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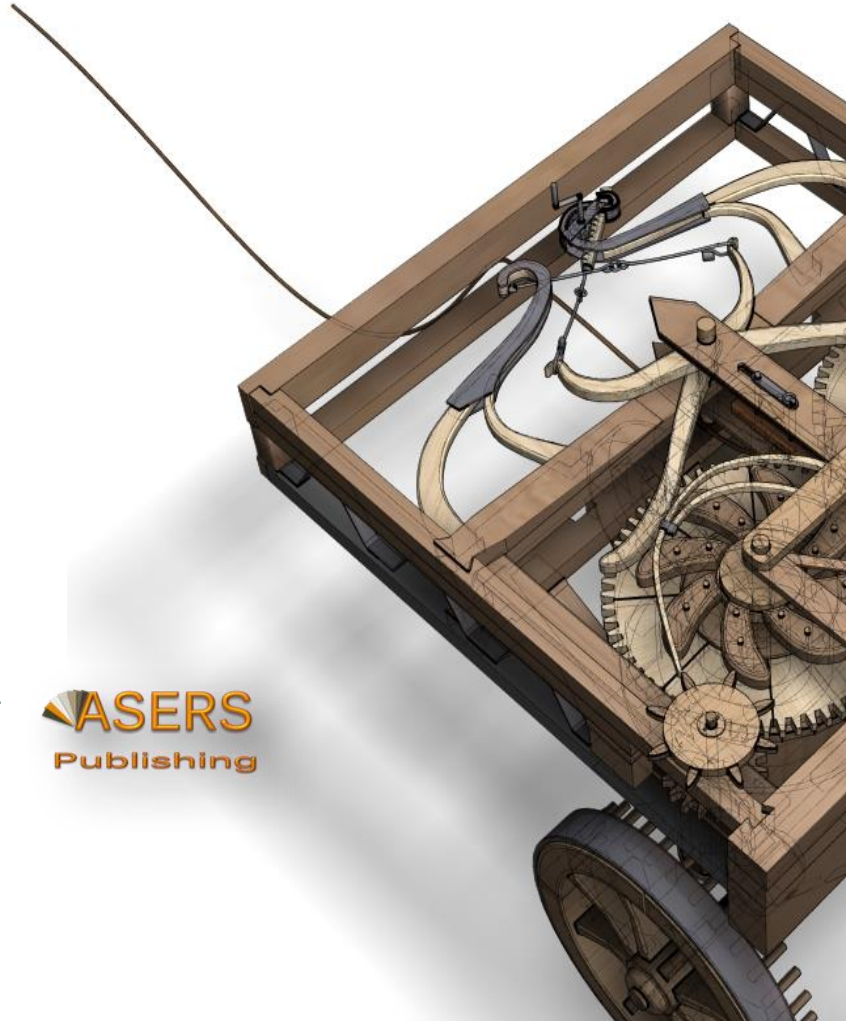
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# Call for Papers Winter Issues 2023 Journal of Environmental Management and Tourism

**Journal of Environmental Management and Tourism** is an open access, peer-reviewed interdisciplinary research journal, aimed to publish articles and original research papers that contribute to the development of both experimental and theoretical nature in the field of Environmental Management and Tourism Sciences. The Journal publishes original research and seeks to cover a wide range of topics regarding environmental management and engineering, environmental management and health, environmental chemistry, environmental protection technologies (water, air, soil), pollution reduction at source and waste minimization, energy and environment, modelling, simulation and optimization for environmental protection; environmental biotechnology, environmental education and sustainable development, environmental strategies and policies.

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The journal takes an interdisciplinary approach and includes planning and policy aspects of international, national and regional tourism as well as specific management studies. Case studies are welcomed when the authors indicate the wider applications of their insights or techniques, emphasizing the global perspective of the problem they address.

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## Do Environmentally Responsible Practices in Accommodation Establishments Matter?

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**Abstract:** Environmentally responsible practices (ERPs) in accommodation establishments are identified as the implementation and or execution of certain principles in such a way that it lowers the production of waste, preserve energy, and encourages environmental health. The main purpose of this study is to identify whether or not environmentally responsible practices in accommodation establishments matters. A descriptive survey design was used. The study utilised a quantitative research approach with questionnaires as a data collection instrument. The data were analysed using Statistic Package for the Social Science (SPSS), software version 23, to enable the generation of descriptive and bivariate statistics for the interpretation of the results. The following themes emerged from the study; namely, guests' preferences of ERPs, influence of return patronage and the effect knowledge have on ERPs. Most participants were not bothered by the re-use of linen and towels, yet establishments still need to invest more time in educating the guests in this regard. Guests indicated that they would return to an accommodation establishment that practices linen reuse programs, water conservation and waste management procedures. This study provides insights on ways guests view ERPs and their preferences. It provides accommodation establishments a scope on what their guests are comfortable in participating on.

**Keywords:** environmentally responsible practices; linen reuse; accommodation establishments; guests; return patronage.

**JEL Classification:** M14; Q56; Q53; R11.

### Introduction

As the world becomes increasingly cognisant of the negative impacts our modernised and automated lives have on the atmosphere that supports our livelihoods - it is crucial that every country, sector and person be well educated about and take a hands-on approach in mitigating those impacts for the sake of our very own sustenance. South Africa, as does many other countries, has seen a drastic turn in the climatic conditions over the past few years. We have seen extreme weather conditions – from extensive drought and recurring heat waves, to floods that periodically wreck-havoc in our communities. It would not be a waste of resources to start investigating extensively, the contribution every sector and industry has on the global crisis of environmental degradation caused by our ignorance and reckless operations, and ways to mitigate such contributions.

This study seeks to determine if environmentally responsible practices (ERPs) in accommodation establishments matters for guests, as well as the knowledge and the perception the guests have about whether or not these establishments do indeed implement these eco-friendly practices. The study was conducted at the Dinokeng Game Reserve, in the north of Pretoria, which houses several accommodation establishments and is home to the

'big five' and other animals. The Dinokeng Game Reserves prides itself on conserving nature and for adhering to eco-tourism.

In order to reach the main aim of the study the following objectives need to be addressed, that is; guests' preferences of ERPs, influence of return patronage, the effect knowledge and education have on ERPs.

## 2. Literature Review

Accommodation establishments now recognise the need to preserve and safeguard the natural environment and are implementing ERPs in their everyday business (Sucheran and Moodley 2019, 2). The government has instructed accommodation establishments to follow prescribed standards of caring for the environment (Oh 2022). The most common practices of ERPs in accommodation establishments are the use of energy-saving light bulbs, and linen and towel re-use, which reduces operational costs (Kim, Kim and Nguyen 2021). ERPs are adopted for financial gain (Abdou *et al.* 2022) and to improve the image of the company (Moise, Gil-Saura and Molina 2021,3508).

### 2.1 Guests' Preference of Environmentally Responsible Practices

Most guests prefer their comfort and select their accommodation mainly based on costs and the quality of the establishment (Tasci 2017, 380). This is still true even when guests have sufficient knowledge regarding ERPs. Many individuals are not willing to make sacrifices for something they cannot see, for example, the effect of recycling on climate change. Although some guests have a positive attitude towards ERPs, they lack action, based on limited awareness, confusion or scepticism about the actions taken by the establishment. This could be rectified by educating the guests on the implemented initiatives and the effect on the environment. A better understanding of the positive and negative impact on the immediate environment and wildlife may motivate guests to become more responsible and to participate more in these practises (Lee, Jan and Chen 2023,1233; Tasci 2017, 380).

#### Linen reuse

The implementation of linen and towel reuse programmes not only reduce immediate service costs, but also extend the lifespan of these items. A very important feature of these programmes is the saving of water and energy and reducing waste, which is good for the environment (Scholz, Linderova and Konecna 2020).

#### Energy efficiency

The excessive use of energy is common around the world (Yang 2017, 52). The excessive use of energy and perishable products in an accommodation establishment may result in 21% of CO<sub>2</sub> emissions into the atmosphere (Sucheran and Moodley 2019, 2). Guests are prepared to spend more on accommodation that uses sustainable energy systems to mitigate the environmental impact (Chung 2020,722). Guests often participate in energy saving when at home but are not willing to do so when in an accommodation establishment. This reckless behaviour of guests confirms the need for educating employees as well as guests on energy and water saving initiatives (Achmad and Yulianah 2022). Most guests indicated that they would rather stay in an establishment that has energy conservation measures in store, when the cost of the establishment matches the quality of their sustainable practices (Hall *et al.* 2016, 7).

#### Water conservation

Accommodation establishments use about 3 423 litre per room per day, including drinking water, bathroom and toilet routines, swimming pools, and making food. Implementing policies that enforces the reduction of water consumption is challenging since it is almost impossible to monitor the guests' consumption (Yang 2017, 7).

Guests also pay a fixed fee per day regardless of the amount of water and energy they used. The establishment then benefits from guests using resources more sparingly which results in a financial saving for them (Joo, Lee and Park 2018, 1789). Accommodation establishments need to remind guests to save water in a creative manner, such as notes in the rooms. This might motivate guests to take part in the initiatives (Achmad and Yulianah 2022). Water saving techniques must be implemented to prevent serious measures such as water rationalising in affected areas.

#### Waste management

South Africa is faced with serious problems caused by waste disposal in accommodation establishments (Mbasera 2015, 8). There is also a huge increase in waste produced by accommodation establishments, yet the level of waste management is declining. The fast rate at which accommodation establishments are developing, poses a threat to the environment as guests largely contribute to the waste generated by accommodation establishments. It is estimated that approximately 1 kg of waste is generated per room daily. Some of the waste is excreted to water, causing harm to the environment (Mensah 2020). Accommodation establishments' failure to

educate their guests about the waste management ERPs implemented in their respective premises and the benefits thereof, may result in guests not participating in the said ERPs (Amasuomo and Baird 2016,92).

## 2.2. Return Patronage

Return patronage of guests is determined by their experiences and feelings of participating in something great for the environment. Therefore, their attitudes towards an accommodation establishments' green practices influences their future intentions such as the intention to stay at an environmentally responsible accommodation establishment, spreading positive word of mouth and the willingness to pay extra for ER accommodation establishments (Tan, Aziz and Ngah 2020; Patwari *et al.* 2022,4653).

Trust has been identified as an important factor influencing behavior intention (Garcia de Leaniz *et al.* 2019, 212). Guests' values, needs, and interests are highlighted as determining factors for participation in ERPs. In other words, guests participate in initiatives that they see as valuable and important in their lives (Moise, Saura and Molina 2021). Guests value ERPs and it affects guests return patronage intention. The knowledge of guests increases awareness and acceptance of green establishments and influences their behavioural decision to participate (Nimri, Patiar and Jin 2020,535).

## 2.3. The Effect of Knowledge and Education on Environmentally Responsible Practices

Guests might develop different attitudes towards the environment depending on whether they are directly or indirectly affected by the changing environment. Therefore, a person with perceived benefits from ERPs tends to care more and is more willing to support ERPs (Keles *et al.* 2023). Social media platforms can be used to educate guests about the importance of these practises which might better their attitudes and consequently their behavior (Olya, Bagheri and Tumer 2019,18).

If guests are enlightened about environmental matters, they might be encouraged to act in a responsible way. It has been identified that 27% of hotels were distributing brochures to their guests to educate them on environmental matters and to encourage support of the establishment's ERPs. Through education, guests' behaviour might be changed, and an environmentally responsible nation might be developed. Guests with more knowledge were more inclined to participate in environmentally responsible behaviour (Mensah 2020,33).

Environmental awareness is an important contributor to a positive attitude, responsible behaviour, and a sense of obligation to support environmentally responsible intentions (Han, Lee and Kim 2018,1304). Khatter *et al.* (2021,1351) opined that accommodation establishments were not doing enough in educating their guests on their ERPs. This caused guests to be sceptical about these practises.

Clear communication between accommodation establishment management and guests about their practices shows that they educate their employees. This could also provide guests an opportunity to educate themselves with regards to ERPs (Jaykumar 2021,1). Through education comes understanding which can enhance the willingness to support and take part in these initiatives.

## 3. Methodology

In order to collect the desired data, a descriptive survey, in the form of a questionnaire, was conducted at all the accommodation establishments that form part of the Dinokeng Game Reserve, whereby the guests voluntarily filled the questionnaires in. The data were analysed to give a holistic view of the perception guests have about the ERPs of the accommodation establishments. Ethical consideration was given when choosing data and distributing questionnaires. Permission from the university as well as from Dinokeng management were obtained before the commencement of the study.

A non-probability sampling technique in the form of convenient sampling were used to select the individual participants. 34 accommodation establishments were selected based on the qualification criteria. Out of 250 questionnaires sent out, only 118 questionnaires (47.2%) were received back fully completed and were successfully analysed.

In this study the questionnaire is used to determine demographic information of participants (age, gender, nationality), guests' preference of ERPs, influence of return patronage and the effect knowledge and education have on ERPs. A pilot study has been conducted in order to evaluate the questionnaires' validity and reliability.

The data were analysed using Statistic Package for Social Science (SPSS), software version 23, to enable the generation of descriptive and bivariate statistics for the interpretation of the results.

#### 4. Results and Discussion

From the data, specific themes and sub-themes were identified. The first theme was Guests' preference of ERP's. Guests indicate that water conservation, energy efficiency, linen reuse and waste recycling procedures as very important ERPs when considering visiting an accommodation establishment (Sub-themes) (Table 1).

Table 1. The themes and sub-themes

Themes	Sub-Themes
Guests' preferences of ERPs,	Water conservation, Energy efficiency, Linen reuse Waste recycling procedures
Influence of return patronage,	Water conservation, Linen reuse Waste management
Effect of knowledge and education on ERPs	Knowledge improves ERP participation

Table 1 shows that the sub themes which influence return patronage are water conservation, linen reuse and waste management. These factors prove to be the reasons why guests return to the establishments. Guests are willing to learn about ERPs if only accommodation establishments' management can give themselves time and find ways to educate them. Guests with knowledge are more inclined to participate on ERPs in accommodation establishments compared to guests without knowledge. This then might mean that their perception depends on the level of knowledge they have on the practices.

##### 4.1 Guests' Preferences of Environmentally Responsible Practices

Objective one of this study was based on the first identified theme to determine guests' preferences regarding the accommodation establishment's offering in terms of ERPs.

Table 2. Guests' preferences with regards to ERPs

Guests' preferences with regards to ERP	Mean	Median	Rank
Refillable glass bottled water for drinking water.	3.97	4.0	
Non- refillable plastic water bottles for drinking water.	3.00	3.0	
Provide re-usable amenities, not disposable ones	3.61	4.0	
Eco friendly air conditioning, which operates according to a timer (that switch itself off after few hours of operation).	4.15	4.0	1
Low flow showerheads with reducing valve.	3.75	4.0	
Room offering a bathtub.	3.30	4.0	
Linen and towels should be changed upon guests' request only (when sleeping for more than one night).	4.09	4.0	3
Provide organic food.	3.39	3.0	
Cross flow ventilation (small ceiling fan).	3.70	4.0	
Install photosensitive light switches on outdoor lights (sensor lights in the parking area, garden).	3.81	4.0	
Dimming lights (incandescent lighting).	3.59	4.0	
Separate waste bins in guest rooms.	3.80	4.0	
A half flush/ full flush toilet system should be installed.	4.02	4.0	5
Accommodation establishments should provide information about the green practices they engage in.	4.05	4.0	4
Energy Light-emitting diode (LED) light bulbs in rooms	4.09	4.0	3
Guests should be educated about water conservation.	4.10	4.0	2
An occupancy sensor that automatically controls lighting and air conditioning should be installed.	3.72	4.0	
I prefer to stay at a green establishment that cares about the environment.	3.87	4.0	
Friedman = 518.1875 Kendall = 0.3018 $p < 0.001$			

Mean and median ranking analysis was conducted to determine the guests' preferences as shown in Table 2. The results in Table 2 indicate that the ERP-items listed in order of preference were as follows:

- Eco-friendly air conditioning.
- Education about water conservation.



- Led light bulbs in rooms and linen and towel re-use programmes.
- Provide guests with information about ERPs the establishment is engaged in.
- The installation of the half flush/full flush toilet systems.

Most guests indicated that they would prefer staying in an accommodation establishment that has energy conservation measures in place, provided that the cost of these establishments matches the quality of their sustainable practices. This statement corresponds with literature which indicates that most guests prefer their comfort and select their accommodation mainly on costs and the quality of the establishment (Tasci 2017, 380). It is concluded that the participants were willing to participate in ERPs if it did not require effort from them, for example, having to separate waste for recycling. Garcia de Leaniz, Crespo and Gomez-Lopez (2019, 213) concurred that guests' intention to participate in ERPs are based on values, needs, and interest. It was further concluded that the participants were willing to be educated about the ERPs of the establishment. This can be done on the website or through communication in the reception area or in the rooms. This may motivate guests to participate in the practices. Therefore, accommodation establishments need to put more effort in trying to educate guests to embrace ERPs. Guests also indicated waste recycling procedures as very important, followed by water conservation. It was found that guests were aware of these practices and would visit an establishment simply because they were following ERPs.

Guests participate when they feel whatever they are about to take part in corresponds with what is important in their lives and valuable to them. The Friedman test was conducted to determine if there is a statistically significant difference between these groups of variables of ERPs. The results indicated a statistically significant difference (Friedman = 518.2,  $p < 0.001$ ), meaning that these ERPs are statistically significant.

#### 4.2 Influence of Environmentally Responsible Practices on Return Patronage

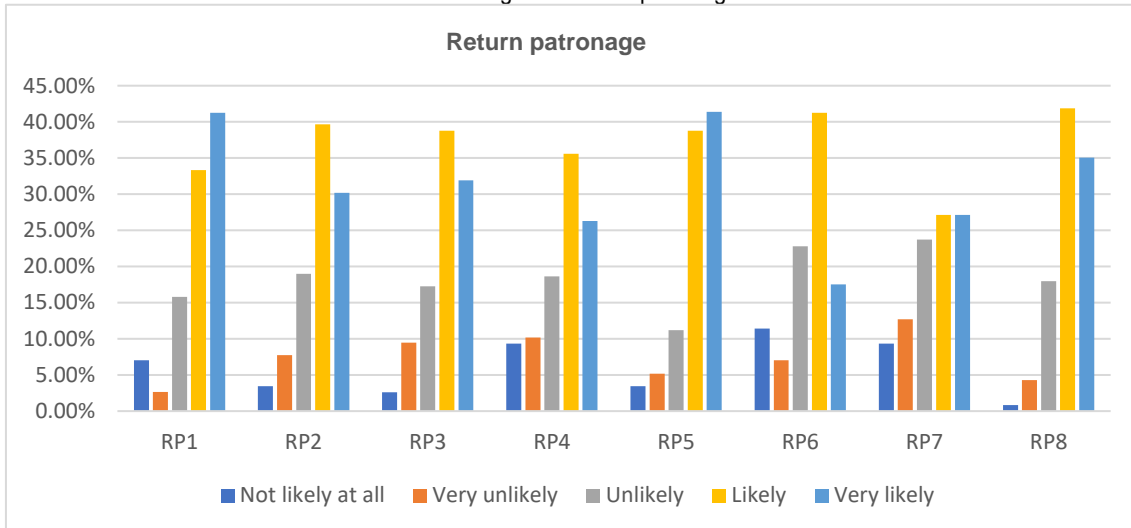
Theme two of the study determined if ERPs influence return patronage. Correlation and regression analysis were done to investigate this aspect. This section of the questionnaire presented eight statements to determine how likely it was that the participants would return to the accommodation establishment. The statements can be seen in Table 3 and the results are presented in Figure 1.

Table 3. Return patronage on the accommodation establishment

Return patronage	
RP1	Returning to stay in accommodation where you stayed in previously.
RP2	To stay in an accommodation establishment where there is technology for saving electricity.
RP3	To stay in accommodation establishment where there is technology for saving water.
RP4	To stay in an accommodation establishment where bed linen and towels are changed daily.
RP5	To stay in an accommodation establishment where bed linen and towels are changed at guests' request.
RP6	To stay in an accommodation establishment that serves organic food is served.
RP7	To stay in an accommodation establishment that has its own vegetable garden.
RP8	To stay in an accommodation establishment where waste recycling procedures are used.

The responses were guided by a 5-point Likert scale between not likely to highly likely, as presented in Figure 1. The participants were mostly likely or very likely to return to accommodation establishment offering the ERPs presented in the questionnaire. Most of the participants were likely and very likely to return to an accommodation establishment where they stayed before at 74.5% (Figure 1). The most influential factor was the issue of changing linen on the guests request with a total of 80.17% indicating likely and very likely. This was followed by the presence of waste recycling procedures being in place with a total of 76.92%. Saving water technology was also recognised as a significant factor with 31.9% indicating very likely and 38.79% indicating likely to return to such establishments.

Figure 1 Return patronage



Statements RP6 and 7 had the least impact on the likelihood of participants revisiting the establishment with a total of only 58.77% and 54.24%, respectively. These results show a similarity with the study by Tan, Aziz and Ngah (2020, 18) who indicated that ERPs affect guests return patronage intention and guests do value these initiatives. They are willing to participate because they believe that they are contributing to environmentally responsible practices and to the future generations. Therefore, guests' knowledge increases awareness and acceptance of green establishments and influences their behavioural decision to participate. The literature confirmed that knowledgeable guests would be willing to support ERPs and would revisit establishment following these practises (Tasci 2017,380). Guests have knowledge about eco-friendly behaviour and know that staying in a green establishment is costly and are willing to pay extra for their stay.

### 4.3 Effect of Knowledge and Education Have on Environmentally Responsible Practices

Theme three investigates the effect knowledge and education has on ERPs. Guests' perceptions whether the management of the accommodation does enough to inform them about their environmental practices. The responses can be seen in Table 4.

Table 4. Experience of the respondents in the establishment

Experience in the establishment		Yes	No	Not sure
Have you ever heard of an environmentally responsible accommodation establishment (environmentally friendly)?	N	97	12	9
	%	82.2	10.2	7.63
Is the issue of the natural environment and its protection important for the performance and development of accommodation establishments?	N	102	11	5
	%	86.4	9.32	4.24
Does the issue of linen reuse bother you (Sleep more than one night in the same linen)?	N	48	65	8
	%	40.7	55.1	4.24
Is there a brochure or pamphlet provided by the accommodation establishment to you as a guest indicating their involvement in saving the environment or their actions as the accommodation establishment to protect the environment?	N	62	22	33
	%	53.0	18.80	28.2

Most participants, 82.2%, have heard of environmentally responsible accommodation establishments. Most of the participants, at 86.04%, also agreed that the protection of the natural environment was important for the performance and development of accommodation establishments, while 9.32% did not regard it as important. Although 55.1% of the participants were not bothered by reusing their linen, 40.7% indicated that it bothered them, while 4.42% were unsure about this issue. These mixed responses might be motivated by the perception that accommodation establishments focus on linen reuse more than the other ERPs that they should consider. Chan, Tsang and Au (2022,103105) stated that linen re-use programmes are often used by management to save water and energy, hence it is the only sign of ERPs in some establishments.

More than half of the participants, at 53.0%, confirmed the presence of a brochure or pamphlet in the room informing them about the ERPs followed by the establishment. On the other hand, 18.8% indicated that it was not available while 28.2% were not sure if it was available in the room. Overall, the accommodation establishment was informing the guests of ERPs and highlighted the importance of natural resources and their protection. However, there seems to be a gap between the actions that the establishment was taking to protect the environment and the message to the guest to reuse their linen for environmental protection. Jaykumar (2021,64) indicated that guests with more knowledge on ERPs are more inclined to participate in environmentally responsible behaviour. Finally, water conservation is the statistically significant predictor of return patronage.

## Conclusion

Guests preferred staying in accommodation establishments that practice energy efficiency, waste recycling, water conservation and educating guests about the ERP initiatives that establishment is taking part in. Interesting to note from the participants' selection on preferred ERPs is that it requires minimum effort from the guests. Although the participants understood ERPs and were willing to participate in this practice, they still do not want their comfort compromised. From the results it was found that water conservation, linen re-use programs and waste management initiatives were the ones contributing in guests returning to an establishment. Most of the participants were likely and very likely to return to an accommodation establishment where they stayed before.

More than 50% of the participants confirmed that there were pamphlets available, informing them about the ERPs of that establishment. Most guests indicated that accommodation establishments were actually educating them about ERPs, and most were willing to participate in ERPs, especially the linen reuse programmes. Despite these efforts there is still a gap in creating awareness and understanding of ERPs and to ensure that the guests take part in these efforts. This put pressure on establishments to implement ERPs that would benefit the establishment, guests, and the natural environment all at the same time. Knowledge is not gained from the establishment alone but also from other institutions such as government, the media and the private sectors.

Based on the findings, it is advised that accommodation establishments invest in ways to educate their guests about ERPs. Accommodation establishments and their management should seek help from the government to provide them with incentives so they can easily implement the practices and help educate the public about ERPs, not only in their homes but in accommodation establishments as well. Accommodation establishments' management need to find ways to motivate guests to participate in environmental practices. Government needs to put measures in place that would force accommodation establishments to participate in environmentally responsible practices like offering compensation to the establishments that put in place ERPs to encourage others to do the same. Accommodation establishments' management needs to focus more on saving the environment rather than saving costs. This can motivate guests to support the initiative and in turn will increase return patronage.

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## Credit Authorship Contribution Statement

**Lulama Ndzungu:** Investigation, Methodology, Project administration, Writing the original draft.

**Carina Kleynhans:** Conceptualization, Project administration, Supervision, Writing - review and editing.

**Antoinette Roeloffze:** Conceptualization, Supervision, Editing.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

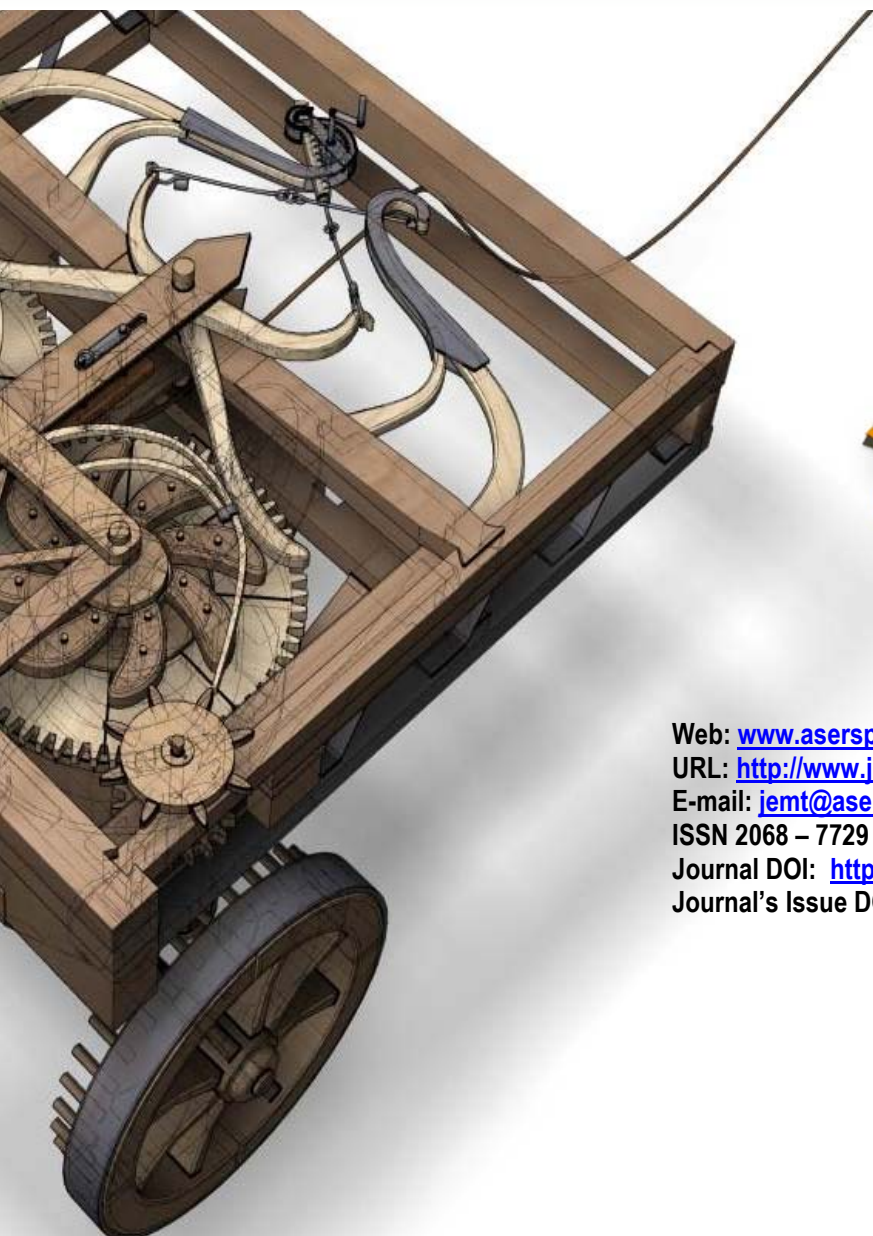
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