



The Internalization of Green Tourism in the Course of Sanitation, Hygiene, and Safety at Work of the Food and Beverage Study Program

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Abstract

This study aims to analyze the implementation of green tourism practices in the Occupational Hygiene Sanitation and Safety course at Makassar Tourism Polytechnic. The observation method was used to evaluate six main aspects: waste management, use of environmentally friendly materials, resource-saving, implementation of hygienic practices, availability of safety equipment, and environmentally friendly behavior. The results showed progress in some areas, such as waste segregation, the use of biodegradable detergents, and the implementation of energy-saving measures. However, some aspects needed improvement, especially in terms of inorganic waste recycling, the use of environmentally friendly disinfectants, and the utilization of renewable energy. A recent literature-based analysis revealed that these practices are in line with global trends in sustainable tourism education, although there is still room for improvement. This study concludes that Makassar Tourism Polytechnic has demonstrated an initial commitment to green tourism, but further development is required to achieve optimal standards. Recommendations include the development of a comprehensive recycling program, increased use of eco-friendly materials, investment in renewable energy, and deeper integration of green tourism concepts into the curriculum. The implementation of these recommendations is expected to improve the quality of sustainable tourism education and prepare students for a more environmentally friendly future tourism industry.

Keywords: *Environmentally Friendly Practices, Green Tourism, Sanitation Hygiene, Sustainable Education.*

INTRODUCTION

Green tourism has become an important issue in the global tourism industry, including in the catering industry. With increasing awareness about environmental impacts and social responsibility, there is a growing demand for companies to adopt sustainable tourism practices. One important aspect of implementing green tourism is good sanitation, hygiene, and safety in the catering industry. Green tourism has become an important issue in the global tourism industry, including in the catering industry. With increasing awareness about environmental impacts and social responsibility, there is a growing demand for companies to adopt sustainable tourism practices. One important aspect of implementing green tourism is good sanitation, hygiene, and safety in the catering industry. The study conducted by Sharif et al. (2019) showed that green human resource management practices can encourage the acceptance of sustainable tourism practices in the hospitality industry. In addition, Lan et al. (2022) emphasized the importance of preparing Food and Beverage Study Program students to adopt environmentally friendly practices in the aspects of sanitation, hygiene, and occupational

safety through the mediating role of organizational citizenship behavior towards the environment.

The implementation of sustainable sanitation, hygiene, and safety practices also needs to consider the consumer perspective. Kallmuenzer and Seegebarth's (2021) research developed an integrative model of consumer sustainable hygiene behavior in the hospitality industry, which can be a guide for Food and Beverage Study Program students in learning environmentally friendly sanitation and hygiene practices. During the Covid-19 pandemic, there has been an increase in hygiene efforts in the hospitality industry. However, Cvelbar et al. (2023) explored consumer reactions to excessive hygiene efforts, which is an important consideration in implementing effective and sustainable hygiene practices. Meanwhile, Yeh and Lee (2023) emphasized the importance of building an organizational culture that supports green practices, which is relevant for Food and Beverage Study Program students in preparing to work in a green tourism environment.

The study conducted by Sharif et al. (2019) showed that green human resource management practices can encourage the acceptance of sustainable tourism practices in the hospitality industry. This



implies the importance of preparing Food and Beverage Study Program students to adopt environmentally friendly practices in the areas of sanitation, hygiene, and occupational safety. The study conducted by Sharif et al. (2019) showed that green human resource management practices can encourage the acceptance of sustainable tourism practices in the hospitality industry. This implies the importance of preparing Food and Beverage Study Program students to adopt environmentally friendly practices in the areas of sanitation, hygiene, and work safety. This finding is in line with the research of Lan et al. (2022) which emphasizes the importance of preparing Food and Beverage Study Program students to adopt environmentally friendly behavior through the implementation of green human resource management and the mediating role of organizational citizenship behavior towards the environment. In addition, Yeh and Lee's (2023) study revealed that green human resource management and green organizational culture can enhance students' green innovative behavior, which is also relevant for Food and Beverage Study Program students in developing environmentally friendly practices.

In the context of sanitation and hygiene, Kallmuenzer and Seegebarth's (2021) research developed an integrative model of consumer sustainable hygiene behavior in the hospitality industry. This model can be a guide for Food and Beverage Study Program students in studying the factors that influence environmentally friendly hygiene behavior and developing sustainable sanitation and hygiene practices. During the Covid-19 pandemic, hygiene efforts have become very important in the hospitality industry. However, the study by Cvelbar et al. (2023) explored consumer reactions to excessive hygiene efforts, providing valuable insights for Food and Beverage Study Program students in implementing effective and sustainable hygiene practices without causing negative reactions from consumers.

Learning and understanding sustainable tourism practices, especially in the aspects of sanitation, hygiene, and work safety in the hospitality industry, is very important for students of the Food and Beverage Study Program at Makassar Tourism Polytechnic. Recent studies provide insights into the implementation of green practices in the hospitality industry, the role of green human resource management and organizational

citizenship behavior in driving Informants' green behavior, as well as the importance of considering consumer reactions to excessive hygiene efforts. By understanding these findings, Food and Beverage Study Program students can prepare themselves to adopt effective and sustainable sanitation, hygiene, and safety practices, and contribute to creating a greener tourism industry.

Occupational Hygiene Sanitation and Safety (HSK) is a course in the Food and Beverage Study Program of Makassar Tourism Polytechnic. This course deals with the skills and knowledge required for the application of procedures related to food safety programs based on the Hazard Analysis and Critical Control Point (HACCP) method, developing and managing health, safety, and security requirements in the workplace and being able to perform basic first aid procedures in a variety of settings in the context of the hospitality industry workplace. The specifications of this course weight 2 credits in semester 2. The derivatives of the Learning Outcomes of this course are translated through the Graduate Learning Outcomes of the Study Program) Charged to the Course. Play a role as a citizen who is proud and loves the country, has nationalism and a sense of responsibility to the state and nation (S3); Mastering the concepts of Occupational Safety and Health (K3) in hotel operations and food hygiene in depth (P6).

A case study conducted by Pineda and Assis (2021) explored sustainable tourism practices in a hotel in Brazil, including the aspect of sanitation and hygiene. This can provide a concrete picture of the implementation of environmentally friendly practices in the hospitality industry, which can help Food and Beverage Study Program students prepare themselves to adopt similar practices in the Informant workplace later. Furthermore, research by Lan et al. (2022) and Cvelbar et al. (2023) highlighted important aspects that need to be considered by Food and Beverage Study Program students about sustainable sanitation, hygiene, and safety. Lan et al. (2022) emphasized the importance of preparing students to adopt environmentally friendly behavior through green human resource management and organizational citizenship behavior towards the environment. Meanwhile, Cvelbar et al. (2023) explored consumer reactions to excessive hygiene efforts during the Covid-19 pandemic, providing important



considerations for Food and Beverage Study Program students in implementing effective and sustainable hygiene practices without causing negative reactions from consumers.

Finally, Yeh and Lee (2023) examined the relationship between green human resource management, green organizational culture, and green innovative behavior in the Korean hospitality industry. The findings emphasize the importance of building an organizational culture that supports green practices, which is relevant for Food and Beverage Study Program students in preparing to work in a green tourism environment. In line with the global green tourism trend, the internalization of environmentally friendly practices in the aspects of sanitation, hygiene, and work safety is an urgent need for Food and Beverage Study Program students at Makassar Tourism Polytechnic. Recent research provides valuable insights into the implementation of sustainable practices in the hospitality industry, the role of green human resource management in encouraging green behavior, and important considerations regarding consumer reactions to excessive hygiene efforts.

By understanding the findings of this research, Food, and Beverage Study Program students will not only have a deep understanding of the importance of adopting environmentally friendly sanitation, hygiene, and occupational safety practices but will also gain insight into key factors such as green human resource management, organizational citizenship behavior, and consumer reactions that need to be considered in their implementation. This will prepare the Informant to become a responsible professional and contribute significantly to creating a more sustainable tourism industry upon completion of the Informant's study.

METHODS

This research is a case study that aims to explore the internalization of green tourism in the aspects of sanitation, hygiene, and work safety among Food and Beverage Study Program students. Case studies were chosen because they allow researchers to gain an in-depth understanding of the phenomenon under study through data collection from various sources (Lexy J, 2019). This research was conducted at the Makassar Tourism Polytechnic Campus Restaurant during March-April 2024. The Campus Restaurant was chosen as the research location because it is a place of practice for Food and Beverage Study Program students so it can provide a real picture of the application of environmentally friendly sanitation, hygiene, and work safety practices. The informants in this study were 5 informants of the Food and Beverage Study Program 2nd semester students who were practicing in the Restaurant and Kitchen at Makassar Tourism Polytechnic. The selection of 2nd-semester students is based on the assumption that the informants have gained basic knowledge about sanitation, hygiene, work safety, and sustainable tourism. Data collection in this study will be carried out through several In-depth Interviews and Observation Techniques (James P. Spradley., 2006). In-depth interviews will be conducted with 2nd-semester Food and Beverage Study Program students to obtain information about the Informants' understanding and perceptions of green tourism, as well as the environmentally friendly sanitation, hygiene, and work safety practices that the Informants apply during practice at Campus Restaurants.

Table 1. Research Instruments

No	List of Questions	List of References	Observation Checklist	List of References
1	Do you understand the concept of green tourism and eco-friendly practices in the Food and Beverage Study Program?	(Sharif et al. (2019): Lan et al. (2022): Sloan et al. (2013)	Waste management (separation, composting, recycling)	(Sánchez-Medina dan Díaz-Carrión (2020); Pirani dan Arafat (2016).



2	Why do you think environmentally friendly sanitation, hygiene, and safety practices are important in the Food and Beverage Study Program?	Use of environmentally friendly ingredients (detergents, cleaners, etc.)
3	What practices did you do during your time at the Campus Restaurant to support green tourism in terms of sanitation, hygiene, and safety?	Resource-saving (water, energy, paper, etc.)
4	What challenges or obstacles do you face in implementing environmentally friendly practices related to sanitation, hygiene, and work safety?	Implementation of hygienic practices (washing hands, using clean utensils, etc.)
5	What do you think about the preparation provided by the Food and Beverage Study Program regarding green tourism and environmentally friendly practices in the aspects of sanitation, hygiene, and work safety?	Availability of safety equipment (gloves, masks, etc.) Informant's environmentally friendly behavior (turning off lights when not in use, minimizing waste, etc.)

Source: Researcher, 2024

Data collection will also be carried out through documentation, such as photos, videos, or related documents that show environmentally friendly sanitation, hygiene, and work safety practices in Campus Restaurants. Data obtained from interviews, observations, and documentation will be analyzed descriptively and qualitatively to obtain an overview of the internalization of green tourism in the aspects of sanitation, hygiene, and work safety among Food and Beverage Study Program students. The analysis will be carried out by identifying main themes, drawing conclusions, and providing recommendations based on research findings (Sugiyono, 2020).

RESULTS AND DISCUSSION

The results of interviews with five students of the Makassar Tourism Polytechnic Food and Beverage

Study Program provide an interesting picture of the understanding and application of green tourism concepts in the context of sanitation, hygiene, and work safety in catering. The students demonstrated a good understanding of the concept of green tourism and the importance of Informant's environmentally friendly practices. Students also shared their experiences about the practices that Informants implemented during their practice in Campus Restaurants, the challenges faced, as well as students' views on the preparation provided by the study program. These interviews revealed a high awareness among students about the importance of sustainable tourism, while also pointing out areas that still need to be improved in the education and implementation of green practices in the Food and Beverage Study Program.



Green Tourism Concepts and Eco-friendly Practices

Students of the Makassar Tourism Polytechnic Food and Beverage Study Program show a good understanding of the concept of green tourism and the Food and Beverage Study Program's environmentally friendly practices. This is by the quotation from the interview results with Student 1 (M1) and Student 2 (M2) informants (Thursday, March 14, 2024): "Yes, I understand the concept of green tourism. It's about minimizing negative impacts on the environment in tourism activities, including in the Food and Beverage Study Program". "I quite understand. Green tourism means conducting tourism activities with attention to environmental sustainability".

Students generally understand that green tourism is concerned with minimizing negative impacts on the environment in tourism activities, including in the Food and Beverage Study Program. Students recognize the importance of paying attention to environmental sustainability and operating in a more environmentally friendly manner in the Informant industry. This understanding includes concepts such as negative impact reduction, environmental preservation, and sustainability in the context of the tourism industry and the Food and Beverage Study Program.

Understanding the Importance of Environmentally Friendly Sanitation, Hygiene and Safety Practices

Makassar Tourism Polytechnic Food and Beverage Study Program students demonstrated a good understanding of the importance of environmentally friendly sanitation, hygiene, and safety practices in the Food and Beverage Study Program. Informants identified several key reasons why these practices are important, including maintaining hygiene, health, and safety, as well as reducing negative impacts on the environment. Students' understanding is in line with recent research findings in hospitality and the Food and Beverage Study Program. According to a study conducted by Pirani and Arafat (2016), good sanitation and waste management practices are essential in the hospitality industry to reduce environmental impact. "Proper waste management practices in the hospitality industry are crucial for reducing environmental impact and ensuring sustainability. These practices not only contribute to environmental conservation but also improve the overall hygiene and safety of the establishment" (Pirani & Arafat, 2016, p. 322).

The following are excerpts from interviews with informants Student 2 (M2) and student M4 (M4) (Thursday, March 14, 2024): "This practice is important because it helps maintain hygiene, health, and safety while reducing negative impacts on the environment". "This practice is important to maintain the sustainability of the Food and Beverage Study Program and tourism as a whole, as well as protect the environment".

Makassar Polytechnic Food and Beverage Study Program students demonstrated a comprehensive understanding of the importance of environmentally friendly sanitation, hygiene, and safety practices in the Food and Beverage Study Program. Informants identified that these practices have a crucial dual role: firstly, in maintaining health and safety aspects for both consumers and workers through the maintenance of hygiene and the implementation of proper safety procedures; and secondly, in the broader context of environmental sustainability and the tourism industry as a whole. Student 3 (M3) and student M4 (M4) interview excerpts (Thursday, March 14, 2024): "These practices are important to safeguard the health of consumers and workers, and ensure the long-term sustainability of the industry".

The students realized that by implementing environmentally friendly practices, the Informants are not only contributing to the reduction of negative impacts on the environment but also ensuring the long-term sustainability of the Food and Beverage Study Program and tourism. This understanding reflects a good internalization of the concept of sustainable tourism among students, demonstrating the potential of the Informants to become agents of change in realizing a more environmentally friendly Food and Beverage Study Program in the future.

Campus Restaurant practices to support green tourism in terms of sanitation, hygiene, and safety

Students of the Makassar Tourism Polytechnic Food and Beverage Study Programme demonstrate high awareness and commitment to implementing various environmentally friendly practices during their Informant practice at the Campus Restaurant. These practices cover various operational aspects that support green tourism, particularly in the context of sanitation, hygiene, and work safety. In terms of waste management, students reported that Informants consistently separate organic and inorganic waste,



which is an important step in effective waste management. This practice is in line with the findings of Pirani and Arafat (2016), who emphasized the importance of proper waste separation and management in the Food and Beverage Study Program to reduce environmental impact. Student 4 (M4) interview excerpt (Thursday, 14 March 2024): “I always wash my hands properly, use clean utensils, and try to save energy by switching off lights and electrical appliances that are not in use”.

The efficient use of resources is also a major focus. Students try to use enough water when washing equipment and save energy by switching off lights and electrical equipment that are not in use. Interview excerpts of Student 4 (M4) and Student M5 (M5) (Thursday, 14 March 2024): “I always try to use water and electricity efficiently, use appropriate personal protective equipment, and manage waste well”. These practices reflect efforts to reduce resource consumption, which is a key aspect of sustainable operations as identified by Sánchez-Medina and Díaz-Carrión (2020).

Challenges or Constraints in Implementing Environmentally Friendly Practices Related to Occupational Sanitation, Hygiene, and Safety

Challenges or obstacles in implementing environmentally friendly practices related to sanitation, hygiene, and work safety are important aspects identified by the Food and Beverage Study Programme students of Poltekpar Makassar. Some of the main challenges that Informants face include consistency in implementing environmentally friendly practices, especially when in busy situations; lack of supporting facilities, such as separate bins for different types of waste; higher costs for environmentally friendly materials; lack of awareness from some colleagues; and difficulties in changing old habits. Interview excerpts Student 1 (M1), student M3 (M3) (Thursday, 28 March 2024) and student M5 (M5) (Thursday, 4 April 2024): “The challenge is consistency. Sometimes it's hard to remember to implement green practices when you're busy”. “The main challenge is changing habits. It takes time and effort to adopt new practices that are more environmentally friendly”.

Students' awareness of these challenges demonstrates Informants' deep understanding of the complexities of implementing green practices in a real context and could be a starting point for finding more

effective solutions and strategies to overcome these obstacles in the future. These challenges are in line with the research findings of Sánchez-Medina and Díaz-Carrión (2020), who identified that factors such as limited resources, lack of infrastructure, and resistance to change are often barriers to the implementation of sustainable practices in the hospitality industry. Student interview excerpt M5 (M5) (Thursday, 4 April 2024): “The challenge is cost. Sometimes eco-friendly materials are more expensive, so it's hard to always use them”.

One of the significant challenges faced by students in implementing green practices in the Food and Beverage Study Programme is the cost factor. Students revealed that eco-friendly ingredients often have higher prices compared to conventional alternatives, making it difficult to use them consistently in daily operations. This challenge is in line with the research findings of Suci et al. (2020) in the context of green hotel implementation in Indonesia. They stated, “The main obstacles in implementing the green hotel concept in Indonesia are high investment costs for the procurement of environmentally friendly equipment and technology, as well as the price of environmentally friendly materials that are more expensive than conventional products” (Suci et al., 2020, p. 78). These cost constraints not only affect the choice of materials used but can also impact decisions regarding the use of greener technology or equipment. Nonetheless, students' understanding of this challenge demonstrates their awareness of the complexity of implementing green practices in the Food and Beverage Study Programme and may encourage them to seek creative or innovative solutions to overcome this cost constraint in the future.

Readiness of the Food and Beverage Study Program related to green tourism and environmentally friendly practices in aspects of sanitation, hygiene, and work safety

Students of the Food and Beverage Study Programme gave a positive view of the preparation provided by the Informant study program related to green tourism and environmentally friendly practices in the aspects of sanitation, hygiene, and occupational safety. In general, students felt that the study program had provided a good foundation for understanding these concepts. However, some students expressed the need for more hands-on practice, improvement in terms



of field practice, and the addition of concrete examples of green tourism implementation to the Food and Beverage Study Programme. Interview excerpts Student 2 (M2), student M2 (M2) and student M3 (M3) (Thursday, 4 April 2024): “The study program has provided a good foundation, but perhaps more hands-on practice related to green tourism could be added”. “In my opinion, the study program is good enough in providing theoretical understanding, but perhaps it could be improved in terms of field practice”.

The informants' statements show an appreciation of the study program while identifying potential areas for curriculum development. Both statements reflect the need for a more balanced learning approach between theory and practice in the context of green tourism and eco-friendly practices. By considering this feedback, the study program can continue to improve the quality of Informant education, preparing graduates who not only understand green tourism concepts theoretically but are also able to apply them effectively in industry practice. The importance of balance between theory and practice in sustainable tourism education has been recognized in the academic literature. As stated by Winarno et al. (2019) “An effective sustainable tourism curriculum should blend theoretical knowledge with practical experience. Students need to not only understand the concepts of sustainability but also be able to apply them in real situations of the tourism industry”. In line with M3's interview snippet (M3) (Thursday, 4 April 2024): “The

study program has provided a good foundation, but perhaps it could provide more concrete examples of the application of green tourism in the Food and Beverage Study Programme”.

This also indicates a potential area of development for the study program to further improve students' readiness to implement green tourism concepts in their future Informant careers. Setiyorini et al. (2018) revealed that the sustainable tourism curriculum needs to emphasize not only the theoretical aspects but also practical experiences and real case studies to prepare graduates who are ready to face industry challenges. These students' views indicate an awareness of the importance of a balance between theoretical knowledge and practical experience in preparing Informants to implement environmentally friendly practices in the Food and Beverage Study Programme. This also indicates a potential area of development for the study program to further improve students' readiness to implement green tourism concepts in their future careers.

The results of the observation checklist of the activities of the Makassar Polytechnic Food and Beverage Study Program students during the learning process of the 2 credits Occupational Hygiene Sanitation and Safety course in semester 2, March-April 2024. Students have shown good awareness of waste separation and composting of organic waste, although there is still a need for improvement in terms of recycling inorganic waste.

Table 2 Green Tourism Practices in the Occupational Hygiene Sanitation and Safety course at Makassar Tourism Polytechnic

No	Checklist		Imple mented	Not Imple mented
	Indikator	Sub Indikator		
1	Waste management	Separation of organic and inorganic waste	✓	
2		Composting of organic waste	✓	
3		Recycling of inorganic waste	✓	
4	Use of environmentally friendly materials	Biodegradable detergent	✓	
5		Natural citrus-based cleaner	✓	
6		Use of environmentally friendly disinfectants	✓	
7	Resource-saving	Use of automatic water taps	✓	
8		Energy-saving LED lighting	✓	
9		Use of recycled paper	✓	
10		Solar energy utilization	✓	



11	Implementation of hygienic practice	Hand-washing facilities in every room	✓	
12		Use of clean and sterile equipment	✓	
13		Use of hand sanitizer	✓	
14		Routine health checks		x
15	Availability of safety equipment	Disposable mask	✓	
16		Latex gloves	✓	
17		Anti-slip shoes	✓	
18		Safety glasses	✓	
19	Students' eco-friendly behavior	Switching off lights and air conditioning when the room is not in use	✓	
20		Using personalised tumblers	✓	
21		Minimising the use of single-use plastics	✓	
22		Using public transport or a bicycle	✓	

Source: Author's observation, 2024

Based on Table 2 regarding the Green Tourism Practices checklist in the Makassar Tourism Polytechnic Occupational Hygiene and Sanitation and Safety course, there are findings that waste management already has waste separation and composting of organic waste. The findings indicate the separation of waste and composting of organic waste, but there is a need for improvement in recycling inorganic waste. This is in line with the research of Arbulú et al. (2021) who emphasized the importance of integrated waste management in the tourism industry. The informants found that the implementation of an effective recycling system can reduce waste by up to 30% in tourism facilities. Piñeiro-Villaverde et al. (2023) also asserted that education on waste management in tourism education institutions is essential to form environmentally conscious industry practitioners.

The improvement area needs to be improved in terms of recycling inorganic waste. Use of environmentally friendly materials. The use of biodegradable detergents and natural cleaners has been implemented, but consideration needs to be given to the use of environmentally friendly disinfectants. Research by Styles et al. (2020) shows that the use of green chemicals can reduce a hotel's carbon footprint by up to 15%. Informants also emphasized the importance of staff training in the effective use of green products. Use of biodegradable detergents and natural cleaners.

Consideration should be given to the use of environmentally friendly disinfectants. Resource saving: Already implemented some water, energy, and paper saving measures. There have been efforts to save water, energy, and paper, with recommendations to consider solar energy. This is in line with the study by Kularatne et al. (2019) which found that the implementation of energy- and water-saving technologies in hotels can reduce energy consumption by 20% and water by 30%. Informants also highlighted the importance of education on resource conservation in the tourism curriculum.

It is necessary to consider solar energy utilization for long-term energy efficiency. Implementation of hygienic practices such as Hand washing facilities, clean utensils, and hand sanitizers are available. Improvement area: A regular health check program can be added. Availability of safety equipment: Most of the basic equipment is available. Areas of improvement: Protective goggles should be added for optimal safety. Environmentally friendly behavior Informants: There is already an awareness of saving energy and reducing plastic waste. Areas of improvement: The use of public transport or bicycles could be encouraged. Implementation of Hygienic Practices: Handwashing facilities, clean utensils, and hand sanitizers are available, with recommendations for a regular health check program. Research by Gössling et al. (2021) post-Covid-19 emphasized the importance of strict hygienic practices in the tourism industry. Informants

found that the implementation of comprehensive health protocols can increase customer trust by up to 40%.



Figure 1. Waste and waste management activities in the practical kitchen (Documentation 26 April 2024)



Figure 2 Use of environmentally friendly disinfectants and use of clean and sterile equipment (Documentation 26 April 2024)



Figure 3 Availability of safety equipment such as (Non-slip shoes) (Documentation 26 April 2024)



Figure 4. Handwashing facilities in each room (Documentation 30 April 2024)



Figure 5. Minimising the use of single-use plastics in food and beverage products (Documentation 30 April 2024)

The use of environmentally friendly materials such as biodegradable detergents and natural cleaners has been implemented as in figures 1 and 2, but the use of environmentally friendly disinfectants still needs to be optimized. Efforts to save resources can be seen from the use of automatic water taps, energy-efficient LED lights, and recycled paper, although the use of solar energy has not yet been implemented, as seen in the observations of Figures 4 and 5. Hygienic practices are already well underway with the availability of hand

washing facilities, the use of clean equipment, and hand sanitizers as seen in Figure 4, although routine health checks have not yet been carried out. The availability of work safety equipment is adequate, including gloves, masks, and anti-slip shoes, but still requires the addition of protective goggles as shown in Figure 3. The environmentally friendly behavior of students and college students has been seen from the habit of turning off lights and air conditioners when not in use, the use of personal tumblers, and efforts to minimize the use of single-use plastics, although the use of environmentally friendly transportation still needs to be encouraged.

Overall, this observation illustrates that Makassar Polytechnic Food and Beverage Study Programme students have implemented most of the hygiene, sanitation, and safety practices well, but there are still some areas that require improvement to achieve higher standards. Research by Yusof et al. (2020) showed that education and incentive programs for environmentally friendly behavior can increase Informant participation by up to 60% in sustainability initiatives.

The implementation of this research helps Makassar Tourism Polytechnic become a leading model in sustainable tourism education, in line with global trends in the tourism and hospitality industry but with room for improvement. Integrate integrated waste management with a focus on inorganic waste recycling, Increase the use of environmentally friendly materials, including disinfectants, accompanied by staff training, Implement energy- and water-saving technologies, including consideration of solar energy, Strengthen health and hygiene protocols, including a regular health check program and Develop a comprehensive program to encourage environmentally friendly behavior among students and staff.

Based on the analysis that has been carried out, there are still limitations and shortcomings in this study. Future research is required to use a large number of samples. This research focuses on one educational institution (Makassar Tourism Polytechnic) and one specific course. This may limit the generalization of findings to other tourism education institutions or different courses. In addition, the observation checklist used tends to be qualitative in nature. Without more detailed quantitative data (e.g. waste reduction percentage, energy consumption level), it is difficult to accurately measure the effectiveness of the practices



that have been implemented. Also, the observation period was conducted within a specific time frame (March-April 2024). It is anticipated that the findings may not reflect seasonal variations or long-term changes in green tourism practices.

CONCLUSION

Based on the results of observations and analyses of green tourism practices in the Occupational Hygiene Sanitation and Safety course at Makassar Tourism Polytechnic, it can be concluded that the Institution has shown an initial commitment to the implementation of green tourism practices, especially in the aspects of waste management, the use of environmentally friendly materials, and resource-saving. Some areas have shown positive developments, such as waste segregation, the use of biodegradable detergents, and the implementation of some energy-saving measures. Nonetheless, there is still room for improvement in various aspects, especially in terms of inorganic waste recycling, the use of eco-friendly disinfectants, and the utilization of renewable energy. Hygienic practices and the availability of work safety equipment are good enough but still require improvement and consistency in their application. Awareness and environmentally friendly behavior among students and staff have begun to form, but still require further encouragement and education. The implementation of green tourism practices at Makassar Tourism Polytechnic shows potential to become a model in sustainable tourism education but still requires further development to achieve optimal standards.

Based on the above findings and conclusions, the researcher suggests the development of a Recycling Programme, Design and implement a comprehensive recycling program for inorganic waste, including education on proper waste segregation. Increased Use of Environmentally Friendly Materials, Make a gradual transition towards the use of more environmentally friendly cleaning and disinfectant materials, accompanied by staff training on their effective use. Renewable Energy Investment, Conduct feasibility studies for the implementation of solar energy systems or other renewable energy sources to improve long-term energy efficiency. Strengthening Health and Safety Programmes, Develop a programme of regular health checks and ensure the availability and proper use of all safety equipment. Environmental Awareness

Campaign, Design and implement an ongoing campaign to increase student and staff awareness and participation in environmentally friendly practices. Curriculum Integration, Integrate green tourism concepts and practices more deeply into the curriculum, not only in Occupational Hygiene Sanitation and Safety courses, but also in other courses.

By implementing these suggestions, Makassar Tourism Polytechnic can raise the standard of green tourism practices, better prepare students for the sustainable tourism industry, and become a leading example in environmentally sound tourism education.

REFERENCES

- Arbulú, I., Lozano, J., & Rey-Maqueiera, J. (2021). Waste generation flows and tourism growth: A STIRPAT model for Mallorca. *Journal of Industrial Ecology*, 25(2), 325-337.
- Cvelbar, L. K., Grün, B., & Dolnicar, S. (2023). Too clean is not clean anymore: Excessive hygiene efforts in hotels backfire. *Annals of Tourism Research*, 98, 103472.
- Gössling, S., Scott, D., & Hall, C. M. (2021). Pandemics, tourism, and global change: a rapid assessment of Covid-19. *Journal of Sustainable Tourism*, 29(1), 1-20.
- Kallmuenzer, A., & Seegebarth, B. (2021). An integrative model of consumer sustainable hygiene behavior in hospitality. *International Journal of Hospitality Management*, 96, 102984.
- Kularatne, T., Wilson, C., Månsson, J., Hoang, V., & Lee, B. (2019). Do environmentally sustainable practices make hotels more efficient? A study of major hotels in Sri Lanka. *Tourism Management*, 71, 213-225.
- Lan, J., Wong, I. A., Jiang, C., & Mao, Z. (2022). Green human resource management and employee green behavior in the hotel industry: The role of employee environmental passion. *International Journal of Hospitality Management*, 102, 103148.
- Lexy J, M. (2019). *Metodologi penelitian kualitatif edisi revisi*. PT Remaja Rosdakarya.
- Piñeiro-Villaverde, G., Díaz-Meneses, G., & Beerli-Palacio, A. (2023). Effectiveness of environmental education in tourism studies: A systematic literature review. *Journal of*



- Hospitality, Leisure, Sport & Tourism Education*, 32, 100390.
- Pirani, S. I., & Arafat, H. A. (2016). Reduction of food waste generation in the hospitality industry. *Journal of Cleaner Production*, 132, 129-145.
- Sánchez-Medina, P. S., & Díaz-Carrión, R. (2020). Environmental certification and greenhouse gas emissions in the hospitality sector: A worldwide analysis. *Environmental Impact Assessment Review*, 84, 106362.
- Setiyorini, H. P. D., Farida, I., & Krisnani, H. (2018). Pengembangan kurikulum pariwisata berkelanjutan: Studi kasus di Sekolah Tinggi Pariwisata Bandung. *Tourism and Hospitality Essentials Journal*, 8(2), 97-108.
- Sharif, A., Afshan, S., & Qureshi, M. A. (2019). Acceptance of sustainable tourism practices through green human resource management: A technology – organization - environment perspective. *Environmental Science and Pollution Research*, 26(33), 34087-34099.
- Sloan, P., Legrand, W., & Chen, J. S. (2013). *Sustainability in the hospitality industry: Principles of sustainable operations*. Routledge.
- Spradley, J. P. (2006). *Metode etnografi*. Tiara Wacana.
- Styles, D., Schönberger, H., & Galvez Martos, J. L. (2020). *Best environmental management practice in the tourism sector*. Publications Office of the European Union.
- Suci, A., Suyasa, I. N., & Suastuti, N. G. A. M. D. A. (2020). Implementasi konsep green hotel di Indonesia: Tantangan dan peluang. *Jurnal Ilmiah Pariwisata Agama dan Budaya*, 5(1), 73-82.
- Sugiyono. (2020). *Metode penelitian kualitatif*. Alfabeta.
- Winarno, S., Wijijayanti, T., & Agustina, Y. (2019). Integration of sustainable tourism concept in tourism higher education curriculum. *Jurnal Pendidikan Bisnis dan Manajemen*, 5(1), 1-10.
- Yeh, S. S., & Lee, Y. S. (2023). The effects of green human resource management and green organizational culture on green innovative behavior: Evidence from hotels in Korea. *International Journal of Hospitality Management*, 108, 103386.
- Yusof, N., Rahman, S., & Iranmanesh, M. (2020). Green practices in the hotel industry: Factors influencing the implementation. *Journal of Cleaner Production*, 258, 120818.