Mixed-use schemes: Key driver in regenerating towns and cities

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Abstract: Mixed-use schemes (MUS) development is becoming a planning paradigm in the revitalization or regeneration of towns and cities into liveable, attractive and sustainable communities. Specifically, this planning approach is adopted to redevelop under-utilized and unproductive urban centers into functional spaces to increase choice, convenience, and vitality resulting to economic, social, and environmental benefits. This study provides an extensive review of the theoretical and conceptual aspects of MUS, as well as to analyze the current practices and approaches in delivering such development scheme in urban regeneration strategy. Urban regeneration is the impetus for MUS to be utilized towards achieving well connected, compact, diverse, and sustainable urban communities. The symbiotic relationship between MUS and urban regeneration achieves higher densities, increase value of investment, superior performance with regards to higher rents, price and occupancy levels, and a greater impact to the community. With the results of validation and the findings from the literature, MUS is a physical development of a structure or group of structures having two or more integrated functional or economic (significant revenue-producing) uses that create diverse types of activities.

Key words: mixed-use schemes, mixed-use development, redevelopment, urban regeneration, sustainable communities, urban planning

INTRODUCTION

There is a widespread and increasing support worldwide particularly from planners, policy makers, environmentalists, academicians, investors, and developers in the promotion of MUS or mixed-use development as an urban regeneration development strategy. Even with the current emphasis on sustainability, MUS becomes part of densification and urban infill developments (DeLisle & Grissom, 2013). Away from the conventional and functional planning philosophy, MUS can increase choice, convenience, and vitality resulting in economic, social and environmental benefits (Coupland, 1997). It is considered an acceptable element in providing solutions towards sustainable development compared to 'laissez-faire' approaches (Walker, 1997) that weaken the economic strengths and diversity of city centers (Evans, 1997). It also become an urban development strategy in promoting higher densities and multiple land uses generate compatibility and synergy effects among various uses, and overcoming regulatory barriers relating to environmental impacts, noise and traffic (Hoppenbrouwer & Louw, 2005). As a result, the promotion of MUS development facilitates mobility and travel time reduction; crime prevention and security promotion, and improvement in the quality and attractiveness of towns and cities. It also recognized that through (a) increasing the intensity of land uses, ((b) increasing the diversity of use, and (c) integrating segregated uses could facilitate good urban form which supports economic vitality, social equity and environmental quality (Grant 2002). It resulted in the increasing awareness of the "sustainable and compact city" including the need for live-work-play environment which brought significant growth of MUS in key areas of urban planning, real estate and property management, and urban regeneration.

In particular, MUS is adopted as a planning paradigm in the revitalization of liveable, attractive and sustainable urban centers (Rowley, 1996a); and the redevelopment of under-utilized and unproductive urban spaces, referred as 'brownfields' (FPD Savills, 2003a) or urban infill (DeLisle & Grissom, 2013). Garner (1996) as cited by Hemphill (2001), there is a move towards a holistic regeneration approach based on a 'three legged stool' of physical, economic and social regeneration, aimed at creating a sustainable urban environment through the promotion of mixed-use developments. Consequently, it has made the mixing of land uses feasible and a contributory factor in regenerating cities as a place to live. This is also brings significant increase in the capacity of towns and cities through combination of lower provision for car parking, increased housing densities and the reuse of marginal open space (Davison, 1995 as cited by Hemphill, 2001). Thus, the significance contributions of MUS in planning policy towards regenerating or

revitalizing urban areas are evident in the literature. Moreover, it is important to note that previous studies also emphasized that MUS is a widely used term and seldom defined and constitutes a vague and unclear concept that generates significant in both theory and practice with multi-faceted characteristics confusion (DeListe & Grissom, 2013; Rabianski et al, 2009; Herndon, 2011; Hoppenbrouwer & Louw, 2005; Coupland, 1997; Rowley, 1996a).

Despite its ambiguities and drawbacks, it is apparent that MUS development becomes popular and its planning and implementation continue to be regulated as a modern paradigm. Accordingly, MUS serves as the central theme to achieve sustainable built environment through densification and intensification of land uses towards the creation of compact cities, urban villages, and sustainable communities.

OBJECTIVES

This paper provides an extensive literature review of the theoretical and conceptual aspects of MUS, and the current practices and approaches in delivering such schemes. It also examines the distinctive characteristics or salient elements of MUS, its benefits, barriers and drivers as well as its development process (activities and players) as an investment vehicle in the urban regeneration agenda.

METHODOLOY

This study incorporates a qualitative type of research method. The research methodology consists of a theoretical analysis which is applied to carry-out a critical review of existing literature and academic works from journals, books and online sources. In addition, both theoretical and policy investigations concerning urban regeneration and its interrelationships with MUS are also applied.

RESULTS AND DISCUSSION

Redefining Mixed-Use Schemes

MUS development is commonly used terms and not properly defined in planning literature which brings misunderstanding and misinterpretation. The first established definition set by the Urban Land Institute (ULI) applies in the context of most real estate development projects. According to ULI, MUS development is relatively large-scale real estate projects with the following components (Witherspoon, et al., 1976 as cited by Bell, 2004; Schwanke, 2003; Leland Consulting Group, 1999): *three or more significant revenue-producing use; well-planned projects with significant functional and physical integration; and developments in conformance with a coherent plan.*

According to Enani (1998), the ULI's definition does not describe a new urban form, but the modern mixed-use developments are distinct from early practice, and highly visible within the urban landscape which cannot be strictly defined. MUS is characterised in terms of its dramatic design, size, and impact of the developments. For example, such schemes would have major public spaces and amenities and incorporate development forms such as skyscrapers; and enclosed shopping malls to create exciting and dramatic urban built environments to revitalize downtowns and city centres. The ULI definition as cited by Enani (1998), clearly differentiates mixed-use schemes from other forms of land use, and also identifies common denominator characteristics of mixed-use projects with a number of minimum criteria. ULI's definition implied the three salient elements of MUS such as (a) significant revenue- producing uses, (b) integration of the functional and physical components, and (c) conformance with a coherent plan. On other hand, to have a clearer definition of MUS, Rowley (1996) provides a conceptual model that explains the primary aspects and characteristics of MUS which include the following: (a) grain, (b) scale and setting, (c) location, (d) approaches for promotion and maintenance, (e) transactional quality, (f) tenure and occupation, and (g) time dimension.

However, results from the study conducted by Ramos (2011), the author concluded that MUS development is *"well-planned physical developments of a structure or group of structures having two or more integrated functional uses creating diverse types of activities. Specifically, these developments have the following major characteristics: comprehensive development plan, well-planned physical configuration*

(building) and mix of two or more functional or economic uses." This definition is graphically summarized in **Figure 1** to highlights the considerations to meet the criteria of MUS; consequently to be appropriately recognised as a MUS development.

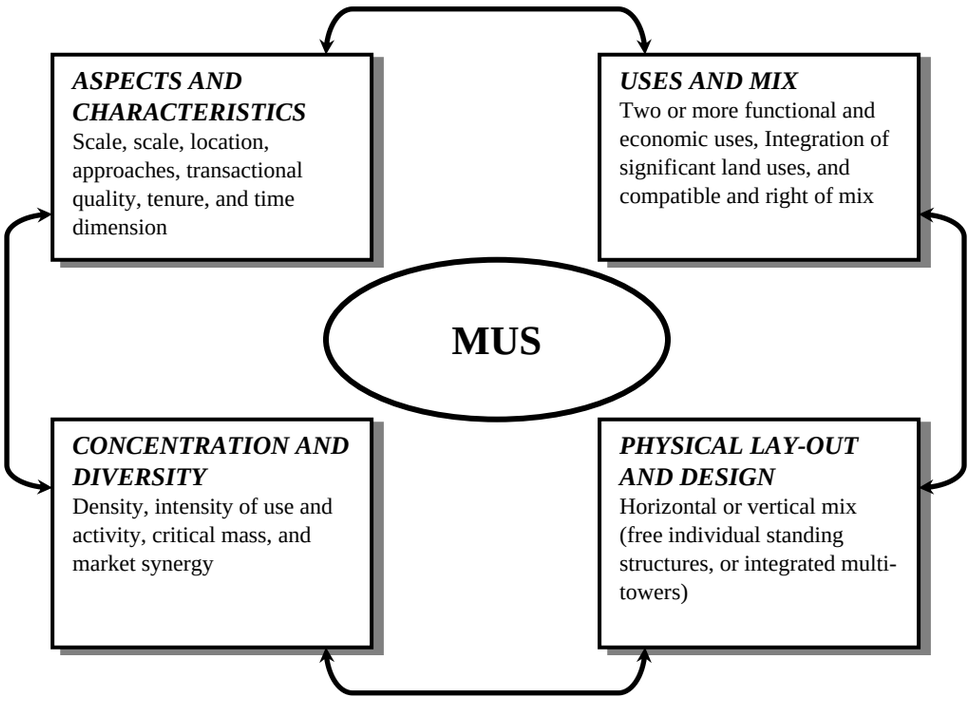

Figure 1: Key requirements and considerations for MUS development

DeLisle & Grisson (2013) accepted this definition in an empirical study covering 77 MUS projects constructed between from 2004-2006 in Seattle, Canada. The authors also mentioned that the ambiguity definition of MUS is also recognized by various international associations and councils which prompted these groups to release an industry-wide definition in 2006, that MUS is a "*real estate project with planned integration of some combination of retail, office, residential, hotel, recreation or other function. It is pedestrian-oriented and contains elements of a live-work-play environment. It maximizes space usage, has amenities and architectural expression and tends to mitigate traffic and sprawl."*

Current Practices and Approaches in Promoting MUS

Changes in the planning approaches to towns and cities have impacted on development patterns and trends which are influence by economic, political, social, regulatory, property and design. Furthermore, it is viewed that the dominant trends of growing urbanization, rising land values, increasing traffic congestion, and new smart growth initiatives lead to more mixed-use developments in both prime locations and peripheral urban areas (Schwanke, 2003). Consequently, these MUS projects are shaped by a variety of trends as shown in ***Figure 2*** such as planning/regulatory mechanism, urban regeneration and infill development, urban form and design, urban transit development, and other variety of other issues.

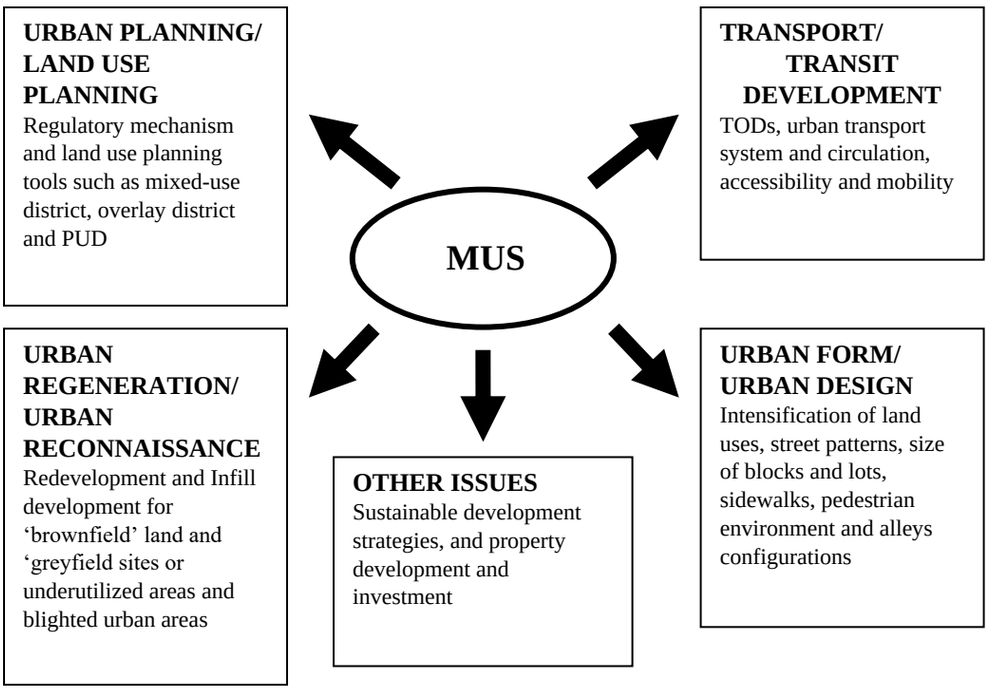

Figure 2: Trends and practices in the promotion of MUS development

In particular, the government plays an important role in the promotion of this type of MUS projects. Current government regulatory systems such as the planned unit development (PUD) ordinances, land-use assembly, financial investments/incentives, mixed-use zoning and other control measures allow communities to approve a mix of uses which reflected both large-scale planning and multi-use environments. Moreover, the public sector's involvement has brought new planning tools as listed in ***Table 1***, away from the traditional way – zoning. These planning tools are moving toward a well–planned development comprising of different land uses at a proper scale and proving incentives for better design, amenities, affordable housing and other public purposes.

Aside from these planning tools, there are several strategies identified from the literature that advocate MUS development. These strategies and approaches have strong interrelationship between MUS with urban issues such as transport, urban form and design, and regeneration. It is also evident that MUS developments are one of the major themes of various planning agendas such as quality growth, liveable communities, compact cities, and most importantly in regeneration or redevelopment of urban areas. Urban regeneration planning programs have led to comprehensive planned MUS projects aimed at revitalising and diversifying city core areas that are often blighted and neglected. It is observed that mixed-use developments are increasing in revitalizing urban centres for three basic reasons: public policy direction, market demand, and transportation advantage. Despite these perceived potential and positive outcomes for such developments, there are also barriers and obstacles encountered. These include but are not limited to planning policy, financing and funding, partnerships, and tenure and ownership.

It also observed that MUS becomes a major component of a transit-oriented development (TOD) in achieving compact, pedestrian-and bicycle-friendly urban environment closely linked to a transit station or mass transport network; consequently integrating different places to bring people, activities, buildings, and public spaces together (JLL Research Consultancy, 2019). At present, it is also becoming a "highest-and-best-uses" strategy that addresses issues such as the viability, use and product type, and market timing for the different land-uses which could bring an optimal tenant mix of revenue-generating retail, residential, restaurants and entertainment; and evaluating how to create a synergistic interaction among these mixed uses (Hoffman, 2018).

In the Philippines, there are notable transit-oriented MUS projects implemented particularly in regenerating or redeveloping urban centers or central business districts (CBDs) in Makati, Quezon City, and Mandaluyong City (JJL Research Consultancy, 2019). For instance, Greenbelt, Glorietta and Rockwell Center in Makati are considered as large MUS redevelopment initiatives which also complemented with other developments like hotels, office, entertainment, and retails in the area. In Quezon City, the redevelopment of Araneta Center which integrates Farmer's Plaza, Novotel, Smart Araneta Coliseum, and Gateway Mall. Finally, redevelopment projects in Mandaluyong City such as Megamall and Shang-rila Plaza which constitute retail, office, and entertainment; as well as the adjoining Greenfield District which integrates high-rise housing, office and commercial uses.

Table 1: Planning tools for the promotion of MUS

Planning Tool	Guideline
1. Mixed-Use District	✓ It allows different types of uses to locate in the same district provided that these uses are compatible and reasonably related ✓ It encourages creation of vibrant, pedestrian-oriented mixed-use communities and neighbourhoods
2. Overlay District	✓ Special regulations for promoting MUS development in a designated area ✓ An overlay over conventional zoning districts which can be used as a stand-alone regulation in managing MUS in a designated area
3.Planned Unit Development	✓ It encourages developers to propose planned mixed-use developments for sites they choose in the community, and plans are approved upon meeting specified community standards ✓ It eliminates the need for developers to undergo re-zoning process
4. Specific Plan	✓ It indicates the detailed plan of a particular area, in terms of location, size, and building uses ✓ MUS is promoted by locating different uses close together in the plan
5.Performance Standard	✓ Regulation of development based on predetermined measures related to development's impacts on the nearby properties, local public service capacity or on the environment ✓ It does not require separation of uses provided that it meets established performance standards

Source: Schwanke, 2003; Witherspoon et al, 1976

Development Process of MUS

In general, real estate development process involves various activities - from the planning stage to the management and operation of the project. The development process encompasses the major development issues that relate to location and land acquisition; physical design; financing and marketing; regulatory and political; public involvement; and environmental compliance. The development of real estate is a complex and diverse process (Ratcliffe et al, 2004; Ratcliffe & Stubbs, 1996; Healey, 1991). It is complex in terms of the various agencies taking part in the development in a variety of organizational forms and legal entities; and diverse in terms of a wide range of sectors having different objectives and modes of operation. It involves professionals across the spectrum of the built environment, not only as players within the process but also in showing concern for the outcomes (Collier, 1995).

To have a full understanding of what happens behind the scenes of a MUS project, there is a need to assess the stages of the process, the significance of specific events or activities, the contribution of various actors or key players, and the complex relationships that trigger the development to happen (Adams, 1994). There are a number of ways in which the development process can be explained as a sequence of events or series of stages or phases from the start to the completion of the project (Ratcliffe et al, 2004; Ratcliffe & Stubbs, 1996). Millington (2000) views this entire development process as a number of different stages of activity being carried on consecutively or simultaneously. It is also an activity that follows a series of stages running concurrently rather than in sequence (Collier, 1995). Thus, it is clear that a number of complex variables are involved; consequently the final output is the result of a series of interrelated decisions (Collier, 1995). There are detailed approaches in identifying the different stages, phases or steps in the development process presented by various authors. Thus, the process of development can be summarized into four major stages, namely: (a) inception and initial planning, (b) appraisal and feasibility, (c) construction, (d) operation and management as shown in ***Table 2***.

Table 2: Four Principal Stages in the Development Process

Process/Stage	Activity/Event	Actor/Player	Team/Partner
Inception and Initial Planning	✓ Project's objectives identification ✓ Actors' objectives and interests identification ✓ Preliminary Selection of development team ✓ Identify major developmental issues ✓ Initiation and Preliminary Development Concept ✓ Initial consultation with concerned government agencies ✓ Initial Site Selection ✓ Market Research	✓ Landowners ✓ Planners ✓ Professional Advisers ✓ Government Entities ✓ Host Communities	✓ Development Team Surveyors, engineers, market analysts, architects, contractors, financial analysts and financial institutions ✓ Development Partners Developers, investors, landowners, property companies
Appraisal and Feasibility	✓ Financial Feasibility Study ✓ Evaluation and land acquisition/purchase arrangement ✓ Planning permissions approval ✓ Detailed Physical Plan and Cost Estimates ✓ Financing arrangement	✓ Financial Analysts ✓ Architects ✓ Market Analysts ✓ Financial institutions ✓ Host Communities	
Construction	✓ Commencement of the Project ✓ Initial Marketing ✓ Permits and approvals ✓ Building contracts and bidding arrangements ✓ Final Project Team Selection/Staffing program ✓ Selection of various contractors	✓ Contractors ✓ Builders ✓ Government Entities ✓ Market Analysts ✓ Engineers	
Operation and Management	✓ Operation of the completed project ✓ Marketing of the completed project ✓ Tenancy and Management agreements ✓ Maintenance arrangements ✓ Profit generation	✓ Tenants ✓ Occupiers ✓ Property Managers	

MUS development requires detailed planning which go beyond the architectural and engineering concerns than most of real estate type properties (Schwanke, 2003; Witherspoon et al, 1976). It is further viewed that the success in MUS development requires a capable and diverse development team, thorough market analysis, a creative development strategy and program to meet the market demand. As shown in ***Figure 2***, it illustrates the four major stages, including the key events and players in the development process of a MUS project. The initial steps in the process involve identifying the objectives, the site, and the potential for developing various uses on that site through a market research (Schwanke, 2003). Both financial and non-financial development objectives must be well defined as the planning and development continue leading to decision makings. These development objectives and programs are influenced by the various key players and stakeholders involved in the project which include developers, property companies, landowners, the public sector, and the financial institutions or investors. The development management constitutes many players or participants, but ultimately the project will be undertaken and controlled by the principal developer. In most cases, MUS projects involve several development partners and require highly specialized expertise, including significant and extensive experience. In addition, the development team is compose of engineers, contractors, financial analysts, market analysts, architects, financial institutions and property managers which are working closely with the principal developer.

Moreover, the other important part of the inception and initial planning is to clearly define the non-financial objectives, and to be translated, estimated, and justified its effects on the financial performance of the project. As soon as the initial investigation is complete, the development team needs to outline one or more project development programs which lead towards the next stage of the development process of analyzing the feasibility of each program and develop a financing strategy based on the market analysis. MUS projects are difficult to finance compare to any single-use property development due to numerous issues of capital requirements, multiple uses, numerous owners and financing sources involved during its entire development cycle (Schwanke, 2003). MUS projects require a substantial development costs which only a limited number of developers and financial institutions have the resources and interest in investing

in such demanding projects. Having such a large and most complex undertaking, developers face with of risking substantial portions of their equity asset base. Consequently, require large financial commitment and partnerships, and multiple financing sources to make this project works.

Developers of MUS need to have a financial structure – matching a project's funding needs and the financial alternatives available in the market which involve the mix of equity, debt, mezzanine financing; the mix of private and public financing; the use of construction and permanent financing; and the packaging of project elements (the right mix of uses). In addition, structuring of financing for MUS involves numerous partnership options: partnerships with landowners, developers, lead tenants, non/traditional equity investors, and public or private agencies. Furthermore, Schwanke (2003) provide a sample of the mixed-use financial model to measure the expected profitability and rates of return of such scheme, and eventually determine whether or not the proposed scheme meets the developers' objectives and which elements (uses) should be altered to improve the scheme's financial performance.

The finalization of the location and design is also a critical issue in the feasibility of the MUS project. Like most of the complex decision making processes, design proceeds in response to the project's structure, site, and scheme requirements which entail a collaborative process of strong project team (Schwanke, 2003). In addition, the most important location and site conditions affecting design, apart from market factors include the size of area, allowable density and land costs, topography and site conditions, access and proximity to transport networks, and the condition of the surrounding land uses. Because MUS requires relatively large sites, land assembly and acquisition also take long period of negotiations during the development process, and to some extent can be more difficult than for a single-use development. In most cases, this process is being facilitated by the public sector to acquire the land; otherwise the developers will first target the key parcels that can be assembled. The public-sector plays an important role in MUS development, and with this involvement can be both an impediment and a stimulant in promoting such scheme.

Alongside financial feasibility, Schwanke (2003) identify some of the basic issues or factors that influence the performance of MUS in relation to land cost, planning and construction costs, operating cost, and legal requirements which entails larger contingency funds than for single-use projects. Thus, these issues also mean that the process of estimating costs and revenues for MUS is more likely complicated than single-use property developments, consequently it is expose to greater miscalculations. In addition, there are key factors involve in the financial modelling as follows: (a) it has strategic locations but often expensive sites, (b) it requires initial planning costs resulting to a higher-to-normal proportion of development costs allotted to soft costs, (c) its land size requirement is much larger than single-use projects with either high and low land carrying costs, (d) it entails public participation and subject to a number of incentives to reduce land cost, (e) it caters to a higher densities, thus lowering the cost of land per square meter of development space, (f) it has higher structural costs than a single-use building with the same size, (g) a superior performance results to fast leasing, higher rents, higher sales and occupancy, and greater revenues.

Timing and phasing are very important aspects before and during the construction phase particularly for mixed-use development which substantially affect the marketability of the project (Schwanke, 2003). MUS projects involve different land use markets and cycles which are sensitive to the change of economy – as a result of the lagged relationship demand and supply for physical space (Peiser & Frej, 2003; Schwanke, 2003). The cycles provide windows of opportunity for strong market demand and financing which improve the developers' chances of success (Peiser & Frej, 2003). The cycles allow developers to find suitable and right mix of uses or property types within the window of time for which the market is favorable before it proceed with the final plan for the construction. And most importantly, it allows developers for as much flexibility as possible so that the various components and elements (uses) can be altered prior to construction without comprising the viability of other elements (Schwanke, 2003). On the other hand, phasing allows developers to address problems of timing and to build only as much as the market can absorb. This could be done either by parcel or by integrated structures depending on the variations of the projects capable to adopt different phasing strategies.

MUS Benefits and Drivers in Regenerating Towns and Cities

In the macro spectrum of urban regeneration, the notion of MUS development gained popularity as vehicles for sustainable development and solutions for suburban sprawl over the last decade. For example, since in the early 1960s, the European Community (EU) has already initiated for environmental action and subsequently reinforce during the 1990s through the publication of the *Green Paper on the Urban Environment* (Coupland, 1997) which support for a mixing of different land uses. The Dutch planning policy also stressed the need to increase urban vitality, improve the quality of the environment in urban

centers and promote attractive cities for residents, visitors and businesses (Stead & Hoppenbrouwer, 2004). These Dutch policy statements promote an integrated approach in which spatial, economic, social and environmental interests are closely interwoven to achieve 'comprehensive cities' or compact cities. In addition, mixed-use development has been part of the building policy since the mid-1980s, and eventually later programs involved the renewal or redevelopment of some industrial and service premises, with dominant provision in housing (Hoppenbrouwer & Louw, 2005). Also, the promotion of MUS in the Canadian planning system is carried out through infill redevelopment of inner cities and in greenfield projects which is far ahead of that in the US and were influenced by Jane Jacobs (1961) advocacy toward fine-grain mixing of diverse uses, adopting the neighborhood concept and 'gentrification' strategy (Grant, 2002). On the other hand, Lee, Mak & Sher (2013) recognized the opportunities being provided by MUS as regeneration projects in Seoul, Korea in terms of strategic planning despite the uncertainties and complexities compared to other urban development projects.

MUS development offer new attractive opportunities and benefits to create an urban environment more satisfying and relevant to people's needs – a sense of place and identity for a community, particularly new opportunities in terms of development, operation and ownership, and community impact (Schwanke, 2003; Witherspoon et al, 1976). MUS development projects offer distinct advantages relative to other types of real estate in the following respects (BCO, 2004; Witherspoon et al, 1976): (a) It is the only feasible approach for redevelopment initiatives which require a new physical environment to overcome blighting influences of adjacent areas; (b) It is a means to achieve higher densities for zoning conditions, land value and planned unit development allowing a diversity of uses; (c) It is a means for faster development offering several uses simultaneously thus increasing the present value of investment; (d) It is a means of product differentiation (quality brands or special image) through aggregation of individual uses and provision of superior amenities, which are more competitive than single-purpose developments; (e) it is a means of sharing infrastructure, thus economies of scale are achieved both in development and in operation; (f) it is a means of superior performance (in terms of higher rent or price levels and occupancy rates) which stems from market synergy through additional on-site market supports; and (g) it has a far greater impact on community development through improving urban areas which are 'dead' during non-working hours by introducing new residential, transient, and recreational activities

In addition, MUS development can stimulates economic development; increasing the local tax base and property values of surrounding property; and creating more transit-friendly development and smarter growth in many existing downtown and other urban business districts (Schwanke, 2003). Revitalization or regeneration through mixed-use developments can offer the opportunity to bring new uses to underutilized or blighted areas and to shape attractive public open spaces further adding a sense of place to a downtown setting. Hoppenbrouwer & Louw (2005), Stead & Hoppenbrouwer (2004), and Coupland (1997) also identified various benefits of MUS derived from the planning policy documents as follows: (a) Concentration and diversity of activities which improves the vitality and viability of commercial centers during the day and night time; (b) less reliance on cars and reducing travel time – providing for a range of requirements in close proximity and more opportunity for public transport; (c) improving the quality and attractiveness of the environment in urban centers; (d) improving the quality of residential neighborhoods by introducing a focus of activity and flexible planning standards; and (e) other social, economic and environmental benefits such as alleviation of environmental problems associated with automobile use; more opportunity to live near work, shops and other facilities; and increase safety.

Moreover, to fully achieve the desired benefits and advantages derived from mixed-use developments, there are also potential drivers to steer and barriers to overcome. MUS are not driven by a strong investor or occupier demand; instead it is driven by a broad confluence of political, economic, market, and public or social pressures, including fashion and technical or physical (Rabianski, et al., 2009; Robson (1988) as cited by BCO, 2004) as shown in ***Figure 3***.

Specifically, some major development players are reluctant to participate and invest due to the complexity of the schemes which require additional time, energy, expertise, and resources (Bennett, 1999). Consequently, funding MUS projects would certainly more problematic, difficult, costly, and complicated (Bell, 2004; Culp, 2003; Marsh, 1997). Some of the drawbacks from these schemes are related to location, size, viability, complexity, marketability and management (Rowley, 1996a&b). Furthermore, the Rowley (1996b) argues that these significant problems perceived in mixed-use property as an investment were caused by the multiple tenancies and covenants, inflexible building form and space, and the absence of a proven mixed-use development mechanism and record of performance (Jones Lang LaSalle, 2005). Wardner (2014) also identified the key factors that hamper the delivery of MUS projects. These factors are: higher risk profiles, difficult alignment of property cycles for each use, and high level of experience and specialization.

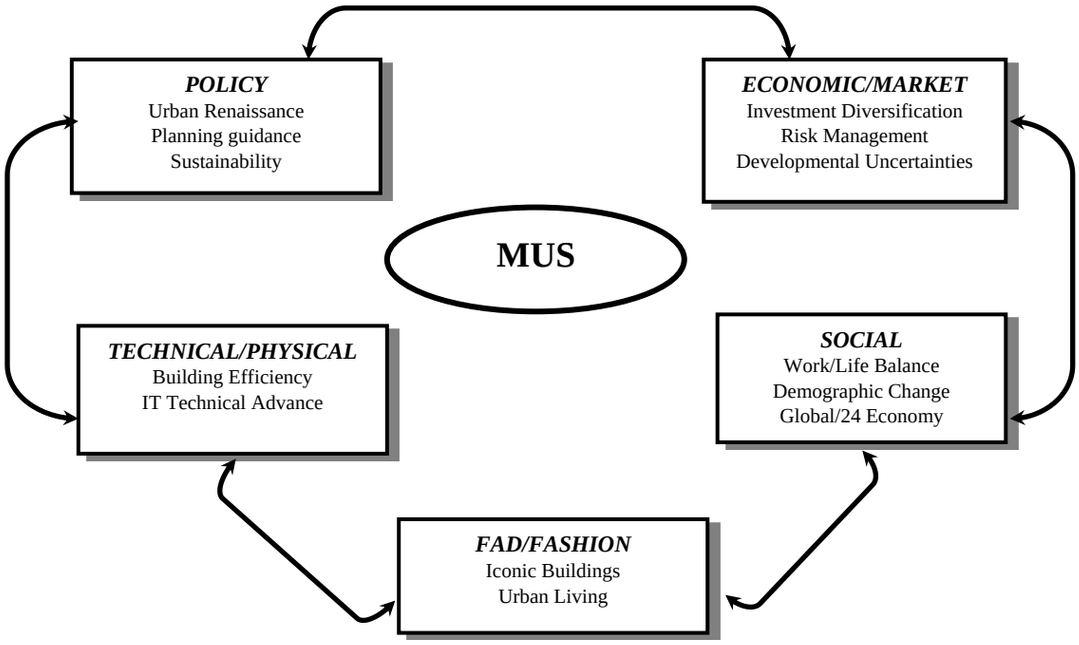

Figure 3: Key Drivers of Mixed-use Schemes

CONCLUSION

It is concluded that MUS is a *"well-planned physical development of a structure or group of structures having 2 or more integrated functional uses creating diverse types of activities. Specifically, this type of development has the following major characteristics: comprehensive development plan, well-planned physical configuration (building), and mix of two or more functional or economic uses."* The key considerations for MUS development are grouped into four, namely: (a) uses and mix, (b) aspects and characteristics, (c) physical lay-out and design, and (d) concentration and diversity.

On the other hand, MUS is an impetus in urban regeneration agenda towards achieving well connected, compact, diverse and sustainable urban communities. It also becomes a growing interest as a driving force for investment into regeneration of towns and cities. Thus, urban regeneration provides the venue for MUS to bring out its potentials in creating a sense of place and identity to the community. Furthermore, MUS offers distinct advantages compared to other types of real estate in terms of achieving higher densities, faster redevelopment offering several functional uses to increase value of investment, economies of scale is achieved both in development and in operation, superior performance with regards to higher rents, price levels and occupancy level, and a greater impact to the community. However, these benefits and advantages from MUS can be achieved by overcoming some barriers and steering the potential drivers for this type of development to succeed. MUS development is driven by a broad confluence of political, economic, and public or social pressures, including fashion and technical or physical aspects. Better understanding of these benefits, barriers and drivers, and development planning process of MUS could be the basis in developing new planning guidelines. These guidelines outline a more flexible planning permissions which could be incorporated in the comprehensive land use plan (CLUP), zoning ordinance and other regulatory instruments at the local government level in regenerating town/city centers.

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