

AN INTEGRATED APPROACH TO URBAN REVITALIZATION THROUGH MIXED-USE DEVELOPMENT IN PORT HARCOURT.

Dan-Gogo Ene Andy

ABSTRACT ENGLISH

This journal seeks to apply architectural intervention in residual urban spaces as a catalyst for transformation and revitalization. The main goal of the study is to design a sustainable infrastructure and environment that would combine a variety of purposes and be used by members of the community as it is designed such that architecture is interactive and flexible so that the users would be able to transform the space.

Today, urban areas in Nigeria suffer from little or no investment actions in proper urban developments and the continuous duplications of single use buildings. The aim of this proposition is to study the developmental practicability of a Mixed-use development in our environment. A Mixed-use development combines different uses in one structure or neighbourhood and has worked in so many developing cities all over the world such as Cape Town, Tokyo, Bangkok, Istanbul because it encourages high quality design by providing both greater flexibility and more control. The contention being made is straight forward; 'if it can work there, then why can't it work here?' and 'what needs to be done for it to work here?' The aim of mixed-use development is to promote and motivate adequate urban community revitalization through the use of mixed-use spaces to curtail excessive land use, enhance vitality and guides development toward established areas, protecting outlying rural areas and environmentally sensitive resources. Relevant data for the study was collected from both primary and secondary sources and descriptive analysis used to analyse the data. This thesis will practically focus on bringing about the correct advances necessary to rejuvenate, invigorate, reinforce, and renew the cityscape.

The key requirement of this project is a wide range of significant surveys and analysis to identify the best valuable strategies that will achieve quality developments at reduced costs and an increased return on investments to ultimately improve a municipality's Commonwealth Capital score. Mixed-use developments are the future of urban architecture; this project

pledges to the best of its ability to offer major influence to the increased economic value of Port Harcourt city and providing a complete revitalization of the city's landscape.

INTRODUCTION

In our world today, urban cities are striving for proper orientation to promote ideals of human engagement, flexibility, openness and synergy as it would cater for the needs of diverse individuals as well as investors and collaborators; architecture makes this available. This thesis therefore seeks to provide solutions in achieving urban revitalization using the integrated approach of mixed-use developments.

BACKGROUND TO THE STUDY

There are so many difficulties encountered in Port Harcourt due to the rapid urban growth in the city some of which include inadequate housing and basic amenities (electricity, water and waste disposal) especially for those who live in poor conditions, the lack of social amenities, the residents' poverty, and the environment itself. Lack of proper infrastructure is Port Harcourt's most recurrent issue. Other issues include an inadequate transportation system, low productivity, and high levels of underemployment and unemployment.

Research studies revealed that, in contrast to the city's rapid population increase, the quality of life and the environment have been rapidly declining (Opunebo Owei, 2010)

A single use development would not be able to solve all of these complex urban issues. For greater economic, cultural, and social welfare of its citizens, this thesis will practically focus on bringing about the correct advances necessary to rejuvenate, invigorate, reinforce, and renew the cityscape. The claim is that an architectural form that employs an integrated design approach and careful planning can positively affect the physical makeup of our environment.

The Concept of Mixed Use

The best explanation of the concept of Mixed use was described by Alan Rowley as an "aspect of the internal texture of settlements" (Rowley, 1996 pg. 86). This settlement texture determines the character/quality of an area and is defined by grain, density and permeability (Rowley, 1996).

Another explanation was made by Eric Hoppenbrouwer and Erik Louw (2005) in an effort to expand upon Alan Rowley's explanation. According to Hoppenbrouwer and Louw (2005), the typology of urban mixed use "is in the time dimension, where the theme of the whole building or premises are transformed or changed to another theme".

In his explanation he stated that the function component of mixed-use development refers to individual land uses, utilizing residential and office. It is flexible to expand and integrate other uses.

WHY MIXED USE: THE INTEGRATED APPROACH

Definition

Mixed use development is a kind of urban development that combines several uses in one building or structure or group of structures – residential, cultural, commercial, office, and entertainment uses in any fusion. These functions and activities are fully integrated and provide complete pedestrian networks. (Grant, I. T., 2002)

Mixed use development, as defined in the mixed-use handbook, means any combination of commercial (e.g. Retail, office and entertainment) and non-commercial uses, such as residential uses, mixed vertically or horizontally. Mixed use development handbook characterizes mixed use development as one that provides three or more significant revenue-producing uses fosters integration, density, and compatibility of land uses and creates a walk-able community with uninterrupted pedestrian connections. (Levitt, R L. and Schwanke D., 2003)

Mixed land use enables for a wide range of land uses including residential, commercial, and industrial integrated in one structure or area. This can be a single structure, a collection of several buildings, or an entire neighbourhood development area combining retail outlets, outdoor/indoor restaurants and apartments/condos. It can bring a lot of life to a city corner while allowing for greater density. It brings people to live together, work, and relax in the same space.

These kinds of developments are usually located within the Centre of the city. The residents will live close to where they work, spend their leisure times, and therefore, reducing the need of a car. This means fewer cars on the streets and more pedestrian or bicycle-friendly environments.

A mixed-use development can take four general forms (Rabianski J. S & Clement J. S 2007).

- First, a mixed-use development is in the form of a single high-rise structure situated on a single site and has two or more than two uses integrated in the structure. This form of the mixed-use development has retail on the street level with offices over the retail and either residential units or hotel space over the office space.

- Secondly, a mixed-use development could take the form of two or more high-rise structures on a single site where each structure holds a different use. An office building, residential building and a hotel are the common integrations. Different forms of retail can also exist on the ground levels of each use.

- Thirdly, the mixed-use development can be a combination of different low-rise structures on a single site with retail on the ground level and residential units above in one structure and office space above in another structure.

Fourthly, a mixed-use development can be a single mid-rise structure on a single site especially in an urban setting with retail on the ground level and residential or office above.

Each of the four forms of the mixed-use developments can be built in an urban or suburban setting and could be considered an infill/expansion project. Therefore, it is worthy of note that a mixed-use development is identified as being a popular scheme because it provides the following benefits:(American Planning Association, "Planning and Community Health Research Centre).

- Decreasing traffic bottlenecks.
- A wider housing variety and mass
- Reduced driving and walking distances between residential, businesses, and leisure activities
- More compact development
- Stronger neighbourhood character
- Pedestrian-friendly landscaped environments and greenery

The essence of mixed-use developments is that it brings people closer to the things that they need on a day-to-day basis. It provides more options for both residents and workers. Mixed use developments if designed well, can greatly increase the convenience and enjoyment in people's day-to-day lives.

Additionally, mixed-use developments can also make more efficient use of land and public infrastructure. The right mix of uses can be extremely efficient in using resources such as roadways, parking, water and even sewer.

The Role of Mixed-Use Development in Port Harcourt City

This project establishes a framework to not only deal with the current problems of this area, but also improve its formal and functional character in a way which will be proportionate to the development of the city and resulting demands in future.

The role of Mixed-use development in Port Harcourt city has been broken down as follows:

Economic Role

- It encourages a mixed land use thereby creating job opportunities near to homes and reducing the energy wasted in daily moving between home and work.
- Raising the value of residence.
- It enhances economic viability of development.

Social Role

- Due to the convergence of the city's people to an area, contact increases and consequently creates social link and relationships i.e. social proximity which encourages positive interaction and diversity.
- Security is achieved due to securing the permanent movement in the area.
- It enables more and better integrated social housing.

Environmental Role

- It can increase the density of land use in addition to integration since it has mixed uses.
- Reduction on the dependence on cars, reducing road crowd, traffic congestion and air pollution respectively.
- It increases energy efficiency.

To ensure proper organization of the mixed used development in Port Harcourt City, there must be proper incorporation of all component uses. Also, day and night activities need to be balanced so that everything on the site does not shut down at the end of the workday i.e. Building a day/night balance.

Mixed Use Development

Mixed use development allows for the integration of various functions or uses in one structure. In a wider sense, it is a combination of commercial, residential, cultural, and institutional and production integrated at various levels. In real sense, it is a vital activity destination for people. It allows people from various walks of life to meet and therefore increase security of space since many people tend to gather at a point. It also increases the economic viability of a place. This kind of design development is very efficient because it provides the basic necessities of man within a very close range. The presence of these different functions within one area will promote economic development and maintenance. The mix of uses helps to distribute uniformly, the population of the city as well as achieve compactness of multi functions.

Organization of a Mixed-Use Development

Mixed use developments are becoming popular in the modern world today. This is because they outperform single use developments. A mixed-use development should be organized in such a way that it is compatible with its surrounding environment and integrated into the community to maximize its economic effect.

Mixed use developments can be organized in these ways:

- Vertical integration
- Horizontal integration

Vertical integration use is made up of three configurations which are low-rise to mid-rise structures (2-6 stories), high-rise towers (7 stories and above) and integrated multi-story structures.

Horizontal integration of uses is made up of two configurations which are town centres and urban villages.

Problem Statement:

Due to urbanization, the population of Port Harcourt city has increased over time, being an oil rich and an economic viable city. If Rivers State is to accommodate the growing population, especially in the capital of the city, Port Harcourt, it must have a comprehensive and long-term plan to manage the population growth and the accompanying strain on city services including housing, infrastructure, education and health.

Traditionally, human settlements have developed in mixed-use patterns. However, with industrialization, governmental zoning regulations were introduced to separate different functions, such as manufacturing from residential areas, but mixed-use zoning has once again become desirable as the benefits are recognized.

Therefore, it becomes imperative for any city to function properly as all its units must be properly placed, sited, situated, located, arranged in a functional manner to ensure proper harnessing.

Some examples of typical problems and opportunities for which mixed used districts can be targeted are:

- Creating an activity centre in the city
- Reducing congestion of the city

- Harnessing various units
- High rate of unemployment

Statement of Architectural Problems

- How to create an infrastructure that will aid urban revitalization in Port Harcourt City
- An innovative approach aimed at achieving the needs of the City.
- The most suitable and economic materials that will be used for an effective design of a Mixed-Use development.

AIMS & OBJECTIVES OF THE PROJECT

The aim of this project is to create a space which can form the node for holding and experiencing commercial, cultural and social activities by incorporating the demands of the present demography in commercial, social and cultural activities. This aim can be achieved through the following objectives:

- Designing spaces which enhances the physical and visual interaction and reduces isolation
- Exploring the possible integration of the functions which usually exist at larger distances.
- Bringing transparency, openness and fluidity of space.
- Exploring the inter-relationships of the spaces and the challenges of disparities caused by design which restrict spaces to particular segments of public.
- To show how the concept of mixed-use development can be used to solve some of Port Harcourt City's urban problems.

Motivation to the Study

This project was motivated by several important reasons which have been stated below:

- Revitalizing the city of Port Harcourt to solve the problem of increasing population in the city by creating this kind of upgraded infrastructure to meet the needs of the people.
- Creating a mixed-use development in the perspective of Port Harcourt city to provide greater housing variety and density, more compact development and stronger neighbourhood character in the city.

- Reduced distances between housing, workplaces, retail businesses, and other destinations.
- Create walk-able distances to enhance pedestrian and bicycle movements

Principles of Mixed-Use Development

Mixed use development creates a sense of identity and place for residential use, and more populated and safer city environment.

The key to successful mixed-use development is adherence to a number of basic principles combined with an assessment of the economic and amenity synergies between prospective uses. These principles include:

- Economic and market factors
- Physical factors
- Design factors

Basic Planning Considerations

Basic planning considerations for mixed use developments include the following parameters:

- A strong relationship within the city
- Sustainability
- The cultural, political, and social aspects of the city where the building will be located.
- Safety and security issues

Design Considerations

In designing an effective mixed-use structure, the following must be taken full consideration in order to ensure safety, functionality and aesthetic appeal of the spaces.

Integrated Theme

The mixed-use development should have an integrated architectural theme that includes complementary materials, colours, and design details. The site should exhibit a unified theme that includes landscaping, amenities, signage and lighting.

Effective functional design

It must incorporate an efficient functional layout that best utilizes structural systems to reduce costs while providing a pleasant patron experience.

Aesthetics and architectural enhancements

The design of the structure should complement and enhance the design of the surrounding buildings and neighbourhood. This architectural continuity is critical to the success of the design.

Vehicular parking

The function of a parking structure is critical to its success. It must have parking efficiency, entrance/exit locations, turning radii must be efficient and good traffic/ pedestrian circulation.

Safety and security

Safety is a major concern in all areas today, particularly in parking facilities where people are often walking alone or at night. Therefore, it is of critical importance to incorporate the highest level of security features into every aspect of planning and design. The following are some of the most common strategies:

Passive security measures

- Maximize visibility and openness
- Increased lighting levels
- Floor to ceiling heights
- Access control
- Safe and inviting appearance

Building Design

For a mixed-use development, the following architectural principles should be considered and incorporated in the overall design of buildings:

- Scale
- Visual order
- Balance
- Rhythm
- Proportion
- Colour and light
- Scale

CONCLUSION AND RECOMMENDATIONS

Summary

The government and relevant authority ought to be enlightened that mixed-use developments have become a modern trend and therefore adapt to the modern trend. Revitalization of Port Harcourt using integration approach of mixed-use development is an important factor in the successful development of the city. A complete organisation of the urban space creates conditions to cater for economic growth, population growth and improve the competitiveness of the city.

The need for mixed use developments is essential especially in the area of spatial arrangement of spaces, functions and overall site layouts. This increases efficiency in the design especially in the area of circulation flow. This further increase security, personal space control and comfort of the users.

This model of development of the city also contributes to the comfort level of living for the citizens in terms of convenient transportation, access to public goods and amenities such as parks, green spaces, etc. The most significant importance is that a well-designed mixed-use development contributes to a more vibrant life in the urban environment thereby improving the life in the city.

Conclusion

The effort made to design a mixed-use development to revitalize the city of Port Harcourt is important because it can help the government to have a framework as a basis for starting these kinds of developments in the City. This design will boost a sustainable community, continuous connectivity and an environmentally friendly atmosphere since it integrates mixed use functions such as offices, residential, retail and supporting facilities.

Recommendations

Increasingly, today's cities need smartly designed buildings and spaces that can perform many functions. Mixed use developments help residents to establish frequent contact and long-term relationships with others. We live in a dynamic, ever-changing world and in response, the mixed-use development must adapt, offering greater flexibility and efficiency, while helping citizens to reach for a richer, better and healthier future.

The intent of this design is a city that works, plays, shops and lives in places that are smarter, more functional and totally people oriented. The mixed-use development should be designed

in such a way that it is environmentally sustainable, family-friendly, comfortable and secure. It should contain significant areas of public space for entertainment events and casual gatherings.

REFERENCES

- Grant, I. T., (2002) Pg 216. Business Geography and New Real Estate Market Analysis.
- Hoppenbrouwer, E. & Louw E., (2005) Mixed Use Developments: Theory and Practice in Amsterdam's Eastern Docklands.
- Levitt, R. L. & Shwanke D., (2003) Mixed use Developments Handbook ISBN 0874208882, Washington D.C. Urban Land Institute.
- Rabianki J. S. & Clementus J. S., (2007) Mixed use Developments: A review of professional Literature. Survey Research Projects Sponsored by NAIOP.
- Rowley, A. (1988) Planning Mixed Use Development Issues and Practice, Research report by the Royal Institute of Chartered surveyors.
- Rowley, A. (1996) Mixed Use Development: Ambiguous Concept, Simplistic Analysis and Wishful Thinking? Planning Practice and Research

