

Mixed Use Development: Attributes And Comparison With Single Use Developments

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Abstract- The various changes in the socio-economic fabric and increase in population density of the metropolitan cities of India have led to a rise in the demand of having a lifestyle that combines working, living, shopping and entertainment at a single location. The integration of all these compatible public utilities and amenities put together in different intensities and scales for the comfort of the individuals can be defined as mixed use development. It works on the principle of live-work-play in same development. It can lead to economic vivacity, social neutrality and environmental excellence. When compared to single use developments, these vary on various levels such as the scope, purpose of the project, the space usage and other areas of project delivery. This paper talks about the various features of a mixed-use development, its types, various advantages and effects on urban fabric and lastly a comparison between the mixed use and single use project developments.

Keywords- integration, live-work-play, single-use development, mixed-use development

I. INTRODUCTION

Mixed-use development can be defined the one in which there is a planned integration of various land use activities that have the elements of the live-work-play environment. This is generally the combination of residential, offices, retail, hotels, recreation and other occupations. This type of development has an interrelationship of the elements and a relationship between the project and its surroundings. In simpler terms in these types of developments all the activities must function efficiently on an independent basis and in conjunction with each other. These are generally public centric projects that aim towards better living conditions and mitigate traffic and sprawl.



Figure 1 The mix of mixed-use development

These are often muddled with multi use development that contains two or more of the above-mentioned activities in a single site, but don't have the degree of project planning and combination speculated for a mixed-use development. These aren't planned or designed to have an inclusive environment, rather these are developed for the flexible functioning of various activities to grace various occasions. For example, a hall can be used for exhibitions or as a banquet hall or for playing indoor games etc.

Single use developments are those that have a single land use on their site and are used solely for the functioning of that one activity. It is an exclusive type of planning. For example, at a site if there is a residential project, then only housing will be provided on that site and none of the other land uses shall be included.

Due to various reasons there has been an increase in the population of the metropolitan cities in India, to name a few: population growth, migration, expansion of towns and cities etc. These have led to the demand for creation of an attractive and sustainable environment that can cater to the needs of the people. In order to make the lives of people easy, it is essential to discover which sort of development must be opted. Given the fast-paced progress the country is witnessing, it can be safe to say that mixed-use development would create a balanced lifestyle.

II. TYPES OF MIXED-USE DEVELOPMENT

There can be no standardized design for mixed-use development. It differs from project to project. The location of the project can be a major factor in deciding how it will develop. In an urban setting, the project might be for higher density infill whereas in a suburban setting, the project might be a growth corridor.

Other factors resulting in the design changes include the population density of the area where the project would be impending, the surroundings of the site, the targeted buyers of the property and such factors. For example, a project materializing in Mumbai would differ in terms of size, configuration and user access as compared to a project coming up in Chennai.

The four general forms of the mixed-use development are as follows:

1. First, an only high-rise structure on a single site that comprises of two or more activities integrated in that structure. These types of mixed-use development can have a combination of retail at the lower levels and residential on the upper levels or retail in the lower levels and office spaces on the upper levels or a mall at the lower level and multiplex at the upper level or a combination of all of these or a random combination of any of these. An example for this is the Kohinoor Square in Dadar, Mumbai which includes residential units, hotels and a high-end shopping mall.

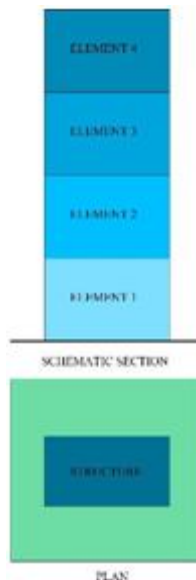


Figure 3 Type 1

2. Second, there can be many structures on the site each of which cater to a different activity. Like, an office building(s), a residential building(s), retail space(s), educational structure(s) or any other facility all combined or a combination

of two or more of these. This can also be called as a colony. For example, the BARC colonies. These have residential buildings, retail spaces, educational buildings, recreational spaces etc. All these spaces coexist. These also help in reducing traffic and provide amenities at walkable distances. Another example for this is, Via Vallejo that lies in the heart of Mexico City. It comprises of residential, commercial, health services and a hotel on a site. Numerous terraces, walkways and fountains were inculcated in order to make the design look inviting.

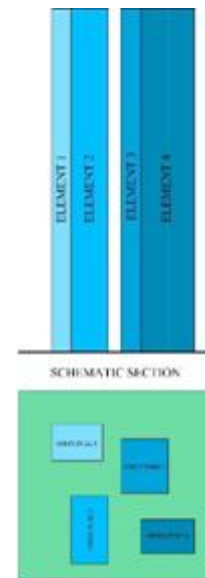


Figure 2 Type 2

3. Third, can be a combination of many low-rise structures on a single site that have retail on the lower levels and residential on upper levels and retail on ground levels and office spaces on upper levels. A good example for this typology can be seen while walking down the streets of Mumbai, in the Kala Ghoda area, where we can find structures having retail spaces in ground levels and office spaces in the upper levels and eateries in the lower levels and office spaces in the upper levels.

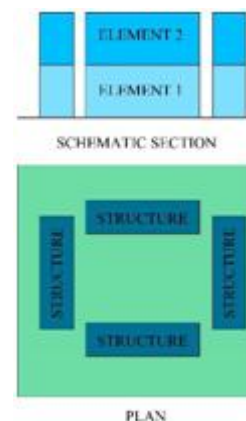


Figure 4 Type 3

4. Fourth, a mid-rise structure on a single site with a setting of retail on the ground and residential or office space on the upper levels. This option is generally utilized by the developer who intends to have maximum profit with minimum investment. “Cornerstone use” and “dominant use” are two differentiating terms that are used in a mixed-use development project. “Cornerstone use” means the most practical and the most lucrative activity in the project. This activity helps in deriving the growth concept of the project and deciding which other activities would be suitable and compatible with it for the project to be a success. The activity that utilizes the maximum space in the project is called the “dominant use”. It needn’t necessarily be the cornerstone use but it ought to be monetarily robust.

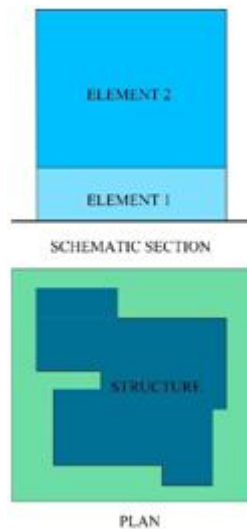


Figure 5 Type 4

III. COMPARISON OF MAIN FEATURES OF MIXED-USE AND SINGLE USE DEVELOPMENTS

In a project there are various phases of development, namely: project initiation, feasibility study and financing, planning and design, construction and the marketing and operational management phase. For each of these phases there is difference in the way the two types of developments work.

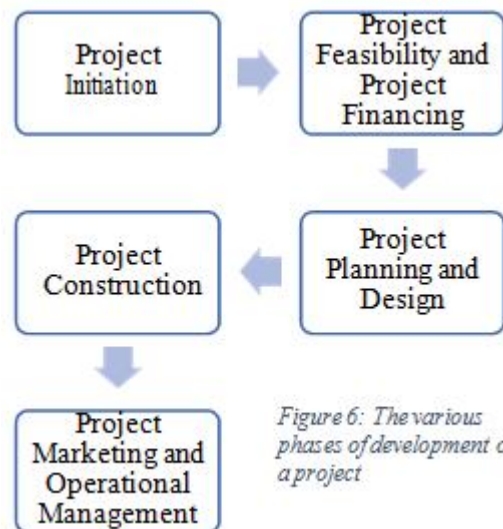


Figure 6: The various phases of development of a project

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A. Project Initiation

A proficient and diverse development team is required for the success of a mixed-use development project as compared to any other type of development. According to a research conducted by the Royal Institute of Chartered Surveyors [1], in order to achieve a strong mix of variety, vitality and visual interests, not only the right mix of development skills is required by the development team but also these should be engaged in the project at the design stage itself.

The nature of the project and the scope of the project help in forming the core designing team from an architectural or a planning firm. This team is responsible for adding specialists to the team according to requirements.

In a mixed-use project, there will be various elements. Each of these elements have a different composition and each of these compositions requires an expertise in the development of the specific element. Apart from specialists in each of those, there will be a requirement for a planner or a designer to look at the overall development of the project. Hence, in totality there are numerous members involved.

In a single use development, there is just one element that needs to be concentrated on. Hence, when the type of project has been decided, a research can be done on the different specialists available in that field and then based on certain specified criteria, one of them can be finalized. If need be, maybe two specialists can be appointed.

As we can see, in India, there are various collaborations taking place with the foreign companies in

order to develop the different projects that are impending. These collaborations that take place are generally between the local architects/ planners/ specialists and the foreign firms. This means that the natives play an important role in the making of the project.

In a mixed-use development, another factor pertaining to this is the location of the site. In the initial phases of the project development, help is required in getting the approvals from the authorities for example the Brihanmumbai Municipal Corporation in Mumbai. This can be done efficiently by the local players. They also aid in imbibing the local elements and the essence of the area in the upcoming project in order to have a feel of belonging to the area. On the other hand, the international firms would bring prestige to the project and will increase its value. In the case of single-use developments, the involvement of the public sector agencies is very minimal. The projects can be handled by a single party.

Choosing the location of the project is very important as it helps in deciding the right mix of elements that need to be included in the project. Based on the needs and the necessities of the area, a project requirement can be created. There might be areas that require just a single amenity and hence the single-use development might be beneficial in that area. Whereas on the contrary there might be sites that might need more than two amenities. These should go for mixed-use developments, but, the exact mix of elements should be decided in order to avoid glitches at later stages of the project.

For a mixed-use development, the overall market synergy must be studied. If or not, the project will be a success, how the right mix of elements can be used in order to achieve the desired profit. Whereas when compared to a single use development, only the specific market potential must be studied and not much importance needs to be given to the overall market synergy because it is meant for single purpose only.

B. Project Feasibility and Project Financing

After identifying the site, the next most important thing is to identify the multiple market potentials. In order to determine the supply and demand in specific market areas, a process should necessarily be followed which may involve field research and market analysis. In a single development that involves a combination of complementary uses which results in market synergy should be considered while conducting the market studies. On the completion of analysis, it can be decided if a part of the unfulfilled market should be taken up or a completely new market should be captured by the development. This can also help in determining the

cornerstone of the project. After this, timing, phasing and land allocation for the development implementation program and strategies are considered. [2]

A long period of time is spent on the pre-development planning and construction phase of a mixed-use development project and hence there is great chance of change in the market economic conditions. There are various land markets involved in this type of project and each of these have their own cycles and hence it is advisable to implement project phasing in order to minimize the risk. There should be alternative development strategies in place that can be adopted for the completion of these projects. On the contrary, the single use developments can have their own program, since, as compared to mixed-use development, these don't have to consider as many aspects and can design their own strategy.

In order to study the feasibility of a mixed-use development, a complex analysis must be completed that will involve the analysis of all the elements to be incorporated in the project which can define and optimize their development programs. When the feasibility study of a single-use development is carried out, a pro-forma analysis is done. This means that the potential financial position of a company is projected analytically using historical information, potential cost savings and operating metrics. This is followed by economic modelling.

In a mixed-use development since there are various parties that are involved in the project financing, it becomes essential to structure the financial arrangements of the project. It is essential to secure a large, multi-layered financial commitment in order to complete the project without many discrepancies. In a single-use project, a single source can finance the project. The financial arrangement can be a simple one which is between the project owner and the bank.

C. Project Planning and Design

While planning any kind of project, the main intention is to achieve harmony between both internal and external features. When compared with the single-use development designs, the mixed-use development designs are more complex since these need to take into consideration the urban fabric of the area where the site is located. For a mixed-use development to be economically successful, there are various things that need to be taken into consideration like: the exterior image of the project- how it fits in the window of the site location, the interrelationship between all the elements that are being incorporated in the project and the relationship between the project and its surrounding environment. The approach which is adopted by the development team is also

influenced by: the size of the project, the location of the project, the architectural style that is to be used, requirements of the occupants and investors, other planning necessities and the public opinion. In a single-use development, the size, location and the architectural style to be used in the project are generally under the control of the developer but, it might not be so in the mixed-use development since there are policies that have been proposed by the government that dictate the development initiatives.

In a mixed-use development it is essential that there is an interrelationship that is created between all the elements and the project, with its surroundings, but, in a single-use development the role of urban considerations in overall project planning and design is limited.

In the mixed-use development project, there would be involvement of the planning and designing of the various services of each of the elements of the project. According to the rules, each of the elements have a different requirement. Merging all these requirements and coming to a neutral ground makes the design complex. In addition to that, the different mix of the people using the project at different time periods, gives rise to the concern of calculating the load that the structure might have to bear. This would again be a complex structural designing process that needs to be undergone. Where as in a single-use project, conventional strategies can be followed in both, the designing of services as well as the structural design.

The involvement of specialists is significant in the mixed-use development when compared to the single-use development due to the simplicity in design.

D. Project Construction

The project construction of a mixed-use development is usually done in phases/ parts. Each of the elements that have been integrated in the project will have a different contractor, one who has expertise in that element construction. Hence, there are multiple contractors involved in the construction of a mixed-use development project. There might be phases in which the project develops. Hence, there will be multiple contractors working on the project at multiple times or if the construction isn't being done in phases but at one go, there will be multiple contractors at the site working for project completion.

In a single-use project, there is a single contractor appointed for the completion of the project. It is the whole and sole responsibility of this contractor to complete the project. He/she may or may not appoint sub-contractors but the

responsibility of completion and the decision-making power rests only in the hands of the appointed contractor.

In a mixed-use development the interaction with specialists and designers is more in comparison to the single-use development projects, because there are very few architects/ planners/ specialists involved in the project.

In the mixed-use development project, if the construction is taking place in phases, the construction of the dominant use in the project takes place first since, at its completion, a part of the revenue generation can be initiated. This helps the developers to start recovering the cost at an early stage. When compared to the single-use development, the developers need to wait till the completion of the construction since the only use in the structure needs to be completed first.

E. Project Marketing and Operational Management Phase

For the mixed-use development the marketing strategies that will be adopted need to have innovative approaches that are varied in nature as compared to single-use development where there is just one element in the project, the marketing approaches will be targeting only for the specific use.

When there is mix of elements in a project, there is a need to have long term promotions. For example, let us consider that in a mixed-use development project, we have a mix of residential, commercial and hotel. The commercial and the hotel spaces will be rented out or given on lease. After the end of the leasing period, there is a need to find another promising client who would want to be there. Hence creating interests among the people is important for long term benefits. In a single-use development, it is essential that the marketing and promotion of the project begins at an earlier stage i.e. before completion of the project and it is comparatively less at the later stages. For example, any of the upcoming residential projects have their banners put up on hoardings, there are pamphlets distributed, advertisements on the radio, commercials on the televisions etc. This is done in order to take pre-bookings of the project and to make people aware of the available options that they can get in their budget.

Since there are multiple uses involved in a mixed-use development, a centralized control management system should be in place for the multiple uses. There might be different agencies taking up the responsibility for the different elements. Hence, there needs to be a record for each of the elements being sold/ leased or in other terms booked. When compared with the single-use developments, the complete

responsibility of managing the property lies with the only agency that is appointed for doing the work.

IV. WHY IS MIXED-USE DEVELOPMENT BECOMING POPULAR?

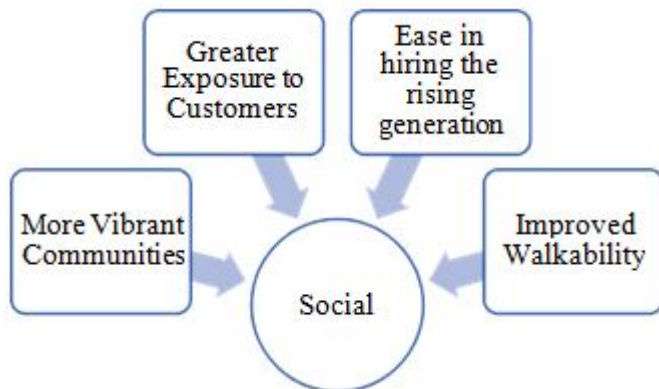
For any new development, it is essential that there is a right mix of social, economical and environmental advantages to get acceptance.

Mixed-use development is becoming popular in the urban as well as the suburban regions of the country because it has the right combination.

It is helping in creating a comfortable, healthy and productive lifestyle when compared with the other forms of development.

A. Social

It is important to consider the social aspects because, man is a social animal. Only when something is socially acceptable, people tend to move towards it.



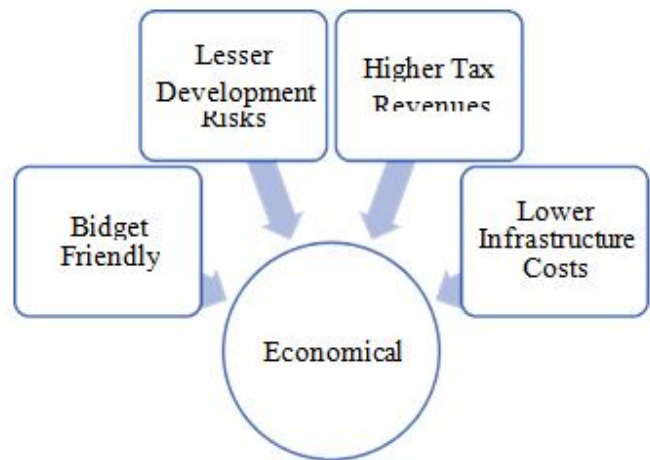
More Vibrant Communities: In a mixed-use development, there is a mix of various elements. These help in the intermingling of different community members. Here, there is a stronger neighbourhood character in the community.
Improved walkability: The distance between the workplaces, houses, retail stores and other amenities is reduced. Hence, there are more walkable/ bikeable neighbourhoods which result in the reduction of transportation costs.

Greater Exposure to Customers: When compared to a stand-alone project, a mixed-use project attracts more of pedestrians. For example, someone visiting a restaurant might not be aware of a local sweet shop but while waiting for their table, they might visit the shop. Hence in this manner there is more exposure to the community.

Hiring the rising Generation: For hiring the rising generation of workers, one of the major challenges is the distance between the home and office. The biggest attraction for them can be an exciting and different aura that can be provided by the mixed-use development.

B. Economical

It is a natural tendency for people to assess and compare all the alternatives that are available to them. But, it has been observed that we tend to choose the most economically feasible option that is available.



Budget Friendly: In a mixed-use development, the land-use synergy, creates a compact environment. This reduces the transportation costs of individuals hence being pocket friendly.

Higher Tax Revenue: As the areas grow denser, the value extracted per acre increases. Hence, when mixed-use development projects are compared with the single use development projects, the revenue generation is greater in the former as compared to later due to the higher density. [3]

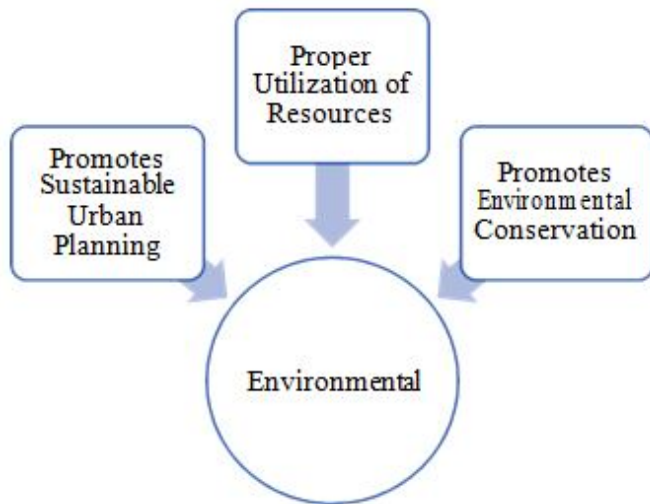
Lesser Developmental Risks: The involvement of multiple uses gives insulation to the real estate investors. An investor can diversify his/ her portfolio. In a mixed-use development, the impact of a poor performing asset gets minimized as there is an ability to counterbalance the loss. [4]

Lower Infrastructure costs: If there is a compact environment that has been created, then the need to spend on infrastructure reduces. [3]

C. Environmental

As we are progressing, we also need to consider the environment of which we are a part. The construction industry

is one of those that causes maximum damage to the environment. Hence, we should try and take measures that can work towards the betterment of the nature and if not, at least cause the minimum possible damage.



Promotes Sustainable Urban Planning: Mixed-use development is a people focused approach towards planning. Hence, the live-work-play in the same development helps in achieving the sustainable goals of walking/ cycling to work instead of driving. [5]

Promotes Environmental Conservation: The mixed-use communities minimize the people's dependency on private vehicles, thus, in turn reducing the traffic congestions and the emission of greenhouse gases into the atmosphere. In a way it is helping in conserving the environment. [5]

Proper Utilization of resources: Inculcating all the amenities in one structure reduces the cost of maintenance of separate structures. Hence, there is optimum utilization of land and capital. [5]

V. CONCLUSION

It can be concluded that the mixed-use development is the next big thing in India. It has already started coming up in certain pockets of the country: like the metropolitan cities and is spreading towards the outskirts of these cities.

There are other factors too that are leading towards this development. Some of them are:

- The new government policies that are emerging, point towards such developments. This is so because, the rising urban densities need to be taken care of. Also, in

order to fill the urban-rural gap, we can start using similar type of construction methodologies.

- When people live in a mixed-use development, they tend to feel a part of the community. They feel included. Hence, it would be safe to say that there is demand for mixed-use development.
- People living in mixed-use developments tend to save time. They save on the transportation costs and the traffic hours. Instead they can relax and enjoy doing things they would love to get involved in. They also have access to the required facilities in the vicinity hence, saving their struggle. They also tend to live a healthier lifestyle and be more at peace when compared to others.
- When compared with single-use development, the mixed-use development is a better alternative to sustain since, these make the most efficient use of the land parcels that are available.

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