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Transforming consumption: the role of digital experiences, consumer spirituality, environmental beliefs, and digital efficacy in driving sustainable choices

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Transforming consumption: the role of digital experiences, consumer spirituality, environmental beliefs, and digital efficacy in driving sustainable choices

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Abstract:
This study examines the interaction of consumer spirituality, digital consumer experiences, and environmental beliefs in driving sustainable consumption behaviour. Drawing on the Value-Belief-Norm theory (VBN), the study seeks to reveal how these factors shape attitudes and ultimately influence eco-conscious choices. Results indicate that consumers with higher levels of spirituality are more likely to believe their actions have environmental and societal consequences. Additionally, positive digital experiences enhance consumers' belief in the ability of online platforms to support sustainable choices. Study results show that, both positive attitudes towards sustainable consumption and beliefs in digital efficacy could lead to actual sustainable behaviours. Unexpectedly, beliefs about environmental and societal consequences did not significantly impact attitudes towards sustainable consumption. This highlights a potential gap between consumer awareness and their willingness to act, pointing to the importance of finding ways to transform awareness into behaviour change. This study aims to offer actionable insights for businesses and policymakers seeking to promote sustainability, whilst emphasising the importance of designing positive digital experiences and understanding consumer motivations to effectively encourage eco-conscious consumption.

Keywords: *Consumer Spirituality, Digital Consumer Experiences, Sustainable Consumption, Value-Belief-Norm Theory (VBN), Digital Efficacy*

Introduction

In an era marked by rising environmental concerns and the ever-increasing influence of digital platforms (Wang et al., 2023), a deeper understanding of the factors shaping sustainable consumption behaviours is essential. Whilst the world is facing a growing environmental crisis, consumers are becoming more conscious of their choices' impact (Panda et al., 2020), and they look to e-commerce platforms for the information needed to make informed, sustainable purchase decisions (Tran, 2021).

Spirituality, i.e., the search for meaning, connection, and transcendence beyond the purely material (Kale, 2004), has emerged as a potential driver of sustainable consumption behaviour (Saxena & Sharma, 2023), and could influence how people think about their consumption habits (Rodríguez-Rad & Hidalgo, 2018). As online shopping continues to experience significant growth (Statista, 2024), investigating consumer beliefs about the potential of e-commerce platforms to promote sustainable choices is crucial. At the same time, digital experiences can influence consumers' beliefs about whether or not online shopping platforms can help promote environmentally responsible choices (Grewal et al., 2019). Such online shopping platforms provide access to information, ethical products, and sometimes communities dedicated to environmental responsibility. Positive digital consumer experiences can potentially reinforce beliefs about the effectiveness of online shopping channels in enabling sustainable consumer choices (Wang et al., 2023).

Although previous research has investigated how values and beliefs influence eco-friendly consumer choices (e.g., Saleem et al., 2018; Saxena & Sharma, 2023), there's limited understanding of how these values interact with digital experiences and beliefs about digital efficacy to specifically drive sustainable consumption behaviours. This study seeks to fill this gap by examining how spirituality, a consumer value linked to ethical consumption behaviours and online shopping experiences influence environmental beliefs, create a sense of personal responsibility towards sustainability, and ultimately drive green choices.

To understand the complex pathways leading to sustainable consumption, we'll be using the Value-Belief-Norm theory (VBN) (Stern et al., 1999) as a framework, which suggests that our values deeply affect our beliefs, which in turn shape our sense of moral obligation and influence our behaviours. This framework provides a valuable lens for examining how consumer values like spirituality, along with beliefs about environmental consequences and digital efficacy, can shape attitudes and drive sustainable consumption behaviours.

In this context, the study proposes the following research questions:

1. RQ1: How does consumer spirituality, as a personal value, influence beliefs about the environmental and societal impact of our choices?

2. RQ2: What role do digital consumer experiences play in shaping beliefs about the effectiveness of online shopping platforms for promoting sustainable behaviours?
3. RQ3: How do these values and beliefs translate into a personal commitment to sustainability, and what impact does this have on real-world actions?

Theoretical background and Hypotheses development

Spirituality is about finding meaning and connection beyond ourselves. It often leads people to think deeply about how their actions affect the world (Kale, 2004), i.e., their beliefs about the environmental and societal consequences of their consumption choices. Beliefs about environmental and societal consequences are defined as the perceptions and convictions held by individuals regarding the impact of human actions on the environment and society (Stern & Dietz, 1994; Stern et al., 1995). Research shows that spiritual individuals tend to be more concerned with doing the right thing and making choices that benefit the environment and society (Joshi & Rahman, 2019; Rasanjalee & Lakshika, 2021). As a result, this study hypothesises that consumers with stronger spiritual beliefs will also believe more strongly in the positive impact that sustainable choices can have, i.e.:

- *H_1: Consumer spirituality has a positive impact on the beliefs about environmental and societal consequences.*

More specifically, in the evolving landscape of e-commerce and digital consumerism, the experiences consumers encounter online play a critical role in shaping their perceptions and beliefs about the efficacy of digital platforms in promoting sustainable consumption. When people have positive experiences shopping online, such as finding helpful information or feeling like they're making a difference, it builds their trust in the potential for online platforms to support sustainable choices. These positive experiences reinforce the idea that these platforms can be useful tools, helping consumers discover eco-friendly options, understand product impact, and ultimately contribute positively through their purchases (Grewal et al., 2019; Wang et al., 2023). As a result, this study hypothesises that:

- *H_2: Positive digital consumer experiences enhance the beliefs in the efficacy of digital platforms to support sustainable consumption.*

According to the Value-Belief-Norm (VBN) theory, an individuals' beliefs about the consequences of their actions (in this case, environmental consequences) can significantly influence their attitudes and behaviours, particularly in the context of environmental sustainability (Stern, 2000). In the context of sustainable consumption, attitude is conceptualised as the cognitive assessment or perception towards ethical and environmentally friendly buying (Ajzen, 1985). Thus, when individuals recognise the adverse environmental impacts of their consumption patterns, they are more likely to develop a stronger attitude towards sustainable consumption as a moral obligation to reduce such impacts. In other words, when consumers believe that their choices have an impact on the environment, they are more likely to feel a sense of responsibility to act in ecologically conscious ways. This belief motivates them to develop positive attitudes toward sustainable consumption, seeing it as a means of aligning their actions with their concern for the environment (Saxena & Sharma, 2023; Stern et al., 1999). Thus, this study hypothesises that:

- *H_{3a}: Stronger beliefs about environmental and societal consequences lead to stronger attitudes towards sustainable consumption.*

Similarly, when consumers believe that digital platforms are effective in helping them make informed, sustainable choices, they are more likely to see these platforms as valuable tools (Minton et al., 2012). This belief fosters a positive attitude toward using online shopping platforms specifically for sustainable consumption, as they see them as empowering their ability to make a difference (Grewal et al., 2019; Wang et al., 2023). The concept of digital efficacy revolves around individuals' beliefs in the effectiveness of digital platforms and technologies in facilitating positive outcomes (Tran, 2021), such as, sustainable consumption. As a result, this study hypothesises that:

- *H_{3b}: Stronger beliefs about digital efficacy lead to stronger attitudes towards sustainable consumption*

The Value-Belief-Norm (VBN) theory suggests that an individual's attitudes towards a behaviour are a strong predictor of their subsequent actions (Stern, 2000). Attitude refers to how favourably someone views a specific behaviour (Ajzen, 1991). In the context of this study, a positive attitude towards sustainable consumption means the individual sees these actions as beneficial and desirable. Research confirms the importance of attitude in shaping consumers' behavioural intentions, suggesting that individuals who believe that sustainable choices are important and worthwhile, they're more likely to act in those ways – buying eco-friendly products, recycling, or reducing consumption overall (Joshi, et al., 2019; Sreen et al., 2018; Wang et al., 2023). Thus, this study hypotheses that:

- *H_4: Stronger attitudes towards sustainable consumption are positively related to the actual practice of sustainable consumption behaviours.*

The complete research model, as well as the hypothesised relationships can be found in Figure 1.

Methodology

Measures

To test the proposed hypotheses, data were collected through a survey instrument, whilst the scales were adopted from the literature, and adapted to the purpose of the study, i.e., *Consumer spirituality* (Delaney, 2005); *beliefs about environmental and societal consequences* (López-Mosquera & Sánchez, 2012; Ryan & Spash, 2012); *beliefs about digital efficacy* (Tran, 2021); *digital consumer experiences* (Babin et al., 1994), *attitudes towards sustainable consumption* (Abrahamse & Steg, 2009; Steg et al., 2005; Trí & Nguyen, 2024), and *sustainable consumption behaviour* (Jaiswal & Kant, 2018). All items were measured with the use of a seven-point Likert scale ranging from "strongly disagree" to "strongly agree". The items for all the studied constructs can be found in Table 1.

Sample procedure and profile

The survey questionnaire was back-translated and pre-tested with University students who use online shopping platforms. Following that, survey data were collected in Greece, by a large professional research company. Respondents were recruited using quota sampling. Quotas were imposed for age, gender, location, employment status and familiarity with online shopping, to ensure representativeness of the sample. All respondents had used online shopping platforms for purchases within the six months prior to the data collection. This process resulted in 363 fully completed & usable questionnaires. The demographic profile of the sample is as follows: male 51.3%, female 48.7%, primarily between 26-45 years old (43.6%), in full/part time employment (58.6%) and University educated (62.2%).

Data Analysis and Results

Common method variance and reliability tests

To mitigate the risk of common method variance (CMV), Harman's single factor was tested to ensure that the data did not have any common method bias concerns. The test showed that a single component accounted for 39.237% of the overall variation (Podsakoff et al., 2003).

Measurement model

Initially, EFA was performed on all constructs of the study, confirming the six-factor structure of the measurement model. We then, used confirmatory factor analysis (CFA) to test and verify the factor structure obtained from the exploratory factor analysis (EFA). This step confirmed the dimensionality of constructs identified in the EFA and established the measurement model's suitability for testing structural relationships (Anderson & Gerbing, 1988). Our goodness-of-fit statistics demonstrated a strong fit between the CFA model and our data (Table 1). All factor loadings exceeded 0.7 with statistical significance ($p<0.001$). Reliability and validity of all measurement scales were confirmed by high Cronbach's alpha values, composite reliability, factor loadings, and AVE scores. Cronbach's alpha and composite reliability scores were above 0.8, and average variance extracted (AVE) exceeded 0.5. These results support the scale's reliability and convergent validity (Anderson & Gerbing, 1988; Hair et al., 2010). Discriminant validity was established as the square root of each construct's AVE exceeded the correlations between any two factors (Fornell & Larcker, 1981). Additionally, we observed no substantial cross-loadings among the constructs (Hair et al, 2010).

Hypotheses testing

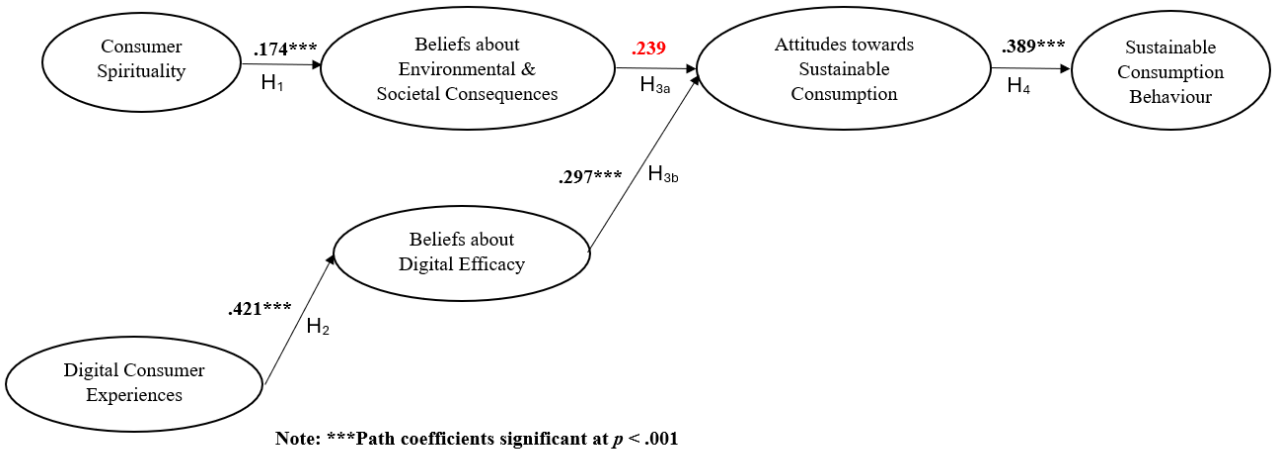
Next, we used structural equation modelling in AMOS 29 to test the proposed hypotheses. The goodness-of-fit diagnostics suggested that the SEM model provides an acceptable overall fit for the data ($\chi^2 = 1065.26$, $df = 503$, $CFI = .943$, $TLI = .936$, $NFI = .898$, $RMSEA = .056$). Path coefficients shown in Figure 1, indicate that consumer spirituality has a positive impact on the beliefs about environmental and societal consequences (i.e., $\beta = 0.174$, $p < .001$). Furthermore, positive digital consumer experiences were found to enhance the beliefs in the efficacy of digital platforms to support sustainable consumption (*i.e.*, $\beta = 0.421$, $p < .001$). Similarly, results indicate that stronger beliefs about digital efficacy lead to stronger attitudes towards sustainable consumption. Finally, study results confirmed that stronger attitudes towards sustainable consumption are positively related to the actual practice of sustainable consumption behaviours (*i.e.*, $\beta = 0.389$, $p < .001$). Unexpectedly, beliefs about environmental and societal consequences have no significant direct impact on the attitudes towards sustainable consumption (i.e., $\beta = 0.239$, $p>0.05$).

Therefore, the results offer support for H_1, H_2, $H3_b$ and H_4, but not for H_{3a}.

Table 1: Measurement items, CFA results & Reliability and Validity results

Model fit: χ^2 = 655.73 (p<0.001), df=358, CFI= .964, TLI= .956, NFI=. 924, RMSEA= .048				
Constructs	**Items**	**SL**	**CR**	**AVE**
Consumer Spirituality **(a= .916)**	1. I find meaning in my life experiences	.777	.906	.584
	2. I have a sense of purpose	.702		
	3. I am happy about the person I have become	.818		
	4. I believe the nature should be respected	.743		
	5. I respect the diversity of people	.784		
	6. I often take time to assess my life choices	.889		
Beliefs about Environmental & Social Consequences **(a= .929)**	1. Environmental protection means a better world for everyone	.837	.921	.744
	2. Environmental protection is beneficial to my health	.846		
	3. A clean environment offers better opportunities for recreation	.915		
	4. Protection of the environment benefits us all	.862		
	5. Environmental protection improves my quality of life	.823		
	6. The effects of pollution on public health are worse than we realise	.860		
Beliefs about Digital Efficacy **(a= .941)**	1. Digital platforms boost my confidence in sustainable consumption	.822	.941	.823
	2. I rely on digital platforms for making sustainable choices	.933		
	3. I am assured that digital platforms promote genuine sustainability	.915		
	4. Digital platforms should actively encourage users' sustainable practices	.963		
Digital Consumer Experiences **(a= .919)**	1. When purchasing sustainable products online, I enjoy the process as much as the product itself	.892	.945	.722
	2. I find pleasure in using online shopping platforms that offer eco-friendly products	.931		
	3. The experience of shopping for sustainable products online is often exciting and fun for me	.954		
	4. I find online shopping platforms efficient for researching and purchasing sustainable products	.783		
	5. Online Shopping platforms provide me with practical and valuable information about the sustainability of products	.872		
	6. The convenience of comparing and purchasing sustainable products online saves me time and effort	.804		
Attitudes towards Sustainable Consumption **(a= .830)**	1. I feel a moral duty to choose environmentally friendly options, such as renewable energy sources	.748	.815	.656
	2. I have a duty to ensure that my consumption patterns today do not compromise the well-being of future generations	.732		
	3. I feel morally obliged to reduce my overall consumption of resources	.722		
	4. I feel personally obliged to minimise my consumption of resources to the best of my ability	.846		
	5. I feel guilty when I consume more resources than necessary	.734		
	6. I feel guilty when I am wasteful with resources	.810		
	7. I feel good about myself when I manage to minimise my resource usage	.835		
	8. I feel morally obliged to engage in sustainable practices, regardless of others' actions	.819		
Sustainable Consumption Behaviour **(a= .917)**	1. When I want to buy a product, I look at the ingredients label to see if it contains things that are environmentally damaging	.923	.927	.861
	2. I prefer green products over non-green products when their product qualities are similar	.875		
	3. I choose to buy products that are environmentally friendly	.919		
	4. I buy green products even if they are more expensive than the non-green ones	.917		

Figure 1: Research Model & Hypotheses



Note: ***Path coefficients significant at $p < .001$

Model fit: $\chi 2 = 1065.26$, df =500, CFI = .943, TLI = .936, NFI =. 898, RMSEA = .056

Discussion and Implications

This study contributes to the growing understanding of sustainable consumption motivations by investigating the combined influence of consumer spirituality, digital consumer experiences, and beliefs on sustainable consumption behaviour. It provides an integrated approach that allows a better understanding of the complex psychological and technological factors that shape consumers' eco-conscious choices. Moreover, it aims to offer actionable insights for businesses and policymakers. Overall, the results of this study demonstrate the importance of positive digital experiences and the need for understanding consumer motivations, and aim to offer a blueprint for designing online shopping platforms that effectively promote sustainable consumption.

The findings of the study largely supported the proposed theoretical model based on the VBN framework. Firstly, results confirmed the influence of consumer spirituality on beliefs about environmental and societal consequences. Consumers with higher spirituality are more likely to believe their choices have a real impact, aligning with the notion that spirituality creates a sense of responsibility (Saxena & Sharma, 2023). Secondly, positive digital consumer experiences enhance the beliefs about the efficacy of online shopping platforms in supporting sustainable consumption (Wang et al., 2023). This reveals that positive and informative online shopping experiences are crucial to shaping how consumers view the potential of platforms to align with their values.

Contrary to expectations and the proposed hypothesis, beliefs about environmental consequences did not have a significant influence on the attitudes towards sustainable consumption. This suggests that just being aware of environmental issues isn't enough to drive change. Brands, relevant stakeholders, and policy makers may need to find ways to support people in taking action.

Importantly, both beliefs about digital efficacy and positive attitudes towards sustainable consumption were found to drive actual sustainable behaviours. This emphasises the significance of digital platforms as channels to promote sustainability when consumers believe in their usefulness, as well as the importance of fostering positive attitudes towards ethical consumption overall.

Limitations and Future Research

This study, like all research, has limitations. Firstly, it relies on self-reported data, which is something that might introduce some bias (Podsakoff et al., 2003). Future studies could incorporate observational data or track actual purchases for a more robust understanding of sustainable consumption patterns. Additionally, focusing on a single country limits generalisability. Cross-cultural research would reveal whether the relationships found here hold true in different contexts. The unexpected finding that environmental awareness wasn't directly linked to attitudes provides a base for further and deeper exploration in different contexts. Furthermore, qualitative research could explore the reasons behind this finding, potentially uncovering barriers or motivational factors not captured in the present study. Finally, as the digital landscape evolves, future studies should investigate the role of emerging technologies like virtual reality or AI in influencing sustainable shopping beliefs and behaviours.

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