Sustainable Shopping: How environmental beliefs and living habits shape the use of non-plastic re-usable shopping bags

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ABSTRACT

The purpose of this study was to evaluate the role of environmental beliefs, living habits, attitudes, and subjective norms in explaining consumers' behavioural intentions toward using non-plastic reusable shopping bags. Grounded in the Theory of Reasoned Action (TRA), the study sought to uncover the psychological and lifestyle-related drivers that influence sustainable shopping behaviour, with a particular focus on younger consumers aged 18 – 35 - a cohort that includes both older Generation Z and younger Millennials, known for their heightened environmental awareness and evolving consumption patterns. A quantitative research design was employed, and data was collected from a sample of 312 respondents residing in Gauteng, South Africa. Structural equation modelling (SEM) was used to validate the measurement model and test the proposed hypotheses. The findings reveal that living habits significantly and positively influence both attitudes and behavioural intentions towards using non-plastic reusable shopping bags. Additionally, attitudes and subjective norms emerged as significant predictors of intention, while environmental beliefs did not have a direct effect on behavioural intentions. This study adds to the growing body of literature on sustainable consumer behaviour by highlighting the interplay between social influence, personal habits, and pro-environmental attitudes. Implications for marketers, policymakers, and environmental advocates are discussed, with an emphasis on promoting habitual and socially supported behavioural change.

Keywords: Environmental beliefs, Living habits, Attitudes, Theory of reasoned action, Young people.

Conflict of Interest Statement: The views expressed in this article are the views of the researcher and not an official position of the institution.

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1. INTRODUCTION

Globally, consumers use approximately 500 billion single-use plastic bags annually, equating to about one million bags per minute (UNEP, 2023). The improper disposal of these bags has become an international concern, with an estimated 8–10 million metric tonnes of plastic entering the ocean each year (UNESCO, 2022). This pollution poses significant threats to marine ecosystems, endangering more than 800 species through ingestion and entanglement (Gall & Thompson, 2015).

Countries such as China, Indonesia, and the Philippines are among the largest contributors to plastic marine debris (Ritchie & Roser, 2023). South Africa is not exempt from this global crisis. In 2021 alone, the country generated approximately 1,247 kilotons of plastic waste, with only 43% being reintegrated into the circular plastic economy (Munyai, Makhado & Makhado, 2024). To mitigate this issue, the South African government introduced a plastic bag levy in 2003, which has been periodically adjusted, most recently in 2024 to ZAR 0.32 per bag (CMS Law, 2024). While this policy has had some effect, studies suggest that behaviour change interventions—such as social norm messaging and increased consumer awareness—may have a greater impact on reducing plastic bag consumption (Munyai, Makhado & Makhado, 2022).

Regulatory mechanisms, such as levies and bans, have been adopted in other countries, including Ireland, Botswana, Rwanda, Kenya, and Morocco, with varying degrees of success (Munyai *et al.*, 2024). However, efforts to reduce plastic usage must go beyond regulatory controls and include a deeper understanding of consumer behaviour—particularly factors such as environmental beliefs, subjective norms, and lifestyle practices that influence shopping habits.

Previous research has largely emphasised plastic bag reduction and recycling, while the reuse of alternatives, such as non-plastic reusable bags, remains underexplored (Munyai *et al.*, 2022). In the South African context, limited empirical evidence exists about the drivers of reuse behaviour, particularly among younger consumers. Studies to date have mostly focused on general usage patterns and willingness to pay (Ryan, Cole, Spiby, Nel, Osborne & Perold, 2016), leaving a gap in understanding the psychosocial and habitual influences on reuse decisions.

This study aims to address this gap by investigating the factors that influence the use of non-plastic reusable shopping bags among South African consumers. The research specifically targets individuals aged 18 to 35 years, a cohort that spans older members of Generation Z and younger Millennials.

This age group represents a critical segment of the population, as they are legally independent consumers who actively participate in purchase decisions and lifestyle choices. They are widely regarded as environmentally aware and socially conscious, with a heightened sensitivity to ecological issues and ethical consumption (Price, 2018). Moreover, research shows that younger consumers, particularly those within the Millennial and Gen Z cohorts are more receptive to sustainable consumption practices than older generations (White, Habib, & Hardisty, 2019). As such, they form a strategically important demographic for advancing long-term shifts toward sustainable consumer behaviour.

Focusing on this younger demographic allows for a more nuanced understanding of how environmental beliefs, subjective norms, and living habits intersect to shape intentions and behaviours toward sustainable bag use. The study will draw on data from this age group in the Gauteng province, where high population density and retail activity make it an ideal setting for consumer behaviour research.

The specific objectives of this study are to:

- Examine the influence of environmental beliefs on the intention to use non-plastic reusable shopping bags among younger consumers in Gauteng.
- Investigate the role of subjective norms (social expectations and peer influences) in shaping consumers' behavioural intentions.
- Assess the impact of consumers' living habits on their attitudes and behaviours towards using reusable shopping bags.

The study further seeks to provide practical recommendations for promoting the adoption of non-plastic reusable shopping bags based on identified behavioural drivers.

This article is organised as follows: the first section presents the literature review of this study, followed by the hypothesis development. Next, the research methodology is presented, followed by the research results and findings. These are explored further in discussion and implications sections, and the article ends with limitations of the study and recommendations for future research.

2. LITERATURE REVIEW

Shopping bags play an essential role in consumers' everyday lives, serving not only as carriers for groceries and retail goods but also frequently repurposed as containers for waste disposal and household storage (Singh & Cooper, 2017). However, the widespread use of plastic shopping bags has emerged as a serious environmental concern due to their long degradation cycle—ranging from 15 to 1,000 years—and their contribution to the proliferation of marine debris and terrestrial litter (Joseph, Kumar, Majgi, Kumar & Prahalad, 2016; Wagner, 2017). In addition to their environmental footprint, plastic bags have been linked to health risks for both humans and wildlife, with toxic breakdown components entering food chains and natural ecosystems (UNEP, 2023; Geiger, Fischer & Schrader, 2021). These consequences have prompted researchers and policymakers alike to advocate for the widespread adoption of non-plastic reusable shopping bags as a more sustainable alternative.

While many waste management strategies tend to prioritise recycling and reduction, the 'reuse' component of the 3Rs framework (reduce, reuse, recycle) is often underemphasised despite being one of the most effective mechanisms for minimising environmental degradation (Ertz, Huang, Jo, Karakas & Sarigollü, 2017). Reusable shopping bags, particularly those made from durable materials, have a substantially longer lifecycle, with estimates suggesting that a single reusable bag can replace over 700 disposable plastic bags (Lober, 2017). Moreover, if adopted consistently throughout an individual's lifetime, reusable bags can prevent more than 22,000 plastic bags from entering the waste stream (Lober, 2017). In the United Kingdom, such bags are aptly referred to as "bags for life," symbolising their multiple-use potential and long-term environmental benefits (Grinstein, van der Waal, & van Horen, 2016; Bergman, 2019).

The success of reusable bag adoption, however, is significantly influenced by consumer awareness, values, and habits—particularly among younger generations. Current studies identify younger consumers aged 18 to 35—spanning older members of Generation Z and younger Millennials—as a key demographic in sustainability discourse due to their growing ecological consciousness, digital connectivity, and social influence (White, Habib & Hardisty, 2019). These consumers are not only legally independent but also highly responsive to sustainability-related cues, brand values, and peer influence, making them an ideal target group for interventions promoting pro-environmental behaviour (Muralidharan, Rejón-Guardia, & Xue, 2017). Studies in both developed and developing economies suggest that when members of this cohort are made aware of environmental degradation, they are significantly more likely to engage in green purchasing and lifestyle choices (Azani, Bathmanathan & Rajadurai, 2018; Wang, Liu & Qi, 2021).

In South Africa, similar patterns are evident. Research by O'Brien and Thondhlana (2019) found that South African youth demonstrate a heightened awareness of environmental issues and are more inclined to adopt eco-friendly behaviours than older generations. The finding is further supported by Yadav and Pathak (2017), who suggest that behavioural intentions among young consumers are shaped not only by individual attitudes but also by social norms and perceived behavioural control—key constructs from the Theory of Reasoned Action and Theory of Planned Behaviour frameworks.

Despite the potential for this demographic to drive change, gaps remain in understanding the extent to which psychological variables—such as environmental beliefs—and lifestyle factors contribute to actual behavioural outcomes. While beliefs are often assumed to drive action, recent studies highlight a consistent value–action gap among young consumers, where pro-environmental attitudes do not always translate into sustainable behaviour

(White *et al.*, 2019; Geiger *et al.*, 2021). This gap underscores the need to focus on habitual and social factors, including living habits and subjective norms, which may serve as more immediate predictors of repeated sustainable actions such as using reusable shopping bags.

The current study builds on this growing body of knowledge by exploring how environmental beliefs, living habits, attitudes, and subjective norms influence the behavioural intention to use non-plastic reusable shopping bags among younger South African consumers aged 18–35. By targeting this influential cohort, the research provides valuable insights into the psychological and social determinants of sustainable consumption in an emerging market context.

3. CONCEPTUAL BACKGROUND AND RESEARCH HYPOTHESES

The theory of reasoned action (TRA) (Ajzen and Fishbein, 1980) will be used as the overarching theory for this research study. This social-psychology model has been used extensively as a way to understand consumers' behavioural intention and thus predict their behaviour. A person's decision to engage in a particular activity is largely dependent on their anticipation of the outcome as a result of performing that action (Fishbein & Ajzen, 1975). 'Behavioural intention' is defined by 'attitude towards the behaviour' and 'subjective norms', which are key dimensions in the TRA model (Fishbein & Ajzen, 1975).

Attitudes are a crucial element in understanding behavioural intention; and so the term refers to the individual's favourable or unfavourable feelings about a certain behaviour (Fishbein & Ajzen, 1975). The TRA suggests that attitudes have a direct impact on outcomes and thus on behaviour, in that a positive view of a specific act will lead to a positive action, while a negative attitude will result in an adverse consequence (Fishbein & Ajzen, 1975). Attitudes are determined by behavioural beliefs and by evaluations. The former states that people's motivations for their behaviour are dependent on the perceived consequences of performing that action, while the latter aims to understand the process that individuals undertake to evaluate the outcome of the action performed (Fishbein & Ajzen, 1975).

Subjective norms are a critical component in comprehending behavioural intention. The term 'subjective norms' refers to one's action relating to a particular behaviour that is deemed either acceptable or unacceptable by one's peers in a social group, such as one's friends, family, and associates (Fishbein & Ajzen, 1975)

Since its inception, the TRA has been used as a meaningful framework for examining consumer behaviour in various disciplines, including marketing (Liu, Segev & Villar, 2017; Paul, Modi & Patel, 2016; Choi & Cho, 2015). The model has continued to provide a robust explanation of consumer behaviour in many recent studies (Minton, Spielmann, Kahle & Kim, 2018; Akermi, Hachana & Triki, 2017). On this basis, this study attempts to include environmental beliefs and living habits as additional constructs in the TRA to provide a more comprehensive understanding of consumer behaviour in the use of non-plastic re-usable shopping bags among Millennials and Gen Z cohort in the Gauteng region. Figure 1 proposes the conceptual model that posits living habits as a direct antecedent of attitude; and attitude, living habits, subjective norms, and environmental beliefs as direct precursors of the behavioural intention to use non-plastic re-usable shopping bags.

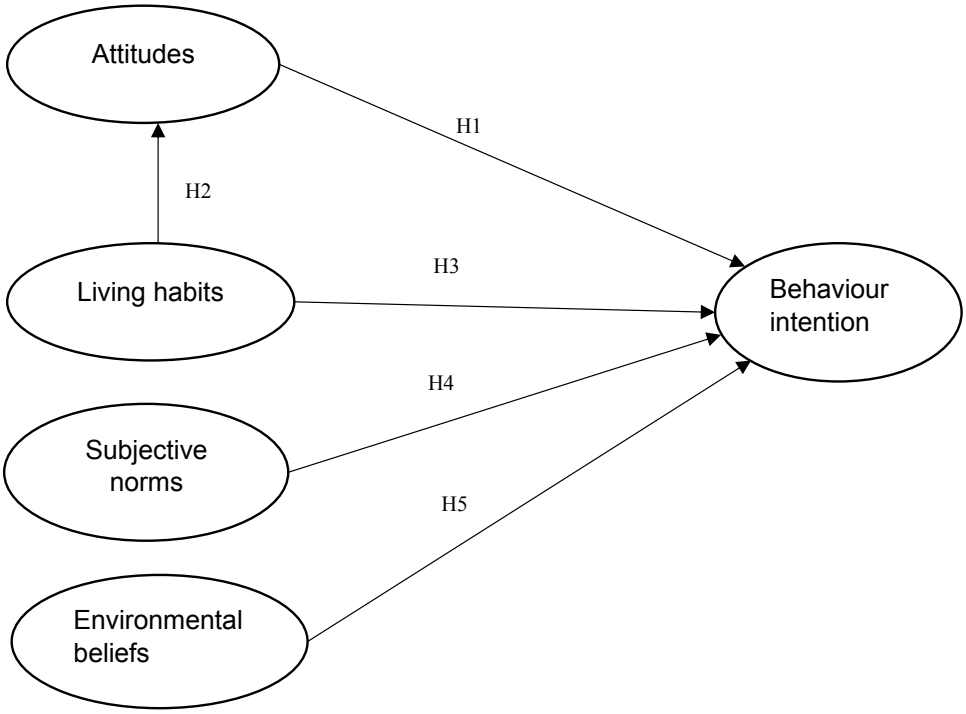

FIGURE 1: CONCEPTUAL MODEL FOR THE STUDY

3.1 ATTITUDES

Attitudes are a customer's positive or negative emotions about a specific behaviour and refer to the evaluation of the anticipated outcomes of a particular action (Fishbein & Ajzen, 1975; Botetzagias *et al.*, 2015:59). 'Attitude' is the psychological feeling created through a consumer's assessments; and, if positive, the consumer's intentions are favourable as a result (Chen & Tung, 2014:221). With regard to behavioural intention, 'attitudes' can be described as the consumer's feelings about the use of non-plastic re-usable shopping bags. Existing studies have highlighted the importance of understanding attitudes in customers' environmentally friendly purchases and recycling behaviour intentions (Hamilton & Terblanche-Smit, 2018; Oztekin, Teksoz, Pamuk, Sahin & Kilic, 2017:290; Wan, Shen & Choi, 2017:70). Research conducted in India, the world's fastest-growing developing nation, has concluded that a favourable attitude towards green products would result in an increase in the purchase intention for re-usable bags (Paul, Modi & Patel, 2016:125). On the grounds of this, this study proposes the following hypothesis:

H1: Attitudes will have a significant and positive impact on the behavioural intention to purchase non-plastic re-usable shopping bags.

3.2 LIVING HABITS

According to Carlisle (2014:22), habits can be inherited from other people, and can be defined as the "repetition of an action or experience". Studies have indicated that habits are difficult to change, and that they result in repetitive behaviour (Mallett & Melchiori, 2016:223; Lin & Hsu, 2015:326). Living habits have the ability to change an individual's intention or planned action (Mallett & Melchiori, 2016:223), and are largely influenced by one's environmental beliefs and awareness, as well as by social norms (Gadenne, Kerr, Sharma & Smith, 2017:1). This means that the more people become aware of the environmental issues, the higher the chances of their changing their living habits to become more environmentally friendly. In an effort to change people's living habits to become more environmentally friendly, governments have devised strategies that encourage the use of non-plastic re-usable shopping bags (O'Brien & Thondlhana, 2019:320). Dodd, Ghvanidze, Theron and Velikova (2016:311) identified a "synergy between healthy diets, environmental and ethical consumptions", which means that people's living habits are closely related

to how they react to environmental issues. Gadekar (2017:147) argued that style, peer influence, affordability, and convenience play a vital role in the use by young people of non-plastic re-usable shopping bags. On the grounds of this, this study proposes the following hypothesis:

H2: Consumers' living habits will have a significant and positive influence on attitudes to the use of non-plastic re-usable shopping bags.

H3: Consumers' living habits will have a significant and positive influence on behavioural intention to the use of non-plastic re-usable shopping bags.

3.3 SUBJECTIVE NORMS

'Subjective norms' relate to whether the individual's social environment approves or disapproves of a specific behaviour, as well as the extent to which one is influenced by one's social surroundings (Iosif, Andora & Chrisovaladis, 2014:59). The major source of social influence stems from key role players in a customer's life, such as neighbours, friends, and family members (Ajzen, Caidini, Vining & Ebreo, 1991). It is important that the people whose opinions are valued and respected think about the decision to recycle (Mykolas, 2015). From a behavioural intention perspective, subjective norms involve society's acceptance of the usage of non-plastic shopping bags. On the grounds of this, this study proposes the following hypothesis:

H4: Subjective norms will have a significant and positive impact on the purchasing behavioural intention relating to non-plastic re-usable shopping bags.

3.4 ENVIRONMENTAL BELIEFS

A person who strongly believes in something, and who positively values the results of performing the behaviour, will have a positive attitude towards the behaviour. The opposite also holds true: a person who firmly believes that negatively valued results will arise from the behaviour will have a negative attitude towards it (Montaño & Kasprzyk, 2015:5). It is easier for consumers to remember information about which they hold strong beliefs than to remember new information (Aguilar-Luzon *et al.*, 2014:619; Montaño & Kasprzyk, 2015:5). Aguilar-Luzon *et al.* (2014:619) argue that, if an individual believes in something, it will be easier for them to take a desired action. In terms of behavioural intention, 'beliefs' can be regarded as a person's positive or negative thoughts and evaluations of the use of re-usable shopping bags. On the grounds of this, this study proposes the following hypothesis:

H5: The individual's beliefs will have a significant and positive influence on behavioural intention relating to non-plastic re-usable shopping bags.

4. RESEARCH METHODOLOGY

The present research has adopted a positivist research philosophy, due to its focus on exploring the relationships between the independent variables and the dependent variable in the conceptual model (causal reality), and the use of a relatively large sample, thus making quantitative research possible (Saunders, Lewis & Thornhill, 2019). In addition, the study has used a deductive approach, which requires the operationalisation of the constructs before measurement (Saunders *et al.*, 2019).

4.1 SAMPLE AND DATA COLLECTION

The target population for this study comprised younger consumers residing in Gauteng, South Africa, specifically individuals aged between 18 and 35 years at the time of the survey. This age group aligns with the defined cohort of interest, which includes older members of Generation Z and younger Millennials. The final sample consisted of 312 respondents who successfully completed the questionnaire and whose data was deemed suitable for analysis. In terms of gender distribution, the sample is relatively representative of the broader South African population, with a slightly higher proportion of females (51.1%) compared to males (49.1%).

A non-probability sampling design was adopted for this study, using a convenience sampling method. This approach was chosen as it enabled the researchers to collect data efficiently within a limited time frame while reaching the desired number of respondents (Saunders, Lewis & Thornhill, 2019). Data collection was conducted at various locations outside major shopping malls across Gauteng. Respondents were first briefed on the purpose of the research, and informed consent was obtained prior to participation. The questionnaire was then administered, with the researcher recording responses for some participants, while others opted to complete the questionnaire independently.

4.2 MEASUREMENT INSTRUMENT

To test the five hypotheses in the conceptual model, the present study has used a survey with propositions on a five-point Likert scale (1 - strongly disagree to 5 - strongly agree). The items from the constructs have been adapted from previous literature with pretested, reliable, and valid scales. 'Attitudes' was measured using a five-item scale adapted from Fishbein and Ajzen (1975); Chen and Tung (2014); Botetzagias, Dima and Malesios (2017). 'Living habits' used a five-item scale measure adapted from Ma and Yan (2007) and Wang (2012). 'Subjective norms' used a five-item scale measure adapted from Abrahamse and Steg (2011), Fishbein and Ajzen (2010), and Tonglet, Phillips and Read (2004). 'Environmental beliefs' was measured using a five-item scale from Abrahamse and Steg (2011). Lastly, 'behavioural intention' used a five-item scale measure adapted from Fishbein and Ajzen (2010).

5. RESULTS AND FINDINGS

The data analysis of the descriptive statistics was carried out using the Statistical Package for Social Sciences version 24. The largest racial profile was Black respondents (61.8%), followed by White respondents (15.6%), Indian or Asian respondents (12.1%), and Coloured respondents (10.6%). Regarding the education level of the sample, the majority of the respondents have a Bachelor's degree (31.2%), followed by those with a post-matric certificate or diploma (29.3%), Grade 12 (23.7%), post-graduate degree (11.2%), and those indicating that they have an education level lower than Grade 12 (5%).

A structural equation modelling technique using the SmartPLS software was used to assess the measurement and structural models for the study. To analyse the measurement and structural model, the Statistical Package for Social Sciences (SPSS) version 24 and the Smart PLS 3.2.6 software package for data coding, capturing, and analysis were used. The SPSS software package was further used to obtain the descriptive statistics of the sample and of the constructs. In order to determine the convergent validity of the measurement model, the standardised factor loadings, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) were examined. After obtaining the validity measures, the researcher proceeded to assess the hypotheses proposed for the study.

5.1 STRUCTURAL EQUATION MODELLING

A structural equation modelling (SEM) using a partial least squares technique was used to conduct further analyses of the data. The SmartPLS 3.2.6, software package (Ringle, Wende and Becker, 2015) was used to conduct the SEM analysis. Following the two-step approach recommended by Anderson and Gerbing (1991), the measurement model was assessed to confirm its convergent and discriminant validities. Thereafter, an assessment of the structural model was done to assess and test the hypotheses proposed for the study.

5.2 MEASUREMENT MODEL ANALYSIS

The validity of the measurement model was confirmed for convergent and discriminant validity. In order to determine the convergent validity of the measurement model, the standardised factor loadings, Conbach's alpha, composite reliability (CR) and average variance extracted (AVE) were examined. The results of this analysis are presented in Table 1. To achieve convergent validity, Hair, Black, Babin and Anderson (2010) recommend that the standardised factor loadings and AVE estimates should be above 0.5, and that Cronbach's alpha and CR should exceed 0.7. As the results in Table 1 show, the factors loadings of the various items ranged from 0.701 to 0.915, and the computed AVE

values varied between 0.635 and 0.757. These were above the 0.5 recommended minimum thresholds. Similarly, the minimum estimated value for Cronbach's alpha and composite reliability were 0.840 and 0.893 respectively. These estimates were also above the 0.7 cut-off points. The results thus generally confirmed the convergent validity of the measurement model.

TABLE 1: CONVERGENT VALIDITIES

	Standardised factor loading	Cronbach's alpha	Composite reliability	AVE
Attitude		0.899	0.924	0.712
AT1	0.843			
AT2	0.878			
AT3	0.846			
AT4	0.859			
AT5	0.790			
Living habits		0.840	0.893	0.676
LH1	0.758			
LH2	0.845			
LH3	0.836			
LH4	0.847			
Subjective norms		0.868	0.910	0.716
SN1	0.839			
SN2	0.822			
SN3	0.860			
SN4	0.864			
Environmental beliefs		0.855	0.896	0.635
EB1	0.834			
EB2	0.863			
EB3	0.732			
EB4	0.842			
EB5	0.701			
Behaviour intention		0.892	0.926	0.757
BI1	0.859			
BI2	0.915			
BI3	0.833			
BI4	0.871			

The discriminant validity of the measurement model was tested using the procedure recommended by Fornell and Larcker (1981). According to this procedure, discriminant validity is said to be achieved when the square root of the AVEs are greater than the correlations among the factors. The results of the discriminant analysis performed for this study are presented in Table 2.

TABLE 2: DISCRIMINANT VALIDITIES

		1	2	3	4	5
1	Attitude	**0.844**				
2	Behaviour intention	0.637	**0.870**			
3	Environmental beliefs	0.657	0.532	**0.797**		
4	Living habits	0.542	0.621	0.519	**0.822**	
5	Subjective norms	0.456	0.549	0.345	0.463	**0.846**

* Bold diagonal values are square roots of the AVEs; the values beneath them are the inter-construct correlations.

According to the results from Table 2, the square roots of the AVEs (diagonal bold values) were greater than the correlation among the factors, thus providing evidence of good discriminant validity.

5.3 STRUCTURAL MODEL ANALYSIS

Upon confirming the validity of the structural model, the structural model was assessed to test the hypotheses proposed for the study. A bootstrapping technique using 5 000 resamples was used to determine the significance of the path estimate. The results of the analyses are presented in Figures 2 and 3.

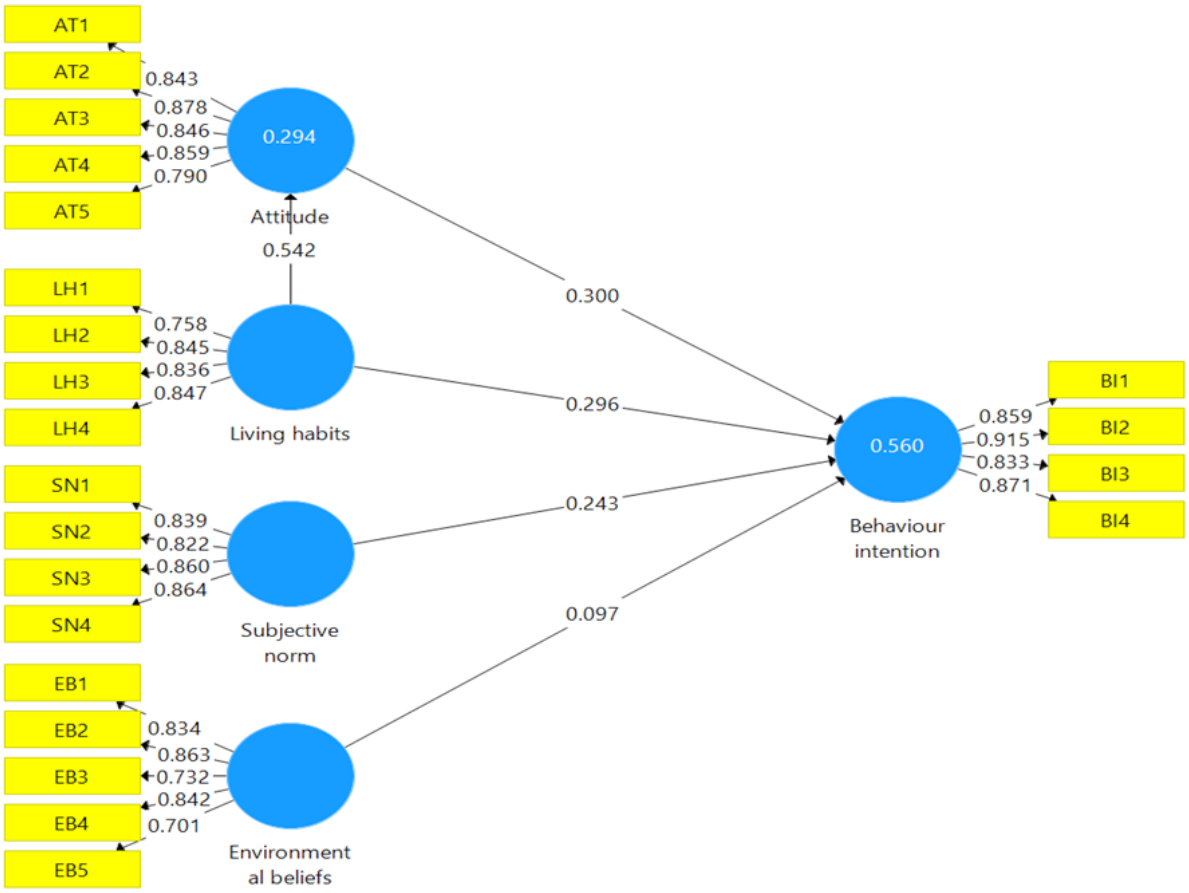

FIGURE 2: PLS MODEL ESTIMATION WITH PATH COEFFICIENTS AND R2

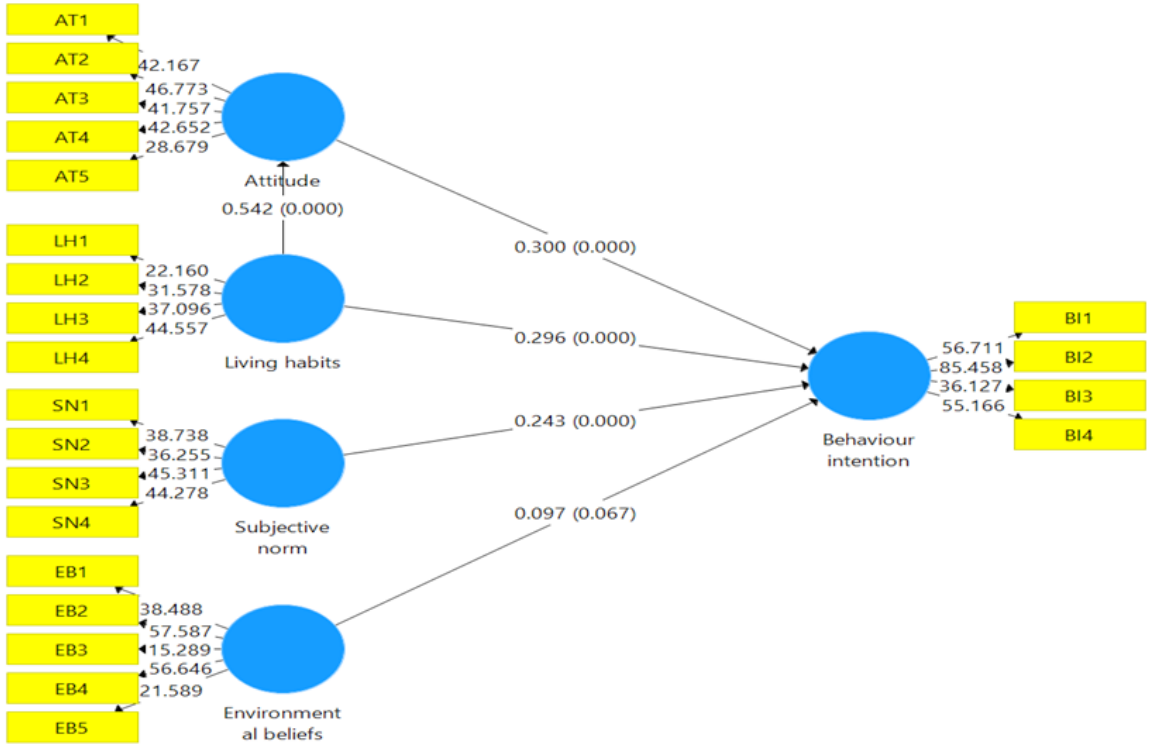

FIGURE 3: RESULTS OF PLS MODEL ESTIMATION OF BOOTSTRAPPING FOR PATH SIGNIFICANCE

The results of the analyses showed that 'attitude' had a significant positive effect on 'intention to use non-plastic re-usable shopping bags' ($\beta = 0.300$, $p < 0.001$). Therefore, H1 was supported. The results further indicated that 'living habits' had a significant and positive impact on attitude ($\beta = 0.542$, $p < 0.001$), thus confirming and supporting H2. Similarly, the test showed that 'living habits' had a positive influence on 'behavioural intention' ($\beta = 0.296$, $p < 0.001$), so hypothesis H3 was supported.

With regard to the relationship between 'subjective norms' and 'intention to use non-plastic re-usable shopping bags', the results of the analysis confirmed a positive relationship ($\beta = 0.243$, $p < 0.001$), thus supporting H4. However, the relationship between 'environmental beliefs' and 'intention to use non-plastic re-usable shopping bags' was not positive, and so H5 was not supported. As shown in Figure 2, the variances calculated for the independent variables were 29.4% and 56% in 'attitude' and 'intention to use non-plastic re-usable shopping bags' respectively.

6. DISCUSSION AND IMPLICATIONS

This study aimed to examine the role of environmental beliefs, living habits, attitudes, and subjective norms in shaping the behavioural intention of younger South African consumers -specifically those aged 18–35 to use non-plastic reusable shopping bags. The findings contribute to both theoretical and practical discourse by validating an extended Theory of Reasoned Action (TRA) framework in the context of sustainable consumer behaviour in a developing country. Data was collected from a convenience sample in the Gauteng region, a key urban and retail hub.

The results indicate that living habits significantly influence attitudes and behavioural intentions toward using non-plastic reusable bags. This finding supports prior studies that emphasise the role of habits and lifestyle patterns in shaping pro-environmental consumption (Dodd, Ong & Ferguson, 2022; Gadenne *et al.*, 2017). The result implies that interventions promoting sustainable behaviour should focus not just on raising awareness but on embedding sustainability into consumers' daily routines. In practice, these measures could involve consistent in-store placement of reusable bags, loyalty rewards for bringing personal bags, and nudges at points of purchase that make reusable bags the default choice.

The study also confirms that attitude and subjective norms are significant predictors of behavioural intention—aligning with core TRA assumptions and validated in recent sustainability literature (Yadav & Pathak, 2017; Dilotsotlhe, 2021; Wang *et al.*, 2021). This evidence suggests that consumers' internal evaluations and perceptions of social expectations strongly influence their likelihood to engage in eco-conscious shopping practices. Marketers and policymakers can leverage these insights by using social influence strategies, such as:

- Collaborating with eco-conscious influencers and online content creators,
- Using visual prompts and reminders in stores and on digital platforms, and
- Creating public endorsement campaigns that normalise and celebrate sustainable behaviour.

Importantly, the findings reveal that environmental beliefs, while positive, do not significantly predict behavioural intentions in this context. This observation contradicts much of the earlier literature (Aguilar-Luzón *et al.*, 2014; Lin & Hsu, 2015) and highlights a common value–action gap, where concern for the environment does not necessarily result in sustainable action. This gap has been increasingly acknowledged in contemporary research (White *et al.*, 2019; Geiger *et al.*, 2021). The implication is that belief alone is insufficient to drive change—practical, social, and habitual reinforcements are more effective in influencing behaviour.

In light of these findings, policymakers and retailers are encouraged to prioritise strategies that reinforce positive habits and social norms rather than rely solely on appeals to environmental values. For example, government-led schemes could consider a phased shift from voluntary levies to more assertive policies, such as a complete ban on plastic bags, following the example of countries like Kenya, Uganda, and Morocco, where such measures have yielded significant environmental benefits (Wambugu, Mwaura & Otieno, 2020; Njeru, Wekesa & Mwaura, 2021).

In South Africa, efforts have largely focused on taxation and levies, which have shown limited effectiveness (Munyai *et al.*, 2022). Therefore, a more comprehensive and assertive regulatory approach - combining bans with consumer education and incentives could accelerate behavioural shifts. Given the responsiveness of the younger generation to both peer influence and structured nudges, such measures are likely to yield positive outcomes.

In summary, this study underscores the critical role of living habits, attitudes, and subjective norms in shaping the behavioural intention of younger South African consumers—specifically those aged 18–35—to use non-plastic reusable shopping bags. From a managerial perspective, the findings suggest that retailers should design interventions that seamlessly integrate sustainable practices into consumers' daily routines. Such strategies could involve prominently displaying reusable bags in-store, offering rewards or loyalty points for bringing personal bags, and using default options that nudge consumers toward environmentally friendly choices at the point of sale.

Marketers are advised to prioritise social reinforcement and peer influence in their campaigns, particularly through digital platforms where younger consumers are highly active. Leveraging the power of online influencers, incorporating sustainability messages into brand communication strategies, and using in-store signage to prompt eco-conscious decisions are all viable approaches to increase consumer engagement with reusable bag initiatives.

At a policy level, the findings indicate that current interventions—such as levies and fines—have had limited success in curbing plastic bag usage. As a result, policymakers should consider more comprehensive regulatory reforms that combine legislation with behavioural interventions and public education. A phased ban on plastic shopping bags, similar to those implemented in Kenya, Uganda, and Morocco, may be a particularly effective strategy in the South African context. Given the responsiveness of younger consumers to social norms and structured nudges, such a multifaceted approach is likely to yield more substantial and sustained environmental benefits.

Ultimately, by focusing on modifiable behavioural drivers rather than environmental concerns alone, stakeholders across the retail, marketing, and government sectors can more effectively promote the widespread adoption of non-plastic reusable shopping bags and contribute meaningfully to the reduction of plastic waste in South Africa.

7. CONCLUSION

This study examined the role of environmental beliefs, living habits, attitudes, and subjective norms in influencing consumers' behaviour regarding the use of non-plastic reusable shopping bags. Grounded in the Theory of Reasoned Action (TRA), the research provided empirical evidence supporting the significance of living habits, attitudes, and subjective norms in predicting behavioural intention among younger South African consumers aged 18–35. Contrary to expectations and some prior studies, the hypothesis concerning the direct influence of environmental beliefs on behavioural intention was not supported, suggesting a gap between pro-environmental concern and actual consumer behaviour. The result highlights the value–action disconnect commonly noted in sustainable consumption literature.

The study successfully achieved its objectives by demonstrating that TRA remains a robust and relevant conceptual framework for understanding pro-environmental behaviour within a South African context, particularly among younger consumers. Moreover, the findings present meaningful practical implications for retailers, marketers, and policymakers. By targeting modifiable lifestyle habits and leveraging social norms, interventions can be more effectively designed to stimulate the adoption of reusable shopping bags, thereby contributing to broader sustainability goals.

As with all research, this study is subject to limitations. The use of a quantitative survey approach may have introduced a degree of social desirability bias, which could be mitigated in future studies through the integration of qualitative methods such as interviews or focus groups. Additionally, the use of a convenience sample drawn solely from Gauteng Province may limit the generalisability of the findings. Gauteng, being a largely urban and economically diverse region, may not accurately reflect consumers' behaviours in rural or less affluent areas. Future research should therefore expand the sample to include participants from other provinces across both urban and rural contexts.

While this study focused on the younger generation, future research could also explore intergenerational differences in sustainable shopping behaviours, particularly by comparing Millennials and Generation Z with older cohorts. Doing so would provide a more comprehensive understanding of how different age groups perceive and act

on environmental concerns and whether interventions need to be tailored accordingly. Broader, comparative studies would also help further validate and extend the applicability of the TRA in diverse consumer contexts within South Africa and beyond.

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