



Environmental Economic Benefits in Public Service Malls: A Perspective on Resource Efficiency and Improving Community Welfare in Indonesia

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Abstract. The Public Service Mall (MPP) is an innovation in government services that aims to increase the efficiency, effectiveness, and accessibility of public services. From an environmental economic perspective, MPP contributes to optimizing the use of resources and encouraging the growth of community welfare. This research discusses the environmental economic benefits generated by MPPs in Indonesia, focusing on resource efficiency and its impact on community welfare. Through the integration of various services in one location, MPP reduces people's travel needs, thereby saving time, cost, and energy consumption. In addition, the existence of MPPs can encourage carbon footprint reduction through operational efficiency and optimization of public infrastructure. On the other hand, MPP improves the accessibility of basic services, which has an impact on reducing social disparities and improving the quality of life. The conclusion of this study shows that the development of MPP not only supports the bureaucratic reform agenda, but also has a positive impact on the environmental economy through more efficient resource management and sustainable improvement of community welfare.

Keywords: Carbon footprint reduction, Environmental economy, Public Service Mall, Resource efficiency.

1. INTRODUCTION

Studies related to environmental economics and public services have been carried out many times, including Farley, J. (2011) discussing the concept of environmental economics and how resource efficiency contributes to sustainability, Mankiw, N. G. (2018) explaining the basics of economic efficiency relevant to public services, Kusumastuti, I. (2019) analyzing public service innovations in Indonesia and their benefits to society, Yuliawati, F. (2020) Discussing the impact of public service integration on efficiency resources and the environment. In contrast to the previous study, the research conducted by the researcher related to the Economic Benefits of the Environment in Public Service Malls: A Perspective on Resource Efficiency and Improvement of Community Welfare in Indonesia.

The Public Service Mall (MPP) is one of the breakthroughs initiated by the Indonesian government to improve and accelerate public access to various public services. MPP combines services from various government agencies, both central and regional, as well as other institutions involved in the provision of public services, such as SOEs, BUMDs, and the private sector, in one integrated location. With the concept of "one-stop service," MPP aims to reduce complexity in the bureaucratic process, shorten service time, and provide convenience for people who need services from various agencies.

The background of the MPP's presence is based on the need to reform the bureaucracy in public services which is often convoluted and takes time, money, and energy for the community. Previously, people had to visit several separate government offices to complete various administrative matters, such as making ID cards, business licenses, passports, BPJS, and other services. This process is not only time-consuming, but also causes inconvenience and additional costs for people who need services from several agencies at once.

With MPP, people can get all these services in one place, which reduces travel time, queues, and bureaucratic complexity. Additionally, MPPs are designed to provide a more comfortable and modern experience, often equipped with amenities that support visitor convenience, such as convenient waiting areas, digital information, and an organized queuing system.

From the government's perspective, MPP is not only a means to improve service efficiency, but also a way to increase public trust in the government through faster, more transparent, and professional services. In addition, MPP provides more equitable access for people in various regions, especially those outside city centers, so that the benefits of public services can be felt in a more inclusive manner.

The MPP initiative also supports the principles of good governance in government, which prioritizes transparency, accountability, and service quality. With better management and integration between agencies, MPP is expected to not only provide short-term benefits in the form of ease of access, but also help create an efficient, innovative, and sustainable public service system.

Public Service Malls (MPPs) play a very important role in improving the transparency, effectiveness, and quality of public services in Indonesia, in line with the government's commitment to carry out bureaucratic reforms and improve public services. As a forum that unites various public services in one place, MPP allows the public to obtain clear and accurate information about the various services available. With an integrated system

and digitalization, every step in the service process becomes more transparent, reduces the potential for abuse of authority, and increases the accountability of government agencies. The information technology applied in MPP also allows the public to monitor the status of their applications in real-time, thereby reducing uncertainty and increasing public trust in public services.

In addition, MPP improves service effectiveness by reducing complicated bureaucracy and minimizing duplication of procedures. Before the MPP, people often had to visit various government offices to complete the same business, which took up a lot of time and energy. With MPP, these services can be accessed in one integrated place, which speeds up the service process and reduces waiting time. This more efficient process also helps optimize the use of resources, both in terms of time, space, and labor, so that operational costs can be reduced, and services become more productive.

More than that, MPP also improves the quality of public services by providing easy access for people throughout Indonesia, including those in remote areas. With facilities that support the convenience of visitors, such as a comfortable waiting room and an efficient queue system, MPP provides a positive experience for the community. In addition, MPP is also equipped with digital facilities that make it easier for the public to access services, such as online registration, application status tracking, and electronic payments. This further increases the convenience and efficiency of the services provided.

Along with bureaucratic reform efforts, MPP also plays a role in improving the accountability and integrity of government officials, by creating a more transparent and easy-to-monitor system. The simplification of existing regulations and procedures in the MPP supports the achievement of bureaucratic reform goals, by reducing the potential for corruption and collusion. A simpler and open process allows the public to access services without unnecessary barriers, increasing public trust in the government.

Thus, MPP is not only a means to provide public services, but also serves as an effective instrument to realize a more transparent, efficient, and quality bureaucracy. Through MPP, the Indonesian government can achieve more inclusive, affordable, and efficient services, as well as strengthen public trust in the government.

MPP also produces large amounts of solid waste, such as household waste, paper, plastic, and product packaging, as well as liquid waste from sanitation facilities and other operational activities. If not managed properly, the waste can pollute the surrounding environment and have a negative impact on the ecosystem, including soil and water pollution. The implementation of a good waste management system, such as waste separation, recycling, and liquid waste treatment, is essential to reduce negative impacts on the environment.

Without proper management, the environmental impacts of MPP can include air pollution due to the burning of fossil fuels for energy needs, water pollution due to poorly managed liquid waste, and soil pollution due to indiscriminate waste disposal. These impacts can disrupt the quality of life of the communities around MPP and damage the local ecosystem. In addition, large volumes of visitors can lead to increased carbon emissions, especially if transportation facilities to MPPs rely more on private vehicles, which increases traffic congestion and air pollution.

2. RESEARCH METHODS

The methodology in this study will be explained descriptively (depicted) using qualitative research principles. In order to support the research method, the author uses the following data collection techniques:

1. Literature Study, which is data collection by studying books, regulations on spatial planning and relevant written documents about Public Service Malls.
2. Field Study, which is a way to get data and collect data related to the material for discussing the problem that is directly researched on the research object using the following techniques:
 - a. Observation, which is collecting data by observing and recording.
 - b. Interview techniques

The interview technique is an effort to obtain data by holding oral questions and answers with predetermined informants. The interview techniques conducted by the researcher consist of two types, namely:

1. An *in-depth interview*, is "An interview conducted between the interviewer and the informant regarding a carefully discussed problem". (Ali, 1997). This technique uses guided *interview guidelines* as an instrument.
2. An independent interview, is "An interview process in which the interviewer does not intentionally direct questions and answers to the main points of the research focus." (Ahmadi & Narbuko, 1997).

c. FGD
Focus Group Discussion (FGD) is the *sharing* of questions and answers on certain topics that are directed at the formation of a consensus or consensus, starting with efforts to explore or devote ideas from several experts in accordance with the field of expertise as well as technical and theoretical mastery of the various fields in question (Irwanto, 2006).

The Focus Group Discussion (FGD) was carried out with 1) Bappelitbangda of Tasikmalaya City, 2) PMPTSP Office of Tasikmalaya City, 3) KUMKM Perindag Office of Tasikmalaya City, 4) Manpower Office of Tasikmalaya City, 5) Population and Civil Registration Office of Tasikmalaya City. Data analysis activities are carried out in conjunction with data collection activities, namely through triangulation. The definition of *triangulation* is a technique for checking the validity of data that utilizes something else. Outside the data is for

the purpose of checking or as a comparison of the data. In other words, according to (Moleong, 2013), with *triangulation*, researchers can *recheck* their findings by comparing data with various *sources, methods, or theories*. Descriptive data analysis is intended as an effort to explain parts of the entire data through clarification and categorization, so that a more systematic series of descriptions can be arranged. The series is through data collection, field notes, and data presentation.

3. DISCUSSION

Public Service Malls (MPP) as facilities that serve the community in large numbers have the potential to become a source of energy consumption, water, and produce waste on a large scale. Because MPPs are designed to serve a wide range of public needs in one integrated location, the number of visitors and the activities that take place in them tend to be very high, which in turn increases the use of natural resources and generates environmental impact. If not managed properly, this potential environmental impact can be huge and detrimental.

MPP requires significant energy consumption to support its various operational activities, such as lighting, air cooling or heating, operation of technological equipment, and other systems within the building. The more visitors come and the larger the area served, the greater the energy consumption needed. Without efficient energy management, MPPs could become a major contributor to greenhouse gas emissions that contribute to climate change. In addition, inefficient energy use can increase operational costs and affect MPP's economic performance. Therefore, it is important to implement environmentally friendly technologies and energy efficiency systems, such as energy-efficient LED lighting, the use of renewable energy, and efficient HVAC (Heating, Ventilation, and Air Conditioning) systems.

In addition, along with the large number of visitors, MPP will also consume a significant amount of water, both for sanitation purposes, facility cleaning, and other needs. Excessive water use and poor management systems can put pressure on limited water resources, especially in areas already facing a clean water crisis. Therefore, it is important to implement sustainable water management systems, such as the use of water-saving devices, wastewater treatment systems, and the application of technologies that can reduce overall water use.

To minimize these negative impacts, MPP must implement the principles of green building and sustainable development in its design and operations. This includes the use of renewable energy (such as solar panels), efficient water management, good waste management systems, and the use of environmentally friendly materials in the construction and operation of buildings. Effective waste management, such as recycling facilities in every part of the MPP and the use of technology to reduce the waste generated, can significantly reduce the environmental impact. In addition, MPPs can also implement environmentally friendly transportation systems, such as parking facilities for electric vehicles and encourage the use of public transportation by visitors.

With the application of sustainability principles, MPP can become a model for public facilities that are not only efficient in providing services, but also environmentally friendly. Therefore, it is important for the government and MPP managers to actively implement technologies and systems that support sustainable management of natural resources, in order to minimize negative impacts on the environment.

Public Service Malls (MPP) as facilities that serve a large number of people, have a significant environmental impact related to energy consumption, water use, and waste management. To support sustainability goals and reduce carbon footprints, more effective management of these three aspects is essential. MPPs should adopt policies that focus on resource efficiency, emission reduction, and the application of environmentally friendly technologies to create sustainable public facilities.

3.1. Efficient Energy Management

MPP requires a large amount of energy to support daily operations, from lighting, cooling, to the operation of technological devices. Therefore, efficient energy management must be a priority. One important step is to implement energy-efficient technologies, such as LED lighting, efficient HVAC systems, as well as using renewable energy sources such as solar panels to reduce reliance on fossil energy. In addition, real-time monitoring of energy consumption can assist MPP managers in identifying and reducing unnecessary energy waste. The implementation of smart building systems that optimize energy use according to needs will greatly help reduce MPP's carbon footprint.

3.2. Sustainable Water Management

MPPs, with their high number of visitors, can lead to enormous water consumption. Therefore, more effective water management is essential to prevent waste and reduce environmental impact. MPP needs to adopt water-saving devices, such as sensor faucets and low-flush toilets to reduce water consumption. In addition, rainwater management for use in non-potable needs (such as cleaning and irrigation) can be a sustainable solution. An efficient wastewater treatment system, capable of retreating water for lower use, will reduce pressure on limited water resources, especially in areas with water crises.

3.3. Effective Waste Management

MPP produces different types of waste, both solid and liquid, which must be carefully managed to reduce environmental impact. Poor waste management can lead to soil, water, and air pollution, ultimately harming the community and the surrounding ecosystem. Therefore, the implementation of an efficient waste sorting system and an integrated recycling program at every corner of the MPP will reduce the amount of waste disposed of in the landfill. Liquid waste from sanitation facilities and other operations also needs to be managed using the right treatment technology so as not to pollute the surrounding environment.

Reducing plastic waste is also an important concern, by encouraging the use of environmentally friendly packaging in every transaction that occurs in MPP. The implementation of policies to reduce the use of single-use plastics, as well as the promotion of the use of eco-friendly shopping bags, can help reduce the waste generated. In addition, zero waste or waste-to-energy technology can also be considered to reduce the volume of waste and turn it into an alternative energy source.

3.4. Carbon Footprint and Sustainability Practices

Effective management of energy, water, and waste will have a direct impact on reducing MPP's carbon footprint. Every step to improve energy efficiency, reduce water consumption, and manage waste more sustainably will reduce greenhouse gas emissions generated from MPP's operational activities.

MPPs can push further by implementing environmentally friendly practices, such as the use of electric vehicles for visitor transportation and special parking facilities for electric vehicles, as well as facilitating the use of public transportation. By devising a more comprehensive sustainability strategy, MPPs can not only improve their environmental performance, but also serve as an example for other public sectors in their efforts to reduce negative impacts on the environment.

More effective management of energy, water, and waste is urgently needed to reduce carbon footprint and encourage sustainability practices in Public Service Malls (MPPs). With the application of efficient technology and sustainability principles, MPP can play an important role in creating environmentally friendly public facilities, while supporting the achievement of the government's goals of reducing emissions and protecting natural resources. For this reason, MPP managers need to work with various parties to ensure the operational sustainability of this facility without sacrificing the quality of services provided to the community.

The concept of environmental economics refers to an approach that combines economic considerations with environmental conservation efforts. The main goal of the environmental economy is to achieve a balance between economic growth and ecological sustainability, with a focus on optimizing the sustainable use of natural resources, reducing waste, and minimizing negative impacts on the environment. The concept developed in response to global environmental crises, such as climate change, nature degradation, and biodiversity loss, which require the integration of economic principles and environmental protection. This approach encourages economic policies not only to focus on achieving economic growth, but also to pay attention to ecological sustainability aspects so that the environment can continue to support human life and other living things in the long term.

Within this framework, some of the key components of the environmental economy include the prudent management of natural resources, waste and pollution reduction, and the internalization of environmental costs, which involves calculating the impact of environmental damage as part of production or consumption costs. One of the important concepts in the environmental economy is the circular economy, which focuses on reducing the use of natural resources and extending the life cycle of products through the recycling and reuse of raw materials. In addition, the principle of green growth, which encourages the achievement of economic growth while preserving the environment, is also the basis of environmental economics. The use of environmentally friendly technologies, such as renewable energy and low-carbon technologies, as well as the protection of biodiversity and the application of social justice principles, are integral to building an economic system that is not only efficient but also environmentally friendly and fair for all levels of society.

With this approach, the environmental economy aims to create sustainable well-being, preserve natural resources for future generations, and reduce negative impacts on our planet. The application of environmental economic principles to public organizations such as Public Service Malls (MPP) provides various significant benefits that have an impact on cost savings, operational efficiency, and increased community satisfaction. First, in terms of cost savings, the application of energy-saving technologies such as LED lighting, efficient HVAC systems, and the utilization of renewable energy (such as solar panels) can reduce energy consumption, thereby lowering operational costs, especially electricity costs. In addition, water-saving technologies such as sensor faucets and low-flush toilets help reduce spending on water bills. Efficient waste management also helps MPP reduce costs related to waste transportation and processing.

Second, the application of environmental economic principles can improve operational efficiency. By optimizing energy, water, and waste management, MPPs can reduce resource waste, make facility management more efficient, and minimize the need for resources in daily operational activities. Smart building systems that monitor energy and water use in real-time help detect and reduce waste, while implementing a circular economy minimizes dependence on limited natural resources. In addition, the utilization of eco-friendly technologies such as electric cars and public-based transportation systems helps reduce congestion and pollution.

Third, the application of environmental economic principles also has an impact on increasing community satisfaction. MPPs that are committed to sustainability will create a cleaner, healthier, and more comfortable environment for visitors. Eco-friendly programs such as the use of renewable energy and efficient waste management have a positive impact on visitors who appreciate facilities that preserve the environment. Additionally, by reducing air pollution and carbon footprint, MPPs can create healthier spaces. Initiatives such as reducing plastic waste and promoting the use of eco-friendly bags increase public perception of the quality of services and facilities provided.

Fourth, the application of environmental economic principles also strengthens a positive image and increases compliance with regulations. By adopting sustainability principles, MPPs can meet existing environmental regulations and avoid fines or sanctions related to pollution or environmental damage. It also increases public trust, which in turn strengthens the relationship between the government and the community, and provides an opportunity for MPPs to set an example for other public organizations in implementing sustainability principles.

Overall, the application of environmental economic principles to MPPs brings far-reaching benefits, not only in terms of cost savings and operational efficiency, but also in creating a healthier and more comfortable environment for the community. By focusing on sustainability, MPP can meet public needs in a more efficient way, while contributing to environmental preservation and sustainable development, strengthening its positive image as an institution responsible for nature preservation and community welfare.

To support sustainability efforts and save energy and water, Public Service Malls (MPPs) can take a number of effective practical steps. The first step is the installation of energy-efficient equipment, such as replacing conventional lighting with LED lights that are more efficient and durable, as well as using an energy-efficient HVAC system with automatic sensors to adjust the temperature according to the needs of the space. MPPs can also install kitchen appliances and other management systems that are efficient in energy use, such as inverter technology cooling machines.

Furthermore, MPPs can implement sensor technologies, such as light sensors that automatically adjust lighting in public spaces based on needs, and motion sensors to ensure lighting and ventilation are only active when there are people in the room. With a smart energy management system or smart building, energy use can be controlled automatically based on real-time data.

In addition, the use of environmentally friendly materials and technologies is very important, such as building materials that have high insulation properties to reduce energy requirements in heating and cooling, as well as the installation of solar panels to utilize renewable energy. MPP can also use eco-friendly materials for interiors, such as water-based paints and floors from recycled materials, which reduce the impact on the environment and improve indoor air quality.

For efficient water management, MPP can install sensor faucets and low-flush toilets to reduce water consumption. In addition, rainwater management systems can be applied to watering gardens and other non-potable purposes, while efficient wastewater treatment can treat used water for reuse. Finally, MPPs can adopt circular economy principles by implementing efficient waste sorting systems and reducing the use of single-use plastics by replacing packaging with reusable or recyclable materials. MPPs can also encourage visitor participation in recycling programs and the use of eco-friendly items such as shopping bags. With these measures, MPP not only saves energy and water, but also creates a more efficient and environmentally friendly environment, which supports sustainability goals and improves visitor experience.

An effective waste management system in Public Service Malls (MPPs) is essential in supporting environmental and sustainability economic practices, as it can reduce negative impacts on the environment, save resources, and create a cleaner and healthier environment for visitors and the surrounding community. This system can reduce the amount of waste disposed of in landfills, which often leads to soil, water, and air pollution. By applying circular economy principles through recycling and waste sorting, MPP not only reduces the burden on landfills, but also reduces dependence on new natural resources and saves energy in the production process of new materials. One important step is to reduce the use of plastic waste, which is very difficult to decompose and harmful to the environment. By adopting plastic-free policies and promoting eco-friendly alternatives, MPPs can reduce plastic pollution that pollutes the environment.

In addition, good waste management at MPP can also increase public awareness about the importance of sustainability and environmentally friendly waste management. Educational and waste sorting programs that involve visitors can encourage the community to actively participate in sustainability practices. Operational cost efficiency is also achieved through better waste management, as reducing the volume of plastic waste and increasing recycling can lower the cost of transporting and processing waste. The implementation of this system also helps to strengthen MPP's positive image as an institution that cares about the environment, which in turn can increase public trust and attract more visitors. Thus, an effective waste management system supports sustainability and strengthens the role of MPP as a positive example in environmental management.

4. CONCLUSION

Public Service Malls (MPPs) provide significant environmental economic benefits through resource efficiency and improved community welfare in Indonesia. From an efficiency perspective, MPP reduces energy

consumption, carbon emissions, and operational costs through the integration of services in a single location. Optimal space management and reduced community travel results in a positive impact on the environment. Meanwhile, in terms of community welfare, MPP provides easier access to services, saves time and costs, and increases productivity and quality of life. This convenience creates new economic opportunities and accelerates administrative processes that support economic growth. With the principles of environmental economy applied, MPP also supports sustainable development, making public services more environmentally friendly, efficient, and contributing to the welfare of the community at large.

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