

## Converting Unused Office Spaces in Kuala Lumpur: Potential Leisure Space

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For thousands of years through the history of humanity, humans will find activities to keep them entertained after completing their necessities, such as eating, working, and shopping. People taking up leisure activities in their life are happier and healthier. According to the Ministry of Tourism, Arts and Culture, family entertainment centres will create 3000 new jobs and benefit RM500 million to the national economy. In the meantime, the trend in Malaysian is that employees are overworked, which can lead to chronic stress and mental exhaustion among the workers. An office should cater to more than one specific function, and it should be flexibly readapted for other uses. However, there is no platform of leisure that complements the lifestyle of the urban setting in Malaysia. Hence, this study will highlight the issue of underused office spaces and suggests a framework of design guidelines on how to create a future entertainment centre in an existing office building. In this research, a case study will be used. This research will formulate design guidelines on how to develop a future entertainment centre in an office building context. This study is expected to contribute to the local authorities indicating how to conduct design guidelines aimed at repurposing an office building into an entertainment centre. This study will benefit potential stakeholders in advocating a leisure lifestyle in the urban environment. Lastly, this research's case study method only focuses on an unused office space in the KL Sentral area. Future research can explore other vacant buildings and possible spaces in different urban areas.

**Keywords:** *Converting office space, Kuala Lumpur, Leisure space*

### 1. INTRODUCTION

#### 1.1 Background Study

##### 1.1.1 Issues of abandoned office space

The primary purpose of an office building is to provide the equipment for the workers in the designated workplace environment with the office appliances, printers, personal computers, typing desks, and other tools that they may use within the

area (Wikipedia, n.d). Usually, offices are fully utilised by those who work daily from 9 am to 5 pm, so-called the white-collared workers. They are also known as the office assistant, office worker, a worker that carries out work in an office or administrative setting. Likewise, office existence can be traced back to the 18th century in the City of London (Lucy. K, 2013). London coffee house is one example where the owners live at the upper levels and employ clerks that

must live there too where they could not escape and be treated like servants.

In addition, what makes an office an office? And how necessary is the existence of office space for the scenario of working society? Indeed, having an office does have advantages. Based on April R (2019), there are three important things about having an office. The first one is accessibility. Having an office address located in the city centre allows users to access transportation, shopping malls, restaurants, and other establishments because of the already expanded accessibility. There are plenty of options to commute, whether by car, train, or even mixed mode. Plus, an address located in the heart of the business district can give confidence to other potential clients and customers. Secondly is the effect of the focused perspective. A working office environment prevents possible disturbances that will affect the working mood to concentrate and focus. Thirdly, office space can induce a working atmosphere with various people who can be relevant in the business and increase networking. These people can become potential clients, future business partners or suppliers. Ideas critical to business growth can be generated by cooperating with like-minded people. Apart from that, multinational company like Google is stepping up their office atmosphere to encourage positive culture, productivity and efficiency of their employees.

However, the pandemic that hit us in early 2020 has considerably changed us, including how we communicate, work, interact with the built environment, and keep in touch amongst ourselves. For the office workers, their respective offices might be rearranging the schedule for each team to enter the office to maintain a smaller crowd at one time. They also might enter their office only twice or thrice a week accordingly. That is also undeniable that some businesses can be operating remotely or incorporate a varied schedule due to adjusting to the pandemic movement restrictions. Some of the business organisations even do not have a physical office in the first place before the pandemic even happened, where working at cafes, renting several different coworking spaces is their way to go. On the other hand, with the office working scene that proves online Zoom meetings are sufficient for us to perform works just as before the pandemic struck efficiently, there is a question that we

should ponder in the near future. Are office buildings and office towers not essential anymore?

Concerning that, office space has been vacant for so long; some owned are completely underused or even abandoned due to the spread of the coronavirus. Tim (2020) states that large corporations, enterprises, and business organisations face the dilemma of what to do with all the unused offices. It is time for landlords to find a better way to step up their property leasing business where components like wellness solutions, digital technology and sustainability are implemented to help lodgers be more productive (David. G, 2020). Indeed all those unused spaces can be recreated into great uses in the future of our society, whether it is urban farming to cultivate food production in the community, restoring into residential and coworking space (Tim. K, 2020). In addition, Sophia (2021) stated that commercial office space is converted into micro-schools and distribution centres for food companies.

On the bright side, with fewer people commuting to their workplace - as they have options to get their work done whether in office, some cafe somewhere or even at home, there will be fewer cars hence less traffic intensity at the roads. All in all, the primary critic is whether the empty office space can be reanimated into various other functions - the original purpose versus what can it become in the future. Sophia (2021) also argued that an office should be more than cater to one specific function as it should be flexibly adapted.

### ***1.1.2 The future of entertainment***

For thousands of years through the history of humanity, humans will find activities to keep them entertained after completing their compulsories, such as eating, working, sleeping, etc. Entertainment ables to give the audience pleasure and delight in the form of activity. It can most likely be an event, occasion, idea, task or activity to keep audiences' attention (Wikipedia, n.d). The School of Sports (2019) also stated that entertainment is an activity that gives us fun, gives us joy, and makes us feel good. Most importantly, it can attract audiences attention at the given moment.

On the other hand, leisure is considered as ones' free time or the quality of experience (Wikipedia, n.d). Kelly (1996) stated that "leisure

as an experience usually emphasises dimensions of perceived freedom and choice. It is done for “its own sake”, for the quality of experience and involvement”. On another perspective, Wallman defines leisure time as any time when you’re not occupied with work or chores, paid or unpaid. “It’s the time equivalent of ‘disposable income’ (2019). He also reasoned that the ability of leisure could motivate humans to feel enjoyment within themselves in the present moment. Hence, taking leisure activities is somewhat delving into unexplainable value and pleasure of oneself. In conjunction, people taking up leisure activities in their life are happier and healthier than those who don’t (Jeong L,2016). Hobbies and physical activities can fill up our leisure time into something beneficial for us and also our family, where bonding ties can be created. Other benefits include enhancing the immune system, improving flexibility and memory, reducing stress, and encouraging better sleep quality.

Meanwhile, in the current working society, leisure is something that is often not being taken seriously as part of wellbeing. Schröer, S., Haupt, J., & Pieper (2014) stated that less physical activity among white-collar workers had been thought to be a key factor in increased life-style related health conditions such as fatigue, obesity, diabetes, hypertension, cancer, and heart disease. In addition, survey research suggests that workplace leisure behaviour can improve employee motivation, thus boosting productivity (Lebbon & Hurley,2013). Even though humans need to balance their stress level daily, there is also a suitable type of stress vital for overall wellbeing. Elizabeth (2020) stated that eustress is a positive type of stress that keeps us exciting and entertaining in everyday life. Some examples are the thrilling feeling of watching a horror movie, ecstatic about riding an extreme roller-coaster or even having a first date. Eustress can keep us happy and healthy, thus considered good stress (Elizabeth. S,2020). Hence, there is a potential in relating leisure lifestyle in the form of activity towards our entertainment culture.

According to the Ministry of Tourism, Arts and Culture (2020), family entertainment centres will benefit the related workforce of more than 3,000 and RM500 million contribution to the national income. Amusement parks have the capabilities to propel the Malaysian economy as a hub of entertainment and recreation. Attraction

places such as Legoland Malaysia and Desaru Coast Adventure Water Park-these are examples that contribute to urban sprawling that takes up a vast amount of land due to its development (Kim HJ,2010). Regarding the subject matter discussed before, which is the issue of unused office space, there is a need to look back at Malaysia’s abandoned office spaces as potential architectural solutions.

One thing surely is that the digital world will continue to be developed in an electrifyingly fast-paced, but despite all that, nothing can outperform the sense of humans until now. According to the Oxford dictionary, experience is practical to contact with and observe facts or events, or an event or occurrence that leaves an impression on someone. In relation to that, Uptin (2016) remarked that a survey found that 72% of millennials prefer spending their money on activities rather than items. A study in 2017 found that a record 1.1 billion thrill-seekers went to theme parks around the world, spending US\$44.8 billion. On top of that, 73% of interviewees agreed that experiencing real-life physically is better than digital life (Katie. P,2019). The human biological five senses that we can acquire only by experience: Sight, Sound, Smell, Taste, and Touch. For instance, people enjoy going to concerts, going to amusement parks, strolling down the cosy weather with their dog, planting trees together in a family orchard and such. Hence activities that give valuable experience will thrive whether the world is adjusting to the new norm of the pandemic ease or not.

## ***1.2 Problem Statement***

### ***1.2.1 Motivational problems***

There is a trend where the Malaysian employees that are overworked are worrying which can lead to chronic stress and mental exhaustion among workers (Fiona. J,2017). Kamel (2019) stated that 51% suffering from at least one dimension of work-related stress, while 53% are getting less than seven hours of sleep in 24 hours, according to a study. Besides, the weekly global average of leisure time per person is less than 21 hours. In addition 22-years-old is the most likely age to cancel evening leisure plans due to work. Furthermore, survey research suggests that workplace leisure behaviour can improve employee motivation (Lebbon &

Hurley,2013). In conjunction, other studies suggest the positive effect of sports facilities and conditions of physical activity inside or near the workplace on employees' health and improvement of employee's performance in organizations (Lebbon,2013). However, there is no platform of leisure that complement the lifestyle of the urban setting in Malaysia. Hence, this study will investigate the possibilities of leisure in the urban setting in a new platform.

#### **1.2.1.1 GAP**

Furthermore, there is no framework on how to integrate entertainment centres in urban settings to improve the human work-leisure balance.

#### **1.2.2 Research problems**

Usually, amusement parks in Malaysia are mostly located further away from the city centres and some are in remote areas (thrillophilia, 2020). On the other hand, there is a positive impact on the economic, environmental, and social factors of the building and its surroundings by implementing a strategy where the available spaces are leased to the wider market (Peeters M, 2021). By converting unused buildings, it will allow access to premium locations, as it puts back into play sites that already are occupied by existing structures, many of which have outstanding visibility and accessibility(Elrod.J & Fortenberry.J, 2017). However, there is no specific design methodology on how unused office space can be implemented in the usage of future entertainment centres. Hence, this study will outline the aspects of integrating entertainment centres with the strategy of repurposing unused office space in the city.

#### **1.2.2.1 GAP**

Furthermore, there is no specific study that focuses on the relation of unused office spaces in the city to be repurposed into entertainment centres.

#### **1.3 P.O.D**

This study will highlight the issue of underused office spaces and suggests a framework of guidelines on how to develop a future entertainment centre in an office building context.

## **2. LITERATURE REVIEW**

### **2.1 Future Entertainment**

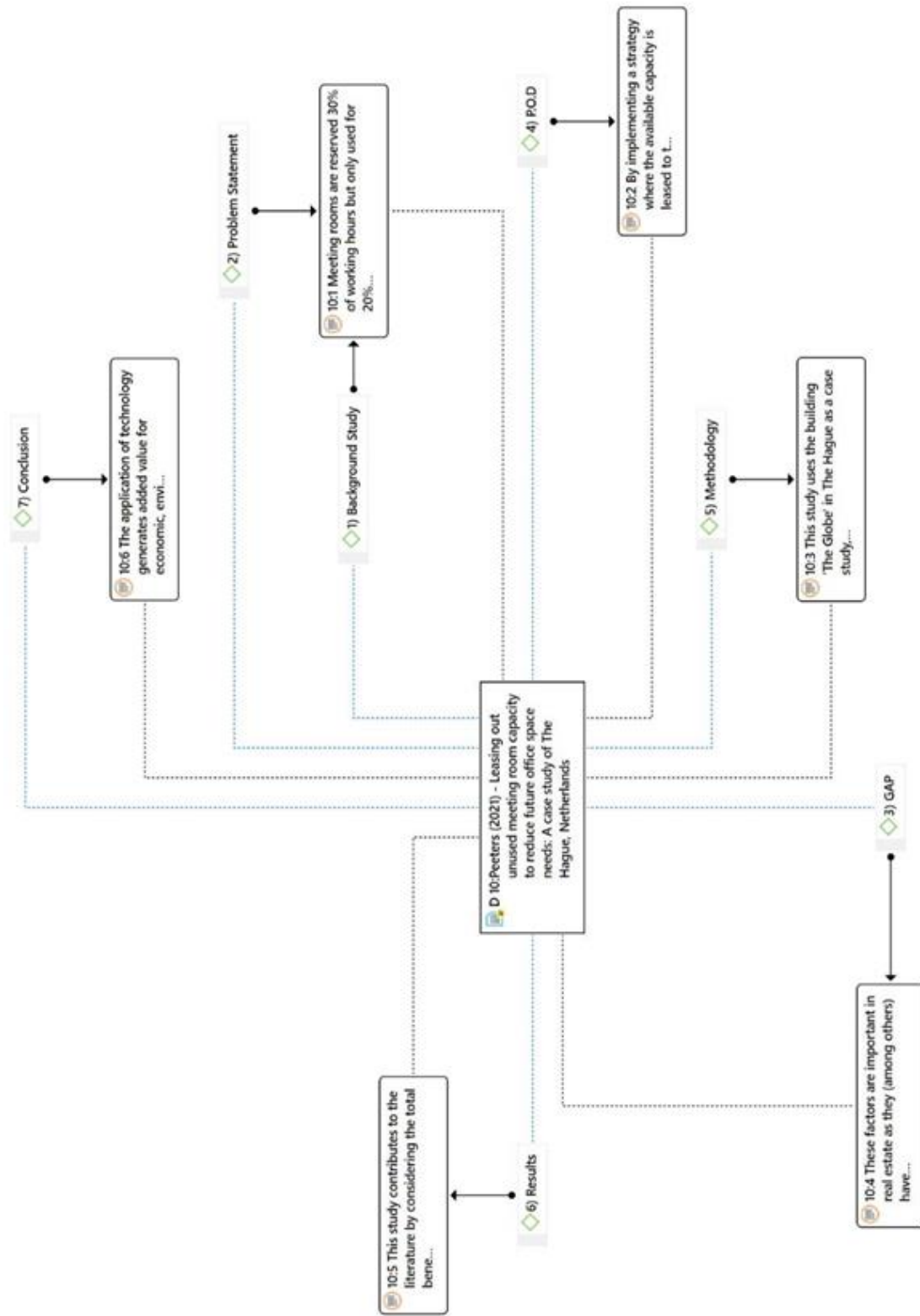
Woroniecki(2021) states the design parameters that include aspects such as the definition of the brief, the materiality of the proposition, its programmatic appropriateness, its portability and weight and its cost. Regardless, paper only points out the design parameters that entertainment architects need to consider.

Other studies suggest the positive effect of sport facilities and conditions of physical activity inside or near the workplace on employees' health and improvement of employee's performance in organizations.(Lebbon,2013). However, the study only gives suggestion on employees or workers performance based on positive effect of sport facilities and conditions of physical activity inside or near the workplace.

Document	Methodology	Conclusion	Remarks
Choi (2017) - Designing for People's Pleasure: Amusement Parks in North Korea	analysis of the newly built or renovated several cases.	a close analysis reveals that the position of amusement parks remains subordinated to North Korean cultural policy, although it appears that recent media has emphasized its large role to produce people's pleasure and provide the people with happy spare time under Socialism.	However, this paper only focusing the study in the North Korea.
Tingting Zhang (2021) - Chinese cultural theme parks: text mining and sentiment analysis	This research adopted social media analytics and explored 18,753 original reviews in 160 Chinese cultural theme parks.	which provided further insight for industry practitioners in setting marketing and operation strategies.	Nevertheless, the author only pointing the relationship of theme park and its cultural aspects.
Mukasa (2021) - Visiting-Route Recommendation in Amusement Parks and its Evaluations by an Ising Machine	We focus on Ising machines to solve the problem, which are recently expected to solve combinatorial optimization problems at high speed by mapping the problems to Ising models or quadratic unconstrained binary optimization (QUBO) models.	we could obtain feasible solutions 15 times faster with almost the same accuracy as the simulated annealing method for the visiting-route recommendation problem.	Nonetheless, the study only suggests the recommendation of a mapping of the visiting route in amusement parks.
McCarthy (2021) - The pedigree of pixie dust: Disneyland and theme parks as a remediation of playful places throughout history	A wide array of aspects encompassing access, gate fees, passes, location, performative labor, temporal milieu, target audience, synergistic media consumerism, religious content, elite approval, edification versus entertainment, and anti-alienation attractions had been adopted and/or adapted for each iteration of the playful place up to the time of Disney's eponymous theme park.	Remediation provides a novel framework to chart and examine the past and present evolution of the playful place.	In spite of that, the paper argues about how theme park can be a remedial factor only.

Document	Methodology	Conclusion	Remarks
Tihonova (2021) - Environmental aspects of the theme park development in the Russian Federation	The research uses data gathering, analysis and synthesis to illustrate the insufficiencies of theme park development in the Russian Federation.	Factors that contribute towards this insufficiency are revealed in the conclusion of this research.	No matter how, the authors only discuss about theme parks in the Russian Federation.
Berno (2021) - A machine learning-based approach for advanced monitoring of automated equipment for the entertainment industry	Anomaly detection uses state-of-the-art univariate and multivariate algorithms, as well as recently proposed techniques in the field of explainable artificial intelligence	The monitoring system is here presented and tested on a real world case study, i.e., an amusement park ride.	Anyhow, this paper only discusses about anomaly detection for monitoring system in service operations.
Tan (2020) - Why visit theme parks? A leisure constraints and perceived authenticity perspective	Using survey data of visitors of European-themed parks based in Taiwan, this study shows that theme parks may be perceived as existentially authentic	Scenery motivation positively influences existential authenticity and future visit intention. Existential authenticity prompts future visit intention.	In whatever say, this study only highlight the leisure constraints on authenticity.
Woroniecki (2021) - The Intricate Architecture of Enchantment	They include aspects such as the definition of the brief, the materiality of the proposition, its programmatic appropriateness, its portability and weight and its cost.		Regardless, paper only points out the design parameters that entertainment architects need to consider.
Moran (2021) - Theme Park Lover Longing and Flight through Tourist Space in Jia Zhangke's The World	This chapter explores the forms of desire which are generated when workers inhabit tourist spaces and argues that Jia's film explicates the relationships which the theme park city silently organizes.		Even so, the authors only discuss the forms of desire which are generated when workers inhabit tourist spaces
Cook (2021) - Back to the Future: The Architecture of Entertainment	Using examples from STUFISH's oeuvre he asserts that entertainment architecture is Architecture with a capital 'A' and at least as relevant as any of the discipline's other manifestations.	he asserts that entertainment architecture is Architecture with a capital 'A' and at least as relevant as any of the discipline's other manifestations	Despite that, this paper only talks about entertainment architecture in a general form.

## 2.2 Unused Office Space



Document	Methodology	Conclusion	Remarks
Elrod (2017) - Advancing indigent healthcare services through adaptive reuse: Repurposing abandoned buildings as medical clinics for disadvantaged populations	In an effort to shore up related knowledge, this article profiles Willis-Knighton Health System's development of Project NeighborHealth, an indigent clinic network which was significantly bolstered by the economies associated with adaptive reuse.	By shedding light on this repurposing approach, healthcare providers will have a better understanding of adaptive reuse, enabling them to make use of the practice to improve the depth and breadth of healthcare services available to disadvantaged populations.	However, this paper only highlighted on adaptive reuse on abandoned healthcare building.
Tse-Hsiung (2019) - Key factors affecting the rent of office buildings: Case study on Taipei 101	This study adopted the Delphic hierarchy process and analytic hierarchy process to explore office building rent in Taipei City by distributing a questionnaire to experts in the real estate field who possess practical experience in executing real estate projects.	By contrast, adequate property management is not a primary factor considered by the experts.	Nevertheless, this study only explore on factors that is affecting office building rent rate.
Cho (2021) - Optimized scheduling method for office building renovation projects	Therefore, in this study, we developed a scheduling method for office building renovation projects enabling the creation of schedule alternatives and suggesting optimized schedules in terms of project duration and cost efficiency.	Using this optimized scheduling method, project owners and managers can successfully plan their renovation projects while satisfying the requirements in terms of the project duration and cost.	Nonetheless, this research only explore on cost and duration performance on renovating an office building.
Lou (2021) - The effect of building retrofit measures on CO2 emission reduction – A case study with U.S. medium office buildings	We analyzed the CO2 emission reduction effects of eight building retrofit measures that related to envelope and mechanical systems in five locations: Tampa, San Diego, Denver, Great Falls, and International Falls.	For example, in Great Falls, the most energy efficient measure is improving equipment efficiency, but the most efficient emission measure is improving heating efficiency.	In spite of that, this paper only discusses on the issue of CO2 emission in the context of retrofitting medium office building.
Ghose (2020) - Upgrading New Zealand's existing office buildings – An assessment of life cycle impacts and its influence on 2050 climate change mitigation target	For this purpose, the study used Life Cycle Assessment in conjunction with stock aggregation modelling.	Use of photovoltaic substantially increases the resource demand of refurbished buildings. Prioritizing the refurbishment of the building stock by adopting efficient resource use and waste management measures can contribute to reductions in greenhouse gas emissions without increasing environmental pressures from resource demand.	Anyhow, this study only indicates the significance of environmental issue on refurbishment activities.

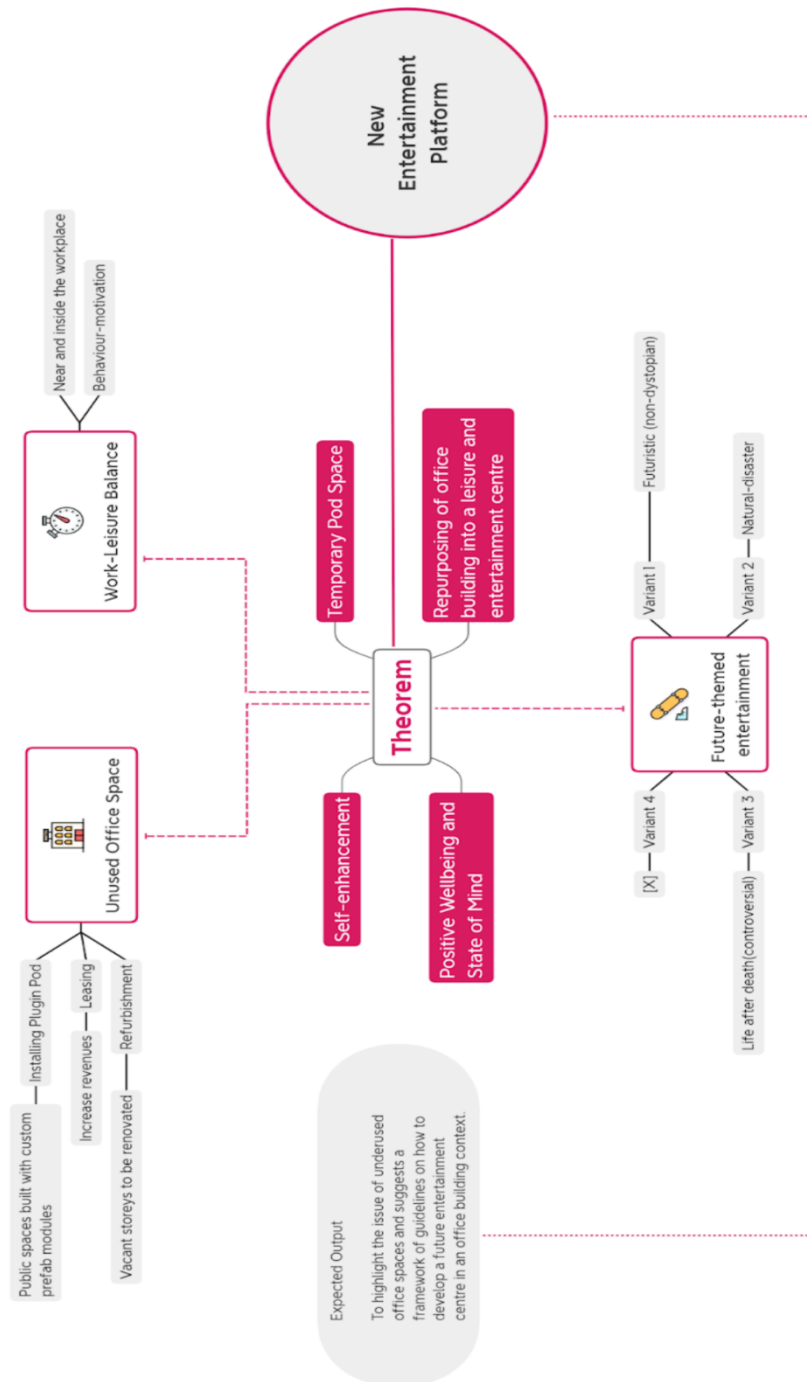
Document	Methodology	Conclusion	Remarks
Kamaruzzaman (2019) - Development of a non-domestic building refurbishment scheme for Malaysia: A Delphi approach	A comprehensive Delphi process was developed to assist in the identification of suitable assessment schemes for use in non-domestic buildings.	The findings of this research will be used to develop a weighting system by using the analytic hierarchy process in the next research stage, leading to a complete refurbishment environmental assessment scheme.	No matter how, this research argues environmental assessment scheme for refurbishing a non-domestic building.
Marique (2018) - Cradle-to-grave life-cycle assessment within the built environment: Comparison between the refurbishment and the complete reconstruction of an office building in Belgium	Then, the tool is applied to one case study of the low-energy refurbishment of a public office building in Brussels, to compare the impacts of the complete demolition followed by a complete reconstruction (rebuild project) to the retrofitting of the existing building (retrofit project).	The tool and results provided in this paper support the development of policies in favour of the retrofitting of the existing building stock and highlight the importance of including the whole life cycle of the building in the analysis.	Despite that, this paper only explore on life cycle assessment on refurbishment of office building in Brussels.
Zhang (2021) - Regeneration path of abandoned industrial buildings: The moderating role of the goodness of regeneration mode	A total of 365 valid data samples were collected via questionnaire surveys conducted near 151 regeneration sites in 10 Chinese provinces, and analyzed using partial least squares structural equation modeling.	Academic and management implications of the empirical results are also provided as references for the improvement of AIB regeneration and sustainable development promotion.	Regardless, this study only focuses on regeneration of abandoned industrial buildings (AIBs).
Jin (2021) - Can urban greening using abandoned places promote citizens' wellbeing? Case in Daegu City, South Korea	In the study, in-depth interviews and intercept surveys were conducted with nearby residents.	For cities experiencing urban shrinking and decline, both in South Korea and in other developed countries, there are considerable opportunities for converting abandoned places into urban green places conducive to promoting citizens' wellbeing.	Even so, the authors only discusses on abandoned places into urban green places.
Peeters (2021) - Leasing out unused meeting room capacity to reduce future office space needs: A case study of The Hague, Netherlands	This study uses the building 'The Globe' in The Hague as a case study, and then projects the results to the entire city. In case of The Globe, implementing a lease out strategy achieves a reduction of 36% of the annual rent of the meeting rooms to the building's tenant. The owner benefits from a revenue increase of 12.5%, with the same operational expenses (except the reservation system), leading to a proportional higher valuation of the building. Annual energy consumption may be lowered by 6.2%.	The application of technology generates added value for economic, environmental, and social factors.	In whatever say, paper only highlights on the leasing out available spaces in buildings to benefits the revenue increase for the owners.



Peeters(2021) mentioned that by implementing a strategy where the available capacity is leased to the wider market rather than just the building users, there is a positive impact on the economic, environmental, and social factors of the building and its surroundings. However, the study only focuses about leasing space to wider market and have no further discussion on the design consideration of refurbishment of an office building.

### 3. CONCEPTUAL FRAMEORK

Based on deductive codes that have been identified, the conceptual framework diagram is as follows:





## 4. CONCLUSION

Overall, it may be concluded by refurbishment of abandoned building to minimize environmental impact in order to increase their energy efficiency and extend their life span, and to compare this strategy to the demolition/reconstruction of buildings. The expected contribution is to produce the design guideline on repurposing office building into entertainment centre. On the other hand, the significance is to provide benefits to the society, environmental and economy since it will be having a lower environmental impact because lowering the emission of GHG and CO<sub>2</sub>. In practice industry, this can help decrease the unnecessary material waste and create less disruption to the surrounding environment.

This will also benefit Ministry of Tourism, Arts and Culture in order for Collaborating with stakeholders in advocating leisure lifestyle in the urban environment. For the future design study, researchers can explore more on other vacant building and possible spaces in other urban areas, due to current study only focusing on unused office space in the KL Sentral area. Then the results are to highlight the issue of underused office spaces and suggests a framework of guidelines on how to develop a future entertainment centre in an office building context. In closing, guidelines that have been produced can add-on to the initial data that benefits about how to converting unused office spaces in the city.

## 5. CONTRIBUTIONS AND BENEFITS OF RESEARCH.

### Research Contributions

- 1) Collaborating with stakeholders in advocating leisure lifestyle in the urban environment
- 2) Design guideline on repurposing office building into entertainment centre

### Benefits of Research

- 1) Ministry of Tourism, Arts and Culture
- 2) Local Authority Council / DBKL

## 6. LIMITATIONS OF RESEARCH / FUTURE RECOMMENDATIONS

Current study only focusing on unused office space in the KL Sentral area. Future research can explore more on other vacant building and possible spaces in other urban areas.

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