IFLA Agenda of Green and Sustainable Library: a Literature Study

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Abstract

Green library sustainability initiatives include all the wise decisions that must be made to maintain the balance between the library system and the underlying environmental system. The green library philosophy advocates a careful understanding of the environment and the creation of methods for managing library facilities and programs while keeping environmental concerns in mind. This study aims to build the understanding and perception of librarians about the concept of green libraries for environmental sustainability; and analyze the practices adopted by libraries according to the IFLA checklists in libraries in several locations. This research method uses literature search in the Library, Information Science & Technology Abstracts database. A search was conducted on the google scholar, focusing on documents published between 2010 and 2020 using the search terms "green libraries" "sustainable/sustainable/eco-friendly" "IFLA checklist" revealing 22 results. The title of each reference returned is checked for relevance and appropriateness. The results show that the concept of green and sustainable logistics has received increasing attention and consideration from the government sector, academia, practitioners, and international organizations. The result of a systematic investigation that combines conference proceedings, reports, and valuable books in the field of green libraries and is expected to illustrate a more comprehensive knowledge map for future research on Green and Sustainable Libraries.

Keywords : green library; ifla checklist, sustainable library

INTRODUCTION

Global warming and climate change pose challenges to the world with dangerous consequences for human life. The implication is to encourage going green in all sectors of life. In recent decades, organizations around the world have adopted the slogan "Go Green" (Jones & Wong, 2016). The Online Dictionary for Library and Information Science defines a green/sustainable library as "a library designed to minimize negative impacts on the natural environment and maximize the quality of the indoor environment through careful site selection, use of natural construction materials and biodegradable products, conservation of resources (water, energy, paper), and responsible waste disposal (recycling, etc.)." Go Green is a set of strategies for making more environmentally friendly and ecologically conscious decisions and lifestyle choices that can preserve our climate and its natural resources for present and future generations (Pangail, 2015). All professions have environmental aspects that must be considered when making management decisions to consider a sense of environmental responsibility.

Library services are one part that is quite vital in the library, because it is the spearhead to meet the needs of library users (users). In fact, one of the keys to success in a library lies in how the library provides quality services. There are several things that affect the quality of a library, in addition to a complete collection of books and good service from the librarian, a comfortable atmosphere is also very much needed by visitors, especially for visitors who want to read books in the library. The only international standards that can be used as a guide are the standards issued by IFLA (International Federation of Associations and Institutions). IFLA is a world-class association, which compiles a standard for use by various interested parties in the development of public, academic, school and special libraries (IFLA, 2020)

The green library concept has been defined in different aspects by different authors. The International Federation of Library Associations and Institutions (IFLA) worked hard on this concept to conclude a 12-point checklist consisting of (Hauke, P., Latimer, K., & Werner, KL, 2013). The green library checklist consists of the areas of planning, development, and library services that are intended to help ensure that everything is taken into account including Green buildings and equipment, Green office principles, Sustainable economy, Sustainable library services, Social sustainability, Environmental management, Commitment to goals and general environmental programs.

Green library sustainability initiatives include all the wise decisions that must be made to maintain the fragile balance between the library system and the underlying environmental system. In practice, this would imply embracing and adapting practices that will ensure the earth and future of shared libraries (Meher & Parabhoi, 2017) . Green library management emphasizes a positive attitude of accepting responsibility for the health of library members and staff, as well as appealing to the needs and interests of future generations of users and the stability of nature. It has been shown that failure to adequately address the interdependence between library mechanisms and environmental balance may have disastrous implications. Therefore, the green library philosophy advocates a careful understanding of the environment and the creation of methods for managing library facilities and programs while keeping environmental concerns in mind. Nonetheless, libraries can increase sustainability gains even more by taking additional green steps to reduce the environmental impact of day-to-day operations (Meher & Parabhoi, 2017; Sesen & Kuzucuoglu, 2020)

This study aim to build the understanding and perception of librarians about the concept of greening libraries for environmental sustainability; and analyze the practices adopted by libraries according to the IFLA checklists in libraries in several locations. Through a systematic literature review, the focus and topics at this intersection will be identified. With the analysis, we explore the gaps and possibilities to integrate this topic into the library greening research agenda for environmental sustainability.

RESEARCH METHODS

This research method uses literature search in the Library, Information Science & Technology Abstracts database. Searches were conducted on the Google Scholar focusing on documents published between 2010 and 2020 in English without any restrictions on where the research was conducted. Using the search term "green library" "sustainable/sustainable/eco-friendly" "IFLA checklist" yielded 22 results. The title of each reference returned is checked for relevance and appropriateness. For this reason, documents published before 2010 may be included in the review. It is also possible to add reviews of reports and studies from international organizations with known activities (eg, UNESCO, OECD, Cedefop). All resources deemed suitable for inclusion have been downloaded to the reference. Additional references are found via links from the list of references in the paper.The research is based on secondary data, which includes compilation of research articles. This Research paper is more of informative and suggestive in nature, many more studies and work need to be done by the individuals, institutions and organizations working for green libraries.

RESEARCH RESULT

Environmental conservation is an important component in today's modern world, which is influenced by several factors such as greenhouse gases, environmental pollution, global warming, and carbon dioxide. Over time, natural resources are getting depleted. We as humans are responsible for leaving a healthy world for future generations to exist. IFLA provides a comprehensive checklist

for environmental sustainability. The green library checklist consists of the areas of planning, development, and library services that are intended to help ensure that everything is taken into account including Green buildings and equipment, Green office principles, Sustainable economy, Sustainable library services, Social sustainability, Environmental management, Commitment to goals and general environmental programs.

Libraries around the world can participate in this environmental protection initiative by implementing the measures suggested by IFLA. Other studies found in green libraries in the literature include:

Green buildings and equipment

In terms of construction, materials which used in design building must chosen with careful and wise. Only materials that contain very little waste and items that do not damage or harm the natural environment should be selected. Building and equipment contractor which needed must chosen from around building for save finance. (Fatmawati, 2019)

Green building and operation is to create systems that understand and demonstrate, from creation and initial construction, that a project or framework can reduce resource costs and negative environmental effects over the entire life cycle of a structure. This strategy includes reducing waste, emissions, and environmental degradation, as well as making better use of electricity, water and other services. A green/sustainable approach to library buildings recognizes the importance of ensuring health and convenience occupant building with consider factors such as air, sun protection, turnstiles, vestibules, natural light and lighting system efficiency sensors. (Jones & Wong, 2016)

The application of Green Architecture has been applied to the Public Library building in accordance with the assessment aspects of GREENSHIP, namely regarding the accuracy of site development, energy efficiency and energy saving, water saving, material sources and recycling, health and comfort of indoor space, and environmental and environmental management. building (Waskitarini et al., 2015). Meanwhile, in Cahyani's research (2018), it was found that the University of Indonesia Library building has met a good rating as a library building with the concept of Green Architecture, for most aspects of the reference variables issued by the Green Building Council Indonesia. However, there are still shortcomings in the aspects of Building Environmental Management & Environmental Management (BEM) but it does not have a negative impact on the main function of the building as a library and learning activity as it should be.

Interior design is very important in the green library concept. Buildings and interior design are the main tools for attracting users to the library. IFLA recommends that floor library must carpeted. When team management the library decides to buy new furniture, choose the green option. Give preference to choosing furniture made from recycled materials. Preference should be given to paints that have less volatile organic compounds. Choose a recyclable coating that does not emit a harmful odor when removing floor. (Munawaroh & Bestari, 2018)

Technology information and communication green. Technology information and communication (ICT) has penetrated every aspect of life. There is no profession that can exist without information and communication technology. The IFLA checklist encourages the use of ICT tools in the daily operations of the library. It recommends using remote access, thin clients instead of PCs, energy star hardware, switchable sockets, and the use of software to optimize energy consumption. Green ICT supports the reduction of paper usage and encourages the maximum use of technology. Green ICT can also be implemented in other ways including check-in and check-out of books through software, online application for membership, OPAC, e-receipt, use of laptop as replacement PC for save electricity, and scan than printing or photocopy, and next. (Fitriastuti, 2011; Taher et al., 2018) . The challenge of using large amounts of electrical energy for ICT systems is certainly not only in terms of costs, but

also its impact on the environment. The increasing cost of using electrical energy, supported by the company's awareness in managing the environment better, is part of the reason why companies are looking for strategies to reduce the cost of using electrical energy in the ICT systems they use, as well as making the system more friendly to the environment. (Purwaningsih, 2016) .

Certificate. This including adoption certificate building green. There is various standard building green which is available, for example LEED (Standard US), BREEAM (Standard English), and System Rating Star Green. LEED is considered a performance standard, meaning it allows building owners or planners to choose how to meet certain benchmark scores without specifying a specific size. It is a points-based system where projects earn LEED points for meeting green building criteria. The six credit categories for new building construction are sustainable location, water, energy and atmosphere efficiency, materials and resources, indoor environmental quality, and innovation in design (Antonelli, 2008; Jankowska & Marcum, 2010; Roshaunda et al., 2019)

Green office principle

Project planning, finance. Project planning and finance is the first step and the basis for starting any initiative. This phase includes a discussion of sustainability objectives, direction which Correct, level go greens, design building, cost construction, source power, and budget related matters other. Libraries that implement Green Office are able to realize changes in behavior and efficient office management practices, by reducing the consumption of natural resources, promoting sustainable lifestyles through increasing employee environmental awareness. (Aroonsrimorakot et al., 2019) . The library office space built with the concept of a green library will be a source of strength for the librarian to carry out activities and increase work productivity. When it comes to the concept of green architecture, I agree with Pradono (2008) who explains that basically "green" contains the principles of being sustainable, environmentally friendly (earthfriendly), and buildings with excellent appearance (high performance). buildings). (Fatmawati, 2020) .

The work environment in the library must be managed professionally with a green office design so that the office atmosphere becomes conducive and comfortable to carry out their activities. This is pursued by prioritizing better for the environment so as to make the library space healthier for both librarians and users to live in. As is the case with the implementation of environmentally friendly programs at several campuses in Indonesia, which are commonly known as green campuses, certain parameters are also required.

The green office principle also depends on the tender. Selection of the appropriate tender will support its realization formulation criteria special for sustainability, definition of the library's ecological footprint, statement of specific environmental objectives, requirements for a holistic view of sustainability issues, and verification certificate. (Asim & Asim, 2022)

Sustainable economy

Green economy development seeks to increase welfare and social justice to reduce the scarcity of natural resources and the risk of environmental impacts. The green economy is a development paradigm based on resource efficiency, sustainable consumption and production patterns, as well as internalization of the externalities.

Librarians have a very important role and can contribute greatly in realizing a green office. Innovation is related to information and communication technology, while technology is also based on developing science. Green office which is an environmentally friendly library office management concept needs special attention for the library management. The comfort factor in the library workspace is one of the important things that must be prioritized. (Fatmawati, 2020) . Librarians can consider library economics and knowledge of global issues

in consideration of the environmental impact of their choice of resource type collection. (Redyantanu et al., 2017)

Continuous library service

Service management is needed by organizations to improve service quality and maintain organizational survival. Good service management can only be realized if strengthening the bargaining position of service users gets top priority. A good service management model consists of the following elements: service resources, organizational culture, service systems and customers. In an effort to improve the quality of the library, the elements that receive attention include: elements of management resources, including the input stage, elements of the service system included in the process, while the customer element is included in the output stage. The quality or quality of service at the library should receive attention from the early stages (input) to the end of the management stage.

In research conducted by (Purboningsih et al., 2014) Service management is needed by organizations to improve service quality and maintain the survival of the organization. Service management elements include: resources, library service system, and service users. Every element of the service management of the Kediri City Public Library has not optimally prioritized service needs for its users. The steps taken are to analyze the needs of all parties who use the library. In addition, the library also improves the quality of library services with various service activities provided by public libraries, including circulation services, mobile library services, school visit services, cataloging briefing services.

Environmental Management.

The environmental and social influence of a library is strongly influenced by its location. The site selection process involves steps such as ensuring that the site is in a residential area and other relevant facilities are nearby so that residents do not have to drive far for various services. The library building must have a parking space, and people which driving vehicle economical energy must take precedence. The building should be located in an area that is easily accessible by public transport as well. Climate, conditions, emissions and noise should also be considered when selecting a site library. (Fatmawati, 2020; Singh & Mishra, 2019)

In the management of the building environment, there are several aspects behind it. One of them is the operational policy and maintenance costs. This aspect is used to support the achievement of other green building aspects that have been mentioned above. This shows the attitude of respondents who are positive or agree, where respondents have supported the existence of green building in the library building. In Cahyani's research (2018) it was found that library environmental management is very dependent on human resources when carrying out technology related to the concept of environmentally friendly buildings.

Continuous Library Service

Service user. List check IFLA recommend various method for apply initiative green in library user services. For example, the use of digital formats should be encouraged over print formats to keep the environment clean. Digital media is less harmful to health than media print. Library could provide facility scan than service printing or photocopy. Communication electronic must used as replacement communication post based paper. Users must be motivated towards digital media.

Marketing and Public Relations. Marketing is always needed to promote what imitations even. Library staff should promote the motto "A green image is a good image." The library staff must lead it proactively to motivate others as well. To generate funds, library staff can share draft this with holder interest, that is user, publisher, vendors, donor, and friend. (Asim & Asim, 2022)

Management library. IFLA share it Becomes three category, that is certificate environmental management, facility management, and library offices green. Certificate management environment [ISO 14000] including staff library which motivated, agreement law, transparency in problem finance, and not quite enough answer for destination which sustainable. Facility management promotes the use of vacuum cleaners, segregation of waste for recycling, regular cleaning, battery recycling, and use of energy-saving lamps and LED lighting. Green library office recommends purchasing equipment from local and certified suppliers to save money, reduce use paper and maximizing use object digital, cartridge printer which can be recycled, avoiding hazardous and toxic products, and reducing the use of items that are difficult to recycle. Employee training is also required to go green in office. (Sesen & Kuzucuoglu, 2020)

In addition, in realizing the Green Library, Librarians are currently able to provide information about growing food and alternative medicines. Some libraries can also encourage readers to use community gardens to educate readers on successful gardening practices, some have even maintained tool lending (for gardening); some became archival stores of genetic material such as seeds and began to function as local seed stores. (Asim & Asim, 2022)

Commitment to common environmental goals and programs.

Destination strategic. IFLA recommend that transparency in cost energy must confirmed to create savings. Reward and incentive schemes should be introduced to attract staff towards operation green. Librarian also could influence partner business they, that is publisher, seller books, and supplier, for participate in initiative greening library. Library also could start a strategic partnership with they. The importance of a green library is also included in the ongoing green system because the library is a storehouse of knowledge for future generations which requires a large amount of energy, water and other resources to survive and create a stable environment. The outline of the library space according to the green library standard will reduce energy consumption. (Shukla et al., 2020)

Cooperation between the library and the company will be a mutually beneficial relationship. Libraries will get new budgets, systems, and book support. At the same time, readers will be more interested in coming and spending their time studying in the library. It plays an important role in building a culture of literacy and intellectuality in society. Similarly, the company will get public attention because it cares about social issues by providing many benefits to the library. The company has also actively participated in revitalizing the spirit of the library. It is in accordace with CSR regulations in a country (eg Law No. 40 of 2007 concerning Limited Liability Companies). On the other hand, CSR activities can be a means of promotion and build a positive image because of the enthusiasm of visitors who come and see the company's goodness (Komariah, 2009).

In Indonesia, many CSR programs are carried out in libraries. Community library program in collaboration with PT. HM. Sampoerna in Pasuruan and Surabaya, named the Community Learning Park. In addition, PT Pertamina (Persero) with Pertamax Reading Corner is a modern reading room concept that looks like an oasis that attracts reading interest. Finally, the mobile library program, PT HM Sampoerna Tbk, and the Indonesian Library Development Foundation provide services to all elements of society to remote areas, which is called the Stop Over (STO) program (Nurcahyo, 2010). The CSR program in the library is very important to improve library performance and the literacy culture of the community. CSR programs in libraries can be an alternative solution to classic library problems, such as minimal facilities, obsolete book stocks, low professional resources, and inadequate budgets. (Hartini & Ihwanudin, 2022)

In research conducted by Fedorowicz-kruszewska (2020) Environmental management carried out by the library includes paying

In research conducted by Fedorowicz-kruszewska (2020) Environmental management carried out by the library includes paying attention to aspects of developing environmental sustainability strategies, Preparation of operational plans in the field of environmental sustainability, Administration and management of buildings with attention to environmental sustainability, Collecting resources that handle sustainable development and environmental issues, Information (sustainable development, green environmental issues), Development of service offerings, programs and projects whose main objective is environmental literacy, Improving the qualifications of employees in the field of environmental education, Cooperation with the environment in achieving the goal of environmental sustainability.

CONCLUSION

The concept of green and sustainable logistics has received increasing attention and consideration from the government sector, academia, practitioners, and international organizations. A large number of practical achievements were made at the industrial and theoretical levels. This study reviews the valuable contributions of green and sustainable logistics over the past two decades through a review program. However, it should be noted that the data used in this study are limited to research articles and review articles published in peer-reviewed journals, taking software applicability into account. Although indexed documents can represent the most convincing viewpoints of green and sustainable research. In short, this review has great room for improvement in terms of material selection. A systematic investigation that combines conference proceedings, reports and valuable books in the field of green libraries and is expected to draw a more comprehensive knowledge map for future research about Green and Sustainable Library.

SUGGESTIONS

a. Librarians should take initiatives to infuse other organisations and institutions holding the same sustainable motives and work with them.

b. Researchers strongly recommend educating library professionals to update themselves on sustainable literacy through refreshment programme.

c. Involving and finding people who are inclined to provide support in various multitudes should be welcomed by conducting programmes to present the agendas for sustainable development in library premises. This may also cater the attention of others who are interested but not able to support the activities of libraries.

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