Academic Library Buildings in the Electronic Age in the Philippines: A Study of Planning and Design Considerations

Marlon G. Gado, De La Salle Health Sciences Institute, Philippines

Abstract

Academic library buildings are important centers for the efficient delivery of library services. This study primarily sought to determine the planning and design considerations that led to the satisfaction among the selected academic library buildings completed between 2003 to 2013 in the Philippines. This study, which utilized descriptive method of research, revealed significant similarities on the planning and design of academic library buildings completed in terms of physical structure, technological infrastructure, financial concerns, and information and communication technology to support the present and future needs of the library. The study concluded that the following aspects were found to be relevant in library planning and design: consultation with the university administrators; adaption of sustainable and green technology into the library design; and preparation of a good project proposal. It was also found out that the developments in electronic publishing and mobile use of library users did not diminish the value of academic library buildings. This study recommended that library building planning teams should ensure that academic library buildings are equipped with ICT infrastructure to facilitate seamless integration of print and electronic resources in the library. In addition, library managers should study how to create and present a good project proposal so as to get the administrations' full backing and financial support.

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Introduction

Planning for academic library buildings in an environment that is becoming more and more electronic is a tough challenge. According to David (2010), academic libraries in the Philippines will not remain relevant and sustainable if they will not face up to the challenge of Internet and net generation users who are always online. It is common nowadays to see students reading, studying, or researching using their own electronic gadgets anywhere in the campus through the use of Wi-Fi. The rapid developments in ICT has made it easy for library users to access online references for their assignments, research work and projects in their preferred study place. Despite all the developments in ICT, it can still be observed that students are not abandoning the use of the physical library. Statistics of library users in different libraries continue to increase yearly. This trend can be attributed to the fact that academic libraries continue to provide a place where library users can come together to study, learn, reflect, interact, and exchange ideas (McKnight, 2010). According to Cunningham (1999) "the impressive pace of technological change influences all aspects of human communication. It is crucial that libraries prepare a range of responses to the pressing library questions of the electronic era" (p. 91). Stewart (2009) said the library building is in the front of this change. Looking at the history of libraries from a functional standpoint, it can be seen that there is a symbiotic relationship between form and function. More often the function determines the form of the building, thus, it is important for the planner to understand the function of library before starting the design (Dowlin, 2004). Because library designs are affected by various motivating factors it is hard for the library building planning team to find a single model for their projects. According to Freeman (2005), the best way is to draw the best design elements from a variety of successful planning and design elements from different projects that can be emulated in new ways.

Planning library facilities in the Philippines is a challenging and a stimulating task. It is a challenging task considering that it is one of the most expensive investments in the campus. Academic administrators expect the planning team to come up with a successfully designed library building. Planning for a library building is a stimulating task as the planners are given flexibility in thinking of design aspects such as paint, furniture, ambiance and the like. Planning for a library building is also a stressful and motivating task because this is the most tangible reflection of the inputs and decisions made by the planning team and it is often subject to commendations or criticism of the administrators, users, visitors and peers. To learn more on the planning and design considerations employed for the selected academic libraries, this study sought to determine the strengths and weaknesses of these design considerations and how they led to satisfaction or dissatisfaction among librarians, users, administrators and others involved in the planning, design and construction of the said structures.

Several planning considerations come to mind when planning a library building, but the ultimate consideration of every planning team is financial support from their respective institutions. This study explored the common planning practices of selected academic libraries in the Philippines completed between 2001 and 2013. The planning and design considerations that were utilized for physical structure, space, and information and communication technology infrastructure were also examined to determine the practices that future library building planners can learn from. The role of financial resources on the achievement of the plans was also included.

Objectives

This study sought to determine the common practices in the planning, design and construction of selected academic library buildings in the Philippines completed between 2001 and 2013 specifically on a) physical structure/ space, b) technological infrastructure, c) information technology and other services, and d) financial concerns.

Methodology

This study utilized the descriptive research method where the various planning and design considerations of the respondents were documented. A lengthy questionnaire based on Sannwald's (2009) checklist was used and was supplemented by interview. The selected academic libraries in this study was purposely selected. Their agreement to participate in the study was also considered. The data gathered was analyzed using frequency counts, ranking and percentage, where applicable.

Principal Findings

The findings were accomplished through the use of ranking system with strongly considered as the highest rank and never considered as the lowest rank.

A. Physical Structure/ Space
1. Pre-planning Activities - It is important to consult university administrators and communicate with them the need to construct a new building or for renovation and this should be supported by results of evaluation of a current building and new trends in facilities.
2. Hiring of Building Consultants - The main consideration for a building consultant is availability for meetings for good a communication of needs, purposes and requirements.
3. Choosing the Architect - The library committee must consider reviewing the previous projects done by the architect using a systematic criteria. The support team of the architect as well as the registration and licenses should also be considered.
4. Selection of Building Contractor - The ability of the contractor to deliver defect-free projects on time is the major consideration in selecting the building contractor. Appropriate licenses and permits of the contractors as well as their track record should also be considered before getting their services.
5. Library Site Planning - The centrality of the location is the utmost consideration of library committees. The site should also have space for expansion and free of nuisance.
6. Library size and space need - The growth rate of the library's collection, users and services play a vital role in determining library size and space requirements. The standards were also considered to ensure that the project complies with the requirements.
7. Re-design of library -   The growth rate of collections, changing character of the users as well as the increase on service points were the top considerations for the redesign of library buildings. To determine the need to redesign the library, assessment of the old buildings were conducted. The respondents conducted the an evaluation of mechanical system, standards, ICT and green technology.

8. Evaluation of the library building design submitted by the architect - It is important that the design of the architect conforms with the requirements of the team. Evaluators should consider that building design should mitigate the negative aspects of the site. It should be in harmony with the surroundings yet architecturally distinct.

9. Library's landscape - Library building planning teams should ensure that the library's landscape is suitable to the climate. It is also important that it has a drainage system and the plants are not attractive to insects. Landscape should be considered during the early stage of planning.

10. Parking space - Accessibility and security were the topmost consideration in planning the parking space. The installation of CCTV's will provide additional security to the facility.

11. Exterior wall - The top consideration for the exterior walls of the library is that it must be aesthetically pleasing. It is also important that windows are arranged strategically to take advantage of the natural light. Maintenance concerns should also be factored in planning to save on maintenance cost.

12. Library roof design - It is very important that the roof has adequate drainage to carry off water and prevent leak. The quality of roofing materials must be evaluated. It was also considered that roofs should have adequate insulation.

13. Bicycle rack - The transportation mode of users was the top consideration. The safety of riders was also considered.

14. Exterior Signage - The prominence and visibility of the signage from the distance was the utmost consideration of the planners. The size, phrasing, colors, fonts, finishing and symbols were also factored in the planning.

15. Delivery dock - The library planning committees ensured that the delivery dock is secured and well lighted. Accessibility and space for turnaround was also considered.

16. Outdoor book media returns - The utmost consideration of the committees was safety from rain and insects. The accessibility and security of users must also be considered.

17. Library entrance - The top consideration is security. The library committees ensured that it is well lighted and has shelter from rain.

18. Circulation facilities -The library planning committees strongly considered the population of student, faculty and staff.

19. Reference facilities - Access to collection (open or close shelves) was the utmost consideration.

20. Information and learning commons - The services to be offered were the top considerations. The equipment to be used was also factored in the planning together with the workstations.

21. Multimedia facilities - Viewing facilities are important considerations in multimedia. There must also be adequate cooling system, wiring and cabling support.

22. Media production and presentation laboratory - The placement of equipment and tools as well as provision for cabling and wiring should be considered. Library planning committees should also ensure that security of equipment and user were factored in the planning.

23. Special collections/ rare books/ archives facilities - It is important to determine the special security requirements corresponding to the needs of these collections. The planning committees also strongly considered the impact of environmental threat to the collections.

24. Reserve facilities - The security of the collections and service hours were the top considerations.

25. Periodical facilities - The library planning committees strongly considered the type of access to the collection. It is important that the shelving requirement was determined before planning the facility.

26. Faculty and graduate study rooms - The space for faculty and graduate students must have an adequate source of network connections. The library habit of the faculty was also considered strongly.

27. Convenient Facilities - Only durable and usable facilities should be included. Accessibility and convenience of the users were also considered.

28. Display facilities - Flexibility to display the product and services of the library and ease of changing the contents were the top most considerations.

29. Interior signage - The message should be clear and easy to read. Physically, it should be vandal and theft proof.

30. Workrooms - It is important that the number of library staff to occupy the rooms was determined. There must be space for equipment and storage supplies. The library committee also ensured that the privacy of the staff was considered.

31. Library offices - The number of managers to occupy the rooms was the utmost considerations.

32. Staff Lounge - The convenience and privacy of the staff were the top considerations. It is important that the number of chairs and tables are enough for the library staff.

33. Interior storage - Security is the utmost consideration. The type of materials to be stored was also considered. Library building planning teams should ensure that it is free from the threat of pests and water leak.

34. Baggage facilities - The security of belongings deposited in the baggage area is very important.

35. Communal facilities - The library's policy on food and drinks inside the library is the top consideration. It is important to determine users' statistics and utilization should be factored in the planning.

36. Service Desk - The convenience of users and staff were factored in the planning. The planning committee also considered that it should be flexible and can be moved to another location.

37. Seating facilities - The chair must be suitable for the intended use. It is important that the materials are durable and comfortable.

38. Reading tables and carrels -The materials used must be durable. It is ideal that the surface is appropriate for the intended use and is easy to clean.

39. Library lighting -The library planning committee should ensure that intensity of lighting for reading purposes is considered. It is important that adequate lighting in carrels, workstation, service desks and stack areas are provided.

40. Library windows - It is ideal that library windows allow the use of natural light.

41. Floor finishing - Durability of materials was the utmost considerations. Library building planning teams also considered that it should be easy to clean. It is important also that appropriate floor finishes for reading area, lobby, computing area, offices, conferences, learning commons, etc. is considered.

42. Wall finishing - The finishing must be consistent to the design of the building. Maintenance was also strongly considered. The wall finishes should also embody the colors and symbolism of the institution.

43. Shelving facilities - The growth rate and nature of library collections was strongly considered. Arrangement of the stack was also factored in the planning.

44. Sustainable or green design - The library design should preserve the natural outdoor environment and promote a healthful indoor habitat. In addition, the building

design should avoid adverse impacts on the natural state of the air, land, and water by using resources that minimize pollution and waste and that do not cause permanent damage to earth, including erosion.

B. Technological infrastructure
The findings were accomplished through the use a of ranking system with "strongly considered" as the highest rank and "never considered" as the lowest rank.
1. Telecommunication entrances and closets - The institutional wireless program was the top consideration. The location of the electronic workstation was also considered.
2. Horizontal pathways - The location of work stations and the architectural and interior design of the building are important considerations.
3. Cabling and outlets - It is every important to consider that the cabling and outlets are compatible to the type of library equipment and media. It should be adoptive to changes in the ICT.
4. Wireless technology - There should be coordination between the library planning committee and the ICT department when it comes to wireless technology as control should be resolved.
5. Workstation connection - It is important that the type of connections needed in the workstation are considered. The connections in workstations should be adoptable to changes in library works.

C. Information technology and other services
The findings were accomplished through the use of a ranking system with "strongly considered" as the highest rank and "never considered" as the lowest rank.
1. OPAC stations - The planning committee ensured that wirings and cables were organized to clean appearance. The consistency to the design of other furniture was also considered.
2. Security gate - The security of library materials was the utmost consideration. It is important that building layout should be studied during the planning.
3. Close Circuit Camera System - The size of the library was the top consideration. It is also important that the type of collection and spaces that need CCTV should be determined as per priority.

D. Financial concerns
The findings were accomplished through the use of a ranking system with "strongly considered" as the highest rank and "never considered" as the lowest rank.

The availability of an actual library budget specifically set aside for library facilities was the utmost financial consideration. The limitation of budget should also be considered. The library planning committees also considered the financial regulations and policies of the institution.

Conclusions

Based on the findings generated by this study, the researcher concludes that the academic library building projects in this study enjoy strong support from the school administrators. Also, these academic library buildings have adequate information and communication technology infrastructure to support the present and future needs of the library. The select academic library buildings also adapted sustainable and green

technology into the library design. A good project proposal helps the library planning committee get the support of school administrators in terms of financial concerns.

Specifically this study concludes that:

1.   In terms of physical structure and space, the respondents have conformed to planning and design considerations. However, it can't be helped that there are plans pertaining to physical structure and space that were not met.

2.   In terms of information technology infrastructure, the respondents saw to it that planning and building considerations were met. They have recognized the importance of IT infrastructure in carrying out the services of their respective libraries thus placing primary consideration to such. They have adequate support for wiring and network cables. Wireless technology is also available. In terms of information and communication technology infrastructure, the new academic library buildings are ready to take advantage of new library technology to deliver more efficient service to the library users.

3.   In terms of financial concerns, the respondents are not without challenge but they were able to hurdle such. The selected academic libraries have budget specifically for the construction and maintenance of their buildings. A good project proposal helped academic library building planning teams in this study secure the funding and support of the university or college administrators.

4.   In terms of planning considerations, it can be said that most of them have common concerns pertaining to structure, library size, aesthetics, staff and user space allocation as well as collection storage, security and access.

5.   In terms of strengths and weaknesses, each respondent had to deal with various factors that have rendered their planning and building concerns as strong or weak. However, it can be concluded that these strengths and weaknesses are common to the respondents and that they were able to maximize their strengths and transcend their weaknesses.

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