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**Exploring the gender similarities in Africa's circular plastic economy**

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***Introduction and background***

The circular economy has gained momentum globally as a sustainable approach to waste management, and Africa has not been left behind in this drive. However, the literature suggests that there is a gap in the understanding of the role that gender plays in the management of plastic waste in the Circular Plastic Economy (CPE) in Africa. The gender similarities hypotheses as defined by (Hyde, 2005) suggest that females and males are similar in most but not all psychological variables. Therefore, it is crucial to explore the similarities and differences between the actions of females and males in managing plastic waste in the CPE. Anecdotal evidence suggests that there is a difference in local attitudes to plastics between genders in Africa, with more women engaging in waste picking, sorting reusing, reducing, and recycling than men (Heidbreder et al., 2019; Rebellón, 2017).

***Methodology***

This paper uses a quantitative approach to explore gender similarities in Africa's CPE. The study focused on five countries (Nigeria, Kenya, Rwanda, Namibia, and Zambia) to have a demonstrative representation of Africa. A total of 1475 respondents responded with an even distribution between males and females (745 and 730) respectively. The theory of planned behaviour framework was used, with gender as a measured variable to investigate its impact on plastic waste management action and its effect on two key parameters in the theory of planned behaviour: attitude and perceived behavioural control. The model consists of four latent variables: attitude, perceived behavioural control, subjective norms, and sentiments. Structural Equation Modelling (SEM) is utilized in analysing the model, which is a robust statistical method suitable for understanding relationships. The covariance-based SEM (CB-SEM) was chosen instead of the partial least squares SEM (PLS-SEM) since the paper is interested in investigating the likely mechanisms through which gender may influence plastic waste management actions of individuals rather than attempting to predict it.

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***Results, Discussion, and Conclusion***

The result, presented in Table 1, shows that men's actions regarding plastic waste management are 0.0114 less than that of women but it is statistically not significant. We however find gender to have a significant differential impact between males and females on attitude, perceived behavioural control and eventually intention. This result hereby distinguishes between the direct effect of gender on the action and gender effects on factors indirectly affecting the action.

Measuring	Coefficients	P-value	Conclusion
Direct Impact	-0.0114	0.607	Negative and not significant at 5%
Attitude	-0.1684	0.000	Negative and statistically significant at 1%
Perceived Behavioural Control	-0.1638	0.000	Negative and statistically significant at 1%
Total Effects	-0.0471	0.0350	Negative and statistically significant at 5%

*Table 1: Results showing the impact of gender*

Results show that gender does not directly affect actions regarding plastic waste management. However, gender overall effects are significant when we observe gender differential effects regarding attitude and perceived behavioural control on intention and eventually on the action. A few studies that have controlled for gender only considered the direct impact of gender on the outcome (Raimondo et al., 2022). This study has utilized an established theory of planned behaviour to add to the limited literature on gender and plastic management, and other mechanisms that eventually affect plastic waste management actions.

**Key words:** circular economy; gender; plastics; waste management; Theory of Planned Behaviour (TPB)

**References**

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