively affects consumer attitude and beliefs towards organic products [7] while others showed that skeptical consumers eliminate the informational aspects of organic claims [10]. Here, an understanding of how green skepticism influences consumers' environmental concern and environmental knowledge might be crucial in determining their purchasing behaviour [5, 7, 15, 6].

Based on the above discussion, we argue that there are two visible gaps in the literature relating to consumer behaviour towards organic products: (a) The role of green skepticism in consumer purchasing behaviour has remained completely unexplored despite the widespread and importance of this phenomenon to the organic market, and (b) the effect of green skepticism on environmental concerns and environmental knowledge remains incomprehensible. Thus, to fill these two research gaps, this study investigates the relationship between consumer skepticism and the purchasing behaviour of organic cosmetics. More specifically, and based on a review of related literature, it challenges the mediating role of environmental knowledge and environmental concern in this relationship.

Moreover, so far studies have shown that "while doubt is a ubiquitous feeling, it is not homogeneous across cultures and markets" [9]. In the same vein, Bang and Anh [4] suggested organic consumption varies depending on the country, and this needs to be justified with potential research using various dimensions. Therefore, and while holding the view that consumer organic consumption differs from one cultural context to another since developed and developing countries have different views about the value of organic products, this research goes beyond a narrow geographical focus to provide a comparative analysis between three different countries, namely Tunisia, Italy and France. The choice of both three countries is reflective of their relationship, which has its roots in history, geographical position and the economic dynamism. Specifically, these three countries, although, being Mediterranean countries with several characteristics that could federate their citizens, they also differ considerably in the cultural and social dimension that can impact, in turn, their consumption of more organic cosmetics.

The contributions of this study include the following: First, it is a response to the researchers' recent appeals to study green marketing by investigating green skepticism and its role in organic purchasing behaviour [4, 7], 13, 11. Second, this study figures out what cross-cultural differences can be observed between consumer skepticism in Tunisia, Italy and France. Third, the main findings contribute to the field of organic consumption research by providing novel insights. Finally, our fresh evidence broadens some guidelines for consumer segmentation, in particular for organic behaviour through different countries.

Literature review and hypothesis development

This research was grounded on the attitude–behaviour–context (ABC) theory [16], which is the most significant efforts to overcome the internal–external dichotomy in the social psychological literature, and specifically developed in the field of environmental studies and suitably applied to predict the pro-environmental behaviour. In the language of the ABC, individual behaviour is highly situational, and the attitude cannot effectively predict behaviour without the consideration of contextual factors [17, 18]. Relying on this environmental psychology theory, this study models the mediating role of environmental concern and environmental knowledge in the relationship between green skepticism and organic purchasing behaviour.

Green skepticism

Green skepticism is defined as "the consumers" tendency to doubt the environmental benefits or the environmental performance of a green product [19], and appears to be a relevant issue for consumers and companies [9], 11. It is highlighted by the literature as one of the most important barriers affecting the decision to purchase organic and green products [7, 10], Thi et al. 11. According to some studies, a significant part of this phenomenon about organic/green products stems from them being misinterpreted, misrepresented or mislabelled [20, 21]

One of the reasons is also the non-standardized organic/green production and certification methods ([22], Kurnia and Lidia, [23]). Indeed, having doubts about organic products can forestall consumers from making a new or repeat organic purchases or from making the most eco-friendly choice in particular [10]. [24] demonstrated that skepticism has a detrimental impact on consumers' intentions to buy organic products and their attitudes towards the environment. TTH et al. 11 showed that skepticism has a negative influence on green vegetable purchase intentions. The findings reinforced recently by Rossi and Rivetti (2023), who suggest that skepticism affects purchasing behaviour of sustainably-labelled food products and its relationships with other antecedents.

In the perspective of cosmetics consumption, Kapoor et al. [25] suggested that the lack of market regulation leads to distrust of consumers buying green cosmetics. In line with that, evidence from Masayu and Rifelly 26 revealed that green skepticism displays a negative influence on consumers' purchase intentions of green personal care products. This finding was recently confirmed by a study, examining the variables that impact Vietnamese consumers' decision-making processes, which found that green beauty care products are negatively affected by green advertising skepticism [4].

In the light of these considerations, we believe that consumers who are more skeptical of organic claims, often due to misleading and unreliable information, tend not to purchase organic products. This leads us to the following hypothesis:

Hypothesis 1 Green skepticism negatively influences consumer purchasing behaviour of organic cosmetics.

Environmental knowledge

The environmental knowledge is defined as "the level of awareness an individual has about environmental issues and problems" 27. It plays a central role in promoting pro-environmental behaviours, primarily through two key mechanisms 27. First, it raises awareness of environmental issues and, second, it allows consumers to make informed choices about their actions. This dual role of knowledge is crucial in promoting sustainable practices and decision-making among consumers [28].

In the specific context of green consumption, Kifaya and Rama [29] have shown that knowledge significantly affects consumer choice behaviour regarding green products in Tunisia. Millissa et al. [30] suggested that when a consumer is knowledgeable about organic food products including organic product quality information and product information, she/he knows and realizes what kind of action may affect the environment. Jihyeon et al. 27 argued that the decision to participate in voluntary carbon offset programme varies depending on an individual's level of environmental knowledge regarding climate change mitigation. Overall, these studies found that consumers with better environmental knowledge are more likely to act in environmentally friendly ways due to a stronger connection between their positive attitudes and their actual behaviours.

In the realms of health and cosmetics, the current literature offers very limited conflicting outcomes on the effect of environmental knowledge on consumer purchasing behaviour of organic cosmetics [28]. Therefore, we rely on the outcomes of the previous research on organic foods cited above, considering some similarities between these foods and the purchasing behaviour of organic cosmetics [31], 32, to pose our next hypothesis.

Hypothesis 2 Higher levels of environmental knowledge positively influence consumer purchasing behaviour of organic cosmetics.

Environmental concern

In sociology studies, environmental concern has been defined with reference to overall value orientation towards the natural environment, the level of concern about the environment's future, and how human development is damaging the environment [33].

In consumer decisions, the consumption of green products includes not only the "price" and "quality" variables but also the "environment" variable ([7], [34]). Preference must be given to products that do not harm or that do not seem to damage the environment. Customers, therefore, express their environmental concerns by promoting and buying products that cause the least influence on the environment [2], (Mustafa, 2006). In this regard, environmental concern is a crucial factor in explaining the intention to purchase green products [7]. Mohd Suki [35] demonstrated that the strong environmental concern of consumers can be revealed in the nature of their product choices. They found out that people with high environmental concern were more likely to buy organic products. Molinillo et al. [36] found environmental concern positively influences consumers, health consciousness and social, and, therefore, increase their willingness to pay for organic food products.

In the perspective of the cosmetics industry, evidence from Echchad and Ghaith [37] revealed that environmental concern displayed a positive influence on the attitude towards green personal care products. Kapoor et al. [25] showed that the environmental concern explains the trend towards green cosmetics. Kim and Chung [31] found that consumers' environmental concern is an important predictor of the intention of green skincare products. More recently, Siphiwe and Vimbai [2] showed

that environmental concern significantly influences attitudes towards the purchasing intention of green cosmetic products.

In the light of these studies, we hypothesize that:

Hypothesis 3 Environmental concern positively influences consumer purchasing behaviour of organic cosmetics.

Mediating effects of environmental knowledge and environmental concern

Previous advertising research has shown that skeptical consumers make external attributions to environmental behaviours [38], they tend to selectively address the informational aspects of green ads. Such skewed processing may lead to a heuristic judgement rather than a methodical one evaluation of green ads [39]. Therefore, this heuristic processing adopted by skeptical customers may make them indifferent towards the green ads and can hamper information acquisition and knowledge development [5]. Therefore, it can be concluded that consumers, who are well aware of the state of the environment, tend to doubt the presence of organic labelled products. Another line of research found that consumer cynicism and suspicion, an extreme form of skepticism, might affect the customers "concern for the environment" [40]. In the same way, Albayrak et al. [41] suggested that skepticism reduces consumer concern for the environment. Thus, green skepticism possessed by consumers would influence the concern from consumers regarding environmental issues, with more consumers tending towards ignorance.

In the light of these considerations, the proposed hypothesis is that consumers' environmental knowledge and concern may affect their skepticism towards organic cosmetics.

Hypothesis 4 (a) Environmental concern and (b) environmental knowledge mediate the relationship between green skepticism and consumer purchasing behaviour of organic cosmetics.

To study the direct causal link between green skepticism and organic purchase behaviour of consumers on the one hand, and the mediation role of environmental concern and environmental knowledge on the other hand, we have constructed a conceptual model, schematized in Fig. 1

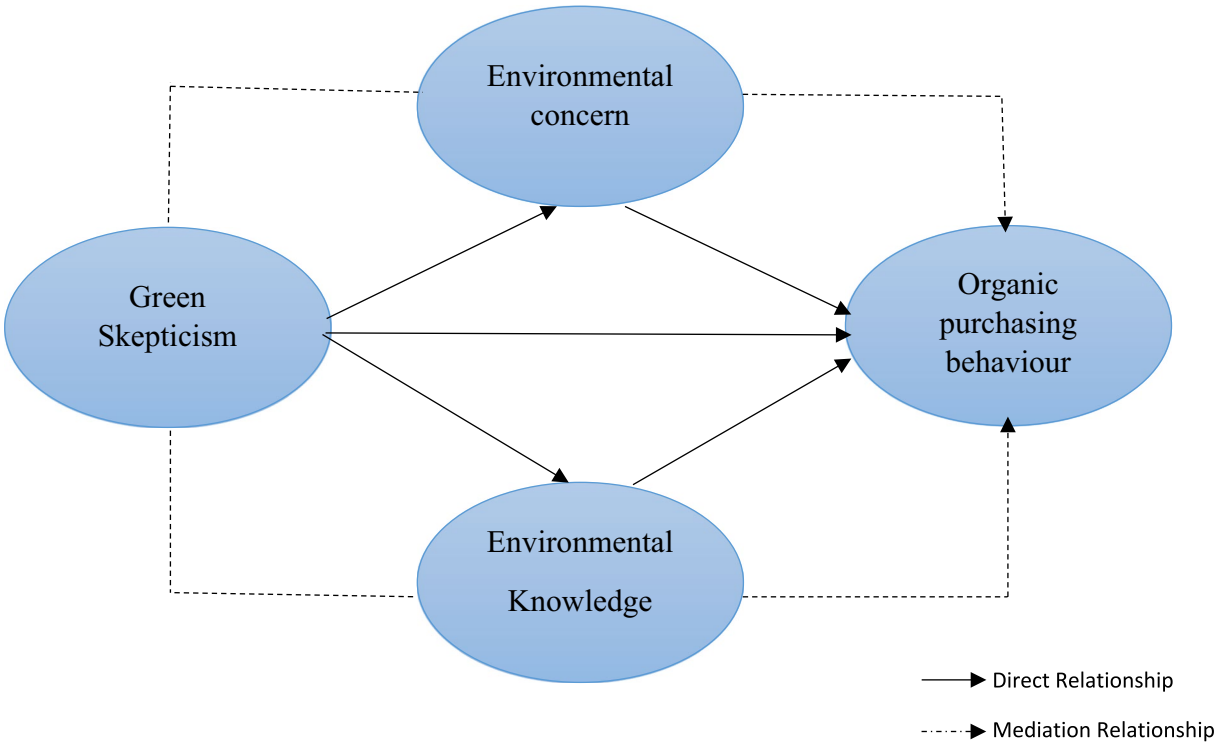

Fig. 1 The research model

Methodology

Data collection

The present research was adopting a quantitative methodology, and data were gathered via an online market survey using the Google Form tool for a period of 4 months, from March to June 2023, as this method was fast and efficient in ensuring respondent privacy as well as securely storing complete data. Female consumers were chosen as the study's target respondents because they are traditional users of cosmetic products [1]. The contributors were recruited through the authors' networks of university, personal, and work contacts via a shared link which was disseminated through email and social media platforms such as LinkedIn, Twitter, Facebook, Facebook groups, Instagram, and WhatsApp application which are among the popular platforms in Italy, France and Tunisia. Then, the existing participants were asked for recommendations to help with recruitment and to share the link with their networks, the survey was completely voluntary and followed the informed consent.

The final sample comprised 2171 valid respondents—the Tunisian survey was conducted in Arabic and French, giving 736 useable responses—the Italian survey was conducted in Italian, giving 720 usable responses, and the French survey in French, yielding 715 completed and usable questionnaires.

Survey instruments

To operationalize the constructs, a pre-validated item scale from the previous studies was adapted. All the measurement scales were back-translated by native speakers to approve the meanings, and contents were identical as the original wordings. Four items scale for organic purchasing behaviour drawn from Lee [42]. Green skepticism was captured through the three-item by Mohr et al. [19], while environmental concern was comprised of four items based on Kapoor et al. [25] and four items for environmental knowledge from [43]. The set of selected indicators is shown in Appendix. A five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") was adopted in this research.

Data analysis

The evaluation of the proposed research model was carried out using SPSS v24 and AMOS v24 software. A confirmatory factor analysis (CFA) was initially designed to gauge the validity and reliability of the scales used. The structural equation model (SEM) was later used to assess the accuracy of the model fitness and the proposed hypothesis test to predict the relationship of research constructs in the SEM process [45].

Table 1 The sample profile for Tunisia ($N=736$), Italy ($N=720$) and France (715)

	Tunisia (%)	Italy (%)	France (%)
Age			
18–35	60	40	49
36–45	20	24	25
46–55	18	11	22
56 and above	2	25	4
Occupation			
Academic staff or researcher	30	24	25
Hospital staff	11	6	7.2
Student	14	12	14
Employee	16	19	12.1
Government or state enterprise officer	0.8	0.5	10
Business owner	0.4	13	9
Freelance or general trader	18	2	8.6
Unemployed, retired and housewife	1.6	10	14
Other	10.2	13.5	0.1

Demographic profile of respondents

As shown in Table 1, consumer demographic profiles such as age and occupation have been found to have a major impact on consumers' pro-environmental and purchasing behaviour [44]. This study, therefore, investigated age and occupation as control variables to understand their effects on consumer skepticism and the purchasing behaviour of organic cosmetics.

The majority of respondents in all three countries are within the 18–35 age group. The high representation of this age group might imply that younger are the key target consumers in the market as they purchase and use green cosmetics and that they are more concerned about environmental problems. This age category is also the main target of consumers, as it occupies an important place in the French organic cosmetics market [45]. In Tunisia, this is explained by the fact that these categories are the most interested in organic products, mainly they are aware of the ingredients they put on their skin and want to know how cosmetics are made [46][4]. In Italy, this is explained by the trend within this age group towards natural and organic products extending from food to personal care [47][5]. In occupational terms, half of the respondents are academic staff or researcher. This is explained by the fact that these categories are the most

[3] https://www.mordorintelligence.com.

[4] https://www.unido.org.

[5] https://www.businesscoot.com.

Table 2 Results of the measurement model analysis: standardized factor loading (λ), AVE = average ariance extracted and Jöreskog Rhô (JR)

Constructs	Item	Tunisia			Italy			France		
		(λ)	AVE	JR	(λ)	AVE	JR	(λ)	AVE	JR
Green skepticism	GSk1	0.62			0.70			0.69		
	GSk2	0.82	**0.54**	**0.78**	0.83	**0.67**	**0.857**	0.87	**0.69**	**0.867**
	GSk3	0.76			0.91			0.91		
Organic purchasing behaviour	OPB1	0.70			0.75			0.77		
	OPB2	0.82	**0.63**	**0.873**	0.92	**0.72**	**0.90**	0.82	**0.66**	**0.886**
	OPB3	0.89			0.91			0.80		
	OPB4	0.76			0.79			0.86		
Environmental concern	EC1	0.75			0.83			0.78		
	EC2	0.81	**0.64**		0.88	**0.67**	**0.892**	0.79	**0.71**	**0.906**
	EC3	0.85			0.76			0.91		
	EC4	0.79			0.81			0.88		
Environmental knowledge	EK1	0.74			0.91			0.91		
	EK2	0.82	**0.60**	**0.856**	0.76	**0.7**	**0.903**	0.86	**0.72**	**0.91**
	EK3	0.72			0.81			0.84		
	EK4	0.81			0.86			0.78		

The bold in the Table 2 just to show the AVE (average variance extracted) , and the JR (Jöreskog Rhô)

interested in this kind of research and investments in favour of organic.

Measures and common method bias

We performed Harman's single-factor test to evaluate common method bias [48], because we measured the study constructs at the same time using a self-reported questionnaire. The result showed that a single-factor solution explained only 36.17% of the total variance, which is below the threshold value of 50% and allows us to emphasize that common method bias is not a serious problem in the current research [49].

Results for measurement model: Reliability and validity of constructs

To assess the reliability and validity of the constructs [50], we performed a confirmatory factor analysis (CFA). As shown in Table 2, the average variance extracted (AVE) values in both datasets are satisfactory for all constructs (Tunisia data = 0.54–0.64; Italy data = 0.67–0.72 and France data = 0.66–0.72), above the threshold of 0.5, providing evidence of good convergent validity [51]. All Jöreskog Rhô values are greater than the threshold value of 0.7 attest to the high reliability of our measures [51]. The average variance extracted (AVE) values lower than all Jöreskog Rhô values confirm the discriminant validity between all constructs.

The goodness-of-fit index shows values as follows: Tunisia data (Normed χ2 (CMIN /DF = 2.21); CFI = 0.95, IFI = 0.97, TLI = 0.924, GFI = 0.93, RMSEA = 0.071); Italy data (Normed χ2 (CMIN /DF = 1.855); CFI = 0.981, IFI = 0.98, TLI = 0.972, GFI = 0.93, RMSEA = 0.053) and France data (Normed χ2 (CMIN /DF = 3.159); CFI = 0.957, IFI = 0.957, TLI = 0.946, GFI = 0.924, RMSEA = 0.06).

All results indicated that this study model is a good fit and be further processed to answer our proposed hypothesis.

Results of structural model

The outcome of structural equation model (SEM) reveals that our proposed model fits the three data well: Tunisia data (Normed χ2 (CMIN /DF = 2.001); *p* value = 0.00; CFI = 0.96, IFI = 0.968, TLI = 0.931, GFI = 0.932, RMSEA = 0.051); Italy data (Normed χ2 (CMIN / DF = 1.676); *p* value = 0.00,; CFI = 0.986, IFI = 0.976, TLI = 0.967, GFI = 0.94, RMSEA = 0.046) and France data (Normed χ2 (CMIN /DF = 2.78), *p* value = 0.00,; CFI = 0.959, IFI = 0.964, TLI = 0.936, GFI = 0.926, RMSEA = 0.064). The standardized path coefficients are shown in Table 3**.**

The Hypothesis 1 states that green skepticism negatively influences consumer purchasing behaviour of organic cosmetics. As presented in Table 3, this hypothesis was not supported results showed (Tunisian's market = β = − 0.13, *t*-value = − 2.91, *p* = 0.36); (Italian's market = β = − 0. 07, *t*-value = − 1.130, *p* = 0, 25) and (French market = β = − 0. 09, *t*-value = − 1.129, *p* = 0, 48). The relationship between green skepticism and organic purchasing behaviour proposed in this research is not

Table 3 Structural model results

	Tunisia	Italy	France
Direct effect			
GSK → OPB	−0.13	−0. 07	−0.09
EC → OPB	0.59	0.89	0.40
EK → OPB	0.46	0.71	0.63
Indirect effect of GSK on OPB through EK and EC			
GSK → EC	−0.52**	−0.66*	−0.38*
GSK → EK	−0.43*	−0.28*	−0.25*
GSK → EC → OPB	−0. 21**	−0. 11*	−0. 31**
GSC → EK → OPB	−0.19**	−0. 13*	−0.17*

GSK = Green skepticism; OPB = Organic purchasing behaviour;
EC = Environmental concern and EK = Environmental knowledge; ** = p = 00 and * = p = 0.001

significant because it is missing the situational influence factor and, thus, support the statements by [17, 18].

The Hypothesis 2 and Hypothesis 3 stated that higher levels of environmental knowledge and environmental concern positively influence consumer purchasing behaviour of organic.

Results showed that higher levels of environmental knowledge had a positive effect on organic purchasing behaviour in (Tunisian's market: β = 0.46, t-value = 3.38, p value = 0.00); (Italian's market: β = 0.71, t-value = 5.157, p value = 0.00) and (French market β = 0.63, t-value = 6.124, p = 0, 00), supporting H2 in both contexts.

The environmental concern positively affects consumer purchasing behaviour towards organic cosmetics (Tunisian market β = 0.59, t-value = 3.65, p value = 0.00); (Italian's market: β = 0.89, t-value = 4.78, p value = 0.00) and (French market: β = 0.40, t-value = 5.95, p value = 0.00), supporting H3.

Similarly, Table 3 reveals that the indirect effect of green skepticism on organic purchasing behaviour in Tunisian's market is -0,19 which is greater than the direct effect of −0, 13; Italian's market is −0.13 > −0. 07 and in French market is −0. 17 > −0.09. This shows that environmental knowledge can significantly mediate the relationship between green skepticism and organic purchasing behaviour. The indirect effect of green skepticism on organic purchasing behaviour in Tunisian's market is −0, 21 > −0, 13, Italian's market is −0.11 > −0.07 and the French market −0.31 > −0.09. This shows that environmental concern can significantly mediate the relationship between green skepticism and organic purchasing behaviour. These results suggest that, environmental concern and environmental knowledge mediate the relationship between green skepticism and organic purchasing behaviour, supporting H4.

Discussion and implications

Zooming in on a new paradigm known as organic consumption research, the present study investigated the relationship between consumer skepticism and the purchasing behaviour of organic cosmetics. The attitude–behaviour–context (ABC) theory was applied to assess the mediating role of environmental concern and environmental knowledge in this relationship.

The findings provide important implications for practitioners desiring to assess consumers' behaviour and elevate their positive evaluation towards organic products. As green skepticism gains ground around the world [7], our study provides empirical evidence of its effect on consumer organic purchasing behaviour in three different economies. The results reveal a uniform cross-cultural skepticism across these three markets. This contrasts with Silva et al. [9], who argue that skepticism is not homogeneous across cultures and markets. A possible explanation for these cross similarities may lie in the same types of relationships between companies and consumers, mainly these three Mediterranean countries have close and long-standing trade relations. Furthermore, the uniform cross-cultural skepticism in these three countries indicates a widespread presence and relevance of this phenomenon worldwide. The findings also underscore that this phenomenon does not negatively and significantly impact consumer purchase behaviour directly, aligning with the findings of Leonidou and Skarmeas [15] and Goh and Balaji [5]. It reveals that green skepticism has an indirect negative effect on organic purchasing behaviour through environmental knowledge and environmental concern, which contrasts with Kapoor et al. [25]. A plausible explanation for this observation could be that when consumers are highly skeptical of organic products, they are likely to be less concerned and less informed about environmental issues. This may also be attributed to external motivations for organic claims, which reduce consumer concern and reduce the informational utility of organic advertisements. This is likely to dissuade consumers from purchasing organic products and could, in turn, prevent the development of the organic market [5, 6]. Moreover, our examination of the mediation effect concludes that environmental knowledge and environmental concerns are equally prevalent and relevant in understanding organic consumption in both developed and developing country contexts, as recently argued by Siphiwe and Vimbai [2].

Finally, debating on the different representations of skepticism based on a country and culture context [9], the similar pattern of our results proposes that the role of skepticism and the valence of its effect on organic cosmetics do not depend on the context and market in which they are investigating.

Theoretical implication

From a theoretical perspective, the present research seeks to contribute to the literature on consumer behaviour research, which also highlights its novelty, is the fact that our research is one of the first to explore green skepticism in the realm of organic cosmetics in Italy, France and Tunisia. It bridges a first important gap by studying the role of green skepticism in consumer purchasing behaviour. Moreover, it bridges another gap by examining the effect of green skepticism on environmental concerns and environmental knowledge.

Debating on the role of skepticism based on cultures and markets [9], our results offer a new perspective by showing that the role of skepticism and the valence of its effect on the purchasing behaviour of organic products do not depend on the context and the market in which they are investigated. This discovery enriches the theoretical body of knowledge on the mystery of the phenomenon of green skepticism. Interestingly, the phenomenon of green skepticism is gaining increasing importance in consumer studies [7], by examining its dynamics, the current paper provides a new insight into the complexities of consumer decision-making and extends existing theoretical frameworks.

On the other hand, this research is an effort to partly answer the recent calls suggesting the need to carry out a comparative study between cultures [9] by providing empirical evidence of the role skepticism plays in consumer purchase behaviour of organic cosmetics in three Mediterranean countries. Further, it contributes to an emerging stream calling for research using various dimensions [52], such as the economic difference. Another interesting aspect is that our research validated, in three different markets, the attitude–behaviour–context (ABC) theory in which it states that individual behaviour is highly situational and the attitude cannot effectively predict it without the consideration of contextual factors [17, 18]. Finally, this research encourages to delves into the influence of inhibitors and the exploration of other inhibitory determinants that may contribute to the desire to purchase organic products.

Managerial implication

From a managerial perspective, this research can be utilized by the practitioners and marketing managers in the organic cosmetics industry to formulate strategies corresponding to this research study's insights. The current research shares a novel lens of considering the role of green skepticism in organic consumption. Indeed, results showed that green skepticism has a detrimental effect on organic purchase behaviour. Marketing makers can address this phenomenon by displaying the environmental statements on advertising or packaging in a more clear and accurate manner. To gain confidence from consumers, policymakers must reveal all the claimed environmental advantages and benefits visible on the communication channel in order to win the consumers' trust (social media, website, packaging and advertising).

Specifically, findings reveal a uniform cross-cultural skepticism across these three markets and that a global marketing strategy is an appropriate option to reduce consumer skepticism to resist organic products. Moreover, marketers must strive to display a high level of company concern and contribution to improving the quality of the environment. Practically, they can communicate the benefits and consequences of consuming organic products over traditional ones. Finally, marketing managers must frequently monitor levels of skepticism among consumers by periodically conducting interviews and surveys and considering feedback when designing and communicating environmental marketing and environmental claims.

Conclusion

The present piece of research seeks to contribute to the literature on organic consumption research. The specific objectives were: (1) to investigate green skepticism and its role in purchasing behaviour of organic cosmetic products, and (2) to figure out what cross-cultural differences can be observed between consumer skepticism in Tunisia, Italy and France. The findings revealed that green scepticism is a strong inhibitor towards adoption of organic cosmetic products among consumers in the three countries. Moreover, environmental knowledge and environmental concerns are relevant in understanding organic consumption, shaping mindset and steering consumers towards organic products.

The main findings contribute to the field of organic consumption research by providing new perspectives on green skepticism. Finally, our fresh evidence broadens some guidelines for consumer segmentation, in particular for organic purchasing behaviour across different cultural backgrounds.

Limitations and future research

This present research gathered data from consumers in Tunisia, Italy and France. Although the present research employs validated measures and a reasonably large sample size (2171), the cross-sectional nature of our research limits the potential for causal inferences. Future research needs to be replicated on a large scale and more representative samples. To generalize our conclusion, further empirical research could explore the validity of our model in other Mediterranean markets. This could bring out surprising results and intriguing cross-cultural differences.

Although this study concentrated on consumers from three distinct cultural backgrounds, exploring the more attractive markets for organic cosmetics, like the UK and Germany, could provide additional insight. Beyond that, Americans and Asians countries, characterized by different cultural backgrounds and consumer behaviour, are also a great perspective to explore the impact of green skepticism on the purchasing behaviour of organic cosmetics. Additionally, there are a greater number of male consumers of cosmetic products. For further scope, we suggest considering male respondents and their skepticism towards organic cosmetics, which could constitute more comprehensive research. Since consumer skepticism might change with the development of organic cosmetics industry, we recommend carrying out another search on the same topic and context in future years to compare with current search results and analyse the development of this psychological phenomenon. Considering such a broad and significant differences that could exist in organic purchasing behaviour, future studies can also address other psychological barriers such as price sensitivity, perceived availability, image and tradition that may inhibit the development of the organic market, especially in Tunisia, which despite being the second-largest producer of organic products in Africa, its market analysis is weak.

Overall, our study raises an important issue such as "green skepticism" which is on the rise, and tries to understand its role in the consumer purchasing behaviour of organic cosmetics. This, at a time when there is a gap in the literature regarding this psychological inhibitor that could limit the growth of the market for environmentally friendly products. We hope to open up fruitful paths both reflection of companies and academic researchers on this phenomenon in general, in particular on its impact on the purchasing behaviour of organic product.

Appendix

Green skepticism	
GSk1	Due environmental claims are too much, would be preferable if those claims on product were eliminated
GSk2	Most environmental represents on the labels in the package or in advertising of organic cosmetic products are considered to misinform to the consumer
GSk3	I do not believe in the majority of the environmental entitlements built on the labels in the package or in advertising on organic cosmetic products
Environmental concern	
EC1	I prefer organic cosmetic because it reduces environmental issues
EC2	I prefer organic cosmetic because it is derived from nature
EC3	I prefer organic cosmetic because it is composed of natural ingredients
EC4	I prefer organic cosmetic because it is safe to the environment
Organic purchasing behaviour	
OPB1	I choose to buy organic cosmetic products that are environmentally-friendly
OPB2	I prefer organic cosmetic over non-organic products when their product qualities are similar
OPB3	I buy organic cosmetic products even if they are more expensive than the non-green ones
OPB4	When I want to buy organic cosmetic product, I look at the ingredients label to see if it contains things that are environmentally damaging
Environmental knowledge	
EK1	I know that I buy products and packages that are environmentally safe
EK2	I understand the environmental phrases and symbols on product package
EK3	I know how to select products and packages that reduce the amount of waste ending up in landfills
EK4	I am very knowledgeable about environmental issues

Abbreviation
The ABC The theory of attitude–behaviour–context

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The author declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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