



UNIVERSITÀ
CATTOLICA
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Université de Bretagne Occidentale

UNIVERSITÀ CATTOLICA DEL SACRO CUORE
Sede di Piacenza

Dottorato di ricerca per il Sistema Agro-alimentare (Agrisystem)

Cycle XXXV - S.S.D: SECS-P/08

En cotutelle avec

UNIVERSITÉ DE BRETAGNE OCCIDENTALE

École doctorale Sciences Economiques et sciences De Gestion (EDGE)

The role of skepticism in green consumer behaviour

Thèse de doctorat de : **Raja KIFAYA**

Matricule n : 4915333

Academic Year 2021-2022



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To my eternal love chourouk and future generations

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Preface

This thesis is specifically focused on the phenomenon of green skepticism — a doubting movement about the environmental performance and the benefits of organic and green product— it cuts across the disciplines of consumer research, psychology, and philosophy to clearly illustrate the profound influence that green skepticism has on consumer behaviour. Therefore, the detrimental effects of this phenomenon are explored with regard to consumers' purchasing behaviour of organic products, consumers' consumption of green products, and consumers' choice behaviour for organic food products, in the form of an exploration and comparison involving consumers with three different cultural backgrounds.

Our use of the term "skepticism" and its forms in this research is limited to the sense of disbelief. Our definition also separates skepticism as a consumer state, induced by situational factors, independent of trait characteristics from the skepticism as a personality trait. In particular, we suggest that while distrustful consumers may vary in terms of their suspicion or skepticism towards organic green products, they can change their mind when presented with sufficient evidence and proof. In order to gain an understanding of how this phenomenon works in daily consumer's behaviour, some models, theories, and approaches which is based on the social psychology of environmentalism from literature were drawn upon.

The empirical study conducted was quantitatively oriented, as looking deep to human behaviour. Lastly, the case studies featured will be of value to those studying marketing research, business, psychology, environmental issues, and understanding consumer behaviour.

Abstract

The role of skepticism in green consumer behaviour

Consumer skepticism towards companies is on the rise. However, studies on the determinants and the consequences of this phenomenon on organic /green products are lacking. In order to partially fill this gap, we propose to study the role of green skepticism in green consumer behaviour in the form of three essays drawing on the disciplines of consumer research, psychology, and philosophy.

The first essay investigated the relationship between green skepticism and the purchasing behaviour of organic cosmetics, based on the attitude-behaviour-context (ABC) theory. More specifically, it investigated the role of environmental concern and knowledge as a mediator, in organic cosmetics background. Using data from 736, 720 and 715 consumers in Tunisia, Italy and France, respectively, the authors conducted a country comparison, adopting the structural equation modeling approach. The results revealed that green skepticism is 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 findings provided deeper insights for business leaders, policy makers and marketers to fully understand consumers' resistance to organic cosmetic products. Further, they can use it to develop effective strategies to reduce consumers' skepticism towards organic products, in different market segments.

The second essay aimed at providing a better understanding on the psychological effect of skepticism on green consumption behaviour. Particularly, it examines whether green skepticism moderates the relationship between “spirituality, perceived consumer effectiveness, green perceived value, emotional value, perceived marketplace influence “and green consumption behaviour. The analysis is performed with reference to three Mediterranean region ($N_{Italy}=929$, $N_{France}=931$, and $N_{Tunisia}=934$) using structural equation modelling approach. Results reveal that spirituality, perceived consumer effectiveness, emotional value, and perceived marketplace influence have a positive influence on green consumption behaviour in both three countries, while green perceived value has a positive influence on green consumption behaviour only in Italy and Tunisia. Furthermore, green scepticism has a detrimental effect green consumption

behaviour by decreasing the effect of psychological factors. The study promotes environmental behaviour and informs policy-makers, marketers, and producers about the relative importance of psychological determinants in the context of consumer's green consumption behaviour.

The third essay demonstrated whether organic food skepticism could partly explain the gap” or discrepancy between the great deal of positive attitudes towards organic food expressed by consumers and their actual choices. The influence of food safety concern, health consciousness, organic food involvement, organic price sensitivity has also been investigated. Data gathered from 3008 consumers with three different cultural backgrounds were analysed using a structural equation modeling approach. Findings revealed that (safety concern, health consciousness, and organic food involvement) have a positive effect on consumers' organic food choice. Organic price sensitivity has a negative effect on consumers' organic food choice. Moreover, organic food skepticism acts perfectly as a mediator. The ultimate goal is to provide fresh perspectives and useful insights for practitioners desiring to assess consumers' organic food choice and elevate their positive evaluation.

Keywords: Green Skepticism, Organic Cosmetic Product, Organic Food product, Green Consumption Behaviour, Organic Food Choice.

Abstract

Il ruolo dello scetticismo nel comportamento dei consumatori verdi

Lo scetticismo dei consumatori nei confronti delle aziende è in aumento. Tuttavia, non si dispone di studi sufficienti sui determinanti e le conseguenze di questo fenomeno sui prodotti bio/green. Al fine di colmare parzialmente questa lacuna, ci proponiamo di studiare il ruolo dello scetticismo nel comportamento del “consumatore verde”, articolando il lavoro in tre saggi che attingono a diverse discipline, quali la ricerca sul comportamento economico dei consumatori, la psicologia e la filosofia.

Il primo saggio ha indagato la relazione tra lo scetticismo green e il comportamento d'acquisto di cosmetici biologici, sulla base della teoria dell'atteggiamento comportamento-contesto (ABC). Più specificamente, esso ha indagato il ruolo della preoccupazione ambientale e della conoscenza come mediatore, nel contesto dei cosmetici biologici. Utilizzando i dati di 736, 720 e 715 consumatori rispettivamente in Tunisia, Italia e Francia, gli autori hanno condotto un confronto tra paesi, adottando l'approccio del modello di equazioni strutturali. I risultati hanno rivelato che lo scetticismo verde è un forte inibitore verso l'adozione di prodotti cosmetici biologici tra i consumatori nei tre paesi. D'altra parte, i risultati hanno rivelato che la conoscenza ambientale e la preoccupazione per l'ambiente mediano completamente il rapporto tra lo scetticismo verde e il comportamento di acquisto biologico. I risultati ottenuti forniscono informazioni utili per imprese, decisori politici e professionisti del marketing nel comprendere i fenomeni di resistenza all'adozione di cosmetici bio, e nell'elaborare strategie per superare tale scetticismo nei diversi segmenti di consumatori.

Il secondo saggio mira a fornire una migliore comprensione dell'effetto psicologico dello scetticismo sul comportamento di consumo verde. In particolare, esamina se lo scetticismo verde moderi la relazione tra “spiritualità, efficacia del consumatore percepita, valore percepito verde, valore emotivo, influenza percepita sul mercato” e comportamento di consumo verde. L'analisi viene eseguita con riferimento a tre regioni mediterranee (NItalia=929, NFrancia=931 e NTunisia=934) utilizzando l'approccio del modello di equazioni strutturali. I risultati rivelano che la spiritualità, l'efficacia percepita del consumatore, il valore emotivo e l'influenza percepita sul mercato hanno un'influenza positiva sul comportamento di consumo verde in entrambi i tre paesi, mentre il valore percepito verde ha un'influenza positiva sul comportamento di consumo

verde solo in Italia e Tunisia. Inoltre, lo scetticismo verde ha un effetto dannoso sul comportamento di consumo verde diminuendo l'effetto dei fattori psicologici. Lo studio promuove il comportamento responsabile verso l'ambiente e informa i responsabili politici, i venditori e i produttori sull'importanza relativa dei determinanti psicologici nel contesto del comportamento di consumo verde dei consumatori.

Il terzo saggio affronta anch'esso il tema dello scetticismo verso i prodotti biologici, analizzandone il ruolo nello spiegare il divario o discrepanza tra gli atteggiamenti in gran parte positivi nei confronti del cibo biologico espressi da consumatori e le loro effettive scelte. A tal fine è stata studiata l'influenza di fattori quali la preoccupazione per la sicurezza alimentare, la consapevolezza della salute, il coinvolgimento nei confronti degli alimenti biologici, e la sensibilità al prezzo del biologico. Dati raccolti da 3008 consumatori con tre diversi background culturali sono stati analizzati utilizzando anche in questo caso il modello SEM (Structural Equations Model). I risultati hanno rivelato che preoccupazioni per la sicurezza, consapevolezza della salute e familiarità per gli alimenti biologici hanno un effetto positivo sulla scelta di alimenti biologici da parte dei consumatori. D'altro canto, la sensibilità al prezzo ha un effetto negativo sulla scelta di alimenti biologici da parte dei consumatori. Per parte sua, lo scetticismo verso l'alimentazione biologica funge perfettamente da mediatore. L'obiettivo finale è quello di fornire nuove prospettive e approfondimenti utili per i professionisti che desiderano valutare la scelta di alimenti biologici dei consumatori e rafforzare la loro valutazione positiva.

Parole chiave: scetticismo verde, prodotto cosmetico biologico, prodotto alimentare biologico, comportamento di consumo verde, scelta di alimenti biologici.

RÉSUMÉ

Le rôle du scepticisme dans le comportement du consommateur vert

Le scepticisme du consommateur envers les entreprises va en augmentant. Cependant, les études sur les déterminants et les conséquences de ce phénomène sur les produits bio/vert font défaut. Afin de combler partiellement cette lacune, nous proposons d'étudier le rôle du scepticisme vert dans le comportement du consommateur vert sous forme de trois essais s'appuyant sur la psychologie, la philosophie et la théorie du comportement du consommateur.

Le premier essai vise à étudier la relation entre le scepticisme et le comportement d'achat des cosmétiques bio en se basant sur la théorie attitude-comportement-contexte (ABC). Dans cette relation, les préoccupations et les connaissances environnementales opèrent comme médiateurs, c'est-à-dire comme facteurs intermédiaires dans la relation entre le scepticisme vert et le comportement d'achat du consommateur. En utilisant des données des consommateurs de trois pays (Tunisie, N=720 ; Italie, N=720 ; France, N=715), nous avons effectué une comparaison par pays, en adoptant l'approche de modélisation par équations structurelles. Les résultats ont révélé que le scepticisme vert est un puissant inhibiteur de l'adoption de produits cosmétiques biologiques par les consommateurs dans les trois pays. D'autre part, les résultats ont également révélé que les connaissances environnementales et les préoccupations environnementales médiatisent pleinement la relation entre le scepticisme vert et le comportement d'achat biologique. Cette recherche fournit un aperçu approfondi du scepticisme des consommateurs envers les cosmétiques biologiques.

Le deuxième essai met en lumière l'effet psychologique du scepticisme sur le comportement de consommation verte. En particulier, il examine si le scepticisme vert modère la relation entre (-la spiritualité, l'efficacité perçue du consommateur, la valeur verte perçue, la valeur émotionnelle, l'influence perçue du marché d'une part-) et le comportement de consommation verte. L'analyse est effectuée en référence à trois régions méditerranéennes (Italie = 929, France, N = 931 et Tunisie, N= 934) en utilisant une approche de modélisation par équations structurelles. Les résultats révèlent que la spiritualité, l'efficacité perçue du consommateur, la valeur émotionnelle et l'influence perçue du marché ont une influence positive sur le comportement de consommation verte dans les trois pays, tandis que la valeur verte perçue a une influence positive sur le comportement de consommation verte uniquement en Italie et en Tunisie. De plus, le scepticisme vert a un effet néfaste sur le comportement de consommation

verte en diminuant l'effet de ces facteurs psychologiques. Cette recherche contribue à la littérature en soulignant l'importance des déterminants psychologiques dans le cadre du comportement de consommation verte des consommateurs.

Le troisième essai aborde la question suivante : le scepticisme à l'égard des aliments biologiques pourrait-il expliquer en partie l'écart entre les nombreuses attitudes positives à l'égard des aliments biologiques exprimées par les consommateurs et leurs choix réels ? L'influence des préoccupations en matière de sécurité alimentaire, de la conscience de la santé, de l'implication dans les aliments biologiques et de la sensibilité aux prix biologiques a également été étudiée. Des données recueillies auprès de 3008 consommateurs de trois origines culturelles différentes ont été analysées à l'aide d'une approche de modélisation par équations structurelles. Les résultats ont révélé que (-les préoccupations en matière de sécurité, la conscience de la santé et l'implication dans les aliments biologiques-) ont des effets positifs sur le choix des aliments biologiques des consommateurs. La sensibilité au prix des produits biologiques a un effet négatif sur le choix d'aliments biologiques par les consommateurs. L'objectif ultime est de fournir de nouvelles perspectives et des informations utiles aux praticiens désireux d'évaluer le choix d'aliments biologiques des consommateurs et d'élever leur évaluation positive.

Mots clés : Scepticisme vert, produit cosmétique biologique, produit alimentaire biologique, comportement de consommation verte, choix d'aliments biologiques.

Introduction

This chapter provides motivation for the subject choice and introduces a brief background for the study as well as the research gap that will be addressed in this thesis. It also raises the main overarching research question and presents the values with the following: justification for the research context's choice, methodological approach and research structure.

1. Research background

The main characteristics of the 21st century is the emergence of environmental issues that have brought new challenges to humans. This addressed the question of consumption and its major, irreversible impacts on global habitats and services of the ecosystem. Indeed, consumers around the world are rethinking the relationship between the ecological environment and their own activities, and are becoming aware of the ethical and environmental impact of goods and services. Clearly, their challenges are looking for ways to make a positive environmental impact while, at the same time, improving their personal, family food consumption and lifestyle (Rambabu, 2022). Therefore, a change in consumption behaviour is observed and behaviour that protects the environment has grown rapidly as consumers not only become environmentally friendly, but also expect personal benefits (Nguyen et al, 2019).

In March 2020, one special Eurobarometer on the attitudes of EU citizens towards the environment revealed that the environment was personally very or somewhat important for 94 % of participants, while two thirds approved that their consumption habits had harmful impacts on the environment. That conscious consumerism can be observed in those consumers who seek out more and more products made from organic and green components are transparent, eco-friendly, and in line with their values, who follow sustainable consumption and ask questions about the provenance of food products, their modes of production, their sustainability and their purpose, who scrutinise labels and use biodegradable garbage bags and biodegradable soaps and natural detergents, who purchase goods with biodegradable packaging and who refuse to purchase from restaurants where Styrofoam packages are used(Hui et al, 2021). It is said that 58 percent of European consumers examine a product's packaging before purchasing it to ensure that the brand is committed to a positive social and environmental impact (Nielsen, 2021).

On the other side of this environmental commitment landscape, companies are forced to go green and seek to build eco-friendly alternatives to stay relevant (Rambabu, 2022). As a result of this, today organic and green products are popping up everywhere and filling the markets around the world. According to Nielsen, Global organic and green labels market could hit \$36.6 billion by 2025, at a Compound Annual Growth Rate of 26.6%. Currently, organic and green products are making up 25 percent of the total store, and their sales have grown 20 percent since 2014. Faced with this increase in green offering, the competition is becoming fierce and businesses must demonstrate more and more that their products are of the highest quality (Albayrak et al. 2011). Unfortunately, some commercial advertisements use exaggerated environmental claims to appeal to sustainability-conscious consumers, and as many consumers may not have the knowledge to understand this underlying information (Albayrak et al. 2011). This can lead to a loss of confidence in that environmental claim. Today, consumers are confused by the different standards and exaggerated marketing of organic and green products. They may experience difficulty in evaluating the validity of products' green claims not only because of corporate greenwashing strategies but also because of a staggering proliferation of labels (Rossi and Rivetti, 2023). Along with the exaggerated of environmental claims, businesses have used "greenwash" (i.e., pretending to be sustainable) to outshine their competitors and get ahead of their rivals (Nguyen et al, 2019). Leonidou and Skarmeas (2017) showed that misleading environmental information disseminated by companies has led to growing concern among consumers. They pointed out that consumers believe that firms are taking the issue as a mere profit advantage and the unclear or ambiguous information about their products as a way to get through the expanding organic and green market. Similarly, Nguyen et al, (2019) found out that consumers are increasingly distrustful of companies and view them as profiteers of the green movement. Findings from Goh and Balaji (2016) have identified that an increasing number of customers are challenging the corporate greening intentions, and doubt the qualities and characteristics of green goods, their environmental benefits and their effectiveness. According to that study, consumers believe that the firm does not really care about the environment, acts in a manipulative and misleading manner to promote its products. In line with this, Nguyen et al. (2019) provided evidence that consumers are worried about the contrast between the image and reality of the environmental products. It is also observed that consumer who consider environmental claims to be exaggerated or to be motivated by profit may consider that thus mislead them into making decisions which are wrong (Albayrak et al. 2011). Thus, Consumers' confidence is relatively important for making eco-

friendly purchasing decisions as well as for developing the market for these products (Millissa et al., 2019). In this context, Rambabu, (2022) found that most people were aware of environmental safety labels on packaging, but 47 % were not confident that companies' environmental claims are accurate. Evidence from the Eurobarometer survey [2011]¹ has shown that confidence in environmental claims is in decline with less than a third of consumers and revealed that 48 percent of the consumers said that they do not trust the environmental product declarations. Likewise, PR Newswire (2011) reported that a growing number of consumers question companies' motivations for greening, are unsure of the attributes and characteristics of organic products, and doubt their benefits and their environmental performance. This phenomenon, in which consumers are uncertain about environmental performance of organic and green products, is referred to as 'green skepticism' (Rambabu, 2022; Nguyen et al. 2019; Goh and Balaji, 2016; Leonidou and Skarmeas, 2017; Chang, 2011). This is thought for present an important issue that prevents the market management mechanism to develop an ethical impact on business. It may specifically jeopardize brands' efforts toward sustainability (Rossi and Rivetti, 2023). To this aim, this thesis sheds light on green skepticism, which is increasingly widespread among consumers. The ultimate goal is to provide fresh perspectives and useful insights for practitioners desiring to assess consumers' consumption of organic and green products and elevate their positive evaluation.

1.1 Green Skepticism

In Western philosophy, Skepticism also spelled scepticism, the attitude of doubting the claims of knowledge set forth in various fields (Popkin, 2020). Sceptics questioned the validity or veracity of these claims by asking what values they are founded on and what they actually create. They questioned whether some of these assertions were actually, as alleged, unmistakable or necessarily true, and they challenged the alleged rational grounds for the accepted assumptions (Popkin, 2020). The origin of this word "skepticism" comes from the Greek word "skeptomai," which denotes on who wishes to gets knowledge about some subject matter or who requests into the truth of things . This term came to mean one who suspicions that certainty, knowledge, or maybe even justified belief is possible. Studies on this

¹ Special Eurobarometer 365 http://ec.europa.eu/environment/pdf/ebs_365_en.pdf

phenomenon extend across a range of disciplines, in which people claimed to have knowledge, such as politics, philosophy, sociology, and psychology.

In business management, it was challenged in the context of organic products, corporate social responsibility, cause-related marketing, advertising, and environmental claims. It is defined as “the consumers’ tendency to doubt the environmental benefits or the environmental performance of a green product (Mohr et al. 1998). It thus reflects consumers’ increasing worries that businesses may disseminate incomplete or false information about products and their environmental influence (Leonidou and Skarmeas, 2017). From this perspective, green skepticism reveals distrust in business environmental claims, and therefore is often associated to a decrease in offering acceptance and intention to make green purchases. Obermiller and Spangenberg (1998) discovered that skepticism can be measured as an individual level characteristic, implying that some consumers are more sceptical than others. They explained this by the fact that brands stand to gain from perceptions that they are sustainable or green, as a result, customers are likely to be sceptical of arguments about sustainability.

Based on the available evidence, considerable consumer skepticism about products and claims is owing to the illegal attempts of certain firms to overtake their competitors in the global marketplace (Albayrak et al. 2011). It has also shown that the inverse relationship found between organic consumer behaviour and consumer skepticism is a worrying factor as this finding means that misrepresentation, ineffective actions, and disappointed expectations caused by inappropriate company behaviour, not only triggered a position cynical of consumers, but may even be responsible for the less environmentally friendly behaviour and attitudes of the public (Mohr et al. 1998; Albayrak et al. 2011; Chang, 2011). Additionally, when consumers are sceptical about a green product, according to Leonidou and Skarmeas (2017), they tend to share their shopping experiences with others and potentially propagate bad word-of-mouth (WOM). As a result, negative WOM has a major negative impact on consumers’ attitudes toward a company, as well buy inclinations (Leonidou and Skarmeas, 2017). Moreover, environmental awareness is becoming increasingly formed by the public’s skepticism about several of the companies’ “organic” credentials and claims which might then affect the degree of consumer efficiency in terms of sustainable, responsible and eco-friendly behaviour towards environmental issues. Thus, if the companies want to minimize the negative effects of skepticism on consumers' organic purchasing behaviour and ensure the commercial success of environmentally friendly products, it is required that they provide proof of their environmental

claims. In other words, and according to [Albayrak et al. \(2011\)](#), businesses and organizations can restore consumer organic purchase behaviour if they can really deliver environmental policies that are truly trustworthy, altruistic and honest.

1.2 Nature of green skepticism (dispositional and situational skepticism)

Initial studies suggest there have been two primary approaches to examining skepticism in marketing ([Mohr et al. 1998](#)). While some studies have treated skepticism as a personality trait that predisposes individuals to doubt ([Obermiller and Spangenberg, 1998](#); [Skarmeas and Leonidou, 2013](#)), most researchers have conceptualized it as a consumer state that varies depending on the situation and context, independent of trait characteristics ([Goh and Balaji, 2016](#), [Mohr et al. 1998](#), [Foreh and Grier, 2003](#)). These researchers argue that while consumers certainly may vary in terms of their predisposition towards others, they can change their mind when presented with sufficient evidence or proof ([Foreh and Grier, 2003](#), [Goh and Balaji, 2016](#)). The present research adopts the later approach and treats green skepticism as a state, i.e. the tendency to doubt the environmental performance of green products or environmental claims. Expressly, we do not define skepticism as an enduring or stable disbelief of consumers towards the green products. Indeed, consumer skepticism is a cognitive response whose disposition to doubt may vary depending on situational factors. This perspective is similar to [Mohr et al. \(1998\)](#) conceptualization in which skepticism is measured as a doubt towards the green claims rather than a deep-seated distrust of green products. Unlike cynicism, which is characterized by unreasonable expectations, disappointment, dissatisfaction and malice, previous research reveals that skepticism is characterized by questions about the organization's ability to achieve stated results ([Goh and Balaji, 2016](#)). According to [Reichers et al. \(1997\)](#), skepticism is a milder kind of cynicism typified by those "who doubt the likelihood of success but still reasonably hope that positive change will occur"(p. 48). In that respect, green skepticism correlated to situation-specific negative attitudes marked by doubt or disbelief towards the environmental performance and claim of organic products.

2. Research Questions

Consumer skepticism towards companies is on the rise ([Rossi and Rivetti, 2023](#); [Leonidou et al, 2017](#); [The Economist 2012](#)). However, studies on the determinants and the consequences of this phenomenon on organic /green products are lacking should be further explored ([Rossi and](#)

Rivetti, 2023; Rambabu, 2022; TTH et al., 2019; Pham et al, 2019 ; Leonidou et al, 2017;Goh and Balaji, 2016). This research is an effort to partly fill this gap by investigating the role of green skepticism in organic green consumer behaviour. It sets out with three objectives:

- **Objective 1:** To investigate and understand the impact of green skepticism on consumer purchasing behaviour of organic cosmetics.
- **Objective 2:** To study the psychological impact of green skepticism on green consumption behaviour.
- **Objective 3:** To study the power of green skepticism on consumer choice behaviour for organic food products.

This allows us to raise a host of intriguing questions:

- **RQ1.** What is the effect of green skepticism on consumers' behaviour?
- **RQ2.** How does Skepticism influence consumers' purchasing behavior towards organic cosmetics?
- **RQ3.** Does green skepticism play a powerful inhibitor affecting consumers' green consumption behavior?
- **RQ4.** Does green skepticism promote consumer resistance toward choosing organic foods?
- **RQ5.** How far is green skepticism shaped by the cultural climate in which it takes place?
- **RQ6.** What role do cultural and social influences play in pro-environmental behavior?
- **RQ7.** What would companies do to persuade skeptical consumers and boost sales of environmentally friendly products?

3. Significance of the study

In spite of a century of intensive research on consumer behaviour, the occurrence consumer behaviour is hotly debated, and our understanding of this phenomenon, particularly what motivates and inhibits it, is surprisingly limited (Sigmund, 2003).

There is considerable evidence that these behaviours, due to personal characteristics, environmental issues, economic level, local beliefs and other factors, vary across cultures (Ringov and Zollo, 2007; Chwialkowska et al., 2020). However, there is still a lack of

comparative research between these cultures. Moreover, the valence of the relationship between consumers' green skepticism and organic green product depends on the market (i.e. country) studied (Silva et al., 2020). Additionally, most of the literature on this subject focuses on a single geographical context. This research goes beyond a narrow geographical focus to provide a comparative analysis between three different target cultures. Consequently this study proposes to address green skepticism and consumer behaviour, to the authors' knowledge, this will be the first study exclusively in Italy and France, "two countries have got analogous latin roots, but they also exhibit specific sociocultural characteristics as well as divergent conditions for organic green consumption" (Romina and lucie,2014) and with relatively long history of policies and measures aimed at promoting individual pro-environmental. In Tunisia which is just at the stage of organic green awakening compared to what is happening in Italy and France but is performing well in the 'Environmental Health' (Ecorys, 2013)², and although being the second largest producer of organic products in Africa (dates, olive oil, aromatic, vegetables, medicinal herbs and vines plants) (kifaya and Rama,2023). Specifically, this study is a response to the researchers' appeals for study on green skepticism and consumer behaviour (Rossi and Rivetti, 2023;Leonidou et al, 2017; The Economist 2012; Goh and Balaji, 2016; Matthes and Wonneberger ; 2014;Raska and Shaw, 2012). It aims to provide several contributions the complex phenomenon and new paradigm known as green marketing, adding some answers on the utility of skepticism in explaining consumer behaviours, and helps business and environmental management specialists to promote the widespread adoption of organic green consumption. Finally, it helps marketers successfully target culturally different consumer segments, which requires an understanding of the social effects and cultural of pro-environmental behaviours.

4. Justification for the research context's choice

According to Silva et al. (2020) "while doubt is a ubiquitous feeling, it is not homogeneous across cultures and markets". Under this point of view, "the valence of the relationship between consumers' green skepticism and consumption depends on the market (i.e. country) studied" (Silva et al., 2020). However, few studies have looked into green skepticism across countries that differ in economic (Banbury et al., 2012; Sarigöllü, 2009) and their finding reported that behaviour shows variation owing to numerous factors such as awareness, lifestyle, spending

² https://trade.ec.europa.eu/doclib/docs/2013/november/tradoc_151923.pdf

power, etc (Sapna et al., 2023). Indeed, finding of these studies vary across countries and this must be substantiated by potential research using various dimensions (Sapna et al., 2023). Thus, culture has proven to be crucial to the growth of the organic/ green market (Kim et al., 2017).

Therefore and while holding the view that consumer sustainable consumption differs from one cultural contexts to another since developed and developing countries have different views about the value of organic and green products, this research examines doubts about the organic and green product across three different Mediterranean cultures .In Italy, where the organic sector has experienced one of the best average annual growth rates in Europe in recent years and where consumers' confidence in organic products and their purchase depended on their perception of the retailer's overall social performance (Pivato et al. 2008). In France, where “the environmental dimension is highlighted, in line with the consumer concern towards ecological issues” (Michaud and Llerena, 2011), and green consumer skepticism may reflect, for example, an individual's increased critical thinking about the green publicity information or message (Matthes and Wonneberger, 2014). Finally, in Tunisia which has experienced a sharp decline in economic growth than these two regional peers, where there is a lack of interactional trust between actors (e.g. businesses and consumers) is weak, the rise of consumers’ knowledge on environmental issues generally leads to green skepticism (Silva et al., 2020), which can lead to an unfavourable attitudes toward organic products and a decrease in consumers’ purchasing behaviour. Notably, the Tunisian organic food market is in its nascent stage but the recent calls suggesting the need to study the emerging markets which will be the new organic and green consumption hotspots (Meier et al., 2020).

The choice of both three countries is reflective on their different economic development and their different level of organic market development growth. Also, due to their relationship which has its roots in history, geographical position and the economic dynamism. Specifically, they propose divergent sustainable pathways in terms of sustainability-related communication, market and the sociocultural backgrounds of consumers, and their three market contexts are different when comparing, the importance given to the different dimensions of sustainability, the consumer demand, the size, structure, nature of the offer, and the actors involved.

5. Epistemological approach

In this thesis, we adopted a positivist approach, the most classic and widespread epistemological positioning in marketing research (Parguel, 2009). Our choice of this approach is driven by the

nature of our research objectives which are: to explore-decry and explain the concept of green skepticism, green purchase behaviour, green consumption behaviour, and organic food choice.

For Comte (1830, p.14), «*The fundamental character of positive philosophy is to look at all phenomena as subject to invariable natural laws whose precise discovery and reduction to as few as possible are the goals of all our efforts* ».

Positivists state that in addition to being objective, knowledge must also be quantitative. Thus, this thesis has adopted the quantitative approach, the objective being to examine and understand how consumer skepticism affects green purchase behaviour, green consumption behaviour, and organic food choice, which can be interpreted through surveys, with the possibility of implying a huge number of participants. Moreover, the process itself can be defined as deductive, inductive, or a fusion of them both. Being deductive implies that there are logical conclusions that can be drawn from hypotheses developed on the basis of previously established theories. Inductive studies seek to explain specific events by analyzing empirical data obtained from whatever source is necessary (David and Sutton, 2016). Therefore, our approach is part of a hypothetical-deductive attitude. In fact, we will formulate hypotheses in order to deduce observable consequences. Then, we will collect empirical data that will match and thus confirm the hypotheses, or deny them.

6. Research structure

In order to achieve the objectives, this thesis has been designed through five sections, which are briefly summarized as follows:

Introduction

Provides motivation for the subject choice and introduces the research background as well as the research gap that will be addressed in this thesis. It describes how a theoretical contribution will be made and concludes with a statement of the research question, the research values, and the research context choice of this study.

Essay 1: *Consumer's Skepticism toward Organic Beauty Products: Cross-Country Research*

Addresses consumers' skepticism as one of the inhibitors of organic purchasing behaviour based on the attitude-behaviour-context (ABC) theory, in the context of organic cosmetic products. More specifically, it investigated the role of environmental concern and knowledge as a mediator, in organic cosmetics background in three countries, namely Italy, France and Tunisia.

Submitted to Bio-based and Applied Economics (BAE)
Round 2

Essay 2: *Psychological impacts of skepticism on green consumption behaviour in cross-country comparison*

Aims at providing a better understanding of green consumption behaviour by addressing some psychological determinants such as spirituality, perceived consumer effectiveness, green perceived value, emotional value, and perceived marketplace influence. Moreover, a moderating variable "green skepticism" was introduced to advance our understanding of mechanism that can prevent the adoption of green consumer behaviour.

Submitted to Psychology & marketing
Round 1

Essay 3: *The power of skepticism on consumers' organic food choice: Evidence from Tunisia, Italy and France*

Explores the influence of factors, namely food safety concern, health consciousness, organic food involvement, organic price sensitivity on consumers' organic food choice. Importantly, it ascertains the mediator effect of organic food skepticism on this relationship.

Submitted to Italian Journal of Marketing
Round 2

Conclusion

Provides the conclusions and implications drawn from all of the gathered and interpreted data in the three contexts studied.

Essay 1: Consumer's Skepticism toward Organic Beauty Products: Cross-Country Research

Abstract

Based on the attitude-behaviour-context (ABC) theory, the present study addressed consumers' skepticism as one of the inhibitors of organic purchasing behaviour. More specifically, it investigated the role of environmental concern and knowledge as a mediator, in organic cosmetics background. Using data from 736, 720 and 715 consumers in Tunisia, Italy and France, respectively, the authors conducted a country comparison, adopting the structural equation modelling approach. The results revealed that green skepticism is 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 findings provided deeper insights for business leaders, policy makers and marketers to fully understand consumers' resistance to organic cosmetic products. Further, they can use it to develop effective strategies to reduce consumers' skepticism towards organic products, in different market segments.

Keywords

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

1. Introduction

Today, beauty and cosmetic industry is 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 (Lin et al.,2018;Cervellon et al., 2011). All over the world, organic and natural cosmetics and skincare products are gaining more and more importance, as they symbolise both a smart choice for body health and an environmentally friendly alternative. In this context, Lin et al. (2018) claimed that purchasing organic cosmetic products is both a personal and environmental issue, for consumer. Kumar et al. (2021b) argue 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 (Kumar et al., 2021b). According to Allied Market Research [2022]³, 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. Organic cosmetics consists of five categories, skin care, make up, personal care and hair care; they are formulated with a minimum of 95% organic ingredients and cannot contain any substances derived from paraffin, petroleum origin, formaldehyde or synthetic colours. Skin care, which includes face cream, anti-aging creams, acne treatments, and other facial goods, is the segment of the cosmetics sector that is expanding the fastest. Organic cosmetic products are not only such in ingredient but also in packaging, as they are all prepared with recyclable and biodegradable constituents.

Like any other product, understanding of consumer behaviour is a crucial factor in business success. Companies that can better understand consumer behaviour than its competitors expand, grow and gain competitive advantage that is difficult to overcome (Atkinson and Kim, 2015). Several companies around the world have moved towards organic cosmetics not only due to growing consumer awareness and purchasing behaviour, but also considering their responsibility to produce environmentally friendly products without damaging living being and environment (Kurnia and Lidia, 2020). According to Lin et al., (2018), the organic cosmetics company should be particularly attentive to the discrepancy highlighted between the favourable attitudes of consumers towards organic cosmetic products and their actual purchasing behaviour. The attitude-behaviour gap is largely attributed to the lack of trust in cosmetic brands

³ <https://www.alliedmarketresearch.com>

that advertise their products as organic (Kurnia and Lidia, 2020). According, Nittala, (2014) found out that many consumers are skeptical of the product's certifications, labelling, and manufacturing information because they are afraid of purchasing products without clear certification that would harm their skin. In their research, Kapoor et al., (2019) stated that “lack of market regulations leads to suspicion among the consumers purchasing of organic cosmetics”. Furthermore, Sadiq et al., (2021) suggested that negative perceptions, and consequently consumer skepticism towards organic cosmetic products, are among the most significant barriers to product adoption.

In this context, the literature on green products has also shown that skepticism arises when producer claims provide misleading information about a company's product to make it look more "eco-friendly". (Leonidou and Skarmeas, 2017; Goh and Balaji, 2016; Zarei and Maleki 2018). Silva et al. (2020) has found that this skepticism plays a significant role in consumer's perception of businesses' organic claims. It can represent a barrier to the companies' investment returns (Leonidou and Skarmeas, 2017). However, the inhibitors of organic purchasing behaviour are quite unexplored (Carrete et al., 2012, Atkinson and Kim, 2015). Thus, these studies call for further theoretical and empirical studies on this skepticism which is very popular in our society to better understand its effects on consumer purchase behaviour (Leonidou and Skarmeas, 2017; Matthes and Wonneberger, 2014; Goh and Balaji, 2016). Moreover, prior studies suggested that there is some disagreement regarding the process by which green skepticism impacts consumer purchasing behaviour (Skarmeas and Leonidou, 2013, Goh and Balaji, 2016). For instance, while environmental concerns have been identified as a strong predictor of organic purchasing behaviour (Hartmann and Apaolaza-Ibanez, 2010, Newton et al., 2015), the effect of consumer skepticism on environmental concerns remains incomprehensible and unclear. In this context, many researchers found that environmental knowledge positively affects consumer attitude and beliefs towards organic products (Goh and Balaji, 2016) while others showed that skeptical consumers eliminate the informational aspects of organic claims (Mohr and al., 1998). Here, an understanding of how green skepticism influences consumers' environmental concern and environmental knowledge might be crucial in determining their purchasing behaviour.

This study therefore investigates the relationship between consumers' 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, most of the literature on this subject focuses on a single geographical context. This research goes beyond a narrow geographical focus to provide a comparative analysis between three different countries namely Tunisia, Italy and France. The contributions of this study include the following: First, it is a response to the researchers' recent appeals to study into green marketing by investigating green skepticism and its role in organic purchasing behaviour (Lyon and Montgomery, 2015; Skarmeas and Leonidou, 2013). Second, the literature shows that "while doubt is a ubiquitous feeling, it is not homogeneous across cultures and markets" (Silva et al., 2020). Accordingly, this study figures out what cross-cultural differences can be observed between consumer's skepticism in Tunisia, Italy and France. 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. Finally, the main findings of our research broaden some guidelines for consumer segmentation, in particular for organic behaviour through different countries.

2. Literature review and hypothesis development

This research answers calls in the literature for research on the impact of green skepticism on consumers' organic purchasing behaviour (Thi et al.2019; Goh and Balaji, 2016; Lyon and Montgomery, 2015; Skarmeas and Leonidou, 2013; Chang, 2011). More specifically, this research is an effort to partly fill the imbalance in the literature between the growing supply of organic cosmetics and the limited research attention given to this product category (Shimul et al.,2021; ElHaffar et al., 2020; Kurnia and Lidia, 2020; Nguyen et al.,2019 ;Kapoor et al., 2019; Liobikienė and Bernatoniene, 2017).

This research was grounded on the attitude-behaviour-context (ABC) theory (Guagnano et al., 1995), 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 applicable to predict the Pro-environmental behaviour. In the language of ABC, individual behaviour is highly situational and the attitude cannot effectively predict behaviour without the consideration of contextual factors (Stern, 2000, 1999). 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.

2.1 Green skepticism

Green skepticism is defined as “the consumers’ tendency to doubt the environmental benefits or the environmental performance of a green product (Mohr et al. 1998), and appears to be a relevant issue for consumers and companies (Thi et al.2019). Previous studies identify consumers’ skepticism towards organic products as one of the most important barriers affecting the purchasing decision (Thi et al.,2019). Indeed, when buyers doubt the environmental performance of organic products, they are likely to rate them less favourably than they would if they had no doubts (Chang, 2011; Goh and Balaji, 2016; Leonidou et al, 2017; Albayrak et al. 2011). The findings from Leonidou et al, (2017) pointed out that consumer skepticism towards environmentally friendly products may cause them to forego the opportunity to contribute to environmental sustainability and limit the growth of the market for these products. These skepticisms touch upon the information provided about the environmental performance of organic products rather than taking for granted (Leonidou et al, 2017). This can lead to the reduction or inhibition of the effectiveness of awareness campaigns aimed at promoting eco - friendly behaviour and tackling environmental degradation. Surveys environmentally oriented consumer behaviour indicate that skepticism towards corporate social responsibility decreases resistance to negative information about the retailer, harms retailer equity, and stimulates adverse word of mouth (Skarmeas and Leonidou, 2013). In line with this, Calfee and Jones Ringold (1988) showed that consumers who are skeptical of marketing claims may reduce the efficiency of marketplace, reaching an adverse equilibrium in which only low quality products are supplied. Green communication failures, both non corporate and corporate, have been linked to the high level of skepticism that can tend to generate a negative attitude towards corporate responsibility advertising. In his study on Egyptian consumers ‘green purchase intentions, Mustafa, (2006) found that skepticism has a negative effect on purchase intention. Peatti, (2010) has shown that consumers are thought to make organic purchasing decisions either by the level of confidence for the product or by the level of compromise required to purchase this organic product. 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 (Albayrak et al. 2011). Through research on Turkish green consumers, Albayrak et al, (2011) showed that organic purchasing behaviour negatively influenced by consumer skepticism. Similarly, Obermiller et al., (2005)’s research stated that proposed link between purchase intention and green advertisement does not exist when consumers are skeptical. Importantly, the degree to which customers feel skeptical toward green claims would make

them more uncertain toward purchasing organic products (Chang, 2011). In the perspective of organic cosmetics consumption, Kapoor et al., (2019) suggested that the lack of market regulation leads to distrust of consumers buying green cosmetics. Recently, evidences from Masayu and Rifelly,(2021) revealed that green skepticism displays a negative influence on consumers' purchase intentions of green personal care products.

Overall, consumers who are more skeptical of organic advertising, often due to misleading information and unreliable information organic claims, tends not to buy the products. This leads us to the following hypothesis:

Hypothesis 1

Green skepticism negatively influences consumer purchasing behaviour of organic cosmetics.

2.2 Environmental knowledge

The environmental knowledge is defined as “what consumers know about the environment and about fundamental relationships that lead to adjusted environmental views and have significant ecological effects” (Pagiaslis and Krontalis.,2014). specifically, it represents the state of knowledge or what customers know about the consequences of human actions on the environment, their awareness of the environment problems, and the emotional involvement in environmental issues (Zhao et al., 2014;Peattie, 2010, Aertsens et al., 2011) .

In the context of consumer behaviour, studies have noted that organic purchasing behaviour are associated with consumer knowledge of ecological issues. For example, Peatti. , (2010) has shown that individuals with much environmental knowledge are more positive about environmental issues. Attitudes and environmental knowledge are highly correlated, and they strengthen each other, particularly in information-seeking about environmental issues (Liu et al., 2020). Knowledge can promote environmental attitudes, and environmental attitudes can promote pro-environmental behaviour (Liu et al., 2020). Knowledge is frequently assumed to drive organic purchasing behaviour, and may be a very important factor in increasing organic food consumption (Aertsens et al., 2011; Peattie, 2010). It has been proved that consumer knowledge on ecological issues was a key determinant of environmentally friendly behaviour, such as buying organic food products. Indeed, knowledge is closely associated to making sustainable choices and state that upper knowledge of environmental issues leads to greater engagement in pro-environmental behaviours together with organic food purchasing behaviour.

For example, [Millissa et al., \(2019\)](#) suggested that when a consumer is knowledgeable about organic food products including green product quality information and product information, s/he knows and realises what kind of action may affect the environment. As such, consumers of whom are knowledgeable in screening for organic food product promoted more organic purchase behaviour in a collectivistic society ([Millissa et al., 2019](#)). Additionally, consumers with sufficient information about organic products are less likely to be deceived by misleading claims of environmental benefits ([Millissa et al., 2019](#)). In line with this, [Leire and Thidell .\(2005\)](#) indicated that the consumers' knowledge and information on organic food products is relatively important for consumers making eco-friendly purchasing decisions.

Recently, the organic market has grown and reached 112 billion euros in 2020, but it is still small. Several researchers emphasize the importance of knowledge for the further development of the organic market. They stress that knowledge may be a very important factor in increasing green consumption and consumers' lack of knowledge concerning organic product is a major stumbling block to development and growth ([Aertsens et al., 2011](#)). For example, study in USA put forward that 59 per cent of interviewers point out that they have never considered organic food, because they did not have any idea about them, and concluded that the main reason for consumers not purchasing organic food due to lack of knowledge. Thus, knowledge regarding organic food has a positive impact on attitudes towards organic food and consumption levels ([Oh and Abraham. ., 2016; Han., 2019](#)). According to [Aertsens et al., \(2011\)](#) the key reason why consumers do not purchase organic products is a lack of information and understanding. He has found new knowledge may change consumer's beliefs and thus also their attitude. In the same context, [Oh and Abraham. \(2016\)](#) found that highly and moderately knowledgeable participants in the survey showed more positive attitudes toward organic cotton apparel compared with low knowledgeable participants and were more willing to purchase organic cotton clothing at upper price points. This highlighted finding also suggests that consumers with different knowledge may consider different types of information provided on product labels when evaluating organic cotton clothing products. Thus, consumers' knowledge and information could change their current purchasing behaviour towards a greener lifestyle. In other terms, consumers with more long-term environmental knowledge willing to purchase organic products and are more inclined to spend more money on new eco-labels ([Liu et al., 2020](#)).

In the fields 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 (Nguyen et al., 2019). Therefore, we rely on the outcomes from the previous research on organic foods cited above, considering some similarities between these foods and the purchasing behaviour of organic cosmetics (Kim and Chung, 2011; Liobikiene and Bernatoniene, 2017), to pose our next hypothesis.

Hypothesis 2

Higher levels of environmental knowledge positively influences consumer purchasing behaviour of organic cosmetics.

2.3 Environmental concern

The concept of environmental concern is made up of two components: environment and concern. The first component is the substantive component, which is operationalized by a specific issue such as pollution, and the second component is derived from attitude theory, which is concerned with the attitudes, character of a person's beliefs, and intentions (Dunlap and Jones, 2002). In Sociology studies, it was usually been defined with reference to overall value orientation toward the natural environment, the level of concern about the environment's future, and how human development is damaging the environment. Indeed, environmental concern might relate to either a specific attitude that directly influences intentions, or more largely to a broad value orientation which is measured as benevolence, universalism, stimulation and self-direction that should determining pro-environmental behaviour.

Building on Stern (1992), environmental concern consists of four types of value orientations. In the first value orientation, environmental concern reflects a new way of thinking known as the new environmental paradigm. In the second, the environmental concern is linked to anthropocentric altruism; people are concerned about the future of environmental quality because they believe that a damaged environment poses a harm to people's health, thus, people's well-being is of primary concern, rather than the threat to the environment. As for the third value, environmental concern states personal interest, for instance, existing literature discovered that the perception of personal dangers posed by environmental degradation is a key determinant in ecologically responsible behaviour. Finally, the fourth value orientation pinpointed a view that argues that environmental concern is a result of post-materialistic values or underlying religious beliefs. Thus, environmental concern is a global attitude towards

environmental preservation, and an important catalyst for of eco-friendly behaviour. Overall, environmental concern designates “the degree to which people are aware of problems regarding the environment and support efforts to solve them and or indicate the willingness to contribute personally to their solution” (Dunlap and Jones, 2002).

In consumer decisions, the consumption of green products includes not only the “price” and “quality” variables but also the “environment” variable (Han, 2019). 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 (Mustafa, 2006). In this regard, the environmental concern is an important factor when it comes to explaining the purchasing intention of green products (Minton and Rose, 1997; Roberts and Bacon, 1997). The same results were emphasized by Mostafa (2009) who highlighted the relevance of environmental concern in predicting consumers' green consumption, and also found a substantial difference in environmental concern between green consumers and non-green consumers. Mohd Suki (2016) demonstrated that the strong environmental concern of consumers can be revealed in the nature of their products choices. They found out that people with high environmental concern were more likely to buy organic products. More recently, Molinillo et al., (2020) found environmental concern positively influence consumers ‘health consciousness and social, and therefore increase their willingness to pay for organic food products. In the perspective of cosmetics industry, evidences from Echchad and Ghaith, (2022) revealed that environmental concern displayed a positive influence on the attitude towards green personal care products. Kapoor et al., (2019) showed that the environmental concern explains the trend towards green cosmetics. Kim and Chung (2011) found that the environmental concern of consumers is an important predictor of the intention of green skincare products.

In the light of these studies, we hypothesize that:

Hypothesis 3

Environmental concern positively influences consumer purchasing behaviour of organic cosmetics.

2.4 Mediation effects of environmental knowledge and environmental concern.

Prior literature in advertising has shown that skeptical consumers make external attributions to environmental behaviours (Elving, 2013), they tend to selectively address the informational

aspects of green ads. Such skewed processing may lead to a heuristic judgment rather than a methodical one in evaluation of green ads (Pomeroy and Johnson, 2009). Therefore, this heuristic processing adopted by skeptical customers may make them indifferent towards the green ads and can hamper information acquisition and knowledge development (Goh and Balaji, 2016). 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 (Roberts and Bacon, 1997). In the same way, Albayrak et al. (2011) suggested that skepticism reduces consumer concern for the environment. Thus, green skepticism possessed by consumers would influence the concern from consumer regarding environmental issues, with more consumers tending toward ignorance.

In 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 Figure

1

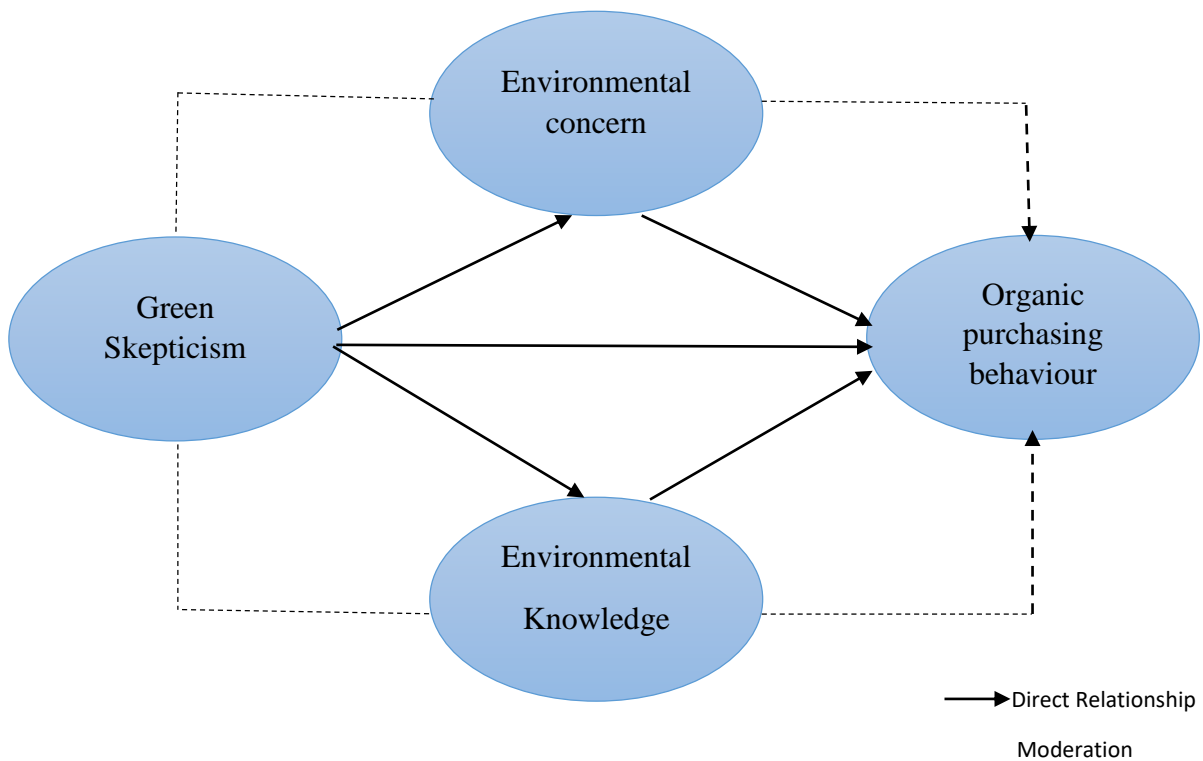


Figure 1 : The research model 1

3 Methodology

3.1 Data collection

The present research was adopting a quantitative methodology and data was gathered via an online market survey using the Google Forms tool for a period of 4 month, from March to June 2022 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 (Lin et al., 2018). 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 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 useable responses, and the French survey in French, yielding 715 completed and useable questionnaires. The sample profile is presented in **Table A 1**.

3.2 Measures

To operationalize the constructs, a pre-validated items scale from previous studies were 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 behavior drawn from [Lee, \(2008\)](#). Green scepticism was captured through the three-item by [Mohr et al. \(1998\)](#), while environmental concern were comprises of four items based on [Kapoor et al.,\(2019\)](#) ,and four items for environmental knowledge from [Mostafa \(2006\)](#). The set of selected indicators is shown in **Appendix A**. A five -point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") was adopted in this research.

3.3 Finding

3.3.1 Demographic profile of respondents

Consumer demographic profiles such as age and occupation have been found to have a major impact on consumers' pro-environmental and purchasing behavior ([Lee et al., 2019](#)). 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 ([Mordorintelligence, 2021](#))⁴. 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 ([Unido, 2021](#))⁵. In Italy, this is explained by the trend within this age group towards natural and organic products extending from food to personal care ([Businesscoot, 2021](#))⁶. In occupational terms, half of the respondents are Academic staff or researcher.

⁴ <https://www.mordorintelligence.com>

⁵ <https://www.unido.org>.

⁶ <https://www.businesscoot.com>

This is explained by the fact that these categories are the most interested in this kind of research and investments in favour of organic.

3.3.2 Measurement model.

To assess the reliability and validity of the constructs (Fornell and Larcker, 1981), we performed a confirmatory factor analysis (CFA). As shown in **Table A 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; France data = 0.66–0.72), above the threshold of 0.5, providing evidence of good convergent validity (Hair et al., 2006). All Jöreskog Rhô values are greater than the threshold value of 0.7 attest to the high reliability of our measures (Hair et al., 2006). 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 χ^2 (CMIN /DF =2.21); CFI = 0.95, IFI =0.97, TLI=0.924, GFI =0.93, RMSEA= 0.071); Italy data(Normed χ^2 (CMIN /DF =1.855); CFI = 0.981, IFI =0.98, TLI=0.972, GFI =0.93, RMSEA= 0.053);France data (Normed χ^2 (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.

3.3.3 Structural model Discussion

An assessment of the structural model fit statistics shows that our proposed model fits the three data well :Tunisia data (Normed χ^2 (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 χ^2 (CMIN /DF =1.676) ;p value = 0.00,; CFI = 0.986, IFI =0.976, TLI=0.967, GFI =0.94, RMSEA= 0.046);France data (Normed χ^2 (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 A 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 $\beta = -0.13$, t-value = -2.91, p = 0.36; (Italian's market $\beta = -0.07$, t-value = -1.130, p = 0,001), and (French market $\beta = -0.09$, t-value = -1.129, p = 0,48). The relationship between green skepticim and organic purchasing behaviour proposed in

this research is not significant because it is missing the situational influence factor and thus, support the statements by (Stern, 2000, 1999).

The hypothesis 2 and Hypothesis 3 stated that higher levels of environmental knowledge and Environmental concern positively influences 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: $\beta = 0.46$, t-value = 3.38, p value = 0.00); (Italian's market: $\beta = 0.71$, t-value = 5.157, p value = 0.00, and (French market $\beta = 0.63$, t-value = 6.124, p = 0, 00), supporting H2 in both contexts.

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

Similarly, the 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.

3.4 Discussion and implications

First, this study reveals that there is a uniform cross-cultural skepticism in these three markets and that a global marketing strategy is an appropriate option to reduce consumer skepticism to resist organic products. Second, this study validates, 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 (Stern, 2000, 1999). The study findings prove that green skepticism does not negatively and significantly impact consumers' purchase behaviour directly. It reveals that green skepticism has an indirect negative effect on organic purchasing behaviour through environmental

knowledge and environmental concern. Based on these findings, we argue that when consumers are highly skeptical of organic products, they are likely to be less concerned and less informed about environmental issues, which in turn can inhibit the growth of the organic market. Thus, marketing manager should be aware of the prevalence of this phenomenon gaining momentum worldwide. Specifically, they should improve consumers' environmental concerns and knowledge that play an important role in the process by which green skepticism influences the purchasing behaviour of organic cosmetics. As this study shows, environmental knowledge positively affects the consumer's purchase behaviour significantly. Hence, marketing managers of organic cosmetic products must increase their level of environmental knowledge to increase organic purchasing behaviour, by communicating and educating consumers on environmental symbols. Similarly, policy makers should also strengthen consumers' environmental concern, by engaging marketing communication to illustrate environmental issues and its current effect. In addition, marketing must respond to the urgency of reducing environmental influences by consuming more sustainable 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. Organic 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.

Lastly, marketing makers can address skepticism by displaying the environmental statements on advertising or packaging in a more clear and accurate manner. To gain confidence from the consumers, the marketing makers must reveal all of the claimed environmental advantages and benefits visible on the communication channel in order to win the consumers' trust (social media, website, packaging, and advertising.).

3.5 Limitations and future research

This present research gathered data from consumers in Tunisia, Italy and France. Consequently, the sample size is the first limitation, future research needs to be replicated on a large scale and more representative samples. Even though it is a three-country comparison between the Tunisian, Italian and French markets, the study of more attractive markets for organic cosmetics, such as the UK and Germany might be an added value. Beyond that, Americans and Asians countries, characterized by different cultural backgrounds and consumer behaviors, are also a great perspective to explore the impact of green skepticism on the purchasing behavior

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 to carry out another search on the same topic and context in future years to compare with current search results and analyze the development of this psychology phenomenon. Future studies can also address other psychological barriers such as 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.

Over all, this study raises an important issue such as "green skepticism" which is on the rise, and tries to understand its role on the consumers 'purchasing behavior 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 behavior of organic product.

Table A 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, housewife	1.6	10	14
Other	10.2	13.5	0.1

Table A 2: Results of the measurement model analysis: Standardized Factor Loading (λ), AVE= average variance 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	<u>0.54</u>	<u>0.78</u>	0.83	<u>0.67</u>	<u>0.857</u>	0.87	<u>0.69</u>	<u>0.867</u>
	GSK3	0.76			0.91			0.91		
Organic purchasing behaviour	OPB1	0.70			0.75			0.77		
	OPB2	0.82	<u>0.63</u>	<u>0.873</u>	0.92	<u>0.72</u>	<u>0.90</u>	0.82	<u>0.66</u>	<u>0.886</u>
	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	<u>0.64</u>	<u>0.877</u>	0.88	<u>0.67</u>	<u>0.892</u>	0.79	<u>0.71</u>	<u>0.906</u>
	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	<u>0.60</u>	<u>0.856</u>	0.76	<u>0.7</u>	<u>0.903</u>	0.86	<u>0.72</u>	<u>0.91</u>
	EK3	0.72			0.81			0.84		
	EK4	0.81			0.86			0.78		

Table A 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**
GSK----->EK----->OPB	-0.19**	-0.13*	-0.17*

Notes: GSK=Green Skepticism; OPB =Organic purchasing behaviour; EC= Environmental concern; EK=Environmental knowledge; **= $p=0.00$; *= $p=0.001$

Appendix A: Appendix for Essay 1

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.

References (A)

- A. Mamun, M.R. Mohamad, M.R.B. Yaacob, M Mohiuddin Intention and behavior towards green consumption among low-income households *J. Environ. Manage.*, 227 (2018), pp. 73-86.
- Albayrak, T., Caber, M., Moutinho, L., & Herstein, R. (2011). The influence of skepticism on green purchase behaviour. *International Journal of Business and Social Science*, 2(13), 189-197.
- Atkinson, L. and Kim, Y. (2015), "I drink it anyway and I know I shouldn't: understanding green consumer' positive evaluations of norm-violating non-green products and misleading green advertising", *Environmental Communication*, Vol. 9 No. 1, pp. 37-57.
- B. Chekima, A. Igau, S.A.W.S.K. Wafa, K Chekima Narrowing the gap: factors driving organic food consumption *J Clean Prod*, 166 (2017), pp. 1438-1447.
- Cervellon, M.C, & Carey, L. (2011). Consumers' perceptions of 'green': Why and how consumers use eco-fashion and green beauty products. *Critical Studies in Fashion & Beauty*, (2), 117-138.
- Chang, C. (2011). Feeling ambivalent about going green. *Journal of Advertising*, 40(4), 19–32.
- Echchad, M. and Ghaith, A., 2022. Purchasing Intention of Green Cosmetics Using the Theory of Planned Behavior: The Role of Perceived Quality and Environmental Consciousness. *Expert Journal of Marketing*, 10(1), pp.62-71.
- ElHaffar, G., Durif, F., & Dubé, L. (2020). Towards closing the attitude-intention-behavior gap in green consumption: A narrative review of the literature and an overview of future research directions. *Journal of Cleaner Production*, 275, 122556.
- Elving, W. J. (2013). Scepticism and corporate social responsibility communications: the influence of fit and reputation. *Journal of Marketing Communications*, 19(4), 277-292.
- F. Echegaray, F.V. Hansstein Assessing the intention-behavior gap in electronic waste recycling: the case of Brazil *J Clean Prod*, 142 (2017), pp. 180-190 Eze, U. C., & Ndubisi, N. O. (2013). Green buyer behaviour: Evidence from Asia consumers. *Journal of Asian and African Studies*, 48(4), 413-426.
- Fornell.C, D.F. Larcker Structural equation models with unobservable variables and measurement error: algebra and statistics *J. Market. Res.*, 18 (3) (1981), pp. 382-388.

- Goh, S.K. and Balaji, M.S. (2016). Linking green skepticism to green purchase behavior. *Journal of Cleaner Production*, 131: 629–638.
- Guagnano, G. A., Stern, P. C., & Dietz, T. (1995). Influences on attitude-behavior relationships a natural experiment with curbside recycling. *Environment and behavior*, 27(5), 699-718.
- Hair JF, Black WC, Babin BJ, Anderson RE .2015 *Multivariate data analysis*..
- Hair,J, B. Black, B. Babin, R.E. Anderson, R.L. Tatham *Multivariate Data Analysis* (6th edition), Pearson (2006).
- J.C. Nunnally, I.H. Bernstein *Psychometric Theory* (3rd ed.), McGraw-Hill, New York (1994).
- Kapoor, R., Singh, A. B. and Misra, R. (2019). Green cosmetics—changing young consumer preference and reforming cosmetic industry. *International Journal of Recent Technology and Engineering*, Vol. 8, Issue 4.
- Kim, H. Y. and Chung, J. E., 2011. Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing*, 28(1), pp. 40–47.
- Kurnia, Sahda N., and Lidia Mayangsari. "Barriers in Purchasing Green Cosmetic Products Among Indonesian Women." *Malaysian Journal of Social Sciences and Humanities*, vol. 5, no. 8, 2020.
- L. Carrete, R. Castaño, R. Felix, E. Centeno, E. González .Green consumer behavior in an emerging economy: confusion, credibility, and compatibility *J. consumer Mark.*, 29 (7) (2012), pp. 470-481.
- Lee K , (2008) "Opportunities for green marketing: young consumers", *Marketing Intelligence & Planning*, Vol. 26 Issue: 6, pp.573-586
- Lee, K. (2009). Gender differences in Hong Kong adolescent consumers' green purchasing behaviour. *Journal of consumer marketing*, 26(2), 87-96.
- Lee.S, B. Sung, I. Phau, A. Lim *Communicating authenticity in packaging of korean cosmetics J. Retail. Consum. Serv.*, 48 (2019), pp. 202-214.
- Leonidou, C.N.; Skarmeas, D. Gray shades of green: Causes and consequences of green skepticism. *J. Bus. Ethics* 2017, 144, 401–415.
- Lin, Y., Yang, S., Hanifah, H. and Iqbal, Q. 2018. An exploratory study of consumer attitudes toward green cosmetics in the UK market. *Administrative Sciences*, 8(4): 1-14.

- Liobikienė, G., & Bernatoniene, J. (2017). Why determinants of green purchase cannot be treated equally? The case of green cosmetics: Literature review. *Journal of Cleaner Production*, 162, 109–120.
- Luo B, Sun Y, Shen J, Xia L. How does green advertising skepticism on social media affect consumer intention to purchase green products? *J Consumer Behav.* 2020;1–11.
- Luo B, Sun Y, Shen J, Xia L. How does green advertising skepticism on social media affect consumer intention to purchase green products? *J Consumer Behav.* 2020;1–11.
- Lyon, T. P., & Montgomery, A. W. (2015). The means and end of greenwash. *Organization & Environment*, 28(2), 223-249.
- Masayu N Syadzwin and Rifelly D Astuti 2021 IOP Conf. Ser.: Earth Environ. Sci. 716 012045.
- Matthes, J., & Wonneberger, A. (2014). The skeptical green consumer revisited: Testing the relationship between green consumerism and skepticism toward advertising. *Journal of Advertising*, 43(2), 115-127.
- Millissa F.Y., Cheung, W.M., To. (2019). An extended model of value-attitude-behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services*. 50, 145-153.
- Mohd Suki, N. Consumer environmental concern and green product purchase in Malaysia: Structural effects of consumption values. *J. Clean. Prod.* 2016, 132, 204–214.
- Mohr, L. A., Eroglu, D., & Ellen, P. S. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers' communications. *Journal of Consumer Affairs*, 32 (1), 30–55.
- Mostafa, M.M. Shades of green: A psychographic segmentation of the green consumer in Kuwait using self-organizing maps. *Expert Syst. Appl.* 2009, 36, 11030–11038.
- Newton, J. D., Tsarenko, Y., Ferraro, C., & Sands, S. (2015). Environmental concern and environmental purchase intentions: The mediating role of learning strategy. *Journal of Business Research*, 68(9), 1974-1981.

- Nguyen, P.N.D., Nguyen, V.T. and Vo, N.N.T. (2019) 'Key determinants of repurchase intention toward organic cosmetics', *Journal of Asian Finance, Economics and Business*, Vol. 6, No. 3, pp.205–214.
- Nittala, R. (2014). Green Consumer Behavior of the Educated Segment in India. *Journal of International Consumer Marketing*, 26(2), 138-152.
- Obermiller, C., & Spangenberg, E. R. (1998). Development of a scale to measure consumer skepticism toward advertising. *Journal of consumer psychology*, 7(2), 159-186.
- Obermiller, C., Spangenberg, E., & MacLachlan, D. L. (2005). Ad skepticism: The consequences of disbelief. *Journal of Advertising*, 34(3), 7–17.
- P. Stern Information, incentives, and pro-environmental consumer behaviour *Journal of Consumer Policy*, 22 (4) (1999), pp. 461-478.
- P. Stern Toward a coherent theory of environmentally significant behaviour *Journal of Social Issues*, 56 (2000), pp. 407-424.
- Peattie, K. (2010). Green consumption: Behaviour and norms. *Annual Review of Environment and Resources*, 35(1), 195–228.
- Pomering, A., & Johnson, L. W. (2009). Advertising corporate social responsibility initiatives to communicate corporate image: Inhibiting scepticism to enhance persuasion. *Corporate Communications: An International Journal*, 14(4), 420-439.
- Roberts, J. A., & Bacon, D. R. (1997). Exploring the subtle relationships between environmental concern and ecologically conscious consumer behaviour. *Journal of Business Research*, 40(1), 79-89.
- S. Kumar, S. Talwar, S. Krishnan, P. Kaur, A. Dhir Purchasing natural personal care products in the era of fake news? The moderation effect of brand trust *J. Retail. Consum. Serv.*, 63 (2021).
- S. Molinillo, M. Vidal-Branco, A. Japutra Understanding the drivers of organic foods purchasing of millennials: evidence from Brazil and Spain *J. Retailing Consum. Serv.*, 52 (2020), p. 101926.
- Sadiq.M , M. Adil, J. Paul An innovation resistance theory perspective on purchase of eco-friendly cosmetics *J. Retail. Consum. Serv.*, 59 (2021)

Shimul Anwar Sadat , Isaac Cheah & Basheera Bibi Khan (2021): Investigating Female Shoppers' Attitude and Purchase Intention toward Green Cosmetics in South Africa, *Journal of Global Marketing*.

Shimul Sadat Anwar, Isaac Cheah & Basheera Bibi Khan (2021): Investigating Female Shoppers' Attitude and Purchase Intention toward Green Cosmetics in South Africa, *Journal of Global Marketing*.

Silva, M.E., Sousa-Filho, J.M.d., Yamim, A.P. and Diógenes, A.P. (2020), "Exploring nuances of green skepticism in different economies", *Marketing Intelligence & Planning*, Vol. 38 No. 4, pp. 449-463.

Skarmeas, D., & Leonidou, C. N. (2013). When consumers doubt, watch out! The role of CSR skepticism. *Journal of Business Research*, 66(10), 1831–1838.

Thi Thu Huong Nguyen ., Zhi Yang ., Ninh Nguyen ., Lester W. Johnson & Tuan Khanh Cao, 2019. "Greenwash and Green Purchase Intention: The Mediating Role of Green Skepticism," *Sustainability*, MDPI, Open Access Journal, vol. 11(9), pages 1-16, May.

Essay 2: Psychological impacts of skepticism on green consumption behaviour in cross-country comparison

Abstract

This cross-country study aims at providing a better understanding of green consumption behaviour by addressing some psychological determinants such as spirituality, perceived consumer effectiveness, green perceived value, emotional value, and perceived marketplace influence. Moreover, a moderating variable “green skepticism” was introduced to advance our understanding of mechanism that can prevent the adoption of green consumer behaviour. The analysis is performed with reference to three Mediterranean region ($N_{Italy}=929$, $N_{France}=931$, and $N_{Tunisia}=934$) using structural equation modelling approach. Results reveals that spirituality, perceived consumer effectiveness, emotional value, and perceived marketplace influence have a positive influence on green consumption behaviour in both three countries, while green perceived value has a positive influence on green consumption behaviour only in Italy and Tunisia. Furthermore, green skepticism has a detrimental effect on green consumption behaviour by decreasing the effect of psychological factors. The study promotes environmental behaviour and informs policy-makers, marketers, and producers about the relative importance of psychological determinants in the context of consumer’s green consumption behaviour.

Keywords

Green Skepticism, Green Consumption Behaviour, Perceived Consumer Effectiveness, Spirituality, Emotional value, Green Perceived Value, Perceived Marketplace Influence.

1. Introduction

Since the seventies, the relationship between consumption and environment have drawn significant attention from the management studies (Le Gall, 2002). The main objective was to encourage the change in social organization and in attitudes towards consumption (Le Gall, 2002). Specifically, studies focused on human behaviour and actions, and showed that environmental protection largely depends on the adoption of green consumption (Spielmann, 2020). Indeed, green consumption, as the final link of consumer behaviour, may aid organic production activities in making a significant difference and achieving long-term sustainability (Zhanget al., 2019). Initial studies suggest there have been two primary approaches to define green consumption behaviour. Some researchers have defined it as the adoption of green lifestyle practices (Gilg et al., 2005), others describe it as voluntary simplicity or anti-consumption (Black, 2010; Shaw and Moraes, 2009). These various explanations and points of view make green consumption behaviour a complex phenomenon to predict or explain (Sharma and Jha, 2017). One key reason is that green consumption is related to consumer's behaviour, and the latter is dominated and controlled by different factors (Zhanget al., 2019). So, to promote green consumption, the biggest challenge for companies is to understand all these factors and adopt corresponding marketing strategies. According the theory of consumer behaviour (Engel et al., 1995), which is one of the main theoretical methods of marketing, three factors may affect consumers' purchase decisions: (1) individual characteristics; (2) social factors; and (3) psychological factors.

So far, most of the previous studies, examined factors that affecting green consumption behaviour, mainly focused on individual characteristics and social factors (Peattie, 2010; Whitmarsh and Neill, 2010; Sütterlin et al., 2011; Paul et al., 2016; Chekima et al., 2016), however, little attention has been paid to the impact of psychological factors on green consumption behaviour (Fabio and Rosen, 2018). Although these studies have ignored the influence of certain psychological variables (Lee, 2014). For instance, none of the studies have explored the spiritual dimension (Joshi and Rahman, 2019). According to Chairy (2012), no empirical evidence has addressed the effect of the spirituality and purchasing behaviour of green consumers and that further investigation is needed in the context of green behaviour. Similarly, Leary et al. (2014) introduced perceived marketplace influence as a new construct into green consumption research which needs further investigation. As well, recent research in

environmental psychology have called to consider the impact of emotional value on consumers' green consumption behaviour (Hwang and Choi, 2018; Massarutto et al., 2019).

Importantly, these previous studies have significantly focused on the positive role of psychological factors, including consumer motivation, values, environmental concern, and subjective norms and ignored the impacts of negative or inhibiting factors (Lin and Chang, 2012). For instance, they neglected an important psychological factor, green skepticism, which is one of the most important barriers affecting consumers' green consumption behaviour (Nguyen et al.2019). Despite the widespread presence and relevance of this phenomenon to businesses, customers, and society in general, it has escaped adequate research attention (Leonidou and Skarmeas, 2017), and therefore existing literature reveals few attempts to explore the deterrent, drivers, and consequences of green skepticism (Leonidou and Skarmeas, 2017). This can be explained by at least three reasons. First of all, skepticism is not only an intriguing topic that has preoccupied and interested philosophers for over two thousand years, but also a widespread phenomenon that occurs in a wide range of situations and contexts (Okasha 2003; Mishler and Rose 1997). Secondly, consumer skepticism was a hot topic in the field of advertising in general and green advertising in particular the skepticism of which has been suggested to be significant in explaining the reluctance of consumers towards ads messages (Matthes and Wonneberger 2014). Third, studies on the role of consumer skepticism have emerged in the context of corporate social responsibility (CSR), indicating that CSR practices are sensitive to the negative effects of skepticism and have called for further theoretical and empirical research on consumer skepticism to better understand not only the positive drivers but also the inhibitors and negative reactions of consumers to marketing actions (Leonidou and Skarmeas, 2017; Vlachos et al.2013; Obermiller and Spangenberg, 1998). Moreover, according to the mentioned studies there is a lack of research into the relevance of the moderating role of the green skepticism (Zarei and Maleki 2018). Specifically, several inconsistencies exist regarding the role of green skepticism in green consumption (Silva et al., 2020).

Answering the recent appeals to consider the effect of perceived marketplace influence, spirituality, emotional value and other psychological determinants (Lee, 2014; Joshi and Rahman, 2019; Hwang and Choi, 2018; Massarutto et al., 2019), and to strengthen existing marketing research, this study addresses the psychological determinants of consumers' green consumption behaviour. Specifically, it unfolds green skepticism as a moderating mechanism

that can prevent the adoption of green consumption behaviour. Importantly, it is argued that “the valence of the relationship between consumers’ green skepticism and green consumption varies depending on the market (i.e. country) studied” (Silva et al., 2020). Therefore, three different countries: Tunisia, Italy and France were used to challenge this phenomenon. The choice of these countries is reflective on their different economic development, their divergent sustainable pathways in terms of sustainability, and their different green markets, mainly when comparing, the importance given to the different dimensions of sustainability, the consumer demand, the size, structure, nature of the offer, and the actors involved. Also, due to their relationship which has its roots in history, geographical position and the economic dynamism. Thus, we are interested in examining whether there is any cross-country difference between the green consumption behaviour of Tunisian, Italian and French consumers.

Finally, and to the best of our information, there is barely any study that has investigated the impact of psychological factors on green consumption behaviour of consumers in these countries. The scarcity of studies considering the impact of psychological variables (such skepticism, spirituality, perceived consumer effectiveness, green perceived value, emotional value, and perceived marketplace influence) on green consumers' behaviour in literature, and especially dearth of adequate comparative research between cultures encouraged us to recognize the key psychological determinants of consumers' green consumption behaviour and the valence of their effect on such behaviour, in particular through these three different market and country.

2. Literature review and hypothesis development

Green consumption behaviour can be defined as "behaviour intended to meet the needs of the present generation and benefit the environment without compromising the ability of future generations to satisfy their needs" (Leary et al. 2014). Previous research has shown that this phenomenon is complex, such that "numerous distinct types" of green consumption behaviour are influenced to varying degrees by a wide variety of "causal factors" (Stern, 2000, p. 409). Accordingly, different forms of green consumption behaviour should frequently be treated as separable behavioural indicators, especially when assessing antecedents of green consumption (Leary et al. 2014). By adopting this approach to green, the present research proposes that the psychological factors such as skepticism, spirituality, perceived consumer effectiveness, green perceived value, emotional value, perceived environmental responsibility, and perceived

marketplace influence act as one of those causal factors that influence green consumption behaviour. The conceptual model is constructed and schematized in **Figure 2** .

2.1 Perceived Consumer Effectiveness

Perceived consumer effectiveness is one of the personal characteristics that has been attributed an influential role in psychological theories of consumer behavior. The term perceived consumer effectiveness broadly refers to “the extent to which the consumer believes that his /or her own efforts can make a difference and contribute to solving a social and environmental problems” (Meijboom and Brom, 2012). In this line, if consumers believe that their behaviour will have an influence on the desired outcome, perceived consumer effectiveness may affect her/his behaviour.

It has been demonstrated that green consumption behaviour requires the conscious effort of consumers to behave in ways that may not be embraced by large numbers of people (Sharmaa and Jhab, 2017) and that perceived consumer effectiveness not only influences environment friendly behaviours, but also systematically reinforce or inhibit the effect of attitudes on behaviours (Sharmaa and Jhab, 2017). Therefore, perceived consumer effectiveness is an important facilitator that encourages consumers to engage in socially responsible behaviour (Nguyen et al., 2016). According to Cojuharenco et al. (2016), perceived consumer effectiveness has a positive effect on consumer recycling and environmental purchase behaviour. Also, Lee et al. (2019) settled that perceived consumer effectiveness was positively related not only to green purchases, but also to good citizen behavior and environmental activism. Finally, Vermeir and Verbeke.(2008) found that that a high level of perceived consumer effectiveness motivates consumers to demonstrate their positive attitudes towards green products through actual consumption behaviour .

To date, researchers have not addressed the relationship between perceived consumer efficacy and green consumer behaviour specifically. We therefore expect that perceived consumer effectiveness may be an important factor in determining green consumption behaviour and accordingly:

Hypothesis 1:

Perceived consumer effectiveness has a positive influence on green consumption behaviour.

2.2 Spirituality

Spirituality is known as “a process through which people seek to discover, hold on to, and when necessary, transform whatever they hold sacred in their lives” (Pargament, 1999). It is commonly stated and understood as the prevailing philosophies or beliefs which govern one's relationship with oneself, others, nature, and God (Fisher et al., 2000). In his study, Reich (2000) distinguished between spirituality and religiosity. The first one refers to "the way by which people look for and express the reason, the importance and the manner in which they encounter their connectedness to the occasion, to self, to other people, to nature, and to the significant or sacred"; religiosity, on the other hand, has been described as “the affiliation with a specific principle (doctrine) about an otherworldly power through institutional connection and involvement in recommended practices” (Reich, 2000). According to Mercado (2006), spirituality is a process that encompasses the emotional, physical, and intellectual components of life in search of one's existence and purpose of existing. Thus, spirituality deals with the meaning of life and emotional attachment to God, as well as providing solutions to concerns about life, relationships, and other topics that are mostly based on rituals or group.

In regards to the environmental domain, it is linked to caring for and appreciating nature (Fisher et al., 2000). Recently, researchers have linked concepts such as transcendental perspectives, mindfulness, support for others, and environmental worship in spirituality with organic consumption (Sheth et al., 2011). Thus, spirituality states individual relationship with environment, earth and universe, which is more in the midst of spiritually oriented people. It is because of this relationship that they manifest a sense of thinking about themselves, the coming together and the environment which engenders green / environmental intentions (Joshi and Rahman, 2019). Further, previous studies have found a positive relationship between religiosity and consumer green purchase intention (Chairy, 2012), however have failed to produce empirical evidence regarding the relationship between spirituality and green consumption behaviour (Joshi and Rahman, 2019). Thus, we expect that spirituality may be an important factor in determining green consumption behaviour and accordingly:

Hypothesis 2:

Spirituality has a positive influence on consumers' green consumption behaviour.

2.3 Green perceived value

Chen and Chang (2012) defined green perceived value as “a consumer’s overall appraisal of the net benefit of a product or service between what is received and what is given based on the consumer’s environmental desires, sustainable expectations, and organic needs”. To put it another way, green perceived value is a subjective evaluation influenced by consumers’ expectations, needs and green desires. Research has shown this value to be a powerful driver of consumer greening behaviour, it has a positive influence on green purchasing intentions and contributes in particular to the development of the relationship between consumers and brands by improving their green satisfaction and confidence (Koller et al., 2011). According to Chen and Peng (2014), promoting the green perceived value and a shared sense of responsibility for the environment can motivate consumers to buy green brands. In the same context Chen and Chang (2012) suggested that green perceived value affects loyalty toward green products and impacts consumers’ green confidence and satisfaction. Hence, perceived value is a set of attributes related to the consumer's perception of the product's value and can be a central determinant in maintaining long-term consumer relationships. In other words, when consumers are more and more getting the perceived high value of the products they consume, they increasingly want to purchase the product (Koller et al., 2011).

Based on these theoretical foundations, this study proposes that green perceived value may be an important factor in determining green consumption behaviour and the following hypothesis is raised:

Hypothesis 3:

Green perceived value has a positive influence on consumers' green consumption behaviour.

2.4 Emotional value

Emotional value can be defined as " the perceived utility that consumers associate with the ability of a product or service to arouse feeling or affective state" (Sheth et al., 1991). In green regards to consumption, it is evaluated as “the association of feelings and emotions with the consumption of green products” (Lin and Huang 2012). According to Joshi et al. (2021), consumers derive emotional satisfaction from their involvement in social well-being, and these emotional responses may in turn influence their purchasing decisions. In other words, emotional value is a powerful motivation and causes a positive feeling of doing good, satisfaction,

wellbeing, and joy, as consumers believe they are contributing to protecting the environment (Suki and Suki 2015).

Numerous researchers submitted that emotional value plays an important role in green consumer behaviour (Woo and Kim 2019; Lin and Huang 2012). For instance, and in a study on Taiwan, Lin and Huang. (2012) found a significant positive relationship between emotional value and green product consumer choice behaviour. Similarly, Penz and Stöttinger. (2012) suggested emotions as part of the attitude and key elements of the consumer's consumption pattern. Also, Menges. (2003) found that green power users are more concerned with personal emotional pleasure than environmental effects.

Because researchers have not studied the strength of the effect of emotional value on green consumption behaviour, we propose the following hypothesis:

Hypothesis 4:

Emotional value has a positive influence on consumers' green consumption behaviour.

2.5 Perceived Marketplace Influence

Leary et al. (2014) define perceived marketplace influence with reference to “the belief that a consumer's actions can impact others' behaviours and make a difference to the problem associated with the ecological damage”. In this regard, the consumer's belief that purchasing green products can significantly affect others' behaviour would drive them to purchase such products. This implies that the influence of perceived marketplace influence extends beyond influencing one's behaviour to affecting the attitudes and intentions of other market customers (Wang et al., 2019). Indeed, when consumers believe their behaviours will influence the conduct of other consumers in the marketplace, they will be more likely to follow through on their actions. Thus, perceived marketplace influence is seen as a powerful influencer in green consumption behaviour. According to Leary et al. (2014), a significant association exists between perceived marketplace influence and consumer green behaviour. In other words, the perceived marketplace influence motivates consumers to follow through on their pro-environmental and pro-social inclinations when they deem their behaviours to provide immediate value for social change and prompt a collective effort to long term.

Therefore, this study proposes the following hypothesis:

Hypothesis 5

Perceived marketplace has a positive influence on consumers' green consumption behaviour.

2.7 Green skepticism as mediating role

Marketing research so far presents has defined green skepticism -as the consumers' tendency to doubt the environmental benefits or the environmental performance of a green product (Obermiller et al. 2005; Mohr et al. 1998). Skepticism thus reflects consumers' a situational doubt, disbelief, or suspicion, which causes consumers to be averse to something in particular and is a primarily cognitive response to green product, claims made on packaging, etc (Leonidou and Skarmeas, 2017; Eden et al., 2008) that is predisposed by context (Mohr et al. 1998). These doubts about the environmental benefits of green products translate into less willingness of consumers to buy them (Chang, 2011). According to Zarei and Maleki. (2018), there is a positive relationship between environmental attitude and environmental knowledge with green purchasing intention; however, this relationship may depend on the level of green skepticism of consumers (Zarei and Maleki 2018). Therefore, skepticism can change this positive relationship between green purchase intention and consumer's purchasing behaviour (Zarei and Maleki 2018). Specifically, this relationship can turn negative when consumers have a high level of green skepticism (Leonidou and Skarmeas, 2017). Indeed, findings from previous studies have uncovered and confirmed this negative relationship. Hughner et al. (2007), for example, found that consumer skepticism toward product labels can undermine their intention to buy green products following label exposition. According to Albayrak et al, (2011), having doubts about green products may dissuade consumers from new or repeat green purchases in general and/or from picking the greenest choice in particular, missing out on the opportunity to contribute to environmental sustainability and limiting market growth for green consumer goods (Leonidou and Skarmeas, 2017). In addition, Chang (2011) pointed out that when consumers are skeptical of the environmental qualities of green products, they are likely to rate them less favourably than they would if they had no such doubt. Goh and Balaji .(2016) also report that the most skeptical consumers tend to have more negative attitudes toward the purchase of green products.

Thereby, in the presence of this cognitive process, consumers should be reluctant to choose and consume green products (Leonidou and Skarmeas, 2017; Zarei and Maleki 2018). Accordingly, it is reasonable to the following hypothesis:

Hypothesis 6:

Green skepticism as a moderator decreases the effect of psychological factors towards green consumption behaviour.

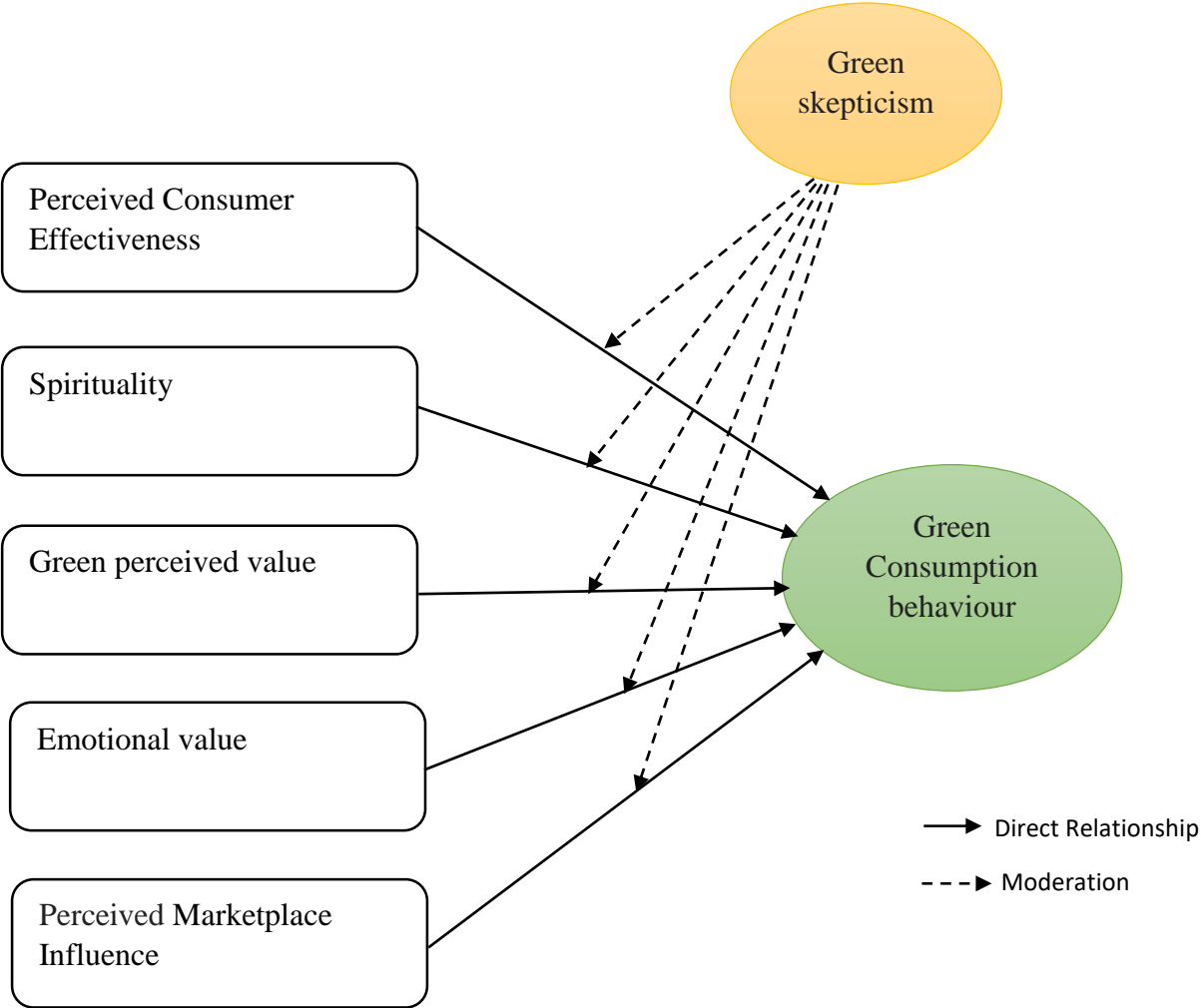


Figure 2 :The research model 1

3 Research methodology

3.1 Data collection

Data for carrying out this study were gathered in summer 2022 in three Mediterranean countries, Italy, France and Tunisia, via email and online platforms such as Instagram, LinkedIn, Twitter, Facebook, Facebook groups, and WhatsApp application. The final sample included 2794 valid respondents (Italy: 929, France: 931, and Tunisia: 934).

3.2 Questionnaire Development

The questionnaire consisted of two sections. The measurement items of the endogenous and exogenous variables were gathered in the first section. The demographic information of the respondents was apprehended in the second section. A five -point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") was adopted in this research. Green consumption behaviour, which is the only endogenous construct, is measured using a construct operationalized and validated by [Xiao and Li \(2011\)](#). Two items adapted from [Roberts \(1996\)](#) were used to measure the perceived consumer effectiveness. To measure the construct of emotional values, three items adapted from [Lin and Huang \(2012\)](#). The degree of perceived marketplace influence was measured using an adaptation of [Leary et al. \(2014\)](#). Spirituality was identified with four items adapted from [Stillman et al. \(2012\)](#). Environmental responsibility was assessed using three items from the scale developed by [Kumar and Ghodeswar \(2015\)](#). Green scepticism was measured using two items scale from the studies of [Luo et al. \(2020\)](#). The green perceived value was measured by three items developed by [Patterson and Spring \(1997\)](#). The survey was developed in English then all the measurement scales were back-translated into Arabic, Italian and French by native speakers to approve the meanings and contents were identical as the original wordings. We also launched a face-to-face pre-test to check their psychometric quality and if they present any ambiguities. The set of selected measurement scales is shown in **Appendix B**.

3.3 Finding

3.3.1 Demographic profile of respondents.

Based on **Table B 1** , most of the participants were female, indicating that women tend to be more concerned than men that the products they purchase positively effect on health and protect the environment ([Kreczmańska and Gigol, 2022](#)).

The majority of consumers were between 25 and 45 years old, explained by the fact that these categories are a bit too passionate about research and investment in favour of environment.

3.3.2 Common method bias

We performed Harman's single-factor test to evaluate common method bias, 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 41.474% 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 (Fuller et al., 2016).

3.3.3 Results for measurement model

To gauge the reliability and validity of the constructs (Fornell and Larcker, 1981), we carried out a confirmatory factor analysis (CFA). As shown in **Table B 2**, the average variance extracted (AVE) values in both three datasets are satisfactory for each latent construct (greater than 0.5), providing evidence of good convergent validity (Bagozzi and Yi, 2012 ;Hair et al., 2006). All Jöreskog Rhô values exceed the minimum required threshold of 0.70 attest to the high reliability of our measures (Hair et al., 2006). The average variance extracted (AVE) values lower than all Jöreskog Rhô values confirm that the criterion of the discriminant validity is respected for all constructs (Hair et al., 2006).

The goodness-of-fit index shows values as follows: Italy data (Normed χ^2 (CMIN /DF =1.91); CFI = 0.91, IFI =0.98, TLI=0.936, GFI =0.91, RMSEA= 0.057); France data (Normed χ^2 (CMIN /DF =2.055); CFI = 0.951, IFI =0.97, TLI=0.974, GFI =0.92, RMSEA= 0.049); Tunisia data (Normed χ^2 (CMIN /DF = 1.641); CFI = 0.973, IFI =0.957, TLI=0.986, GFI =0.952, RMSEA= 0.038) . All the fit indices values for the structural model within accepted ranges (Hair et al., 2015) .

3.3.4 Results for Structural modelling

Structural equation modeling was used to investigate suggested research hypotheses, which revealed a satisfactory model fit and high fit indices: Italy data(Normed χ^2 (CMIN /DF =2.246) ;p value = 0.00,; CFI = 0.934, IFI =0.931, TLI=0.937, GFI =0.935, RMSEA= 0.057);France data (Normed χ^2 (CMIN /DF =1.99), p value = 0.00,; CFI = 0.988, IFI =0.929, TLI=0.971, GFI =0.936, RMSEA= 0.081);Tunisia data (Normed χ^2 (CMIN /DF =1.84); p value = 0.00; CFI = 0.978, IFI =0.980, TLI=0.969, GFI =0.948, RMSEA= 0.064). The standardized path coefficients are shown in Table B 3 .

The findings demonstrate that perceived consumer effectiveness (Italian's market $\beta = 0.407$, $p < 0, 01$), French market $\beta = 0.578$, $p < 0, 05$, and Tunisian's market $\beta = 0.702$, $p < 0.01$); spirituality (Italian's market $\beta = 0.339$, $p < 0, 01$, French market $\beta = 0.262$, $p < 0, 01$, and Tunisian's market $\beta = 0.159$, $p < 0.01$); green perceived value (Italian's market $\beta = 0.328$, $p < 0,01$, French market $\beta = -0.118$, $p < 0, 01$, and Tunisian's market $\beta = 0.488$, $p < 0.01$); emotional value (Italian's market $\beta = 0.205$, $p < 0,01$, French market $\beta = 0.189$, $p < 0, 01$, and Tunisian's market $\beta = 0.228$, $p < 0.01$); perceived marketplace (Italian's market $\beta = 0.345$, $p < 0,01$, French market $\beta = 0.305$, $p < 0, 01$, and Tunisian's market $\beta = 0.112$, $p < 0.05$). all **H1, H2, H4, and H5** have a positive influence on consumers' green consumption behaviour, confirming hypotheses in both three contexts however **H3** have a positive influence only in Italy and Tunisia , confirming this hypothesis in these last two contexts however rejecting it in France.

In a further step of the analysis, the moderating influence of green skepticism is investigated using a multi-group structural equation model (Byrne, 2004). To understand that, each sample was divided into two sub-samples, with high skepticism and low skepticism, and a median split procedure was employed (Brochado et al., 2017).

The unconstrained structural multi-group model fit was tested to establish causality: Italy (Normed χ^2 (CMIN /DF =2.981) ; CFI = 0.938, IFI =0.940, TLI=0.924, GFI =0.949, RMSEA= 0.056);France data (Normed χ^2 (CMIN /DF =1.044); CFI = 0.97, IFI =0.97, TLI=0.96, GFI =0.95, RMSEA= 0.049);Tunisia data (Normed χ^2 (CMIN /DF =1.621); CFI = 0.982, IFI =0.982, TLI=0.976, GFI =0.950, RMSEA= 0.032).This indicates that all the values are within the recommended tolerable levels. It has been shown in the above **Table B 4** that green skepticism significantly decreases the effect of (perceived consumer effectiveness (Italian's market $\beta = -0.086$, $p < 0, 051$, France's market $\beta = -0.023$, $p < 0, 013$,and Tunisian's market $\beta = -0.03$, $p < 0.011$); spirituality (Italian's market $\beta = -0.148$, $p < 0, 01$, France's market $\beta = -0.101$, $p < 0, 052$,and Tunisian's market $\beta = -0.611$, $p < 0.012$); green perceived value (Italian's market $\beta = -0.44$, $p < 0, 01$, France's market $\beta = -0.222$, $p < 0, 05$,and Tunisian's market $\beta = -0.82$, $p < 0.01$); emotional value (Italian's market $\beta = -0.53$, $p < 0,052$, France's market $\beta = -0.017$, $p < 0, 012$,and Tunisian's market $\beta = -0.30$, $p < 0.01$); perceived marketplace (Italian's market $\beta = -0.58$, $p < 0,053$, France's market $\beta = -0.219$, $p < 0, 05$,and Tunisian's market $\beta = -0.61$, $p <$

0.05) on green consumption behaviour mainly at a higher green skepticism. Green skepticism attenuate the association between them, the proposed **H6** is therefore acceptable.

3.4 Discussion

In this study, we aim at providing a better understanding of the key elements that drive green consumption behaviour by addressing some psychological factors such as perceived consumer effectiveness, spirituality, green perceived value, emotional value, and perceived marketplace influence. Perceived consumer effectiveness has the highest influence on green consumption behaviour. In both three countries, the majority of respondents believed that an individual's efforts may contribute to environmental protection. Thus, strong positive effect of perceived consumer effectiveness on consumers' green consumption behaviour complements the social dilemma approach which contends that perceived efficacy, or the degree to which one believes can have any effect on the achievement of an objective, influences cooperation or green practices (Van Lange et al., 1992). Furthermore, perceived marketplace influence has been observed to positively affect green consumption, revealing that perceived marketplace influence is a critical determinant to understand various forms of green consumption practices. Moreover, many participants with greater perceived marketplace influence showed a greater propensity to engage in green consumption behaviour, demonstrating the importance of the role played by various other market actors and players for consumers' green consumption behaviour. The findings also revealed that spirituality has been observed to positively affect green consumption behaviour. This points those consumers actively pursue their deeply held ideological convictions through their consumption decisions and that spirituality plays a vital role in affecting their consumption behaviour. Thus, consumers' green consumption behaviour can be an indicator of their spiritual orientation. Our results suggest that studying the spiritual needs of consumers is crucial to creating an effective marketing strategy, and imperative basis of segmentation. Therefore, it is interesting for companies to address the spiritual aspect of consumers in order to motivate them to preserve and protect the environment, through green consumption. In terms of the moderating impact, results revealed a significant moderation link between psychological factors and green consumption behaviour for green skepticism.

In summary, we found pronounced homogeneity in consumption behaviour for green product across the three countries investigated (as well as across skepticism). This finding suggests that there is a widespread awareness regarding consumption, of its major and irreversible impacts on habitats and global ecosystem services, resulting in a strong similarity of spirit between the

countries studied to consume green products. But, the rapid rise in green practices has sparked a debate on the environmental performance and the benefits of organic and green product.

3.5 Implications

3.5.1 *Theoretical implications*

The contribution of the current study to existing knowledge on green consumption research, which also highlights its novelty, is the fact that our research is one of the first to explore consumers' perceived effectiveness, spirituality, and green perceived value, emotional value, perceived marketplace influence, and green skepticism as key psychological determinants of their green consumption behaviour. It partly fulfils existing gap in literature relating to consumer segmentation by proposing a new consumer on the basis of perceived marketplace influence and emotional value. This new segment has the potential to lead to new dimensions of behavioural change and emphasizes that one's confidence in green behaviour strikes one's behaviour being the effects one perceives it has on others, as well emotions of pleasure and contentment in preserving nature may encourage green consumption. The finding also provides a new approach to study consumers' action orientation towards environmental problems based on inherent spiritual beliefs. This segment has the potential to promote green consumption due to its inherent spiritual orientation and principles of environmental protection and preservation. This study also fills an important research gap regarding the role of green skepticism as a moderating mechanism that can prevent the adoption of green consumption behaviour. Finally, the present research is an effort to partly answer the recent calls suggesting the need to carry out a comparative study between cultures (Silva et al., 2020).

3.5.2 *Managerial implications*

The current research shares a novel lens of considering the role consumers perceived effectiveness, spirituality, and green perceived value, emotional value, perceived marketplace influence, and green skepticism in green consumption behaviour. Such perspective is of importance to marketers designing strategies to reach out consumers and encourage the purchase and the broader consumption of green products. Results reveal that spirituality has a positive effect consumers' green consumption behaviour through instilling spiritual values. Therefore, maximizing spiritual beliefs and experiences related to green consumption is suggested with the aim of promoting green behaviour among consumers. Managers may carry out a marketing program and promotional activities while focusing on interconnections between green consumption and consumers' spiritual orientation. In addition, when developing the

communication strategy, the spiritual orientation of green consumption of products should be emphasized. Hence, the spiritual segmentation of green products is expected to offer a very promising market segment. Green consumption behaviour is also positively influenced by perceived marketplace influence. Businesses and policymakers must recognize that individuals' behaviour effectively influences businesses and other consumers. Therefore, it is necessary to encourage consumers to demonstrate greater ecological behaviour and to consume green products in order to positively influence the behaviour of other consumers. Finally, results showed that green skepticism has a detrimental effect on green consumption behaviour by decreasing the effect of psychological factors, indicates that companies must be cognizant that the rising wave of consumers skepticism is primarily the result of the overly vague use of the word "green" (and other similar terms) in the majority of the environmental claims incorporated into labels and packaging. When it comes to green, marketing claims provide too much information that is "too ambiguous and too complex". Marketers must provide a clear, strong, and relevant product details in their advertising, also use simple words and information for all green claims on packaging. Authentic advertisements build consumer trust, sense of value, and willingness to purchase green products.

3.6 Limitations and areas for future studies

While our model is verified empirically, results of the present research is subject to limitations, which may inform future studies. We focused on three Mediterranean countries. Further empirical research could verify whether the model is valid for other countries, given the great consistency of our results across the markets studied. Specifically, this model examined the influence of psychological factors on green consumption behaviour. We stress the need to consider other factors that influence this phenomenon include perceived danger, socioeconomic factors, and drive for environmental responsibility. Also, only one psychological barrier was included in the model, future studies may include other variables such as greenwashing and dislike to green products, to provide a more balanced perspective. Another sample limitation was that our study used self-report survey and participants were approached on social media platforms such as LinkedIn, WhatsApp, Facebook, and Instagram. This leaves a significant research gap and it would be interesting to see if there are any variations in the responses' nature in a real purchase situation, using face-to-face market survey. More thorough studies on this topic are crucial.

3.7 Conclusions

In concluding this study, we are of the view that green consumption behaviour should be a mindset of society, and not purely an ‘advertisable’ or ‘marketable’ concept. This means that citizens should be voluntarily involved in environmentally friendly activities and have a sense of environmental responsibility in their production and consumption. Change will only happen when green consumption behaviour becomes voluntary. The focus on key psychological factors determined by the current research study can shape the mindset of consumers and steer them toward green consumption behaviour.

Table B 1: The sample profile for Italy (N=929), France (N=931), and Tunisia (N=934)

	Italy (%)	France (%)	Tunisia (%)
Age			
Below 25 years	111(11.94)	78(8.37)	48 (5.13)
25-35	402(43.27)	280(30.07)	330(35.33)
35-45	215(23.14)	394(42.32)	284(30.4)
45-55	166(17.86)	122(13.1)	180(19.27)
55 and above	35(3.76)	57(6.12)	92(9.85)
Gender			
Female	590(63.50)	610(65.52)	712(76.23)
Male	339(36.49)	321(34.47)	222(23.76)

Table B 2 : Results of the measurement model analysis: Standardized Factor Loading (λ), AVE= average variance extracted, and Jöreskog Rhô (JR)

Constructs	Item	Italy			France			Tunisia		
		(λ)	AVE	JR	(λ)	AVE	JR	(λ)	AVE	JR
Green consumption behaviour	GCB1	0.719	<u>0.591</u>	<u>0.812</u>	0.795	<u>0.619</u>	<u>0.829</u>	0.826	<u>0.595</u>	<u>0.815</u>
	GCB2	0.735			0.705			0.729		
	GCB3	0.819			0.853			0.756		
Emotional value	EMV1	0.751	<u>0.627</u>	<u>0.834</u>	0.794	<u>0.641</u>	<u>0.843</u>	0.804	<u>0.657</u>	<u>0.852</u>
	EMV2	0.861			0.786			0.811		
	EMV3	0.759			0.822			0.816		
Perceived marketplace influence	PMI1	0.872	<u>0.683</u>	<u>0.811</u>	0.799	<u>0.699</u>	<u>0.822</u>	0.824	<u>0.687</u>	<u>0.867</u>
	PMI2	0.778			0.871			0.834		
Perceived consumer effectiveness	PCE1	0.813	<u>0.676</u>	<u>0.806</u>	0.841	<u>0.692</u>	<u>0.818</u>	0.781	<u>0.676</u>	<u>0.806</u>
	PCE2	0.831			0.823			0.861		
Spirituality	SP1	0.817	<u>0.690</u>	<u>0.816</u>	0.855	<u>0.677</u>	<u>0.807</u>	0.822	<u>0.684</u>	<u>0.812</u>
	SP2	0.844			0.789			0.832		
Green perceived value	GPV1	0.767	<u>0.592</u>	<u>0.853</u>	0.784	<u>0.602</u>	<u>0.858</u>	0.827	<u>0.661</u>	<u>0.886</u>
	GPV2	0.793			0.756			0.815		
	GPV3	0.808			0.767			0.810		
	EMV3	0.706			0.796			0.799		
Green skepticism	GSK1	0.817	<u>0.681</u>	<u>0.810</u>	0.828	<u>0.691</u>	<u>0.818</u>	0.799	<u>0.681</u>	<u>0.810</u>
	GSK2	0.833			0.835			0.851		

Table B 3:The summary of the path analysis

<i>Path relationship</i>	<i>Italy</i>	<i>France</i>	<i>Tunisia</i>	<i>Hypothesis decision</i>
PCE --> GCB	0.407**	0.578*	0.702**	Supported
SP ---> GCB	0.339**	0.262**	0.159**	Supported
GPV --> GCB	0.328**	-0.118**	0.488**	Supported only in Italy and Tunisia
EMV --> GCB	0.205**	0.189**	0.228**	Supported
PMI --> GCB	0.345**	0.305**	0.112 *	Supported

PCE= Perceived consumer effectiveness; GCB= Green consumption behaviour; SP= Spirituality; GPV= Green perceived value; EMV= Emotional value; PMI= Perceived marketplace

*Notes: **=p<0.01; *=p<0.05*

Table B 4 : Moderator analysis Results

	<i>High Skepticism</i>						<i>Low Skepticism</i>					
	<i>Italy</i>		<i>France</i>		<i>Tunisia</i>		<i>Italy</i>		<i>France</i>		<i>Tunisia</i>	
	<i>Estimate</i>	<i>P</i>	<i>Estimate</i>	<i>P</i>	<i>Estimate</i>	<i>P</i>	<i>Estimate</i>	<i>P</i>	<i>Estimate</i>	<i>P</i>	<i>Estimate</i>	<i>P</i>
PCE --> GCB	-0.086	0.051	-0.023	0.013	-0.03	0.011	0.235	0.05	0.197	0.01	0.044	0.01
SP ---> GCB	-0.148	0.01	-0.101	0.052	-0.611	0.012	0.155	0.01	0.002	0.051	0.11	0.011
GPV --> GCB	-0.44	0.01	-0.222	0.05	-0.82	0.01	0.101	0.053	0.55	0.01	0.566	0.01
EMV --> GCB	-0.53	0.05	-0.17	0.012	-0.30	0.01	0.168	0.01	0.003	0.011	0.09	0.013
PMI --> GCB	-0.5	0.053	-0.219	0.05	-0.61	0.05	0.199	0.05	0.79	0.051	0.008	0.05

PCE= Perceived consumer effectiveness; GCB= Green consumption behaviour; SP= Spirituality; GPV= Green perceived value; EMV= Emotional value; PMI= Perceived marketplace

Appendix B: Appendix for Essay 2

Green consumption behaviour

GCB1 I prefer to buy green products.

GCB2 I choose “green products” even they are expensive.

GCB3 I avoid environment pollution and no lifestyle of high consumption.

Emotional value

EMV1 Buying the green product instead of conventional products would feel like making a good personal contribution to something better.

EMV2 Buying the green product instead of conventional products would feel like the morally right thing.

EMV3 Buying the green product instead of conventional products would make me feel like a better person.

Perceived marketplace influence

PMI1 I believe my individual efforts to be environmentally friendly will persuade others in my community to purchase environmentally friendly products.

PMI2 The choices I make can influence what companies make and sell in the marketplace.

Perceived consumer effectiveness

PCE1 Whenever I buy products, I try to consider how my use of them will affect the environment and other consumers.

PCE2 Each consumer's behaviour may have a positive effect on society, provided that they purchase products sold by social responsible companies.

Spirituality

SP1 I feel God's presence.

SP2 I feel a selfless for others.

SP3 I feel deep inner peace and harmony.

Green perceived value

GPV1 I purchase green product because its (environmental) benefit is more than other products.

GPV2 The performance of green product meets my expectations.

GPV3 I purchase green product because it has more (environmental) concern than other products.

Green Skepticism.

GSK1 Ecological claims on packaging or in ads often mislead consumers.

GSK2 I don't believe most of the environmental claims made on product labels or in ads.

References B

A. Chen, N. Peng Examining Chinese consumers' luxury hotel staying behaviour *Int. J. Hosp. Manag.*, 39 (39) (2014), pp. 53-56.

A. Gilg, S. Barr, N. Ford: Green consumption or sustainable lifestyles? Identifying the sustainable consumer *Futures*, 37 (6) (2005), pp. 481-504.

A. Massarutto, F. Marangon, S. Troiano, M. Favot Moral duty, warm glow or self-interest? A choice experiment study on motivations for domestic garbage sorting in Italy *J. Clean. Prod.*, 208 (2019), pp. 916-923

Albayrak, T., Caber, M., Moutinho, L., & Herstein, R. (2011). The influence of skepticism on green purchase behavior. *International Journal of Business and Social Science*, 2(13).

Azim Zarei & Fatemeh Maleki (2017): From Decision to Run: The Moderating Role of Green Skepticism, *Journal of Food Products Marketing*.

B. Chekima, S.A.W.S.K. Wafa, O.A. Lgau Examining green consumerism motivational drivers: does premium price and demographics matter to green purchasing? *J. Clean. Prod.*, 112 (1) (2016), pp. 3436.

Brochado A, Teiga N, Oliveira-Brochado F, 2017. The Ecological Conscious Consumer Behaviour: Are the Activists Different? *Int. J. Consum. Stud.* 41(2), 138-46.

Byrne B.M, 2004. Structural equation modeling with AMOS. Basic concepts, applications and programming. Lawrence Erlbaum: Mahwah, NJ.

Chairy, (2012). Spirituality, Self-Transcendence, and Green Purchase Intention in College Students. *Procedia – Social and Behavioral Sciences*, 57, 243 – 246.

Chang, C. (2011). Feeling ambivalent about going green. *Journal of Advertising*, 40(4), 19–32.

D. Shaw, C. Moraes Voluntary simplicity: An exploration of market interactions *International Journal of Consumer Studies*, 33 (2) (2009), pp. 215-223.

Di Fabio, A.; Rosen, M.A. Opening the black box of psychological processes in the science of sustainable development: A new frontier. *Eur. J. Sustain. Dev. Res.* 2018, 2, 47.

Eden, S., Bear, C. and Walker, G. (2008), "The sceptical consumer? Exploring views about food assurance", *Food Policy*, Vol. 33 No. 6, pp. 624-630.

Engel, J. F., Blackwell, R. D., and Miniard, P. W. (1995). *Consumer Behavior*. New York, NY: Dryden Press.

F.L. Meijboom, F.W. Brom Ethics and sustainability: Guest or guide? on sustainability as a moral ideal *Journal of Agricultural and Environmental Ethics*, 25 (2) (2012), pp. 117-121.

Fornell.C, D.F. Larcker Structural equation models with unobservable variables and measurement error: algebra and statistics *J. Market. Res.*, 18 (3) (1981), pp. 382-388.

Fuller.C.M, M.J. Simmering, G. Atinc, Y. Atinc, B.J. Babin Common methods variance detection in business research *J. Bus. Res.*, 69 (2016), pp. 3192-3198.

H.Y. Kim, J. Chung Consumer purchase intention for organic personal care products *J. Consum. Mark.*, 28 (1) (2011), pp. 40-47.

Hair JF, Black WC, Babin BJ, Anderson RE .2015 *Multivariate data analysis*..

Hair.J, B. Black, B. Babin, R.E. Anderson, R.L. Tatham *Multivariate Data Analysis* (6th edition), Pearson (2006).

Hughner, R.S., McDonagh, P., Prothero, A., Shultz, C.J. and Stanton, J. (2007), "Who are organic food consumers? A compilation and review of why people purchase organic food", *Journal of Consumer Behavior*, Vol. 6 Nos 2/3, pp. 94-110.

I. Black: Sustainability through anti-consumption *Journal of Consumer Behaviour*, 9 (6) (2010), pp. 403-411.

I. Cojuharenco, G. Cornelissen, N. Karelaia Yes, I can: feeling connected to others increases perceived effectiveness and socially responsible behavior *J. Environ. Psychol.*, 48 (2016), pp. 75-86

J. Hwang, J.K. Choi An investigation of passengers' psychological benefits from green brands in an environmentally friendly airline context: the moderating role of gender *Sustainability*, 10 (1) (2018), p. 80.

J. Paul, A. Modi, J. Patel Predicting green product consumption using theory of planned behavior and reasoned action *J. Retailing Consum. Serv.*, 29 (3) (2016), pp. 123.

J.F. Hair, W.C (2015). Black, B.J. Babin, R.E. Anderson, R.L. Tatham *Multivariate Data Analysis* (seventh ed).

J.N. Sheth, B.I. Newman, B.L. Gross *Why we buy what we buy: a theory of consumption values* *J. Bus. Res.*, 22 (2) (1991), pp. 159-170

J.N. Sheth, N.K. Sethia, S. Srinivas *Mindful consumption: a customer-centric approach to sustainability* *J. Acad. Mark. Sci.*, 39 (1) (2011), pp. 21-39.

J.W. Fisher, L.J. Francis, P. Johnson *Assessing spiritual health via four domains of spiritual wellbeing: the SH4DI Pastor.* *Psychol.*, 49 (2) (2000), pp. 133-145.

Joshi, Yatish & Rahman, Zillur, 2019. "Consumers' Sustainable Purchase Behaviour: Modeling the Impact of Psychological Factors," *Ecological Economics*, Elsevier, vol. 159(C), pages 235-243.

K. Lee . *Predictors of sustainable consumption among young educated consumers in Hong Kong* *J. Int. Consum. Mark.*, 26 (3) (2014), pp. 217-238

K. Peattie *Green consumption: behaviour and norms* *Annu. Rev. Environ. Resour.*, 35 (1) (2010), pp. 195-228.

K.H. Reich :*What characterizes spirituality? A comment on Pargament, Emmons and Crumpler, and Stifoss Hansen* *Int. J. Psychol. Relig.*, 10 (2) (2000), pp. 125-128.

K.I. Pargament *The psychology of religion and spirituality? Yes and no* *Int. J. Psychol. Relig.*, 9 (1) (1999), pp. 3-16.

Kreczmańska-Gigol, K., and Gigol, T. (2022). *The impact of consumers' green skepticism on the purchase of energy-efficient and environmentally friendly products.* *Energies* 15:2077.

L. Mercado *Christian and interfaith spirituality* *Dialogue Alliance*, 20 (2) (2006), pp. 33-50.

Le Gall M., 2002, « De la préoccupation pour l'environnement à la consommation durable », <http://archives.marketing-trends-congress.com/2002/Materiali/Paper/Fr/LE%20GALL.pdf> (Accessed 28 January 2020).

Lee, Y.J.; Haley, E.; Yang, K. *The Role of Organizational Perception, Perceived Consumer Effectiveness and Self-efficacy in Recycling Advocacy Advertising Effectiveness.* *Environ. Commun.* 2019, 13, 239–254.

Leonidou, C.N.; Skarmeas, D. Gray shades of green: Causes and consequences of green skepticism. *J. Bus. Ethics* 2017, 144, 401–415.

Lin, Pei Chun, and Yi Hsuan Huang. 2012. The Influence Factors on Choice Behavior Regarding Green Products Based on the Theory of Consumption Values. *Journal of Cleaner Production* 22: 11–18

Lin, Pei Chun, and Yi Hsuan Huang. 2012. The Influence Factors on Choice Behavior Regarding Green Products Based on the Theory of Consumption Values. *Journal of Cleaner Production* 22: 11–18.

Luo B, Sun Y, Shen J, Xia L. How does green advertising skepticism on social media affect consumer intention to purchase green products? *J Consumer Behav.* 2020;1–11.

M. Koller, A. Floh, A. Zauner Further insights into perceived value and consumer loyalty: a “green” Perspective. *Psychol. Mark.*, 28 (12) (2011), pp. 1154-1176.

Matthes, J., & Wonneberger, A. (2014). The skeptical green consumer revisited: Testing the relationship between green consumerism and skepticism toward advertising. *Journal of Advertising*, 43(2), 115–127.

Millissa F.Y.Cheunga., W.M.To.(2019). An extended model of value-attitude-behaviour to explain Chinese consumers’ green purchase behaviour. *Journal of Retailing and Consumer Services* Volume 50, September 2019, Pages 145-153.

Mishler, W., & Rose, R. (1997). Trust, distrust and skepticism: Popular evaluations of civil and political institutions in post-Communist societies. *Journal of Politics*, 59(02), 418–451.

Mohr, L. A., Eroglu, D., & Ellen, P. S. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers’ communications. *Journal of Consumer Affairs*, 32(1), 30–55.

N. Spielmann Green is the New White: how Virtue Motivates Green Product Purchase *J. Bus. Ethics* (2020).

Obermiller, C., & Spangenberg, E. R. (1998). Development of a scale to measure consumer skepticism toward advertising. *Journal of consumer psychology*, 7(2), 159-186.

Obermiller, C., Spangenberg, E., & MacLachlan, D. L. (2005). Ad skepticism: The consequences of disbelief. *Journal of Advertising*, 34(3), 7–17.

- Okasha, S. (2003). Scepticism and its sources. *Philosophy and Phenomenological Research*, 67(3), 610–623.
- P. Kumar, B.M. Ghodeswar Factors affecting consumers' green product purchase decisions *Mark. Intell. Plan.*, 33 (3) (2015), pp. 330-347.
- P.A.M. Van Lange, W.B.G. Liebrand, D.M. Messick, H.A.M. Wilke Social dilemmas: the state of the art-introduction and literature review.
- P.C. Stern Toward a coherent theory of environmentally significant behavior *Journal of Social Issues*, 56 (2000), pp. 407-424.
- Patterson P, Spreng R. 1997. Modeling the relationship between perceived value, satisfaction and repurchase intention in a business-to- business, service context: an empirical examination. *International Journal of Service Industry Management* 8(5): 414–434.
- Penz, Elfriede, and Barbara Stöttinger. 2012. A Comparison of the Emotional and Motivational Aspects in the Purchase of Luxury Products versus Counterfeits. *Journal of Brand Management* 19: 581–94.
- R.B. Leary, R.J. Vann, J.D. Mittelstaedt, P.E. Murphy, J.F. Sherry Changing the marketplace one behavior at a time: perceived marketplace influence and sustainable consumption *J. Bus. Res.*, 67 (9) (2014), pp. 1953-1958.
- R.P. Bagozzi, Y. Yi .(2012) Specification, evaluation, and interpretation of structural equation models *Journal of the Academy of Marketing Science*, 40, pp. 8-34.
- Rajat Sharmaa., Mithileshwar Jhab: Values influencing sustainable consumption behaviour: Exploring the contextual relationship *Journal of Business Research* Volume 76, July 2017, Pages 77-88.
- Rajat Sharmaa.,Mithileshwar Jhab.(2017).Values influencing sustainable consumption behaviour: Exploring the contextual relationship.*Journal of Business Research* .Volume 76, July 2017, Pages 77-88
- Roberts, J. A. (1996). Green consumers in the 1990s: Profile and implications for advertising. *Journal of Business Research*, 36(3), 217– 231.

Silva, M.E., Sousa-Filho, J.M.d., Yamim, A.P. and Diógenes, A.P. (2020), "Exploring nuances of green skepticism in different economies", *Marketing Intelligence & Planning*, Vol. 38 No. 4, pp. 449-463.

Suki, Norazah Mohd, and Norbayah Mohd Suki. 2015a. Consumer Environmental Concern and Green Product Purchase in Malaysia: Structural Effects of Consumption Values. *Journal of Cleaner Production* 132: 204–14.

Sütterlin, B.; Brunner, T.A.; Siegrist, M. Who puts the most energy into energy conservation? A segmentation of energy consumers based on energy-related behavioral characteristics. *Energy Policy* 2011, 39, 8137–8152.

T.F. Stillman, F.D. Fincham, K.D. Vohs, N.M. Lambert, C.A. Phillips The material and immaterial in conflict: spirituality reduces conspicuous consumption *J. Econ. Psychol.*, 33 (1) (2012), pp. 1-7.

T.N. Nguyen, A. Lobo, H.L. Nguyen, T.T.H. Phan, T.K. Cao Determinants influencing conservation behaviour: perceptions of Vietnamese Consumers *J. Consum. Behav.*, 15 (6) (2016), pp. 560-570.

Thi Thu Huong Nguyen ., Zhi Yang ., Ninh Nguyen ., Lester W. Johnson & Tuan Khanh Cao, 2019. "Greenwash and Green Purchase Intention: The Mediating Role of Green Skepticism," *Sustainability*, MDPI, Open Access Journal, vol. 11(9), pages 1-16, May.

Vlachos, P. A., Panagopoulos, N. G., & Rapp, A. A. (2013). Feeling good by doing good: Employee CSR-induced attributions, job satisfaction, and the role of charismatic leadership. *Journal of Business Ethics*, 118(3), 577-588.

Whitmarsh, L.; O'Neill, S. Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours. *J. Environ. Psychol.* 2010, 30, 305–314.

Woo, Eunju, and Yeong Gug Kim. 2019. Consumer Attitudes and Buying Behavior for Green Food Products from the Aspect of Green. *British Food Journal* 121: 320–32.

Xiao, J.J. and Li, H. (2011), "Sustainable consumption and life satisfaction", *Social Indicators Research*, Vol. 104 No. 2, pp. 323-329.

Y. Joshi, R. Yadav, A. Shankar The interplay of emotional value, trend affinity and past practices in sustainable consumption: an application of theory of reciprocal determinism *J. Strat. Market.* (2021).

Y. Joshi, Z. Rahman .Consumers' sustainable purchase behaviour: modelling the impact of psychological factors *Ecol. Econ.*, 159 (2019), pp. 235-243.

Y. Wang, D. Xiang, Z. Yang, S.S. Ma: Unravelling customer sustainable consumption behaviors in sharing economy: a socio-economic approach based on social exchange theory *J. Clean. Prod.*, 208 (2019), pp. 869-879

Y.S. Chen, C.H. Chang Enhance green purchase intentions *Manag Decis.*, 50 (3) (2012), pp. 502-520.

Zhang, Y., Ao, J., & Deng, J. (2019). The Influence of High–Low Power on Green Consumption: The Moderating Effect of Impression Management Motivation. *Sustainability*, 11(4287), 1–16.

Essay 3 : The power of skepticism on consumers' organic food choice: Evidence from Tunisia, Italy and France

Abstract

Despite several scholarly attempts to understand consumer choice behaviour, the consensus on the relevance various factors influencing this phenomenon is still calling for further investigation in the context of organic food. In responding to that, the current research contributes to the literature by exploring the influence of factors, namely food safety concern, health consciousness, organic food involvement, organic price sensitivity on consumers' organic food choice. Importantly, it ascertains the mediator effect of organic food skepticism on this relationship. Data gathered from 3008 consumers with three different cultural backgrounds were analysed using a structural equation modeling approach. Findings revealed that (safety concern, health consciousness, and organic food involvement) have a positive effect on consumers' organic food choice. Organic price sensitivity has a negative effect on consumers' organic food choice. Moreover, organic food skepticism acts perfectly as a mediator. The ultimate goal is to provide fresh perspectives and useful insights for practitioners desiring to assess consumers' organic food choice and elevate their positive evaluation.

Keywords

Organic food Skepticism, Organic Food Choice, Food Safety Concern, Health Consciousness, Organic Food Involvement, Organic Price Sensitivity, Organic Food.

1. Introduction

With a growing awareness that food consumption has significant impacts on the environment as well as on human health (Hansmann et al., 2020), consumer's desire to purchase organic food has increased significantly over the world, (Bi et al., 2015; Olson, 2017). As a result, the global organic foods market size increased (Bhaskaran et al., 2006), and expected to grow to \$437.36 billion in 2026 at a Compound Annual Growth Rate (CAGR) of 14.0%, according to a recent report published in April 2022. To sustain this growth and pursue better market management, a good understanding of individual food choices is critical (Gundala and Singh, 2021; Bravo et al., 2013). However, food choice remains a topic that is not well understood (Furst et al., 1996). In this context, Watanabe et al. (2020) pointed out that human food choice is a complex function of a variety of influences, necessitating further studies seeking to understand it, specifically those associated with the organic foods (Chen, 2007). Similarly, Sobal and Bisogni, (2009) food choice is dynamic, multifaceted, situational, and complex phenomenon which has not been studied thoroughly by the different perspectives used to study consumer decision-making. Reasons for this complexity are due to many different considerations (Bisogni et al., 2007). For example, deciding what to buy considers various determinants, necessitating further studies (Scheibehenne et al., 2007; Chen, 2007).

Previous studies have attempted to investigate some of these determinants including: environmental concerns, perceived quality, availability, and labelling (Rambabu, 2022; Fenko, 2019). Nevertheless, they have not investigated the role of food safety concern in this context. In addition, there lacks a comprehensive study considering health consciousness (Su et al., 2022). Similarly, Tarkiainen and Sundqvist (2009) introduced organic food involvement as a new construct into organic food consumption research which needs further investigation (Gnoufougou, 2021). Moreover, the impact of price sensitivity on consumer's choice of organic food is a much-debated topic (Yunfeng et al., 2022). Previous studies have reported that price is of the main barriers to organic food consumption, with demand for organic foods being more price sensitive than demand for conventional foods (Tavares et al., 2021). However, this finding is strongly questioned by other studies which have also confirmed that demand for organic food does not increase when prices fall (Yunfeng et al., 2022). These inconsistent findings call for more studies on the role of price sensitivity (Yunfeng et al., 2022; Tavares et al., 2021).

To fill the literature gap, this study attempts to answer these calls by investigating the influence of factors namely, Food safety concern, Health consciousness, Organic food involvement, and

Price sensitivity on Consumers' organic food choice. In addition, evidences on organic consumer behaviour have revealed a “gap” or discrepancy between the great deal of positive attitudes towards organic food expressed by consumers and their actual purchasing patterns (Saba and Messina, 2003; Aschemann and Niebuhr, 2014; TTH et al.,2019) .This attitude behaviour discrepancy –or intention– behaviour gap, as some researchers phrase it – (Aschemann and Niebuhr, 2014) is explained by skepticism (Bezawada and Pauwels 2013; Vitterso and Tangeland, 2015). Unfortunately, studies on the determinants and the consequences of this phenomenon on organic food choice are lacking should be further explored (Rossi and Rivetti, 2023; Rambabu, 2022; TTH et al., 2019; Pham et al, 2019). Thus, the study also will attempt to establish skepticism as a mediator in relationship between food safety concerns, health consciousness, organic food involvement, price sensitivity, and consumers' organic food choice.

Although differences across geographical locations and culture are interesting concepts in consumers' consumption patterns for organic food (Rojik et al., 2022), and consumer behaviour studies (Schwartz, 1994), marketers need to take it into account when expanding their marketing plans for the globalization of their products. According to Sapna et al. (2023), the results of studies regarding organic food consumption vary across countries and this needs to be justified with potential research using various dimensions. Food choice is influenced by a variety of factors, including cultural food customs, product availability, and product familiarity, which varies by country (kifaya and Rama, 2023). We hypothesized that organic food choice is a heterogeneous phenomenon, which requires context-specific assessment. Notably, previous research that addresses skepticism has mainly focused on individual on single countries and their specificities (Silva et al., 2020). In addition, they did not focus on comparing developed and emerging economies in the same research. Using a cross-country research approach involving consumers with different cultural backgrounds, the current research contributes to the literature by identify and compare the determinants of consumer choice in the context of organic food in three different countries Tunisia, Italy, and France.

The ultimate goal is to provide fresh perspectives and useful insights for researchers, policy makers and organic food companies, in assessing the food choice of consumers.

2. Theoretical framework and hypotheses development

Organic foods are generally derived from the organic agricultural production system, which is the popular term for natural and non-polluting foods produced and processed in accordance

with international requirements and standards for organic agricultural production. Vegetables, fruits, grains goods, seasonings, dairy products, aquatic products, and animal and poultry products are currently the most common organic foods on the market. These products do not involve chemical fertilizers, pesticides, growth hormones, and antibiotics (Pacho, 2020). The consumption and purchase of organic food products has been widely recognized as contributing to sustainable development of consumption (Nguyen et al., 2020). Hence, interest in organic food category has risen so much that researchers are increasingly investigating various facets of organic consumption (Sapna et al., 2023). Recently, a prominent review by Watanabe et al. (2020) highlighted the importance of better understanding the determinants affecting consumer choice of organic food. Such topic is highly relevant for the marketing and promotion of organic food products. In line with extant literature, the present research has developed a framework illustrating these key determinants (Figure 3). Food safety concern, health consciousness, organic food involvement, and organic price sensitivity were considered worth investigating. More specifically, our proposal has postulated that organic food skepticism could partly explain the gap” or discrepancy between the great deal of positive attitudes towards organic food expressed by consumers and their actual choices. The hypothetical relationships and the relevant constructs between these variables are shown in same Figure.

2.1 Food safety concern

Food safety concerns represent the level of consumer awareness and concern of food quality, added artificial elements, falsification, and pesticide residues that may affect their physical health (Teng and Lu, 2016). In fact, this awareness has changed the purchasing preferences of consumers who today perceive organic foods as a safer alternative to conventional foods, especially after the many food scandals (Teng and Lu, 2016; Nguyen et al., 2020). According to Chai et al. (2021), the perception of benefit that "organic food can fight disease and improve health" would encourage customers to switch to organic food. Similarly, Adam et al. (2017) suggested that the impact of consumer food safety concerns on organic food purchases can be attributed to "nervousness about food safety and compliance, demands for one's own health, and dissatisfaction stemming from the social environment". It can be explained as the induced change in food consumption behaviour (Adam et al., 2017). According to Nguyen et al. (2020) regular purchasers of organic chicken firmly believe that such a product contains less residue. They suggested that consumers' concerns about the safety of organic foods had a significant effect on their attitude towards organic meat purchasing behaviour. Recently, evidence from

Yunfeng et al., (2022) shows that food safety concerns are linked to favourable attitude and increased organic purchase intentions, as well as higher buying involvement.

In the light of this discussion, we hypothesize that:

Hypothesis 1. *Food safety concern positively affects consumers' organic food choice.*

2.2 Health consciousness

Health consciousness is an individual's belief that acts as the most important element influencing their choice of organic foods consumers are purchasing organic foods as an investment, reflects people's level of awareness and concern about their health (Chu, 2018). Teng and Lu, (2016) considered that health consciousness is positively related to consumer involvement with organic foods. Adam et al. (2017) found that health consciousness is the prominent factor on which consumers purchase green food. In this regard, Nguyen et al.(2020) suggests that health consciousness is a key determinant that effects the intention to purchase organic food. Study conducted in two developing countries, namely Kenya and Tanzania, reported that health awareness is crucial parameters that affect consumers' purchase intention (Chu, 2018). Further, Guiné et al.(2022) claimed that reasons for consuming organic farming products are associated with health consciousness. The findings are recently bolstered by a similar study which found that organic food consumption is strongly associated with health consciousness, which also drives consumers to purchase pure, chemical-free food products (Sapna et al., 2023).

Therefore, we formulated the following hypothesis

Hypothesis 2. *Health consciousness positively affects consumers' organic food choice.*

2.3 Organic food involvement

Involvement in organic food refers to “a motivational state which affects the extent and focus on consumers' attention and comprehension processes as well as overt behaviours” (Tarkiainen and Sundqvist, 2009). In other words, consumers are implying in organic product when it has great value or is of fundamental importance in their lives. According to Tarkiainen and Sundqvist ,(2009) , the more the individual has an interest in supporting his environment and protecting his health, the more he is involved in the buying and consuming of organic food. In line with this Teng and Lu,(2016) stated that consumers who are concerned about animal welfare and the environment have been proven to be very interested in organic foods. In the same vein, evidence from Taiwan also revealed that consumers' involvement with “clean label

products significantly effect their buying intention (Chang and Chen, 2022). According to these authors, such involvement would encourage consumers to consider the association of the product with their needs, inherent values, or benefits, and further arouse the occurrence of buying behaviour.

Considering the above discussion, we expect, that consumers tend to have greater involvement in the choice of organic food products, and state the following hypothesis is formulated.

Hypothesis 3. *Organic food involvement positively affects consumers' organic food choice.*

2.4 Organic price sensitivity

The amount to which a product's price fluctuations influence consumers' purchasing behaviour is referred to as price sensitivity. In other words, it is the way the demand changes with the evolution of the cost of the products. According to Rambabu (2022) Price is a major factor in determining a company's product positioning and consumers generally assume that a high price indicates a high-quality product, while a low price indicates a low-quality product. In their study, Guiné et al.(2022) found out that higher prices were identified as being one of the main determinants leading to the non-consumption of organic products in Portugal and Turkey. According to Sana (2020) price sensitivity has a negative influence on the consumers' green buying intention, as green products are much more expensive than conventional products. Further, evidence from Yunfeng et al., (2022) showed that price sensitivity is a negative determinant of organic food purchasing behaviour. The present study expects that more consumers dislike choosing organic food because they are constrained by the high price.

Therefore, we state our fifth hypothesis as follows:

Hypothesis 4. *Organic price sensitivity negatively affects consumers' organic food choice.*

2.5 The mediating role of consumers' scepticism toward organic food

In consumer studies, the term “scepticism” refers to consumers' propensity to ignore or mistrust environmental promises made by companies (Rambabu, 2022). According to some studies, a significant part of this consumer scepticism about organic/green products stems from them being misinterpreted, misrepresented or mislabelled (Rossi and Rivetti, 2023; Rambabu, 2022). One of the reasons are also non-standardized organic production and certification methods (Tan et al., 2022). Further, consumer scepticism may influence the sustainability-conscious purchasing behaviour of consumers, which in turn can be influenced by sustainability concerns (Rossi and Rivetti, 2023). As far as Pham et al, (2019) demonstrated that scepticism has a

detrimental effect on consumers' intentions to buy organic green products and their attitudes toward the environment. TTH et al., 2019 showed that skepticism has a negative influence on green vegetable purchase intentions. Findings are 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.

Therefore, we believe that skepticism mediates the relation between (food safety concern, health consciousness, organic food involvement, organic price sensitivity) and organic food choice. Therefore, we plausibly posit the following hypothesis.

Hypothesis 5: Organic food skepticism mediates the relationship between a) food safety concern, b) health consciousness, c) organic food involvement, d) organic price sensitivity and organic food choice.

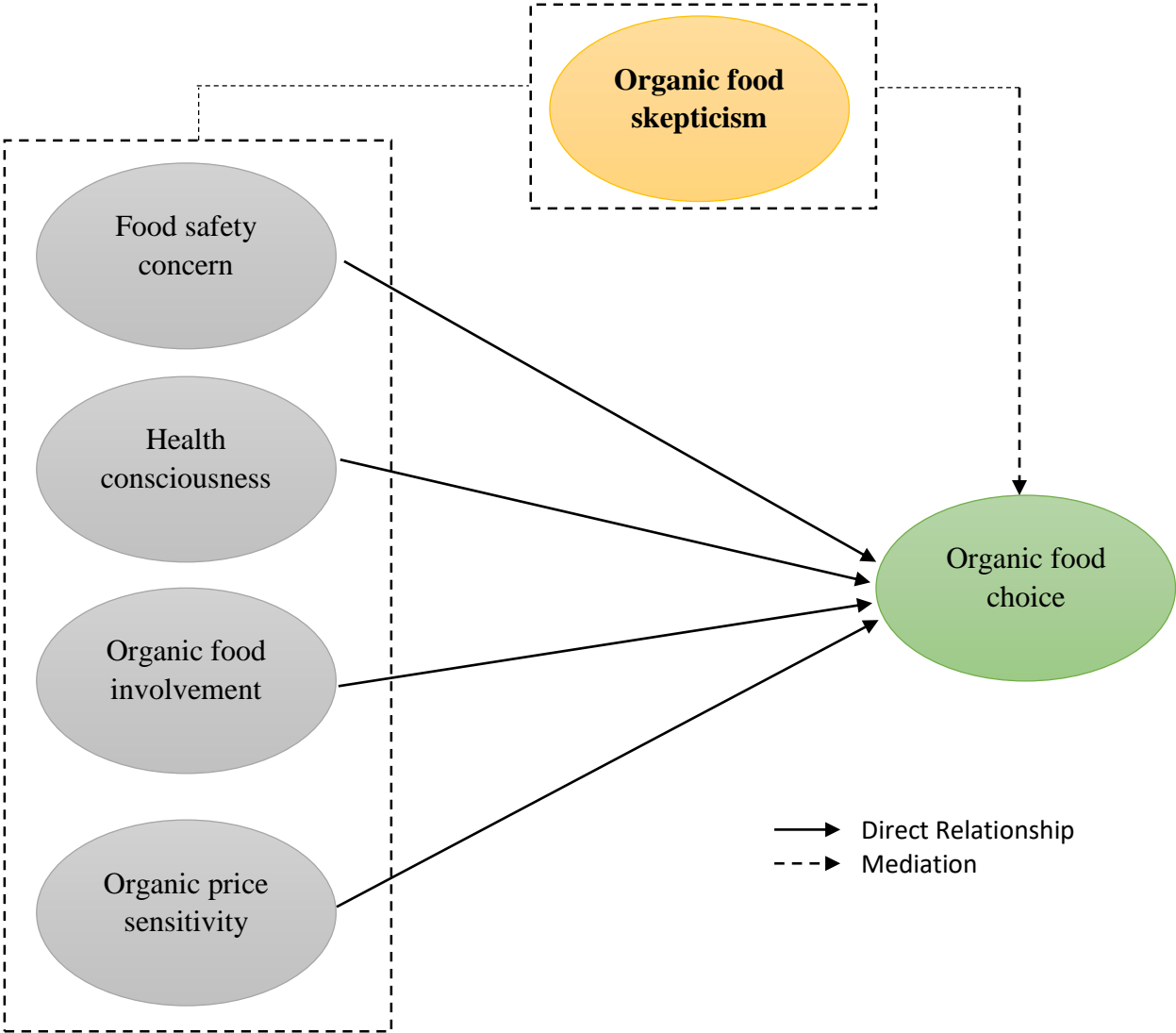


Figure 3 :The research model 2

3. Method

3.1 Participants and research design

Differences across geographical locations and culture are interesting concepts in consumers' consumption patterns for organic food (Rojik et al., 2022). Following these reasons, all potential consumers of organic food, who live in Tunisia, Italy and France, were considered eligible to participate in this research. The three countries were selected in order to remain within the Mediterranean context and to have, at the same time, different country characteristics which may lead to different assessments of consumers' organic food choice. All contributors were volunteers recruited through the authors' personal, academic and professional contact networks via a shared link that was circulated via email social media platforms such as LinkedIn, Twitter, Facebook, Instagram app and WhatsApp. Existing contributors were then invited to be referred to help with recruitment and forward the link to their networks. The final sample included 3008 valid respondents (Tunisia: 1006, Italy: 1000, and France: 1002).

3.2 Questionnaire Development

The survey questionnaire was prepared in English and then translated into French, Italian and Arabic and a back-translation methodology for validation. It was divided into two sections: the first section deals with demographic questions, and the second section includes seven study factors with 19 items that help in investigating the organic food choice. 4- items to measure organic food choice were adopted from Onwezen et al.(2019's ; 3- items to measure health consciousness were assessed from Hansen et al., (2018); food safety concern was measured using 3-items from Roddy et al, (1996) ; 2-item to assess the organic price sensitivity was adopted from the study of Yunfeng et al., (2022) ; 3- items were used from Teng and Lu, (2016) to measure the respondent levels of involvement on buying organic food. Finally two items used to measure organic food scepticism were adapted from Činjarević et al.,(2018). All items were assessed on 5-point Likert scales ranging from 1 ("strongly disagree") to 5 ("strongly agree"). An example of an item is:” Organic food is healthier than conventional food”.

All of the measurement scales for the survey were first developed in English before being back-translated into Arabic, Italian, and French by local speakers to ensure that the meanings and contents were the same as the original wordings. In order to assess their psychometric quality and determine whether they include any ambiguities, we also started a face-to-face pre-test.

The set of selected indicators is shown in **Appendix C**

3.3 Data analysis

In the present research, measurement model was initially designed to gauge the validity and reliability of the scales used. A structural model was later designed to assess the proposed hypothesis. The evaluation of the conceptual model was carried out using AMOS 24 on the basis of covariance based structural equation modelling (SEM). For estimation of the parameters, the maximum likelihood estimation method (MLE) was applied.

3.3.1. Descriptive statistical analysis of the sample

Based on **Table C 1**, most participants were women in both three countries (1838 female contributors in global), indicating that women are an important consumer group in organic food research (Giray et al., 2022). Women are committed to choosing and consuming organic foods because they tend to have better nutrition and follow healthier eating habits than men. Moreover, most purchasing decisions for organic food products are made by women as they are more concerned about environmental issues than men (Kifaya and Rama, 2023). Likewise, nearly three out of four participants are in the age group between 25 and 35, explained by the fact that this category is the most interested in research and investment in organic movement.

3.3.2 Measures and common method bias

We performed Harman's single-factor test to evaluate common method bias (Podsakoff et al., 2003), 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 37.38% 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 (Fuller et al., 2016).

3.3.3 Results for measurement model: Reliability and validity of constructs

To gauge internal consistency among items for each construct, the composite reliability (CR) and Cronach's alpha (α) were used. The standardized factor loading (λ) and average variance extracted (AVE) were used to gauge convergent and discriminant validity.

As shown in **Table C 2**, (λ) and (α) are greater than 0.7, confirming the internal consistency (Agan et al., 2013). Furthermore, all CR of each construct is above 0.7, and all AVE values are greater than the cut-off value of 0.5, confirming the reliability and the convergent validity of every construct of our conceptual model (Hair et al., 2006). The average (AVE) values lower than all (α) values confirm that the criterion of the discriminant validity is respected for all constructs (Hair et al., 2006).

The goodness-of-fit index shows values as follows: Tunisian sample (Normed χ^2 (CMIN /DF =1.972); CFI = 0.92, IFI =0.96, TLI=0.95, GFI =0.98, RMSEA= 0.045); Italian sample (Normed χ^2 (CMIN /DF =1.888); CFI = 0.95, IFI =0.94, TLI=0.92, GFI =0.96, RMSEA= 0.031); French sample (Normed χ^2 (CMIN /DF = 2.021); CFI = 0.90, IFI =0.92, TLI=0.92, GFI =0.94, RMSEA= 0.038) .

Hence, all the fit indices values for the structural model within accepted ranges (Hair et al., 2015).

3.3.4 Results for Structural modelling

To investigate suggested research hypotheses, structural equation modeling was used. Finding revealed a satisfactory model fit and high fit indices: Tunisian sample (Normed χ^2 (CMIN /DF =1.681); CFI = 0.98, IFI =0.99, TLI=0.98, GFI =0.99, RMSEA= 0.035); Italian sample (Normed χ^2 (CMIN /DF =1.937); CFI = 0.96, IFI =0.99, TLI=0.97, GFI =0.97, RMSEA= 0.041); French sample (Normed χ^2 (CMIN /DF = 1.777); CFI = 0.97, IFI =0.96, TLI=0.90, GFI =0.98, RMSEA= 0.048) .

The standardized path coefficients for both three samples are shown in **Table C 3** .

The findings clearly indicate the support for all the proposed **direct hypothesis 1, 2, 3 and 4** for the samples from both three countries (Tunisia, Italy and France). The relationship between food safety concern and organic food choice (Tunisia: β =0.260, $p < .001$, Italy: β = 0.680, $p < .001$, and France: β = 0.402, $p < .001$) is significant, but this relationship is stronger for Italy than France and Tunisia. Similarly, the relationship between health consciousness concern and organic food choice (Tunisia: β =0.104, $p < .005$, Italy: β = 0.277, $p < .001$, and France: β = 0.398, $p < .001$) is significant, but this relationship is stronger for France than Italy and Tunisia. The relationship between organic food involvement and organic food choice (Tunisia: β =0.130, $p < .001$, Italy: β = 0.359, $p < .001$, and France: β = 0.201, $p < .001$) is significant, but this relationship is stronger for Italy than France and Tunisia. Finally, the hypothesised relationship between price sensitivity and organic food choice is negative as expected (Tunisia: β =-0.590, $p < .001$, Italy: β = -0.105, $p < .005$, and France: β = -0.188, $p < .001$) and stronger for Tunisia than Italy and France.

In a further step of the analysis, the mediation influence of green skepticism is investigated for both three samples using the Bootstrapping technique along with 5000 sub samples (Hair et al., 1998). In **Table C 4**, results for four mediation paths present in the model at different significance level with lower and upper bound of bias corrected percentile method for Tunisian,

Italian and the French samples were obtained. The indirect effect of (food safety concern, health consciousness, organic food involvement, and organic price sensitivity) on organic food choice through the mediator skepticism was statistically significant.

In the mediation (FSC-OFS-OFC), skepticism acts perfectly as the mediator between the food safety concern and organic food choice for both three country samples (Tunisia: $-\beta = 0.081$, $p < .001$, {0.000, 0.203} ; Italy: $-\beta = 0.102$, $p < .005$, {0.000, 0.203}; and France: $-\beta = 0.318$, $p < .001$, {0.330, 0.554}), but the strength of the mediation is stronger for France than Tunisia and Italy . The second path (HCN-OFS-OFC), the strength of the mediation is stronger for Tunisia ($-\beta = 0.135$, $p < .001$, {0.021, 0.322}) than Italy ($-\beta = 0.055$, $p < .005$, {0.017, 0.82}) and France ($-\beta = 0.037$, $p < .005$, {0.014, 0.079}). Similarly, the strength of the mediation in the third path (OFI-OFS-OFC) is stronger for Tunisia ($-\beta = 0.177$, $p < .005$, {0.027, 0.284}) than Italy ($-\beta = 0.41$, $p < .001$, {0.014, 0.066}) and France ($-\beta = 0.156$, $p < .001$, {0.009, 0.278}). Finally, the strength of the mediation in the path (OPS-OFS-OFC) is stronger for France ($-\beta = 0.217$, $p < .005$, {0.00, 0.120}) than Italy ($-\beta = 0.184$, $p < .001$, {0.013, 0.084}) and Tunisia ($-\beta = 0.22$, $p < .005$, {0.019, 0.225}). Thus, **hypothesis 5** is supported for both three countries.

3.4 Discussion

Determining how various factors influence food choice can be a critical topic of marketing and organic food consumption (kifaya and Rama, 2023). In this context, this study addressed the effects of food safety concern, health consciousness, organic food involvement, and price sensitivity on consumers' organic food choice in three different countries, namely Tunisia, Italy, and France. Moreover, it establishes skepticism as a mediator in this relationship. Finding showed that the choice of organic food is relatively similar in both three countries. This evidence may be explained by the apparent trend towards more organic food choices, driven by the perceived negative effect of conventional agriculture on health and ecosystems (Guiné et al., 2022). However, the relationship between (food safety concern, health consciousness, and organic food involvement) and consumers' organic food choice is stronger for Italy and France than Tunisia.

In Tunisia, the consumption of organic food is still modest (kifaya and Rama, 2023). This country represents a critical case concerning the lack of interactional trust between actors (e.g. businesses and consumers) have not promoted a paradigm shift in consumption behaviour over the past 10 years. Hence, sustainable government policy can encourage food production and healthy eating habits would indirectly favour the choice of organic food products. In Italy and

France, following the European Union policies, incentives have been put in place to make the food systems healthy, fair and environmentally-friendly from the Farm to Fork. The European union Organic Action Plan is expected to play a crucial role in accelerating the transition to organic production and consumption, which are at the heart of the European Green Deal. On the other hand, the negative relationship between price sensitivity and consumers' organic food choice is stronger for Tunisia than Italy and France. This finding may be related to Tunisian consumers' higher levels of price sensitivity when purchasing organic goods (Kifaya and Rama, 2023) as Tunisia has experienced a sharp decline in economic growth compared to these two regional peers leads to a loss of purchasing power. Considering the findings of this study, marketers and producers must therefore succeed in obtaining the lowest possible price for consumer in both three countries. Finally, our results revealed that there is a uniform cross-cultural skepticism in Tunisia, Italy and France, indicating a widespread presence and relevance of this phenomenon all over.

3.5 Theoretical and managerial implications

From a theoretical perspective, the present research seeks to contribute to the literature on consumer behaviour research and organic food literature. It also contributes to an emerging stream calling for comparative research between cultures by exploring the various factors influence on organic food choice in three different countries, namely Tunisia, Italy, and France. Precisely, it partly fulfils existing gap in literature relating to the influence of food safety concern, health consciousness, organic food involvement, and price sensitivity on consumers' organic food choice. On the other hand, this study contributes to past studies by investigating the mediating role of skepticism in organic consumption. Specifically, it contributes to the literature by providing empirical evidence of the role skepticism plays in consumers' choice of organic foods, studies in organic food context are still scarce.

From a managerial perspective our study has some practical implications for practitioners desiring to assess consumers' organic food choice and elevate their positive evaluation. Findings revealed the positive effects of food safety concern, health consciousness, and organic food involvement on organic food choice. Accordingly, marketers can persuade food safety concern and health-conscious aware consumers by highlighting the benefits of consuming organic food products. Moreover, since the tendency for supporting the environment is growing, the scope for consumption of organic food is also elevated and our findings reflect those consumers who are found to be more environmentally conscious will basically consume organic food (Hunka

et al., 2021). Therefore, the more detailed the environmental benefits are provided, the greater the chances of choosing the organic food products. Findings also provide a new perspective by indicating the negative effect of the price sensitivity on consumers' organic food choice. To boost organic consumption, marketers should draw consumers' attention to the price of organic food products by highlighting unique benefit and values of these products, such as fighting disease and improving health. Moreover, setting a price comparison effect for consumers between different organic food products from different brands separately instead of comparing with conventional food products, is important so that consumers can focus on comparing the differences and receive slight price differences between different organic brands. Finally, policymakers must be cognizant that the wave of consumer skepticism is on the rise. In fact, they must devote all their efforts in monitoring levels of skepticism among their consumers, taking the most appropriate measures to manage it.

3.6 Limitations and areas for futures studies

Although the present study provided some valuable insights into the consumption of more organic foods in Italy, France and Tunisia, as well the reason for the resistance to choosing an organic product, it is important to point out certain limitations, namely the uneven group representativeness of the contributors (for example, a high number of participants with a higher education level whom were recruited through the authors' networks of university, personal, and work contacts). Another limit of the study represented in the discrepancy between the declarations of the participants and their real choice behaviour in the organic food markets.

For further scope, it is necessary to consider whether our conclusions are applicable to organic food products in other countries. On the other hand, we suggest considering experimental studies on the organic-washing influence on skepticism. Qualitative research on organic food choice would also bring fresh insights fresh perspectives and useful insights for researchers, policy makers and organic food companies, in assessing the food choice of consumers. This study on consumers' organic food choice was restricted to the four key factors, thus, to deepen the understanding of the factors affecting consumers' organic food choice, future research should include more variables, such as organic accepted price, organic brand loyalty, and organic food origin.

Finally, further studies could also target various groups of consumer segments with varying psychographic profiles and investigate their organic food choice in different countries with a larger sample size that would further confirm the findings of the present study.

Table C 1: The sample profile: Tunisia (N=1006), Italy (N=1000), and France (N=1002)

	Tunisia (%)	Italy (%)	France (%)
Age			
Below 25 years	11 (1.09)	59(5.9)	215 (21.45)
25-35	393(39.06)	501(50.1)	289(28.84)
35-45	309(30.71)	199(19.9)	111(11.07)
45-55	189(18.78)	222(22.2)	217(21.65)
55 and above	104(10.33)	19(1.9)	170(16.96)
Gender			
Female	608(60.43)	511(51.1)	719(71.75)
Male	398(39.56)	489(48.9)	283(28.24)

Table C 2: Results of the measurement model analysis: Standardized Factor Loading (λ), AVE= average variance extracted, Cronbach's Alpha (α), and Composite Reliability (CA)

Constructs	Item	Tunisia				Italy				France			
		(λ)	AVE	α	CR	(λ)	AVE	α	CR	(λ)	AVE	α	CR
Organic food choice	OFC1	0.82	<u>0.660</u>	<u>0.82</u>	<u>0.886</u>	0.85	<u>0.669</u>	<u>0.87</u>	<u>0.890</u>	0.86	<u>0.686</u>	<u>0.80</u>	<u>0.897</u>
	OFC2	0.81				0.80				0.85			
	OFC3	0.80				0.82				0.80			
	OFC4	0.82				0.80				0.80			
Food safety concern	FSC1	0.79	<u>0.696</u>	<u>0.87</u>	<u>0.872</u>	0.80	<u>0.678</u>	<u>0.89</u>	<u>0.863</u>	0.85	<u>0.684</u>	<u>0.85</u>	<u>0.866</u>
	FSC2	0.84				0.83				0.80			
	FSC3	0.87				0.84				0.83			
Health consciousness	HCN1	0.81	<u>0.696</u>	<u>0.83</u>	<u>0.873</u>	0.85	<u>0.689</u>	<u>0.82</u>	<u>0.869</u>	0.85	<u>0.695</u>	<u>0.88</u>	<u>0.872</u>
	HCN2	0.89				0.81				0.82			
	HCN3	0.80				0.83				0.83			
Organic food involvement	OFI1	0.80	<u>0.695</u>	<u>0.86</u>	<u>0.872</u>	0.81	<u>0.684</u>	<u>0.84</u>	<u>0.866</u>	0.86	<u>0.689</u>	<u>0.81</u>	<u>0.869</u>
	OFI2	0.87				0.86				0.82			
	OFI3	0.83				0.81				0.83			
Organic price sensitivity	OPS1	0.85	<u>0.697</u>	<u>0.81</u>	<u>0.822</u>	0.78	<u>0.691</u>	<u>0.79</u>	<u>0.817</u>	0.86	<u>0.698</u>	<u>0.81</u>	<u>0.822</u>
	OPS2	0.82				0.88				0.81			
Organic food skepticism	OFS1	0.76	<u>0.676</u>	<u>0.79</u>	<u>0.806</u>	0.85	<u>0.697</u>	<u>0.80</u>	<u>0.822</u>	0.86	<u>0.674</u>	<u>0.78</u>	<u>0.805</u>
	OFS2	0.88				0.82				0.78			

Table C 3 : Structural model results

<i>Structural paths</i>	<i>Estimate (β1) (Tunisia)</i>	<i>Estimate (β2) (Italy)</i>	<i>Estimate (β3) (France)</i>	<i>Hypothesis</i>
FSC ---► OFC	0.260**	0.680**	0.402**	Supported
HCN---► OFC	0.104*	0.277**	0.398**	Supported
OFI ---► OFC	0.130**	0.359**	0.201**	Supported
OPS ---► OFC	-0.590**	-0.105*	-0.188**	Supported

Notes: FSC= Food safety concern; HCN= Health consciousness; OFI= Organic food involvement; OPS= Organic price sensitivity; OFC= Organic food choice;

**= $p < 0.001$; *= $p < 0.005$

Table C 4 : Multi-group mediation results

<i>Indirect paths</i>	<i>Estimate (-β1) (Tunisia)</i>	<i>Estimate (-β2) (Italy)</i>	<i>Estimate (-β3) (France)</i>
FSC ---► OFS---► OFC	0.081** {0.000, 0.203}	0.102* {0.000, 0.203}	0.318** {0.330, 0.554}
HCN---► OFS ---► OFC	0.135** {0.021, 0.322}	0.055* {0.017, 0.82}	0.037* {0.014, 0.079}
OFI ---► OFS ---► OFC	0.177* {0.027, 0.284}	0.41** {0.014, 0.066}	0.156** {0.009, 0.278}
OPS ---► OFS ---► OFC	0.22* {0.019, 0.225}	0.184* * {0.013, 0.084}	0.217* {0.00, 0.120}

Notes: FSC= Food safety concern; OFS=Organic food skepticism; HCN= Health consciousness; OFI= Organic food involvement; OPS= Organic price sensitivity; OFC= Organic food choice;

**= $p < 0.001$; *= $p < 0.005$, {Lower limit, Upper limit} – lower and upper limits of bias corrected percentile method.

Appendix C: Appendix for Essay 3

Organic food choice

OFC1 It is important to me that the food I eat on a typical day is healthy.

OFC2 It is important to me that the food I eat on a typical day is natural.

OFC3 It is important to me that the food I eat on a typical day is environmentally friendly

OFC4 It is important to me that the food I eat on a typical day is animal friendly.

Health consciousness

HCN1 I regard myself as a health consciousness consumer.

HCN2 I seek to choose food products that are good for my health.

HCN3 I buy more fresh food and vegetables now than I did a few years ago.

Organic price sensitivity

OPS1 When I buy organic food, the price is not important.

OPS2 It is acceptable to pay more for organic food than conventional food.

Food safety concern

FSC1 The quality and safety of food nowadays concerns me.

FSC2 I'm very concerned about the number of artificial additives and preservatives in food.

FSC3 I buy more fresh food and vegetables now than I did a few years ago.

Organic food involvement

OFI1 Organic foods are very important to me.

OFI2 Organic foods are continually of interest to me.

OFI3 I'm highly involved in searching and reading information about organic foods.

Organic food skepticism

OFS1 Most claims on organic food package labels or in advertising are intended to mislead rather than to inform consumers.

OFS2 I do not believe in most of the claims made on the organic food package labels or in advertising.

References C

- Adam, T.; Ela, O.; Reuven, D.; Baruch, E. The Sense of Agency Scale: A Measure of Consciously Perceived Control over One's Mind, Body, and the Immediate Environment. *Front. Psychol.* 2017, 8, 1552.
- Agan, Y., Acar, M.F., Borodin, A., 2013. Drivers of environmental processes and their impact on performance: a study of Turkish SMEs. *Journal of Cleaner Production.* 51, 23-33.
- Aschemann-Witzel, J., & Niebuhr Aagaard, E. M. (2014). Elaborating on the attitude-behaviour gap regarding organic products: young Danish consumers and in-store food choice. *International Journal of Consumer Studies*, 38(5), 550–558.
- Azim Zarei & Fatemeh Maleki (2018): From Decision to Run: The Moderating Role of Green Skepticism, *Journal of Food Products Marketing*.
- Bezawada, R., Pauwels, K., 2013. What is Special About Marketing Organic Products? *Journal of Marketing* 77 (1), 31-51.
- Bhaskaran, S., Polonsky, M., Cary, J. and Fernandez, S. (2006), "Environmentally sustainable food production and marketing: Opportunity or hype?", *British Food Journal*, Vol. 108 No. 8, pp. 677-690.
- Bi, S., Z. Gao, L.A. House, D.S Hausmann, et al. Tradeoffs between sensory attributes and organic labels: the case of orange juice *International Journal of Consumer Studies*, 39 (2015), pp. 162-171.
- Bisogni CA, Falk LW, Madore E, et al. Dimensions of everyday eating and drinking episodes, *Appetite*, 2007, vol. 48 (pg. 218-231).
- Bravo, C. P., Cordts, A., Schulze, B., and Spiller, A. (2013). Assessing determinants of organic food consumption using data from the German National Nutrition Survey II. *Food Quality and Preference.* 28, 60–70.
- Chai, D.; Meng, T.; Zhang, D. Influence of Food Safety Concerns and Satisfaction with Government Regulation on Organic Food Consumption of Chinese Urban Residents. *Foods* 2022, 11, 2965.
- Chang M-Y, Chen H-S. Understanding Consumers' Intentions to Purchase Clean Label Products: Evidence from Taiwan. *Nutrients.* 2022; 14(18):3684.

Chen, M.F. (2007) Consumer Attitudes and Purchase Intentions in Relation to Organic Foods in Taiwan: Moderating Effects of Food-Related Personality Traits. *Food Quality and Preference*, 18, 1008-1021.

Chu. K. M .Mediating influences of attitude on internal and external factors influencing consumers' intention to purchase organic foods in China *Sustainability*, 10 (12) (2018), p. 4690.
Činjurević, Merima, Agić, Emir and Peštek, Almir. "When Consumers are in Doubt, You Better Watch Out! The Moderating Role of Consumer Skepticism and Subjective Knowledge in the Context of Organic Food Consumption" *Zagreb International Review of Economics and Business*, vol.21, no.s1, 2018, pp.1-14.

E.L. Olson ,The rationalization and persistence of organic food beliefs in the face of contrary evidence *Journal of Cleaner Production*, 140 (2017), pp. 1007-1013.

Fenko, A. (2019). Influencing Healthy Food Choice through Multisensory Packaging Design. In: Velasco, C., Spence, C. (eds) *Multisensory Packaging*. Palgrave Macmillan, Cham.

Fuller.C.M, M.J. Simmering, G. Atinc, Y. Atinc, B.J. Babin Common methods variance detection in business research *J. Bus. Res.*, 69 (2016), pp. 3192-3198.

Furst.T, M. Connors, C.A. Bisogni, J. Sobal, L.W. Falk Food choice: A conceptual model of the process *Appetite*, 26 (1996), pp. 247-265.

Giray.C , B. Yon, U. Alniacik, Y. Giriskan. How does mothers' mood matter on their choice of organic food? Controlled eye-tracking study *Journal of Business Research*, 144 (2022), pp. 1175-1185.

GNOUFOUGOU Doman.(2021) «Effet de l'implication du consommateur sur le comportement d'achat de produits alimentaires biologiques : Rôles modérateurs de l'âge et du niveau du revenu», *Revue Internationale des Sciences de Gestion* «Volume 4 : Numéro 1» pp : 125 - 149.

Guiné, Raquel P. F., Sofia G. Florença, Daniela T. V. A. Costa, Selda Çelik, Manuela Ferreira, Ana Paula Cardoso, Sümeyye Çetin, and Cristina A. Costa. 2022. "Comparative Study about the Consumption of Organic Food Products on Samples of Portuguese and Turkish Consumers under the COVID-19 Pandemic Context" *Agronomy* 12, no. 6: 1385.

Gundala RR, Singh A (2021) What motivates consumers to buy organic foods? Results of an empirical study in the United States. *PLoS ONE* 16(9): e0257288.

- Hair JF, Black WC, Babin BJ, Anderson RE .2015 Multivariate data analysis..
- Hair, J.F., Anderson, R., Tatham, W., 1998. *Multivariate Data Analysis*, fifth ed. PrenticeHall, Upper Saddle River, NJ. Pearson.
- Hair.J, B. Black, B. Babin, R.E. Anderson, R.L. Tatham *Multivariate Data Analysis* (6th edition), Pearson (2006).
- Hansmann , R.; Baur, I.; Binder, C.R. Increasing organic food consumption: An integrating model of drivers and barriers. *J. Clean. Prod.* 2020, 275, 123058.
- Hunka .A.D , M. Linder, S. Habibi Determinants of consumer demand for circular economy products. A case for reuse and remanufacturing for sustainable development *Bus. Strat. Environ.*, 30 (1) (2021), pp. 535-550.
- Kifaya, R., Rama, D. Determinants of organic Tunisian purchasing behaviour: an application of the consumption values theory. *Ital. J. Mark.* (2023).
- Mahnaz Mansoor & Justin Paul, 2022. "Consumers' choice behavior: An interactive effect of expected eudaimonic well-being and green altruism," *Business Strategy and the Environment*, Wiley Blackwell, vol. 31(1), pages 94-109, January. (verifier sinon effacer)
- Nguyen, H.V.; Nguyen, N.; Nguyen, B.K.; Lobo, A.; Vu, P.A. Organic Food Purchases in an Emerging Market: The Influence of Consumers' Personal Factors and Green Marketing Practices of Food Stores. *Int. J. Environ. Res. Public Health* 2020, 16, 1037.
- Onwezen, M. C., Reinders, M. J., Verain, M. C. D., & Snoek, H. M. (2019). The development of a single-item Food Choice Questionnaire. *Food Quality and Preference*, 71, 34-45.
- Pacho, F. (2020), "What influences consumers to purchase organic food in developing countries?", *British Food Journal*, Vol. 122 No. 12, pp. 3695-3709.
- Pham.T.H, T.N. Nguyen, T.T.H. Phan, N.T. Nguyen Evaluating the purchase behaviour of organic food by young consumers in an emerging market economy *Journal of Strategic Marketing*, 27 (6) (2019), pp. 540-556.
- Podsakoff.P.M, S.B. MacKenzie, J.-Y. Lee, N.P. Podsakoff Common method biases in behavioral research: a critical review of the literature and recommended remedies *J. Appl. Psychol.*, 88 (2003), pp. 879-903.

Rambabu .L .(2022).Organic green purchasing: moderation of environmental protection emotion and price sensitivity J. Clean. Prod., 133113 .

Roddy, G., Cowan, C.A. and Hutchinson, G. (1996), "Consumer attitudes and behaviour to in Ireland", Journal of International Consumer Marketing, Vol. 9 No. 2, pp. 41-63.

Rossi Carla ; Francesca Rivetti.Young consumers' purchase behaviour of sustainably-labelled food products. What is the role of scepticism?.Food Quality and Preference Volume 105, January 2023, 104772.

S. Rojik, M. Zámková, M. Chalupová, L. Pilar, M. Prokop, R. Stolín, K. Malec, S.N.K. Appiah-Kubi, M. Maitah, P. Dziekanski, P. Prus Pre-COVID-19 organic market in the European union-focus on the Czech, German, and Slovak markets Agriculture, 12 (1) (2022), p. 82.

S.H. Schwartz Are there universal aspects in the structure and J. Soc. Issues, 50 (1994), pp. 19-45.

Saba, A. and Messina, F.Attitudes towards organic foods and risk/benefit perception associated with pesticides Food Qual. Prefer., 14 (8) (2003), pp. 637-645

Sana, S.S. (2020), "Price competition between green and non green products under corporate social responsible firm", Journal of Retailing and Consumer Services, Vol. 55, pp. 102-118.

Sapna. Parashar ; Supriya Singh ; Gunjan Sood (2023).Examining the role of health consciousness, environmental awareness and intention on purchase of organic food: A moderated model of attitude. Journal of Cleaner Production .Volume 386, 1 February 2023, 135553.

Scheibehenne B, Meisler L, Todd PM. Fast and frugal food choices: Uncovering individual decision heuristics, Appetite, 2007, vol. 49 (pg. 578-589).

Silva, M.E., Sousa-Filho, J.M.d., Yamim, A.P. and Diógenes, A.P. (2020), "Exploring nuances of green skepticism in different economies", Marketing Intelligence & Planning, Vol. 38 No. 4, pp. 449-463.

Sobal, J.; Bisogni, C.A. Constructing food choice decisions. Ann. Behav. Med. 2009, 38, s37–s46.

Su, Y., Khaskheli, A., Raza, S.A. and Yousufi, S.Q. (2022), "How health consciousness and social consciousness affect young consumers purchase intention towards organic foods", Management of Environmental Quality, Vol. 33 No. 5, pp. 1249-1270.

T. Hansen, M.I. Sørensen, M.L.R. Eriksen How the interplay between consumer motivations and values influences organic food identity and behaviour *Food Pol.*, 74 (2018), pp. 39-52.

Tan.T.M, H. Makkonen, P. Kaur, J. Salo How do ethical consumers utilize sharing economy platforms as part of their sustainable resale behavior? The role of consumers' green consumption values *Technol. Forecast. Soc. Change*, 176 (2022), Article 121432.

Tarkiainen, A., Sundqvist, S. (2009), "Product Involvement in Organic Food Consumption: Does Ideology Meet Practice?" *Psychology & Marketing*, 26 (9), 844-63.

Tavakol M, Dennick R, 2017.Making sense of Cronbach's alpha.*Int. J. Med. Educ.* 27(2),53 5.

Tavares, V., Perez, R., Stringheta, P. C., & Braga, G. B. (2021). Impact of organic certification on the price of ready-to-drink fruit nectars and juices. *Food Science and Technology (Camp Guiné, R.P.F.; Florença, S.G)*.

Teng, C. C., & Lu, C. H. (2016). Organic food consumption in Taiwan: Motives, involvement, and purchase intention under the moderating role of uncertainty. *Appetite*, 105, 95–105.

TTH Nguyen, Yang Z, Nguyen N, Johnson LW, Cao TK. Greenwash and Green Purchase Intention: The Mediating Role of Green Skepticism. *Sustainability*. 2019; 11(9):2653.

Vitterso, G., Tangeland, T., 2015. The role of consumers in transitions towards sustainable food consumption. The case of organic food in Norway. *Journal of Cleaner Production*. 92, 91- 99.

Watanabe, E.A.d.M., Alfinito, S., Curvelo, I.C.G. and Hamza, K.M. (2020), "Perceived value, trust and purchase intention of organic food: a study with Brazilian consumers", *British Food Journal*, Vol. 122 No. 4, pp. 1070-1184.

Yunfeng XING,Mengqi LI,Yuanhong LIAO,(2022).Trust, price sensitivity and consumers' organic food purchasing behaviour in China.*Food Science and Technology*.ISSN 1678-457X.

Thesis conclusion

The growth of the market for green /organic products is only one element of a more complex phenomenon called ecological consumption, and the strengthening of a new paradigm known as green marketing. Thus, to support and maintain the growth of this phenomenon, new research on organic green and products should always aim to identify possible developments in consumer attitudes, intentions, and behaviour. Conducting research to learn about consumer behaviour, what motivates or inhibits them to purchase such products is crucial to achieving business success and the creation of public policy.

Consumer behaviour studies revealed a perception that consumers are increasingly concerned that companies mislead the public about environmental issues in order to boost their sales and reputation. In other words, these studies raised the issue of "green skepticism" which is on the rise, and called to understand its role on the consumers 'organic /green consumption. This, at a time when there is a gap in the literature regarding this psychological inhibitor that could limit the growth of the organic / green market. To fill the literature gap, consumer skepticism was explained in relation to the context in which it occurs. Specifically, the current thesis was based on data obtained from the Italian, French and Tunisian market, where there are differences in economic development, divergent pathways in terms of sustainability, the organic/ green market, mainly when comparing, the importance given to the different dimensions of sustainability, the consumer demand, the size, structure, nature of the offer, and the actors involved. It consists of three essays on skepticism in consumer's behaviour:

- ✓ **Essay 1** investigated the relationship between consumers' skepticism and the purchasing behaviour of organic cosmetics.
- ✓ **Essay 2** reveals the psychological effect of skepticism on green consumption behaviour.
- ✓ **Essay 3** demonstrated that organic food skepticism could partly explain the gap" or discrepancy between the great deal of positive attitudes towards organic food expressed by consumers and their actual choices.

Findings revealed a homogeneity in consumption behaviour for organic and green product across the three countries investigated as well as uniform cross-cultural skepticism. This may be explained by the widespread awareness regarding consumption, of its major and irreversible impacts on habitats and global ecosystem services, resulting in a strong similarity of spirit

between the countries studied to consume organic and green products. But, the rapid rise in environmental practices has sparked a debate on the environmental performance and the benefits of organic and green products, and risen wave of consumers' skepticism phenomenon. Importantly, the result of the overly vague use of the word "green" / "organic" (and other similar terms) in the majority of the environmental claims incorporated into labels and packaging. Marketing claims provide too much information that is "too ambiguous and too complex" significantly reducing involvement in organic/green consumption. Therefore, policymakers must devote all their efforts in monitoring levels of this phenomenon among their consumers, taking the most appropriate measures to manage it. Specifically, they must provide a clear, strong, and relevant product details in their advertising, also use simple words and information for all green claims on packaging. Moreover, there is also a need for more specific regulations to prevent "greenwashing", as skepticism is its extended consequence. Authentic accurate and truthful advertisements build consumer trust, sense of value, and willingness to consume organic green products. At the heart of the argument of this result, a global marketing strategy is an appropriate option to reduce consumer skepticism to resist organic/ green products.

On the other hand, this study reveals that females are more sensitive to environmental issues than males in all both three countries, which reinforces and echoes the socialization theory that indicates that females are more concerned about the environment. Thus, it is interesting for companies to address this gender difference in environmental views and involvement, as both women and men must work hand in hand to confront the current challenges and achieve a just and sustainable future. From this perspective, males may be more targeted in environmental education and green investment in the Future. More specifically, we propose that environmental claims of future organic and green advertisements could rely more on women, who could be better informed and involved in this environmental movement.

Over all, we are of the view that organic / green consumption behaviour should be a mindset of society, and not purely an 'advertisable' or 'marketable' concept. This means that citizens should be voluntarily involved in environmentally friendly activities and have a sense of environmental responsibility in their production and consumption. Change will only happen when organic /green consumption becomes voluntary. The focus on the psychological and structural approach underlying consumer preference or resistance to organic and green products addressed by the current thesis may shape the mindset of consumers and steer them toward organic/ green consumption.

Theoretical implications

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 Italy, France and Tunisia. It validates, 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 (Stern, 2000, 1999). Moreover, it contributes to an emerging stream calling for research using various dimensions (Sapna et al., 2023), such as the economic difference. Specifically, it contributes to the literature by providing empirical evidence of the role skepticism plays in consumers' purchase behaviour, green consumption and choice of food products, studies are still scarce. It also fills an important research gap regarding the role of green skepticism as a moderating and mediating mechanism that can prevent the adoption of organic /green consumption. Finally, the present research is an effort to partly answer the recent calls suggesting the need to carry out a comparative study between cultures (Silva et al., 2020).

Managerial implications

From a managerial perspective our study has some practical implications for practitioners desiring to assess consumers' green behaviour and elevate their positive evaluation. The current research shares a novel lens of considering the role of green skepticism in green consumer behaviour. Results showed that green skepticism has a detrimental effect on organic purchase behaviour, green consumption and organic food choice. 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 the consumers, the marketing makers must reveal all of the claimed environmental advantages and benefits visible on the communication channel in order to win the consumers' trust (social media, website, packaging, and advertising).

Limitations and areas for futures studies

Limitations exist for all the essays. The study gathered data from consumers in Tunisia, Italy and France. Consequently, the sample size is the first limitation, future research need to be replicated on a large scale and more representative samples. Even though it is a three-country comparison between the Tunisian, Italian and French markets, the study of more attractive markets for organic green products, such as the UK and Germany might be an added value. Beyond that, Americans and Asians countries, characterized by different cultural backgrounds and consumer behaviors, are also a great perspective to explore the impact of green skepticism.

Moreover, we focused on three Mediterranean countries. Further empirical research could verify whether the models are valid for other Mediterranean countries, given the great consistency of our results across the markets studied. It is also important to point out another limitation, namely the uneven group representativeness of the contributors (for example, a high number of participants with a higher education level whom were recruited through the authors' networks of university, personal, and work contacts). These categories are the most engaged in ecological research and investment which may leave a significant research gap regarding the results. Similarly, study used self-report survey and participants were approached on social media platforms such as LinkedIn, WhatsApp, Facebook, and Instagram. This leaves a significant research gap and it would be interesting to see if there are any variations in the responses' nature in a real purchase situation, using face-to-face market survey. This study adopted a quantitative research approach, the qualitative research on green skepticism will also bring new insights and useful information for researchers, policy makers and organic green companies, in evaluating this phenomenon.

Finally, this thesis addressed an important topic such consumer behaviour which is hotly debated, and our understanding of this phenomenon, particularly what motivates and inhibits it, is surprisingly limited. We hope to have contributed partly to the literature on consumer behaviour research and open up fruitful paths both reflection of companies and academic researchers on this phenomenon in general, in particular in the context organic and green products.

References

- Albayrak, T., Caber, M., Moutinho, L., & Herstein, R. (2011). The influence of skepticism on green purchase behavior. *International Journal of Business and Social Science*, 2(13).
- Alves, E., & Edwards, M. (2008). Case for green food labels, the. *Sustainable Developments L& Pol'y*, 9, 51.
- Banbury, C., Stinerock, R. and Subrahmanyam, S. (2012), "Sustainable consumption: introspecting across multiple lived cultures", *Journal of Business Research*, Vol. 65 No. 4, pp. 497-503.
- Carlson, L., Stephen, J., & Kangun, N. (1993.) A content analysis of environmental advertising: a matrix approach. *Journal of Advertising*, 22, 27–40.
- Chang, C. (2011). Feeling ambivalent about going green. *Journal of Advertising*, 40(4), 19–32.
- Chwialkowska A, Bhatti WA, Glowik M, The influence of cultural values on pro-environmental behavior, *Journal of Cleaner Production* (2020).
- Goh, S.K. and Balaji, M.S. (2016). Linking green skepticism to green purchase behavior. *Journal of Cleaner Production*, 131: 629–638.
- Hui Lu., Weibo Zhang., Beidi Diao., Yan Liu., Hong Chen., Ruyin Long ., Shaohan Cai. The progress and trend of pro-environmental behavior research: a bibliometrics-based visualization analysis, *Current Psychology* (2021).
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3 (1–2), 128–143.
- Kifaya, R., Rama, D. Determinants of organic Tunisian purchasing behaviour: an application of the consumption values theory. *Ital. J. Mark.* (2023).
- Kim, Y., Baek, T.H., Yoon, S., Oh, S. and Choi, Y.K. (2017), "Assertive environmental advertising and reactance: differences between South Koreans and Americans", *Journal of Advertising*, Vol. 46 No. 4, pp. 550-564.
- Krajhanzl, J., 2010. Environmental and proenvironmental behavior. *School Health*, 21: 251-274.

- L. Rambabu (2022). Organic green purchasing: moderation of environmental protection emotion and price sensitivity *J. Clean. Prod.*, 133113 .
- Leonidou, C.N.; Skarmeas, D. Gray shades of green: Causes and consequences of green skepticism. *J. Bus. Ethics* 2017, 144, 401–415.
- M.R. Forehand, S. Grier .When is honesty the best policy? The effect of stated company intent on consumer skepticism *.Journal of Consumer Psychology*, 13 (3) (2003), pp. 349-356.
- M.S. Rosenbaum, I.A. Wong.(2015) ,Green marketing programs as strategic initiatives in hospitality *J. Serv. Mark.*, 29 (2) pp. 81-92.
- Mainieri, T., Barnett,E.G., Oskamp,S., Unipan, J.B. & Valdero,T.R. (1997). Green buying: the influence of environmental concern on consumer behavior. *The Journal of Social Psychology*, 137(2), 189-204.
- Matthes, J., & Wonneberger, A. (2014). The skeptical green consumer revisited: Testing the relationship between green consumerism and skepticism toward advertising. *Journal of Advertising*, 43(2), 115-127.
- Meier.C, G. Sampson, C. Larrea, B. Schlatter, V. Voora, D. Dang, S. Bermudez, J. Wozniak, H. Willer *The State of Sustainable Markets 2020: Statistics and Emerging Trends ITC, Geneva (2020).*
- Michaud, C. & Llerena, D. (2011) Green consumer behaviour: an experimental analysis of willingness to pay for remanufactured products. *Business Strategy and the Environment*, 20, 408–420.
- Millissa F.Y., Cheung, W.M., To. (2019). An extended model of value-attitude-behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services*. 50, 145-153.
- Mohr, L. A., Eroğlu, D., & Ellen, P. S. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers' communications. *Journal of Consumer Affairs*, 32 (1), 30–55.
- Obermiller, C., & Spangenberg, E. R. (1998). Development of a scale to measure consumer skepticism toward advertising. *Journal of consumer psychology*, 7(2), 159-186.

Parguel B., Benoît-Moreau F. et Larceneux F. (2009a), A closer look at Ethical Corporate Marketing: sustainability ratings as a means to deter Green washing, Cahier de Recherche du DMSP, 383.

Pham.T.H, T.N. Nguyen, T.T.H. Phan, N.T. Nguyen Evaluating the purchase behaviour of organic food by young consumers in an emerging market economy Journal of Strategic Marketing, 27 (6) (2019), pp. 540-556.

Phau, I. and Ong, D. (2007), "An investigation of the effects of environmental claims in promotional messages for clothing brands", Marketing Intelligence & Planning, Vol. 25 No. 7, pp. 772-788.

Pivato, S., Misani, N., & Tencati, A. (2008). The impact of corporate social responsibility on consumer trust: The case of organic food. Business Ethics: A European Review, 17(1), 3–12.

Popkin, Richard H.. "Skepticism". Encyclopedia Britannica, 18 Nov. 2020, <https://www.britannica.com/topic/skepticism>. Accessed 14 May 2021.

Rambabu.L (2022).Organic green purchasing: moderation of environmental protection emotion and price sensitivity J. Clean. Prod., 133113.

Raska, D., & Shaw, D. (2012). When is going green good for company image? Management Research Review, 35(3/4), 326-347.

Reichers, A. E. , Wanous, J. P. , & Austin, J. T. 1997. Understanding and managing cynicism about organizational change. Academy of Management Executive, 11, 48-59.

Ringov, D., & Zollo, M. (2007). The impact of national culture on corporate social performance. Corporate Governance, 7(4), 476-485.

Romina Moruzzi, Lucie Sirieix. Paradoxes of sustainable food and consumer coping strategies. 43. EMAC Annual Conference, European Marketing Academy (EMAC). BEL., Jun 2014, Valence, Spain. 9 p. fffal-01594077f.

Rossi Carla ; Francesca Rivetti.Young consumers' purchase behaviour of sustainably-labelled food products. What is the role of scepticism?.Food Quality and Preference Volume 105, January 2023, 104772.

Sapna. Parashar ; Supriya Singh ; Gunjan Sood (2023).Examining the role of health consciousness, environmental awareness and intention on purchase of organic food: A moderated model of attitude. *Journal of Cleaner Production* .Volume 386, 1 February 2023, 135553.

Sarigöllü, E. (2009), "A cross-country exploration of environmental attitudes", *Environment and Behavior*, Vol. 41 No. 3, pp. 365-386.

Sigmund A. Wagner. (2003).*Understanding Green Consumer Behaviour: A Qualitative Cognitive Approach*. Routledge; 1st edition (July 3, 2003).

Silva, M.E., Sousa-Filho, J.M.d., Yamim, A.P. and Diógenes, A.P. (2020), "Exploring nuances of green skepticism in different economies", *Marketing Intelligence & Planning*, Vol. 38 No. 4, pp. 449-463.

Steg, L., and Vlek, C. (2009). Encouraging pro-environmental behaviour: an integrative review and research agenda. *J. Environ. Psychol.* 29, 309–317.

T. Hung, F. Jan, C. Yang, Conceptualizing and measuring environmentally responsible behaviors from the perspective of community-based tourists.*JTMA* [Internet]. Elsevier; 2013;36:454–68.

Thi Thu Huong Nguyen ., Zhi Yang ., Ninh Nguyen ., Lester W. Johnson & Tuan Khanh Cao, 2019. "Greenwash and Green Purchase Intention: The Mediating Role of Green Skepticism," *Sustainability*, MDPI, Open Access Journal, vol. 11(9), pages 1-16, May.

TTH Nguyen, Yang Z, Nguyen N, Johnson LW, Cao TK. Greenwash and Green Purchase Intention: The Mediating Role of Green Skepticism. *Sustainability*. 2019; 11(9):2653.