MODELLING SUSTAINABLE MARKETING WITH RETAIL CONSUMERS’ PURCHASING INTENTIONS: EVIDENCE FROM THE MENA REGION

Karam Zaki, and Hany Shared

Abstract. Retailers strive for sustainability, relying on marketing efforts. Retail business sustainability (BS) is a debated topic, necessitating research on customer support for sustainable businesses. This study explores how Eco-Friendly customer Behaviour (EFB) mediates the connection between Sustainable Marketing (SM) and Consumer Intention to Buy (CIB) in retail. Data from 914 retail consumers underwent PLS-SEM analysis to thoroughly examine complex relationships among model variables, including potential mediation effects. The findings strongly back the link between SM and CIB. The notable role of EFB in mediating the SM-CIB relationship underscores EFB’s significance in guiding CIB. For the first time in the MENA region, this study addresses how retail customers’ purchasing intentions are affected by the SM fields of action. The tested model expands the previous GREEN model, providing theoretical and practical inferences.

Keywords: consumer purchasing intentions; sustainable marketing; eco-friendly behaviour; retailing; green model.
Authors:

Karam Zaki
Business Administration Department, College of Science and Humanities, Shaqra University, 17452, Saudi Arabia; Hotel Studies Department, Faculty of Tourism and Hotels, Fayoum University, 63514, Egypt
E-mail: kgm00@fayoum.edu.eg; kzaki@su.edu.sa
https://orcid.org/0000-0001-6070-5449

Hany Shared
Business Administration Department, College of Science and Humanities, Shaqra University, 17452, Saudi Arabia
E-mail: hshared@su.edu.sa
https://orcid.org/0000-0002-3878-7334

Corresponding author: Karam Zaki; kzaki@su.edu.sa

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1. Introduction

Sustainable Marketing (SM) has gained significant attention as a compelling area of academic research [1]. SM is still evolving and lacks a clear conceptual and theoretical framework in service sectors other than retailing [2]. It is seen as a strategic process that merges marketing goals and sustainability principles. This drives firms to achieve sustainable objectives, minimize environmental harm, and enhance consumers' quality of life fairly [3]. Lunde [3] proposed a multidimensional framework for SM that emphasizes the strong link between sustainability and marketing. This framework, known as the GREEN model, comprises five dimensions: “Globalized market place, Responsible environmental behaviour, Equitable sustainable business practices, Ethical sustainable consumption, and Necessary quality of life”. This study adopts a similar perspective on SM, aligning with Lunde's GREEN theory.

Previous literature explored the relationship between SM and CIB from various perspectives within diverse business contexts. The first viewpoint focuses on the business outcomes desired by stakeholders/owners or employers who seek to understand the actual marketing performance to maximize future profits through customer intentions [4]. The second research stream focuses on the perspective of business employees who examine the optimal implementation of SM practices [5-6]. Kar and Harichandan [7] revealed that SM has gained prominence in developed nations like China, Spain, and the USA. However, research on SM-related factors in developing nations, particularly in the MENA region contexts, remains relatively limited. Saudi Arabia was chosen as the main research partner from the MENA region because of its easily accessible data for the researchers conducting this study. Saudi Arabia serves as a multicultural setting for a significant number of its inhabitants. Apart from the insights gained from the employer-employee relationships, it is crucial to consider the significant involvement of retail customer’s intentions. It is vital to prioritize consumers' expectations in all aspects of organizational operations. This includes adhering to industry standards and best practices to ensure competence, professionalism, and authority [8-9].

A new perspective has emerged, focusing on examining consumer attitudes and behaviour concerning marketing and sustainability [1]. This study is a pioneering effort to enhance the authors’ understanding of how SM initiatives can contribute to CIB, with a particular focus on the impact of eco-friendly consumer behaviour (EFB) in the Saudi Arabian retail sector. The research builds upon the groundwork laid by Kar and Harichandan’s previous study. Despite the existing recommendations [3,10], emphasizing the need to explore the relationship between SM and CIB, previous research in retailing has not thoroughly examined this association. Based on a systematic review of the relationship between SM and CIB, there is limited research addressing this association in the retailing sector. Therefore, this scarcity motivated us to shorten the current gap following the call [10]. However, this relationship was investigated in US firms without explaining how SM becomes a key CIB driver [10]. In contrast, the MENA region's developing countries lack this conceptualization. This study is among the first to involve eco-friendly consumer behaviour as a mediating factor to demonstrate how SM could contribute to business sustainability.

This paper aims to fill this gap by investigating how SM affects CIB from a consumer behaviour perspective, employing the SOR framework. In essence, this study explores the consequences of SM in light of the GREEN theory [3] to control buying intentions.

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This study contributes to the theory by further examining the SM and CIB interactions. It also has implications for the marketing and sustainability literature in retailing. Firstly, it develops a conceptual framework (Figure 1) that explains the connection between SM and CIB’s effect through EFB in retailing, contrasting with [11]’s study conducted in the food service industry. It expands the GREEN framework in the retail industry by introducing five SM fields of action: Global Corporate Charity (GCC), Responsible Environmental Behaviour (RB), Equity (E), Ethical Business Consumption (EBC), and Needed Quality of Life (NQL). Secondly, this study extends the previous work of Lunde [3] by testing the GREEN model in retailing. Additionally, it broadens the scope of bibliometric SM research in the MENA region and Saudi Arabia [7]. Additionally, this study examines how EFB elucidates the direct effect between SM and CIB. Thirdly, the results of this research demonstrate a good model fit, indicating satisfactory variance levels in EFB and CIB factors related to SM. Consequently, researchers can benefit from the presented model for further exploration.

2. Literature Review

2.1. Theoretical background

This study posits SM as a precursor to EFB, which affects CIB. It is argued that consumer behaviour towards retail business sustainability (BS) is influenced by SM practices and EFB. To understand the drivers of CIB, the SOR model [12] was adopted, which has been widely used to interpret consumer behaviour [13]. While the SOR model's applicability to BS behaviour remains debatable, it was chosen as a framework to understand CIB antecedents. The consumers’ attitudes, perception of SM dimensions, and responsible behaviour towards the environment contribute to their current EFB. In this regard, SM motivates consumer behaviour [14], which, in turn, supports CIB [15].

![Figure 1. Study model](source: developed by the authors)

2.2. Sustainable Marketing (SM)

Sustainability became a pathway for retailers and other businesses through their marketing programs, in particular, to differentiate themselves from competitors and enhance their...
reputation and brand, mainly when they use sustainable products targeting customers. Marketing changes purchasing behaviours and influences customers' attitudes [16]. In this context, SM is increasingly becoming an integral part of contemporary marketing practices by establishing enduring relationships with the environment, society, and customers [10].

The objective of SM is to attain sustainability by involving customers in preserving the environment and society while fulfilling their desires, all without compromising the needs of future generations [17]. Similarly, [13] highlighted that SM is a contemporary approach that prioritizes eco-friendly products, waste reduction, pollution control, and energy efficiency, and employs these strategies to gain a competitive advantage while simultaneously protecting the environment. The study by Rudawska [18] described SM as a holistic approach that aims at meeting customer needs, addressing sustainability issues, and achieving profit responsibly. Lastly, SM adds value to businesses by aligning with the market demand for sustainable development, thereby improving their reputation and brand [19].

SM definitions encompass multiple aspects of value exchange among individuals, firms, and society. These definitions emphasize a commitment to fair and ethical practices, enhancing the quality of life for consumers and stakeholders, minimizing environmental losses, and safeguarding the rights of present/future generations [20]. To address the research gaps in SM and the lack of a theoretical foundation for the marketing-sustainability relationship, this study aimed to fill this void. Additionally, Lunde [3] performed marketing research in the sustainability domain and proposed the GREEN framework, which consists of five principles represented by capital letters. This study derived consumer perceptions of SM from Lunde's GREEN framework.

2.2.1. Global Corporate Charity (GCC)

The first dimension of SM is centred on the global market. It operates through exchange relationships between consumers, companies, and society, generating value that is influenced by local contexts and diverse cultural values. The global economy is susceptible to challenges and events faced by countries, and even small-scale projects are impacted by the global economy. These projects involve stakeholders from various parts of the world, as producers market their products online and face competition from international companies. Consequently, decisions made by consumers and companies at the microeconomic level have ripple effects at the macroeconomic level. This highlights the importance of sustainable consumer behaviour and the adoption of SM models [1]. Marketing researchers have applied diverse SM theories and models, such as the SOR and VBN theory, to link consumer values, beliefs, and societal policies, as well as, to explore the impact of sustainable consumption and quality of life on consumer perspectives [21].

According to Lunde [3], GCC calls for a globalized marketplace in which consumers, businesses, governments, and countries pursue quality of life and improve stakeholder rights [22]. Stakeholders responsible for protecting the environment have changed from effective government agencies to corporate and consumer stakeholders. Consumers are likely to show a strong preference for voluntary business initiatives like CSR promotions [23]. Hence, Peterson et al. [10] affirmed the interconnectedness of consumer attitudes toward business benevolence
and their dedication to CIB. According to the SOR, the GCC can influence CIB in retailing. Thus, this research theorizes this hypothesis.

**H1: Customer perceptions of GCC positively affect CIB.**

### 2.2.2. Responsible Environmental Behaviour (RB)

The second SM dimension denotes the responsible environmental behaviour of current/future generations as it is closely related to Brundtland's definition of sustainability, which focuses on reducing any environmental damage. Conversely, sustainable decisions taken by stakeholders achieve responsible and sustainable results [24]. Many theories have dealt with the environmental concept and the importance of environmental awareness for stakeholders, from consumers and companies. Researchers have used them in addressing many topics, such as global warming and consumer green behaviour [1]. The exchange of value between consumers and companies, along with sustainable and unsustainable practices affecting stakeholders for present/future generations, is a highly intricate issue, characterized by a mysterious relationship between them. Thus, the role of SM is to promote responsible behaviours to reduce any environmental losses [20]. Previous research supported the connectedness between consumer consumption and CIB [21]. Consumers’ behaviours and attitudes contribute to BS in different ways (e.g., buying intentions, brand satisfaction, and consumer loyalty) [25-26]. Therefore, RB could influence CIB based on the SOR, which leads to the following argument.

**H2: Customer perceptions of RB positively affect CIB.**

### 2.2.3. Equity (E)

The focus of the equity dimension is narrower than the previous SM’s dimensions as it includes equal practices of fairness and reasonable performance that affect stakeholders [27]. Therefore, companies should adopt relatively and equitably sustainable practices [28]. Equitable BS practices encompass more than just maintaining the current state of business. It involves a sustainable strategy, innovation, and leadership within a company [6]. In contrast, SM should establish ethical and equitable exchanges with current stakeholders and future generations [26]. Numerous theories and concepts emphasise the dimension of equity, enabling researchers to explore how all stakeholders participate in sustainable business. As a result, the scope extends beyond examining business practices and consumers alone, encompassing macro and societal levels as well to achieve sustainable competitive advantages [29]. However, many researchers have not yet discovered how these theories could be used to understand social justice changes [30]. For example, considering the problem of how sustainable companies respond to stakeholder commands, society needs, sustainable supply chains, and international regulations [31]. Therefore, equity lays a good foundation for researchers to discover how consumers’ motivations and sustainable behaviours contribute to achieving sustainable competitive advantage through positive interaction between consumers and companies.

Drawing on the SOR theory, it is posited that consumer attitudes and beliefs serve as reliable predictors of SM actions. Moreover, it can be argued that equity and sustainability share an environmental interconnection. Given the pressing imperative to conserve existing resources...
and safeguard the environment for future generations, this notion gains even greater significance [32]. Consequently, the following argument is proposed.

**H3:** Customer perceptions of equity positively affect CIB.

### 2.2.4. Ethical Business Consumption (EBC)

The fourth dimension of SM emphasizes the ethical sustainability of consumer behaviour and corporate practices. It entails an interactive value exchange where sustainable and ethical consumption involves consumer and corporate conduct rooted in morality, considering society and the environment [7]. At the same time, the ethics concept is different from sustainable partnerships and sustainable consumers. Sustainable companies demand sustainable customers, and sustainable partnerships will cease if no one buys sustainable products/services [33].

Value exchange among ethical consumers and fair business practices contribute to a sustainable society [34]. There was studied the disparity between consumer attitudes and sustainable behaviours [35], as companies can achieve sustainability, competitive advantage, and community benefits. Researchers acknowledge the challenge of bridging the gap between consumer attitudes, behaviours, and sustainability. It was observed that consumers often adapt their behaviour if they perceive personal benefits [36]. Extensive research was conducted on sustainable purchasing intentions [37], consumption behaviours [38], advertising [39], and ethical choices [40] within various societies. Research by Pomering [41] highlighted how sustainable consumers behave ethically.

Currently, there is growing emphasis on an expansive environmental movement, where companies adopt BS practices and reap intangible benefits that shape market choices. Remarkably, numerous companies have reassessed their ethical strategies to align with sustainability. As a result, consumer trust and loyalty have been earned through the firm's ethical conduct in areas such as pricing, advertising, and taxation [42]. Based on the SOR model, EBC is a crucial driver for CIB. The previous argument leads to the fourth hypothesis.

**H4:** Customer perceptions of EBC positively affect CIB.

### 2.2.5. Needed Quality of Life (NQL)

The final dimension of SM urges the involvement of consumers seeking well-being and the necessary quality of life (NQL). It entails a significant responsibility towards present/future generations, achieved through BS practices and consumption. Consequently, SM prioritizes stakeholders’ well-being and quality of life across current/future generations [41]. NQL is defined as a strategy designed to enhance customers’ well-being as well as to preserve the well-being of other stakeholders [43].

Well-being is also defined as long-term satisfaction that maintains or enhances consumer quality [44]. If sustainable behaviour enhances their well-being and quality of life, consumers are more likely to adopt it. However, if sustainable behaviour is seen as inconvenient or costly, or if it compromises their NQL, it may not lead to sustainable behaviour [45]. There is an overlap between NQL, well-being, and sustainability based on consumers’ perceptions and
social norms. The more welfare is obtained, the more sustainably consumers will be inclined to act and consume [3]. Therefore, companies will improve sustainable business practices, and stakeholders will be environmentally responsible for current/future generations due to the globalization of markets [46]. Drawing from the SOR model, a reciprocal connection between consumers' NQL and the anticipated BS is suggested [10]. Accordingly, NQL is devoted to BS. Thus, the fifth hypothesis is presented.

**H5**: Customer perceptions of NQL positively affect their CIB.

### 2.3. Eco-Friendly Behaviour (EFB)

In marketing, attitudes are closely tied to buying intentions [47]. This research recommends EFB to supplement the pro-environmental behaviour concept [48]. EFB is generally seen as a human action to reduce adverse environmental effects [49]. The EFB is translated to many sustainable practices related to energy, water, and waste reduction according to their contexts. Instead of pro-environmental behaviour, which is limited to voluntary green actions, the scope of EFB is broader to involve several responsible activities intended to use the available resources efficiently [1].

Customers exhibiting pro-environmental behaviour deserve attention due to their environmentally conscious actions. A green consumer actively supports EFB practices and contributes to sustainable and responsible business solutions [50]. They further declared that research on the EFB is still in its development phase. Based on the research focus, it is contended that EFB plays a mediating role in the connection between SM initiatives and CIB. Thus, this study explores the mediating effect of EFB in the relationship between SM and CIB, as stated in the following hypotheses.

**H6a**: EFB mediates the connection between GCC and their CIB.
**H6b**: EFB mediates the connection between RB and CIB.
**H6c**: EFB mediates the connection between E and CIB.
**H6d**: EFB mediates the connection between EBC and CIB.
**H6e**: EFB mediates the connection between NQL and CIB.

### 2.4. Customer Intention to Buy (CIB)

The purchase decision refers to the actions exhibited by consumers when they engage in the process of acquiring goods and services. This process encompasses the examination, assessment, acquisition, and utilization of a particular product or service [51]. That is to say, a sustainable purchase decision occurs when a consumer utilizes sustainability-related decision criteria to analyse, evaluate, and select a product.

The Theory of Planned Behaviour (TPB) suggests that consumers do not make rational decisions when purchasing a product. Instead, their decision-making process is influenced by their beliefs, habits, knowledge, and social norms. According to Ajzen, behaviours are driven by intentions, which are determined by three factors: attitude towards the behaviour, subjective norms, and behavioural control [52]. Individuals who experience guilt over their actions are willing to put their interests aside for the benefit of others. Many factors predict consumer
behaviour, the most well-known of which is the awareness of the consequences and the attribution of responsibility. Without knowledge of the implications, individuals are unlikely to feel obliged to engage in a particular behaviour. Only informed consumers can take responsibility, such as those who understand that SM can boost performance. Additionally, familiarity with pro-environmental rules and personal past experiences with SM play a significant role in determining consumers' purchasing behaviours. People’s attitude towards a behaviour influences their intention to carry it out, which ultimately affects their actual behaviour [53-54].

The beliefs and social pressure exerted by others also influence the stance and actions of the retail industry regarding SM perceptions and CIB. When influential individuals like family and friends engage in environmentally beneficial behaviour, and believe it is not difficult, it is expected to increase a consumer’s intention to buy [55]. Consequently, it is anticipated that a consumer who is mindful of the influence of SM actions would exhibit a propensity to purchase retail goods. As a result, the subsequent hypothesis was developed.

3. Methodology

3.1. Context and Sample

The retailing industry holds great importance for a nation's economy. Several factors make the retail industry an ideal setting for this research. Firstly, retailing is witnessing substantial growth, particularly in the realm of e-commerce, which has shown resilience and outperformed other sectors [56]. Secondly, there is a growing need to add new theories to the retailing literature and consumer behaviour [7]. Thirdly, there is still much to learn about how SM can influence CIB [10]. Thus, this study presents a robust conceptual model that comprehends the linkages between SM and SBC, providing a substantial contribution to the literature.

Saudi Arabia was chosen as a primary collaborator in the MENA region due to data accessibility. The country has a unique cross-cultural context, with a significant percentage of non-Saudi nationalities, which accounted for 36.4% in 2021 [57]. The study focuses on Saudi Arabian consumers with non-Saudi backgrounds, representing a diverse mix of nationalities ideal for examination. To address the research inquiries, a quantitative research method was employed. An online survey was conducted from June to August 2022, targeting retail consumers in Saudi Arabia. Respondents were sourced from a reputable marketing/consulting company in the Middle East, https://www.marmoremena.com, with a market list of approximately 3.5 million consumers across the MENA region. The research team utilized personal networks to obtain customer emails, simplifying the data collection process. The prospective respondents’ emails were sent to the study collaborators for approval. The sample of the research consisted of 1000 randomly selected retail customers, who were initially approached via email invitations. However, 86 respondents were disqualified due to missing replies, resulting in 914 valid responses for further analysis. According to the Kline rule [58], it is recommended to have a sample size of 10 cases for each item in multivariate analysis. In the current study survey, 33 indicators measure all the constructs being studied. Therefore, a sample size of n=914 can be deemed suitable for conducting SEM analysis. All respondents were informed that their survey responses would be used strictly for research purposes, ensuring anonymity, and participation was voluntary.
3.2. Instrument Measures

All variables were adopted from previous scales (Table 1) using a Five-point Likert (five = “extremely agree”; 1 = “extremely disagree”) to guarantee the reliability and validity of this research survey. Table 1 shows each construct validator and all survey items. The latent dimensions of SM were obtained from the GREEN framework. Additionally, the EFB factor was measured using seven survey items, while CIB was validated using four survey indicators.

Table 1. Questionnaire items operationalisation, indicators, loadings, and the model fit indices

<table>
<thead>
<tr>
<th>Construct</th>
<th>Scale Items</th>
<th>Indicators</th>
<th>Factor Loadings</th>
<th>Model fit Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCC [61]</td>
<td>Retailers should support charities.</td>
<td>GCC1</td>
<td>0.78</td>
<td>α=0.86, AVE=0.61, CR=0.81, VIF=1.022</td>
</tr>
<tr>
<td></td>
<td>Retailers should help the poor.</td>
<td>GCC2</td>
<td>0.81</td>
<td>AVE=0.52</td>
</tr>
<tr>
<td></td>
<td>Retailers should consider donating to community development initiatives that benefit the lowest-income groups</td>
<td>GCC3</td>
<td>0.80</td>
<td>CR=0.81</td>
</tr>
<tr>
<td></td>
<td>Retailers should collaborate with non-profit organizations to assist the needy.</td>
<td>GCC4</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I do prefer to work in companies that support the needy.</td>
<td>GCC5</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I prefer investing in companies that promote employee volunteering for community service.</td>
<td>GCC6</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>RB [25]</td>
<td>I need to prioritize environmental adaptation.</td>
<td>RB1</td>
<td>0.75</td>
<td>α=0.83, AVE=0.52</td>
</tr>
<tr>
<td></td>
<td>I need to protect the environment from various damages.</td>
<td>RB2</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Taking care of animals is one of my priorities.</td>
<td>RB3</td>
<td>0.90</td>
<td>CR=0.92, VIF=1.34</td>
</tr>
<tr>
<td>E [62-63]</td>
<td>I see that the application of social justice achieves social balance.</td>
<td>E1</td>
<td>0.86</td>
<td>α=0.83, AVE=0.70</td>
</tr>
<tr>
<td></td>
<td>There must be equal opportunities for individuals.</td>
<td>E2</td>
<td>0.92</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Retailers should care for and protect others.</td>
<td>E3</td>
<td>0.82</td>
<td>CR=0.94, VIF=1.42</td>
</tr>
<tr>
<td>EBC [42]</td>
<td>Retailers must pay their taxes regularly.</td>
<td>EBC1</td>
<td>0.81</td>
<td>α=0.89</td>
</tr>
<tr>
<td></td>
<td>Business owners make huge fortunes at the expense of the citizens.</td>
<td>EBC2</td>
<td>0.84</td>
<td>AVE=0.63, CR=0.88, VIF=1.93</td>
</tr>
<tr>
<td></td>
<td>I am concerned about companies leveraging their financial power to influence government decisions and bribe officials.</td>
<td>EBC3</td>
<td>0.89</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am worried that some companies use their power against government officials.</td>
<td>EBC4</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am worried about the spread of corruption in some businesses.</td>
<td>EBC5</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>NQL [46]</td>
<td>Leading companies contribute to improving the quality of life (QL).</td>
<td>NQL1</td>
<td>0.75</td>
<td>α=0.81, AVE=0.51</td>
</tr>
<tr>
<td></td>
<td>Multinational companies have a significant role in improving the QL.</td>
<td>NQL2</td>
<td>0.75</td>
<td>CR=0.87, VIF=1.09</td>
</tr>
<tr>
<td></td>
<td>National companies contribute to improving the QL.</td>
<td>NQL3</td>
<td>0.69</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local projects contribute to improving the QL.</td>
<td>NQL4</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing research companies contribute to improving QL.</td>
<td>NQL5</td>
<td>0.85</td>
<td></td>
</tr>
<tr>
<td>EFB [49]</td>
<td>I am keen to rationalize the use of electricity.</td>
<td>EFB1</td>
<td>0.86</td>
<td>α=0.89</td>
</tr>
<tr>
<td></td>
<td>I turn off lights when not in use.</td>
<td>EFB2</td>
<td>0.87</td>
<td>AVE=0.57</td>
</tr>
<tr>
<td></td>
<td>I am committed to recycling.</td>
<td>EFB3</td>
<td>0.75</td>
<td>CR=0.94</td>
</tr>
<tr>
<td></td>
<td>I always try to keep up with green standards.</td>
<td>EFB4</td>
<td>0.85</td>
<td>VIF=1.72</td>
</tr>
<tr>
<td></td>
<td>I'm trying to recycle my good stuff for other uses.</td>
<td>EFB5</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I always rationalize the use of resources.</td>
<td>EFB6</td>
<td>0.69</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I take care to treat water leaks.</td>
<td>EFB7</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>CIB [51]</td>
<td>I prefer eco-friendly retailers when buying.</td>
<td>CIB1</td>
<td>0.94</td>
<td>α=0.98</td>
</tr>
<tr>
<td></td>
<td>I'll choose eco-friendly retail when buying.</td>
<td>CIB2</td>
<td>0.97</td>
<td>AVE=0.55</td>
</tr>
<tr>
<td></td>
<td>I'll aim to buy from eco-friendly retailers when necessary.</td>
<td>CIB3</td>
<td>0.98</td>
<td>CR=0.90, VIF=1.67</td>
</tr>
<tr>
<td></td>
<td>I plan to buy from a sustainably certified retailer.</td>
<td>CIB4</td>
<td>0.97</td>
<td></td>
</tr>
</tbody>
</table>

Note: Strikethrough items were removed due to their low loadings.
Source: developed by the authors.
3.3. Instrument

The survey started with a brief outline concerning the aim of the study. The first part was dedicated to respondents' profiles (age, gender, nationality, and region). The second survey portion contained four questions about CIB (Table 1). The third section was focused on rating the respondents' levels of agreement regarding their EFB (7 items). The last part included five main SM dimensions (22 items). The initial survey comprised 33 questions taking 20-25 minutes to complete.

3.4. Data Analysis and Common Method Bias

Survey analysis was performed using Partial Least Squares Structural Equation Modelling (PLS-SEM) by SmartPLS4 to explore the association between variables of the measurement model. According to the inputs of GPowerWin 3.1.9.7 software, the final sample size of 914 is more than satisfactory to run the PLS-SEM [59-60]. Numerous procedures to assess the anticipated Common Method Variance CMV [64]. Further, Harman's single-factor procedure was used to test CMV by analysing all study variables through Exploratory Factor Analysis (EFA), and the extracted factors were fixed at one with no rotation procedure. As a result, one dimension was extracted, explaining 22.8% of the variance. Overall, these techniques demonstrate CMV is not an issue. Table 2 displays the sample characteristics of 914 consumers.

Table 2. Demographic characteristics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Values</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
</table>
| Gender         | Female       | 241       | 26.4
|                | Male         | 673       | 73.6
| Age            | <25          | 23        | 2.5
|                | 25-35        | 194       | 21.2
|                | 35-45        | 503       | 55.0
|                | 45-55        | 157       | 17.2
|                | >55          | 37        | 4.0
|                | Primary/Secondary | 37 | 4.0 |
|                | High school  | 319       | 34.9
| Education      | University   | 476       | 52.1
|                | Master/PhD   | 82        | 9.0
|                | Riyadh       | 599       | 65.5
|                | Mecca        | 92        | 10.1
|                | Madinah      | 82        | 9.0
|                | Eastern Province | 141 | 15.4
|                | UAE          | 13        | 1.4
|                | SA           | 299       | 32.7
|                | Egypt        | 195       | 21.3
|                | Bahrain      | 88        | 9.6
|                | Qatar        | 5         | .5
|                | Yemen        | 41        | 4.5
|                | Sudan        | 204       | 22.3
|                | Other        | 69        | 7.5
|                | Single       | 132       | 14.4
| Marital status | Married      | 599       | 65.5
|                | Divorced/widow | 183 | 20.0
| Total          | 914          | 100       |

Source: developed by the authors.

Karam Zaki, and Hany Shared
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4. Results

4.1. Measurement Model

The following table shows the main correlations among study factors. There were checked data normality using skewness and kurtosis [65].

**Table 3.** Descriptive analysis

<table>
<thead>
<tr>
<th>Constructs</th>
<th>M</th>
<th>SD</th>
<th>t-statistics</th>
<th>Kurtosis</th>
<th>Skewness</th>
<th>GCC</th>
<th>RB</th>
<th>E</th>
<th>EBC</th>
<th>NQL</th>
<th>EFB</th>
<th>CIB</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCC</td>
<td>3.34</td>
<td>1.09</td>
<td>28.21</td>
<td>1.96</td>
<td>-1.92</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RB</td>
<td>3.74</td>
<td>0.89</td>
<td>24.90</td>
<td>2.18</td>
<td>-1.63</td>
<td>0.39*</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>3.31</td>
<td>0.83</td>
<td>22.87</td>
<td>2.87</td>
<td>-1.46</td>
<td>0.49*</td>
<td>0.60</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBC</td>
<td>3.11</td>
<td>1.04</td>
<td>23.82</td>
<td>3.18</td>
<td>-2.28</td>
<td>0.38*</td>
<td>0.29</td>
<td>0.71*</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NQL</td>
<td>4.00</td>
<td>0.78</td>
<td>24.13</td>
<td>2.86</td>
<td>-1.86</td>
<td>0.58*</td>
<td>0.28</td>
<td>0.75*</td>
<td>0.52</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFB</td>
<td>4.26</td>
<td>0.87</td>
<td>25.25</td>
<td>2.39</td>
<td>-2.10</td>
<td>0.57*</td>
<td>0.29</td>
<td>0.70*</td>
<td>0.50*</td>
<td>0.37</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>CIB</td>
<td>3.63</td>
<td>1.01</td>
<td>26.29</td>
<td>2.19</td>
<td>-1.17</td>
<td>0.29</td>
<td>0.45</td>
<td>0.46*</td>
<td>0.54</td>
<td>0.64</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

Note: *p*<0.05.

The measurement model was settled (Table 1), and the convergent validity was guaranteed via factor loadings, Composite Reliability (CR), and Average Variance Extracted (AVE). All study variables were loaded to their associated factors displaying scores of more than 0.7 to designate consistent constructs. Items below 0.7 were dropped (e.g. GCC5). Similarly, CR scores surpassed 0.7, which is acceptable. All AVE scores exceeded the suggested value (0.50). Variance Inflation Factors (VIF) guaranteed that the common method bias was not a problem because VIF scores were under (3.0) [66]. All standardized loadings for the variables exceeded the recommended threshold of 0.7, indicating satisfactory convergent validity. Along with all AVE scores (Table 1) and factor loading values above 0.7, then TY is established [67]. Supporting the discriminant validity [67], there was used the heterotrait-monotrait ratio (HTMT) [68], and further the Fornell-Larcker measures calculations. All HTMT ratios (Table 4) approve a discriminant validity except for the diagonals that indicated the highest value. Furthermore, the Fornell-Larcker measures designating the discriminant validity of the presented model.

**Table 4.** Discriminant validity

<table>
<thead>
<tr>
<th>Fornell-Larcker</th>
<th>GCC</th>
<th>RB</th>
<th>E</th>
<th>EBC</th>
<th>NQL</th>
<th>EFB</th>
<th>CIB</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBB</td>
<td>0.89</td>
<td>0.14</td>
<td>0.29</td>
<td>0.02</td>
<td>0.2</td>
<td>0.18</td>
<td>0.19</td>
</tr>
<tr>
<td>RB</td>
<td>0.86</td>
<td></td>
<td>0.21</td>
<td>0.01</td>
<td>-0.02</td>
<td>-0.03</td>
<td>0.05</td>
</tr>
<tr>
<td>E</td>
<td>0.87</td>
<td></td>
<td>-0.03</td>
<td>0.11</td>
<td>-0.03</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>ECB</td>
<td></td>
<td>0.86</td>
<td>0.02</td>
<td>0.13</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NQL</td>
<td></td>
<td></td>
<td>0.85</td>
<td>0.13</td>
<td>0.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFB</td>
<td></td>
<td></td>
<td></td>
<td>0.89</td>
<td>0.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HTMT</th>
<th>GCC</th>
<th>RB</th>
<th>E</th>
<th>EBC</th>
<th>NQL</th>
<th>EFB</th>
<th>CIB</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCC</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RB</td>
<td>0.61</td>
<td>0.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>0.49</td>
<td>0.57</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBC</td>
<td>0.52</td>
<td>0.6</td>
<td>0.49</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NQL</td>
<td>0.53</td>
<td>0.45</td>
<td>0.49</td>
<td>0.57</td>
<td>0.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFB</td>
<td>0.68</td>
<td>0.52</td>
<td>0.57</td>
<td>0.51</td>
<td>0.39</td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>CIB</td>
<td>0.39</td>
<td>0.42</td>
<td>0.47</td>
<td>0.63</td>
<td>0.44</td>
<td>0.61</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Note: Diagonal values are denoted for the square root of AVE.
4.2. Structural model

The path analysis was executed to test the model hypotheses (Figure 2). Remarkably, the endogenous factors explained 38% and 51% of the exogenous factors (EFB and CIB) change, indicating consistent constructs. The CFA was investigated through path constraints, $t$, and $p$-values ($t>1.64$, $P<1\%$). Considering the large sample size ($n=914$), model fit indices ($\chi^2 / df = 1.721$, $p < 0.001$, RMSEA = 0.061, GFI = 0.840, CFI = 0.901, IFI = 0.952, TLI = 0.928), proving a good model fitting. Comprehensively, the presented model showed an appropriate model fit, as the Standardized Root Mean Square (SRMR) = 0.050 which is below the threshold value of 0.08 [68].

![Figure 2. Structural model](image)

4.3. Hypotheses Testing

The path analysis showed that GCC significantly influenced CIB ($\beta= 0.143$, $p<0.01$, $t = 13.19$, $f^2 =0.022$), supporting H1. Additionally, RB substantially affected CIB ($\beta= 0.047$, $p<0.01$, $t = 14.42$, $f^2 =0.002$), supporting H2. The results also confirmed the positive effect of E on CIB ($\beta= 0.082$, $p<0.01$, $t = 11.56$, $f^2 =0.007$), supporting H3. Furthermore, it was revealed that NQL similarly impacted CIB ($\beta=0.0199$, $p<0.01$, $t = 13.34$, $f^2 =0.042$). Thus, H5 is also accepted. However, the causal effect of EBC on CIB is not significant ($\beta= -0.012$, $p>0.01$, $t = 0.62$, $f^2 =0.000$), rejecting H4 (Figure. 2). Empirical findings of this research (Table 5) indicate that EFB plays a partial mediating role in the relationship between SM and CIB.

<table>
<thead>
<tr>
<th>Table 5. Mediation Path analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H</strong></td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>H6a</td>
</tr>
<tr>
<td>H6b</td>
</tr>
<tr>
<td>H6c</td>
</tr>
<tr>
<td>H6d</td>
</tr>
<tr>
<td>H6e</td>
</tr>
</tbody>
</table>
Consistent with recommendations [69], there were examined all regression coefficients (direct/indirect effects) and it was found that the path direction is statistically significant. Therefore, EFB partially mediates the SM and CIB linkage, supporting H6a, H6c, H6d, and H6e, while rejecting H6b.

5. Conclusions

This large-scale empirical study provides one of the first insights into the supportive role of EFB in the relationship between SM and CIB in retailing. There were surveyed consumers to explore the interdependencies between CIB and SM, in line with previous research recommendations. The motivation of Saudi Arabia's sample shortens the literature gap of scarcity research related to this research conceptualization based on MENA customers [7]. Therefore, a conceptual model was established and then tested in it.

Along with the previous literature, this research theorized model had the integrity of the earlier related investigations. In theory, the selected SM dimensions (GCC, RB, E, EBC, and NQL), considering the GREEN theory, are probably used as collected bundles to tie marketing plans with consumer considerations [10]. The GREEN is another SM facet that is socially constructive, economically feasible, and ecologically non-threatening [3]. Initially, the first SM dimension was called GCC, which creates accurate value exchange among beneficiaries over the whole community and predicts consumer attitudes toward BS. It was recommended that other ecosystem parties (consumers, municipalities, and businesses) should collaborate with retailers [70]. Accordingly, this research revealed that GCC affected CIB positively (Figure 2). Second, the RB encourages consumers to understand the related environmental influences of business. The greater the customer attitude towards preserving nature, the more significant the CIB effect is [47]. SEM results coincided with the previous argument as RB was significantly related to the CIB ($\beta = 0.047$, $p<0.01$).

Third, consumers concerned about Equity (E) are considered CIB supporters, given that it is seen as a sustainability goal [71]. Accordingly, this study's results revealed that (E) is a significant predictor of CIB ($p<0.01$). However, this result is refuted by [10], who found that (E) did not influence CIB in the United States.

Fourth, the literature reported that many business-related consequences of consumer trust, satisfaction, and loyalty would derive from consumer feelings of ethical practices performed by any company in different activities, such as putting fair prices for goods/services and using non-deceptive marketing [42]. On the contrary, the results of this study confirmed that EBC is not a significant forecaster of CIB.

Fifth, consumers with a higher NQL are the same individuals who support sustainability [46]. Likewise, this research coincided with the previous argument as the NQL is found to affect CIB positively ($\beta = 0.199$, $p<0.01$). However, this result is contradicted by [10], who found the connection between the NQL and CIB was negatively related.

Overall, this research results extended [3] effort by compiling and testing the GREEN model in retailing as one of the booming business sectors. Furthermore, most of the proposed mediation
hypotheses were found to be acceptable. That is to say, EFB showed a partial mediation effect on the connectedness between SM dimensions and CIB impact.

Previous research failed to highlight the mediation mechanism of the SM and CIB nexus, especially in Arab communities. This paper is pioneering to develop a conceptual model revealing the relationship between SM and CIB impact considering the GREEN framework. The conceptual framework used the SOR model as a base to increase this research understanding of the link between SM and CIB in retail. Therefore, this study is the first to test and validate the GREEN model in MENA region retailing. Second, SEM results showed good model fit indices, disclosing satisfactory variance levels in the DVs (e.g., EFB and CIB). Therefore, researchers could replicate this model.

The findings of this research offer practical insights by highlighting the overlap between the impact on customers and perceptions of sustainability. Policymakers and marketing organizations can utilize this model (Figure 1) in conjunction with other models of business sustainability to establish a cycle of sustainable production and consumption. This model enhances comprehension of consumers’ perceptions of sustainable marketing and their intention to make purchases. Retail stakeholders and marketing directors can benefit from this research by understanding how customers support sustainability efforts, with eco-friendly behaviour acting as a predictor of future contributions to sustainability. Furthermore, marketing research firms can utilize this study to develop programs that incorporate green thinking and consumer engagement.

The intricate nature of sustainability and evolving consumer behaviour offer research opportunities. This study has the following limitations. First, it focused on retail consumers’ attitudes, neglecting other consumer types. Future research should consider diverse consumer groups. Second, the study did not fully explore the influence of the MENA context, only relying on consumer perceptions without examining cultural differences. Further research can investigate demographic variations (gender, country, marital status, education) in the relationship between SM and CIB. Longitudinal data would be valuable for future studies, and examining consumer perspectives on SM dimensions before and after COVID-19 could provide insights.

**Author Contributions:** “Conceptualization, K.Z. and H.S.; methodology, K.Z.; software, K.Z.; validation, K.Z. and H.S.; formal analysis, K.Z.; investigation, H.S.; resources, H.S.; data curation, K.Z. and H.S.; writing-original draft preparation, K.Z.; writing-review and editing, K.Z.; visualization, H.S.; supervision, K.Z.; project administration, K.Z.; All authors have read and agreed to the published version of the manuscript.”

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**Conflicts of Interest:** The authors declare no conflict of interest.
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