

Reimagining Cities: Paving the Path to Happy City

Mohammad Mujaheed Hassan¹, Peter Aning Tedong², Azlina Mohd Khir³, Zalina Shari⁴, Zakiah Ponrahono⁵, Muhammad Phaizal Sharifudin⁶

^{1,3,6}Faculty of Human Ecology¹ Malaysian Research Institute on Ageing (MyAgeing™)

⁴Faculty of Design & Architecture,⁵Faculty of Forestry & Environment Universiti Putra Malaysia² Faculty Of Built Environment Universiti Malaya

Email: mujaheed@upm.edu.my

To Link this Article: <http://dx.doi.org/10.6007/IJARBS/v13-i10/18818> DOI:10.6007/IJARBS/v13-i10/18818

Published Date: 15 October 2023

Abstract

This research aims to comprehensively analyse the diverse factors that influence urban happiness and liveability across different contexts. Through an exploration of key literature, this study elucidates the multidimensional nature of urban well-being by examining various dimensions including environment, safety, urban planning, quality of life, and socio-economic attributes. The research also delves into the determinants of happiness-driven smart city characteristics and the role of walkability components in fostering happier urban living. By synthesizing findings from multiple studies, this paper underscores the significance of urban infrastructure, social cohesion, economic opportunities, and governance in shaping happiness in metropolitan areas. The investigation further underscores the importance of affordable housing projects in nurturing urban contentment through the lens of social, environmental, and economic indicators. Overall, this research contributes to a more nuanced understanding of the complex interplay between urban factors and individual well-being.

Keywords: Happy city, Happiness, Wellbeing, Urban, Development, Cities.

Introduction

Cities, pulsating with the lifeblood of modern civilization, encapsulate the very spirit of human progress, creativity, and aspirations. These dynamic centres of innovation and cultural vitality have served as crucibles for human development across generations. However, the essence of urban existence compels us to craft environments that foster not just existence, but genuine well-being and happiness. Despite the longstanding assertions of urban designers and architects regarding the centrality of happiness, these claims have often lacked the solid backing of empirical evidence. Crafting contented cities and nurturing joyous inhabitants presents a relentless journey of refinement, marked by the collaborative synergy of public and private sectors, all guided by a resolute responsibility to future generations.

In the face of ambitious declarations and visionary concepts, the empirical foundation supporting the creation of genuinely happy cities remains somewhat elusive. The intricate

tapestry of urban life, interwoven with intricate socio-economic dynamics, cultural diversity, and environmental intricacies, defies simple solutions. As urban planners navigate the intricate interplay of these factors, a discernible gap often persists between theoretical intent and tangible outcomes. It is only through meticulous empirical exploration that we can unravel the complex dynamics of urban happiness, paving the way for well-informed decisions and effective policy implementation.

Building happy cities requires an all-encompassing perspective, extending beyond mere architectural aesthetics. Central to this endeavour are the indispensable public-private partnerships, harnessing the potential and resources of both sectors to sculpt environments responsive to diverse needs. Attaining urban happiness hinges on collective efforts to design spaces attuned to the social, psychological, and physiological facets of human well-being. By interweaving these considerations into the very fabric of urban life, cities can evolve into nurturing grounds for positivity, propelling resident satisfaction and enhancing overall quality of life.

However, the aspiration for happy cities transcends the immediate horizon, embracing the well-being of generations yet to come. A city's triumph isn't measured solely by its present vibrancy, but by its ability to safeguard a legacy for its successors. This necessitates planning and action that nurtures environmental sustainability, champions equitable resource access, and champions intergenerational fairness.

In our present reality, where urban happiness often seems elusive, a rigorous examination of the elements that constitute happy cities becomes a pivotal endeavour. Thus, the incorporation of happiness into models, indicators, policies, and academic curricula, grounded in robust recognition, is essential. The profound impact of happiness on urban development, human progress, and sustainable growth cannot be underestimated. The strategies underpinning urban sustainable development lay the groundwork for effective urban planning, transforming cities from mere concrete structures to emotionally enriched havens. The cornerstone of this transformation rests upon an emotional infrastructure characterized by discipline, care, collaboration, and sharing—an environment that nurtures security, comfort, ease of living, and intellectual vibrancy.

The strategies that form the bedrock of the "happy city" concept are anchored in principles of identity, reliability, collectively, and self-control. Identity resonates deeply with residents, cultivating belonging and shared purpose. Reliability ensures continuous access to essential services, mitigating factors that might undermine contentment. Collectively encourages community engagement, transcending individualism to foster a sense of unity. Self-control empowers individuals and communities to shape their surroundings, fostering agency and accountability.

In this endeavour, the notion of a happy city emerges as a pragmatic framework rather than an unattainable utopia. As cities persist in evolving as centres of human life, it becomes imperative to heed the call for environments that empower, nurture, and uplift. The journey to craft happy cities might be a prolonged one, marked by continual improvement and iterative progress, yet it holds the promise of reshaping the urban landscape to the benefit of all.

Methodology

The research methodology employed in this article review adheres to a systematic and structured process, with the overarching aim of identifying, analyzing, and amalgamating pertinent journal articles. The ultimate objective is to offer a comprehensive panorama of the

current knowledge landscape concerning the concept of a "happy city" in relation to urban communities. The research journey commenced with a meticulous exploration of reputable academic databases, including ScienceDirect and Google Scholar. This quest was facilitated by employing carefully curated keywords such as "Happy City," "Happiness," "Urban," "Environmental System," "Community Wellbeing," and related terms. The selection of these keywords was strategic, designed to channel the search towards articles that delve into various facets of a "happy city" and its implications for urban communities. The search process itself was geared towards identifying articles that specifically focus on the concept of a "happy city" across different dimensions of urban community life. The intention was to pinpoint scholarly works that contribute insights and perspectives into how the idea of a "happy city" influences diverse aspects of urban living. The selected articles underwent a rigorous scrutiny and analysis phase. Each article was subject to careful review, during which relevant information such as study objectives, methodologies employed, key findings, and implications were extracted. This meticulous examination aimed to distill the essence of each article, laying the groundwork for discerning common themes, emerging trends, and recurring patterns that collectively provide insights into the interplay between the concept of a "happy city" and the dynamics of urban communities. The subsequent synthesis phase involved amalgamating the extracted data from diverse articles. This synthesis process unveiled overarching themes, connecting threads, and shared viewpoints that collectively enhance our understanding of how a "happy city" impacts urban community dynamics. This synthesis not only helps us discern the reciprocal relationship between the two but also identifies factors that either bolster or impede this relationship. The findings derived from the reviewed articles are presented and deliberated within the context of these identified themes. Through this discussion, we aim to explore how various elements associated with the concept of a "happy city" contribute to, or potentially hinder, the wellbeing of urban communities. The goal is to unravel the mechanisms through which these indicators of a happy city influence residents' overall quality of life and their sense of belonging within the community. Drawing upon the synthesis of these reviewed articles, this section of the study outlines practical implications that hold relevance for policymakers, urban planners, and community stakeholders. The article review extends recommendations for shaping and nurturing a "happy city" that serves as a catalyst for community wellbeing. By amalgamating insights gleaned from a diverse array of journal articles, the research endeavors to offer valuable perspectives on how the physical environment can be harnessed to foster a sense of belonging, contentment, and holistic wellbeing within urban communities.

Finding and Discussion

Numerous studies have explored the intricate interplay between various factors that contribute to the happiness and well-being of urban citizens. Huete-Alcocer, et. la., (2022) stated that environment, safety, urban planning, and quality of life are the main factors that will affect European citizen happiness. In the meanwhile, urban planning focuses on urban parks considered green spaces, which are associated with obtaining a good quality of life translated into good health and well-being of people. For the safety indicator, it focuses on comfort and security in the place of residence, having satisfactory social relationships and feeling that there is an increase in vital possibilities. Air pollution, natural environment, green space and natural spaces are the indicators that have been focused for environment dimension to lead the happiness of European citizens. Lastly, For the quality of life it is focused

on overall subjective well-being such as Life Satisfaction (Trust and Safety), Mobility (Culture and Sports), Integration (Sustainability) and Public Services.

Next, Zhu, et. al., (2022) stated that infrastructure, economy, society, environment and government is the main features smart city blueprint and it includes a city with accessible and secured ICT infrastructures, a city with reliable and efficient physical infrastructures, a city with productive and innovative economy, a city with equal and inclusive society, a city with sustainable and resilient environment and a city with participatory and transparent governance. Meanwhile, the main features of happiness can be portrayed from two perspectives, namely livability of the environment and life-ability of the person. Livability of the environment includes ecology (air quality, public green space, etc.), society (equity, safety, supportive relationships, etc.), economy (financial status, housing, employment, etc.) culture (culture and leisure, etc.). Whereas, Life-ability of the person includes health (physical health, mental health, etc.), education (schooling, skills, etc.) and art of living (varied lifestyle, etc.). Lastly, the key factors contributing to Happiness Driven Smart City characteristic performance is efficient and green physical infrastructure (mobility, energy, and public utilities), labor-friendly and innovative economy (employment, innovative spirit and entrepreneurship), inclusive and attractive society (education, health, safety, culture and leisure) and sustainable and eco-friendly (air quality, pollution and waste treatment).

Loo (2021) stated that when promoting walking and fostering the alternative paradigm to make future cities better and people living there happier include the walkability components and indicators which are safety, comfort and convenience. Safety is focused on pavement which includes pavement surface, pedestrian guardrail or buffer and lighting, crossing facilities which includes audible pedestrian signals and refuge island, vehicular road which includes street parking and number of vehicles pedestrian crashes last year, design which focus on vacant or derelict land, perception which focus on street crime and destination/activities which focus on mixed land use. Meanwhile, comfort focuses on pavement which include effective pavement width, design which includes high quality public space, shop fronts or amenities and street furniture's and perception which include pleasantness. Lastly, convenience focuses on pavement which focus on clear directional signs and continuity/obstruction, crossing facilities which focus on traffic cycle time, vehicular road which focus on width of vehicular road, design which focus on directness and connectivity and destination/activities which focus on distance between major attractions.

Size emerges as a potential factor influencing urban unhappiness, as suggested by Okulicz-Kozary (2016). The likelihood of being miserable increases fundamentally when city size surpasses a huge number of individuals. Despite the fact that America is (sub) urbanizing, yet individuals are despondent in urban areas (and in rural areas) when contrasted with more modest regions. It makes sense to give tax or subsidy incentives to things that make people happy and healthy. In addition, it is conceivable that the "greatness" of cities is not the reason why people in poor countries are content in cities. It could be that life beyond the city in an unfortunate nation is unendurable and coming up short on necessities like food, shelter, disinfection, and transportation. Personal satisfaction or alleged "decency" contrasts extraordinarily among metropolitan and rustic regions in emerging nations. For example, urbanites delighted in multiple times higher pay and utilization than country tenants in China in 2000 (Knight, Shi, and Tune, 2006). The majority of the writing has contended numerous city issues. Urban areas embody a mechanical society absent a lot of local area (Tönnies [1887] 2002), they overwhelm (Simmel, 1903) and are undesirable to the mind (Lederbogen et al., 2011). Urban communities heighten bad habit, wrongdoing, and prominent utilization;

work specialization and industrialization that go with urbanization kill suddenness and satisfaction (Park, 1915, Park et al. [1925] 1984; Veblen, 2005a, 2005b; Wirth, 1938). Urban communities are brimming with contamination, soil, commotion, swarming, destitution, beggary, and repetitiveness of the structures (silly lumps) (White and White, 1977; Wirth, 1938).

Okulicz-Kozaryn, and Valente (2021) report that urban unhappiness is common. Individuals in the biggest regions have lower happiness levels than those in more modest regions. The markers to see the bliss of metropolitan individuals is the level of their happiness and their life satisfaction. The work to negate the discoveries guaranteeing that metropolitan regions are more joyful and urban communities will generally be less cheerful than more modest regions is seemingly because of financial matters aphorisms: cash is focused in urban communities (creation, efficiency, pay and utilization increment with populace size) and hence, urban communities have more prominent utility, so they should be more joyful. However, observational proof says something else. Why are people happier in some developing countries than in large cities in the developed world? At least one reason exists. Without basic necessities like food, water, sanitation, and healthcare, life outside of the city is simply unbearable in many developing nations. In created nations, even the littlest spots have sensible admittance to necessities, and little places do not experience the ill effects of metropolitan dis amenities.

Szolysek and Twarog (2021) stated that factors for assessing the quality of life in the city to build a happy city are work, being, education and recreation, health and safety, mobility, neighborhood, acceptance, and agora. Features for being are cleanliness of the natural environment, access to stores, aesthetics of buildings, streets and parks, costs of residence/maintenance, organization of household waste management, nature (green areas) in the surroundings, noise burden and residence conditions (home ownership, standard). Work features are availability of work (employment opportunity), the existence of career counseling and job seeking assistance, the possibility of starting your own business, career development prospects and support given to entrepreneurs by the city. Meanwhile, education features are possibility, quality, and conditions of education of children (nurseries, kindergartens), possibility, quality, and conditions of education of children and adolescents (primary, middle and high schools). Lastly, opportunity, quality, and conditions of adult education (universities, post-graduate studies). Next, access to catering establishments (pub, restaurant), access to cultural establishments (cinema, theater), access to sports establishments (gym), the possibility of active sports (R4) Opportunities and conditions for attractive leisure time activities, organization of meeting space with friends and organization of cultural and artistic events are the key features under education and recreation. For health and safety, the key features are access to health care units, the quality of medical services provided, waiting time, medical expenses (private medical practices), social pathologies (alcoholism, drug abuse, violence, etc.), health care service level (region specialization), road safety and pedestrian crossings, safety of the surroundings (street, bus stop, district), security at night (22: 00-6.00) and emergency services. Key features under mobility are public transport fares, access to public transport, access to parking lots, ability to travel by other means of transport, traffic capacity (traffic jams), conditions for waiting at stops (roofing, seating, wind shelter, etc.) and travel conditions (standing, sitting, crowding, cleanliness, temperature). Next, who your neighbor is (nationality), whether your neighbors are poor, the fact that your neighbors are of a different religion (religion) and the fact that your neighbors are of a different sexual orientation are the key features of a neighborhood. Meanwhile,

acceptance focuses on the accepting/tolerating national and ethnic minorities, accepting/tolerating sexual minorities and support for people in need of help which include homelessness, elderly people, and people with disabilities. Lastly, agora is focus on free internet access in the city space, organization of social campaigns, organization of free events, organization of the day without a car, existence of a part of the city where people have the possibility of meeting with others such as the main market, increasing the amount of public space and easy access to the public area on foot, by bike and others.

A pivotal study conducted by Ying et al. (2019) presents a thought-provoking panorama of the variables that intricately weave together to shape the fabric of happiness in the ever-transforming urban landscape. This inquiry transcends conventional paradigms, delving into the realm of individual socio-economics, behavioral patterns, commuting dynamics, the local-built environment, and the broader cityscape, each bearing influence upon the grand tapestry of urban well-being. Individual socio-economic includes gender (male, female), age (age of respondents in years), hukou type (local hukuo), education level (primary school or below, junior middle school, high school, college or above), marital status (married or otherwise), household size (number of household member), household income (sum of members household income in RMB), car ownership (number of household private cars) and residence type (self-purchased house, renting and company/school dormitory). Meanwhile, life's behavior is focused on sleeping time (average daily sleeping time, unit: hours), smoke (smoker or not), drink (drinker or not) and T-exercise doing regular physical exercise last month). Commuting time (average one-way daily commuting time, unit: minute) and commuting mode (active mode, public transport and car) are the indicators for commuting behavior. Next, neighborhood built environment is focus on neighborhood population density (population size per square kilometer in neighborhood), unit: 10,000 person/km²), neighborhood type (rural area and urban area), distance to transit (distance between residence and the nearest bus stop, unit: km), distance to CBD (distance between residence and CBD, unit: km) , green coverage rate (neighborhood average green coverage rate), sports facility (sports facility is available within the neighborhood), square (square is available within the neighborhood), library (library is available within the neighborhood) and bank (bank is available within the neighborhood). Lastly, city level-built environment emphasizes the city population density (population divided by city area, unit: 10,000 person/km²), metro (metro is available within the city), public transit supply (the number of public transportation vehicles divided by population, unit:10,000 persons/km²) and road area per capita (the area of paved roads divided by city population, unit: m²/person)

The study conducted by Abdullahpour et al. (2021) has identified three key dimensions that contribute to a happy city: the social dimension, economic dimension, and environmental dimension. In the social dimension, the study examines the relationship between social factors and happiness, drawing from previous research by Amorim et al. (2017), Argyle and Lu (1990), Balogun (2014), Coles et al. (2015), Diener and Seligman (2004), Gu et al. (2017), King et al. (2014), and Welsch and Kuhling (2016). Indicators highlighted within this dimension encompass a wide range of factors, including physical health, participation in recreational activities, age, gender, race, cultural differences, sense of belonging, membership in friendly relations, life expectancy, mental health, security, social isolation, family size, engagement in neighbors' ceremonies, local democracy, and local government. The second dimension focuses on the relationship between the economy and societal happiness, building upon the work of Ferrer-i-Carbonell and Gowdy (2007), Frey and Stutzer (2002), Morawetz et al. (1977), Welsch (2009), and Welsch and Kuhling (2009). Within

the economic dimension, the study highlights various factors such as income, unemployment, quality of work, job security, income and expenditure balance within families, local business opportunities, employment status, dignity of work, flexibility of working conditions, annual doctor visits, number of cars within families, home ownership, and the range of housing types and costs. The third dimension of a happy city pertains to the assessment of environmental concepts related to happiness, drawing insights from the research of Ballas and Dorling (2007), Ferreira and Moro (2010), Kent et al. (2017), Lenzen and Cummins (2013), Majeed and Mumtaz (2017), Rehdanz and Maddison (2005), Tiwari (2011), and Welsch (2006). The environmental dimension encompasses factors such as access to green spaces, blue spaces, appealing land cover, air and water quality, landscape aesthetics, proximity to natural environments, construction quality, temperature, precipitation, sunshine hours, access to public transportation, availability of local services, utility and facilities, safety, lighting, as well as condominium and parking space options.

Table 1.0, accompanied by the subsequent discussion, provides a concise yet comprehensive consolidation and evaluation of prior research. This analysis delves into the concept of a "happy city" within the context of urban living.

Table 1.0:
Key Indicators of Happy City Form Previous Study

Authors	Previous Study	Case study	Indicators	Findings
Huete-Alcocer, et al., (2022)	European Citizens` Happiness: Key factors and the mediating Effect of Quality of Life, a PLS Approach	Europe country	<ul style="list-style-type: none"> • Urban planning • Environment • Safety 	It shows how quality of life, safety, the environment, and city planning have a positive and significant influence on European citizens happiness especially safety
Zhu, et. al., (2022)	How can smart cities shape a happier life? The mechanism for developing a Happiness Driven Smart City	United Kingdom	<ul style="list-style-type: none"> • Infrastructure • Economy • Society • Environment • Government 	Smart City blueprint can be better achieved towards a happiness-driven direction via dynamic assessment and adjustment
Loo, (2021)	Walking towards a happy city	A systematic review	<ul style="list-style-type: none"> • Safety • Comfort • Convenience 	A paradigm shift in transport is under way.

Okulicz-Kozaryn, (2016)	Unhappy metropolis (when American city is too big)	American	<ul style="list-style-type: none"> • Size of the city 	This empirical section explores how happiness declines when place becomes bigger, and it attempts to find when a city is too large.
Okulicz-Kozaryn, (2021)	Urban unhappiness is common	A systematic review	<ul style="list-style-type: none"> • Happiness • Life satisfaction 	This study shows, for the first time, that city's unhappiness is common across the world.
Szolysek, and Twarog, (2021)	Meeting Places in the Urban Strategy to Build a Happy City: A Mixed Research Approach	A systematic review	<ul style="list-style-type: none"> • Being • Work • Education • Recreation • Health & Safety • Mobility • Neighborhood • Acceptance • Agora 	Creating public spaces seems to be the easiest way to increase the quality of life in cities and it should be a component of city strategies
Ying, et. al., (2019)	Happiness in urbanizing China: The role of commuting and multi-scale-built environment across urban regions	China	<ul style="list-style-type: none"> • Individual socio-economics • Life behavior • Commuting behavior • Neighborhood built environment • City level-built environment 	Residents` happiness is only significantly correlated with the neighborhood-built environment in cities with urbanization rates lower 50%
Abdollahpour, et. al., (2021)	Evaluation of Happy City Indicators in Affordable Housing Projects, Case Study: Mehr	Tehran, Iran	<ul style="list-style-type: none"> • Social (Physical health, Recreational activities, Age, Gender, Race, Cultural 	The most important indicator on the level of happiness for residents in the Mehr housing projects in Parand city are the physical

Housing
Projects, Aftab
Town, The City
of Parand,
Tehran, Iran.

differences, and spatial
Sense of interactions.
belonging,
Membership
of friendly
relations, Life
expectancy,
Mental health,
Participation,
Security,
Social
isolation,
Family size,
Neighbors'
ceremonies,
Local
democracy,
Local
government.

- Economic
(Income,
Unemployment, Quality of
work, Job
security,
Income and
Expenditure
balance in
family, Local
business,
Employment
status, Dignity
of work,
Flexible
working
condition,
Doctor visit
per year,
Number of
cars in family,
home
ownership,
Variety of type
and cost of
house.)
- Environmental

(Access to
green space,
blue space,
Attractive land
cover,
Pollution and
quality of air
and water,
Attractive
landscape,
Reachable
natural
environments,
Quality of
construction,
Temperature,
Precipitation,
Hours of
sunshine,
Proximity to
public
transportation
, Local service,
Utility and
facility, Safety,
Lighting,
Condominium,
and parking
space.)

Summary

The dynamics of urban happiness and its multifaceted determinants have been extensively explored by several researchers. Huete-Alcocer et al. (2022) assert that the well-being of European citizens is significantly influenced by environment, safety, urban planning, and quality of life. Urban planning, as part of this framework, prioritizes green spaces such as urban parks to enhance residents' quality of life and well-being, while safety considerations encompass comfort, security, social relationships, and perceived vital opportunities. For the environmental dimension, indicators like air pollution, natural environment, green spaces, and natural areas play a pivotal role in enhancing citizens' happiness. Furthermore, quality of life is gauged through subjective well-being, covering elements such as life satisfaction, mobility, integration, and public services.

Building on this, Zhu et al. (2022) elaborate on the features that constitute a smart city blueprint, emphasizing infrastructure, economy, society, environment, and governance. Notably, the pursuit of happiness in such cities can be viewed from two complementary angles: the "livability" of the environment and the individual's "life-ability." The former

encompasses aspects like air quality, public green spaces, equity, safety, economic status, and cultural opportunities. Meanwhile, the latter focuses on health, education, and the art of living. This perspective underscores the importance of holistic well-being in urban settings. Moreover, the key factors contributing to the realization of Happiness Driven Smart City characteristics include efficient and eco-friendly physical infrastructure, an innovative and labor-friendly economy, an inclusive and attractive society, and sustainable environmental practices.

Shifting the focus to urban planning strategies, Loo (2021) emphasizes that fostering happiness and improved urban living can be achieved by promoting walking and enhancing walkability. Walkability components such as safety, comfort, and convenience are pivotal in creating happier urban environments. Safety considerations encompass pavement quality, crossing facilities, and lighting, while comfort aspects involve pavement width, design quality, and street amenities. The convenience dimension involves clear directional signage, accessibility, and continuity. These factors contribute to more pleasant and satisfying urban experiences. Interestingly, Okulicz-Kozary (2016) draws attention to the possible negative correlation between city size and happiness. The study suggests that an increase in city size could lead to higher levels of unhappiness among residents, particularly when the population surpasses a certain threshold. This finding prompts a reevaluation of urban planning strategies to accommodate the well-being of city inhabitants. This is especially relevant considering that urbanization trends continue to shape modern societies. Okulicz-Kozaryn and Valente (2021) further substantiate this point by reporting that urban unhappiness is a widespread phenomenon, with individuals in larger areas generally experiencing lower levels of happiness compared to those in smaller regions. The study underscores the nuanced relationship between urbanization, economic dynamics, and happiness levels. Despite economic assumptions suggesting that urban areas should inherently be happier due to greater utility, empirical evidence highlights the complexity of this relationship.

Moreover, Szoltysek and Twarog (2021) contribute to the discourse by outlining factors that influence urban quality of life and, consequently, happiness. Work, education, health, safety, mobility, neighborhood, acceptance, and public spaces are pivotal dimensions in shaping residents' well-being. These aspects encompass a wide range of factors, including environmental cleanliness, access to amenities, job opportunities, education quality, leisure opportunities, safety measures, social acceptance, and engagement with the local community. By addressing these diverse dimensions, urban planners and policymakers can foster happier and more inclusive cities. In a similar vein, Ying et al. (2019) explores the variables that influence happiness during the process of urbanization. Individual socio-economic attributes, behavior patterns, commuting behavior, neighborhood environment, and city-level built environment all play roles in shaping happiness outcomes. This comprehensive analysis underscores the interconnected nature of individual characteristics and broader urban context in determining well-being. Lastly, Abdullahpour et al. (2021) highlight the significance of social, environmental, and economic indicators in the context of affordable housing projects. The study reveals that factors such as utility quality, safety, access to green spaces, social cohesion, and economic opportunities significantly contribute to residents' happiness in these settings.

The intricate interconnection of these variables underscores the intricate nature of urban well-being and underscores the necessity for comprehensive approaches to urban development that center around the contentment and joy of city inhabitants. From a broader perspective, studies focusing on happiness can be categorized into three overarching themes:

social factors, economic factors, and environmental factors. This triadic framework emphasizes the intricate interplay among personal characteristics, societal circumstances, and the urban setting in fostering well-being. By acknowledging these multifaceted dynamics, urban planners and policymakers can collaborate to establish inclusive, dynamic, and sustainable cities that prioritize the happiness and satisfaction of their residents. Ultimately, the pursuit of urban happiness is not merely an objective but an essential entitlement, and through persistent research, cooperation, and action, cities can be transformed into thriving sanctuaries of well-being and contentment. Table 2.0 provides a summary of themes, conceptual definitions, and indicators significantly associated with previous research on the notion of a happy city.

Table 2.0:
Theme, Conceptual Definition and Indicator Significantly Related From Previous Research Study On Happy City

Theme	Conceptual Definition	Authors	Indicators
Economy	The economy refers to the system of production, distribution and consumption of goods and services within a region, country, or the world. It encompasses all the activities and interactions between individuals, businesses, and governments that involve the creation and utilization of resources to satisfy human wants and needs.	Huete-Alcocer, et. al, (2022) Ying, et. al, (2019) Zhu, et. al, (2022) Abdollahpour, et. al., (2021)	<ul style="list-style-type: none"> ● Individual socio-economics ● Infrastructure ● Economy
Social	The term social pertains to aspects related to human society, relationships, interactions, and the collective well-being of individuals within a community or group. It encompasses various dimensions of human life that involve social interactions, norms, institutions, and structures. In a broad sense, social refers to the shared or cooperative nature of human behavior and the	Huete-Alcocer, et. al, (2022) Zhu, et. al, (2022) Loo, et. al, (2021) Ying, et. al, (2019) Okulicz-kuzaryn, et. al, (2016) Szoltysek, et. al, (2021) Abdollahpour, et. al., (2021)	<ul style="list-style-type: none"> ● Safety ● Society ● Government ● Comfort ● Convenience ● Size of city ● Happiness, ● Life satisfaction ● Being ● Work ● Education ● Health and safety ● Commuting behavior ● Life behavior

interconnectedness among individuals in a society. It involves the ways people relate to one another, form social groups, establish social norms and values, and engage in social activities.

- Recreation
- Mobility
- Neighborhood
- Acceptance
- Agora
- Recreation

Environmental

Environmental refers to everything related to the natural world including the physical, biological, and ecological aspects of the Earth and its ecosystems. It encompasses the interactions between living organisms and their surroundings as well as the impact of human activities on the natural environment. The environment includes the air, water, land, forests, wildlife, plants, and all other elements of the natural world. It also incorporates the various ecological processes and systems that sustain life on earth such as the carbon cycle, water cycle and nutrient cycles.

Huete-Alcocer, et. al, (2022)
 Zhu, et. al, (2022)
 Ying, et. al, (2019)
 Abdollahpour, et. al., (2021)

- Environment
- Neighborhood build environment
- City level-built environment
- Urban planning

Economy

Embedded within the core of human society is a foundational concept the economy, a dynamic tapestry intricately woven with threads of production, distribution, and consumption, stretching across local, national, and global realms. This intricate web of activities forms the very foundation upon which human needs and aspirations find their fulfillment. Within this intricate landscape, the economy exercises its influence and, in turn, is shaped by a diverse array of factors, spanning from individual choices to governmental policies. A significant juncture where the economy intersects with the dynamic arena of urban life is urban planning. This dimension encapsulates a diverse spectrum of elements aimed at molding the urban environment, fostering economic activities, and elevating the well-being of city dwellers. This symbiotic relationship between the economy and urban planning

extends to pivotal components such as accessible public transportation, available healthcare services, provisions for sports and recreational facilities, presence of cultural amenities, establishment of public spaces, creation of retail outlets, and ensuring accessibility to educational institutions. These elements form the very framework of the urban landscape, fundamentally contributing to the overall quality of life and prosperity of urban residents.

In the pursuit of crafting a city of happiness, the economic dimension assumes a paramount role. Research conducted by Huete-Alcocer and colleagues (2022) underscores the profound significance of urban planning in shaping the economic landscape of cities. Public transportation systems—comprising buses, trams, and metros—play a pivotal role in enhancing accessibility, mitigating traffic congestion, and encouraging sustainable commuting practices. Inclusion of healthcare services, sports facilities, cultural venues, public spaces, retail centers, and educational establishments further enriches the economic dimension, enhancing the lives of residents and elevating the city's allure.

Socio-economic factors, another integral facet of the economic dimension, wield considerable influence over the overall well-being of urban inhabitants. As illuminated by Ying et al. (2019), individual socio-economic elements, like household income and car ownership, profoundly shape the quality of life within a city. Adequate income levels ensure access to essential services, cultural engagements, and leisure activities, while car ownership directly impacts mobility and convenience. The concept of the "smart city" harmoniously aligns with the intersection of economy and urban planning. As elucidated by Zhu and colleagues (2022), the core tenets of a smart city encompass both infrastructure and economy. A robust and accessible ICT infrastructure fosters digital connectivity, facilitating seamless communication and service access. Moreover, a well-functioning physical infrastructure ensures the smooth flow of urban activities, thereby contributing to overall productivity. Within this framework, economies driven by innovation, marked by inventive solutions and progress, further solidify a city's standing in the realm of smart urbanization.

Additionally, according to the research conducted by Abdullahpour et al. (2021), the economic dimension encompasses various factors such as income, unemployment, work quality, job security, income and expenditure balance within families, local business opportunities, employment status, dignity of work, flexibility of working conditions, annual doctor visits, number of cars within families, home ownership, and the spectrum of housing types and costs, drawing from the works of Ferrer-i-Carbonell and Gowdy (2007), Frey and Stutzer (2002), Morawetz et al. (1977), Welsch (2009), and Welsch and Kuhling (2009).

At its essence, the economy engages in a symbiotic dance with urban planning, converging to shape cities that operate with efficiency while also prioritizing the well-being and happiness of their inhabitants. This intricate interplay extends to transportation systems, healthcare accessibility, recreational opportunities, cultural enrichment, educational prospects, and socio-economic status. The harmonious alignment of these factors emerges as the bedrock of a joyful city, where the vitality of the economy seamlessly converges with the contentment of individuals, forging a flourishing urban milieu.

Social

The term social pertains to aspects related to human society, relationships, interactions, and the collective well-being of individuals within a community or group. It encompasses various dimensions of human life that involve social interactions, norms, institutions, and structures. In a broad sense, social refers to the shared or cooperative nature of human behavior and the interconnectedness among individuals in a society. It involves the ways people relate to one

another, form social groups, establish social norms and values, and engage in social activities. Huete-Alcocer, et. al 2022 stated that safety is one of the key points under social dimension and it focuses on satisfaction of life, presence of foreigners, neighborhood environment and peers and family relationships. Ying, et. al, 2019 stated that commuting behavior and life behavior is the main topic under social dimension which focus on commuting time and commuting mode, sleep time, smoke, drink, and t-exercise. Zhu, et. al, 2022 stated that society and government are the key features under social dimension which focus on equal and inclusive society and participatory and transparent governance. Loo, et. al, 2021 review that safety, comfort, and convenience are the key points under social dimension which focus on pavement, crossing facilities, vehicular road, design, perception and destination or activities for safety and convenience key features. While comfort focuses on pavement, design, and perception.

Next, Okulicz-kuzaryn, et. al (2016) stated that life satisfaction is included for measuring subjective well-being of people in Europe. It also shows that people are less happy in cities than in smaller areas. Szoltysek, et. al, 2021 stated that being, work, education, health and safety, recreation, mobility, neighborhood, acceptance, and agora is the factors under social dimension which for being it is study about cleanliness of the natural environment, access to stores, aesthetics of buildings, streets and parks, costs of residence or maintenance, organization of household waste management, nature in the surroundings, noise burden, residence conditions (home ownership, standard). While the work factor is focused on availability of work (employment opportunity), the existence of career counseling and job seeking assistance, the possibility of starting your own business, career development prospects, support given to entrepreneurs by the city. Next, education factors focus on possibility, quality, and conditions of education of children (nurseries, kindergartens), possibility, quality, and conditions of education of children and adolescents (primary, middle, and high schools), opportunity, quality, and conditions of adult education (universities, post-graduate studies). The study conducted by Abdollahpour et al. (2021) has identified the social dimension, drawing from previous research by Amorim et al. (2017), Argyle and Lu (1990), Balogun (2014), Coles et al. (2015), Diener and Seligman (2004), Gu et al. (2017), King et al. (2014), and Welsch and Kuhling (2016). Indicators highlighted within this dimension encompass a wide range of factors, including physical health, participation in recreational activities, age, gender, race, cultural differences, sense of belonging, membership in friendly relations, life expectancy, mental health, security, social isolation, family size, engagement in neighbors' ceremonies, local democracy, and local government.

Apart from that recreation factor focus on access to catering establishments (pub, restaurant), access to cultural establishments (cinema, theater), access to sports establishments (gym), the possibility of active sports, opportunities and conditions for attractive leisure time activities, organization of meeting space with friends, organization of cultural and artistic events. Health and safety factor focus on access to health care units, the quality of medical services provided, waiting time, medical expenses (private medical practices), social pathologies (alcoholism, drug abuse, violence), health care service level (region specialization), road safety, pedestrian crossing, safety of the surroundings (street, bus stop, district), security at night (22: 00-6.00) and emergency services. In the meantime, mobility focus on public transport fares, access to public transport, access to parking lots, ability to travel by other means of transport, traffic capacity (traffic jams), conditions for waiting at stops (roofing, seating, wind shelter) and travel conditions (standing, sitting, crowding, cleanliness, temperature). Neighborhood factors study about who your neighbor is

(nationality), whether your neighbors are poor, the fact that your neighbors are of a different religion and the fact that your neighbors are of a different sexual orientation. Whereas, accepting or tolerating national and ethnic minorities, Accepting, or tolerating sexual minorities, support for people in need of help (homelessness), support for people in need of help (elderly people) and support for people in need of help (people with disabilities) is the factor under acceptance. Lastly, Agora is focus on free Internet access in the city space, organization of social campaigns, organization of free events, organization of the Day without a Car, existence of a part of the city where people have the possibility of meeting with others (the main market), increasing the amount of public space and easy access to the public area by walking or cycling.

Environmental

The term "environmental" evokes the intricate web of interconnections that bind humanity to the natural world. It encompasses the multifaceted fabric of Earth's physical, biological, and ecological realms, constituting a delicate equilibrium upon which life as we know it depends. This discourse explores the significance of the environmental dimension within the context of urban well-being, unraveling the complex interactions between urbanization, human activities, and the ecosystems that sustain us. At its core, the environmental dimension delves into the symbiotic relationship between urban spaces and the natural world. Huete-Alcocer et al. (2022) underscore the integral role of the environment in shaping the happiness of urban dwellers. Their research delves into parameters such as the condition of streets and buildings, the presence of green spaces like parks and gardens, air quality, noise levels, and overall cleanliness. These factors collectively influence the quality of life experienced by city residents, forming a foundation upon which urban well-being is built.

Another pivotal study conducted by Abdullahpour et al. (2021) underscores the depth of the environmental dimension. It casts a wide net, capturing elements that range from access to green spaces and blue expanses to the allure of the land cover, the purity of air and water, the aesthetics of the landscape, and the proximity to natural environs. Even more granular, the study considers factors such as construction quality, temperature, precipitation, sunshine hours, and the accessibility of public transportation, local services, utilities, safety measures, lighting provisions, and even housing options. The scope of this dimension, as depicted by Ballas and Dorling (2007), Ferreira and Moro (2010), Kent et al. (2017), Lenzen and Cummins (2013), Majeed and Mumtaz (2017), Rehdanz and Maddison (2005), Tiwari (2011), and Welsch (2006), emphasizes the intricate web of environmental elements that collectively contribute to urban well-being.

Ying et al. (2019) further enriches this discourse by dissecting the environmental dimension into two pivotal sub-components: city-level built environment and neighborhood-built environment. The former encompasses elements like city population density, public transit availability, and road area per capita, reflecting the intricate interplay between urban infrastructure and ecosystem health. The latter, neighborhood-built environment, delves into factors like neighborhood population density, proximity to public transit, access to sports facilities, public squares, libraries, and financial institutions. This granular approach acknowledges the profound influence of localized environments on the well-being of residents. In a rapidly urbanizing world, the concept of a sustainable and resilient environment emerges as a beacon of hope. Zhu et al. (2022) shed light on the paramount importance of fostering an environment that balances human needs with the preservation of ecosystems. As urban centers expand and their populations burgeon, the need to ensure that

human activities do not irreparably harm the environment becomes ever more pressing. This sustainable perspective necessitates practices that mitigate resource depletion, curb pollution, and safeguard biodiversity, ultimately fostering urban environments that can endure the test of time.

Critically evaluating this dimension brings forth a host of intricate challenges and ethical considerations. Urbanization often exerts substantial pressures on ecosystems, resulting in deforestation, habitat degradation, and air and water pollution. Rapid construction and infrastructure development can lead to the loss of green spaces, negatively impacting the well-being of residents and the health of the environment. The consequences of such practices reverberate across social and ecological systems, potentially exacerbating inequalities and undermining the long-term viability of urban spaces. Moreover, the implications of environmental degradation extend beyond immediate physical well-being. Air pollution, for instance, not only affects respiratory health but can also contribute to mental health issues. Noise pollution, a common urban woe, has been linked to stress, sleep disturbances, and reduced cognitive function. Thus, a holistic approach to urban well-being must acknowledge the intricate relationships between human health, ecosystem vitality, and the built environment.

In the pursuit of sustainable urban well-being, a paradigm shift is imperative—one that redefines progress beyond mere economic growth and embraces the protection and enhancement of ecological systems. Green urban planning strategies, such as increasing green spaces, promoting renewable energy adoption, and improving public transportation, can strike a balance between human needs and environmental preservation. However, implementing such strategies demands collective effort, involving urban planners, policymakers, businesses, and residents working in tandem to shape the cities of the future. In assumption, the environmental dimension weaves a complex tapestry that binds human well-being with the health of ecosystems. The research conducted by Huete-Alcocer et al. (2022), Abdollahpour et al. (2021), Ying et al. (2019), and Zhu et al. (2022) illuminates the multifaceted interactions between urban spaces and the natural world. However, a critical examination reveals that achieving harmony between human aspirations and ecological sustainability is an intricate challenge. As cities continue to evolve, the pressing need to prioritize environmental health in urban planning and policy decisions cannot be overstated. Striking this balance holds the key to fostering vibrant, resilient, and truly prosperous urban environments where well-being thrives alongside nature.

Conclusion

In the intricate tapestry of urban living, the dimensions of economy, social factors, and the environment converge to shape the fabric of happiness and well-being for city inhabitants. Each dimension represents a distinct thread, yet together they weave a holistic narrative that defines the quality of urban life. As the core of human society, the economy extends its influence across local, national, and global scales, driving the wheels of production, distribution, and consumption. It forms the backbone upon which human aspirations find their fulfillment, and its interplay with urban planning is a crucial nexus where prosperity meets well-being.

Urban planning, a pivotal stage where the economy converges with urban life, orchestrates a symphony of economic activities that resonate through the well-being of city dwellers. The accessibility of public transportation, availability of healthcare services, provisions for sports and recreational facilities, and the presence of cultural amenities

compose the score of urban well-being. Socio-economic factors play a harmonizing role, influencing the quality of life within the city. Adequate income levels afford access to essential services and leisure activities, while car ownership determines mobility and convenience. The concept of the "smart city" harmonizes these elements, as innovative economies intertwine with infrastructural development to form a resilient urban ecosystem.

On the social front, human relationships and interactions paint the canvas of urban living. The social dimension encapsulates the intricate web of connections that define societies. Safety, satisfaction of life, relationships, and neighborhood environment interact to shape the vibrancy of communities. Studies by Huete-Alcocer (2022) emphasize the importance of social factors in enhancing urban happiness. Commuting behavior, sleep patterns, and daily habits influence both individual and collective well-being. The inclusivity of society and participatory governance, as highlighted by Zhu et al. (2022), contribute to a socially cohesive urban environment. The city emerges as a stage where people, diverse in backgrounds and experiences, interact and coexist, building communities that nurture well-being.

Yet, the natural world is the overarching backdrop against which urban life unfolds. The environment is a symphony of interconnected elements, where physical, biological, and ecological realms harmonize to sustain life. The environmental dimension unveils the intricate dance between urban spaces and the natural world. Clean streets, lush green spaces, and unpolluted air emerge as crucial notes that compose the melody of urban well-being. Abdullahpour et al. (2021) outline a comprehensive spectrum of indicators, ranging from green spaces to environmental aesthetics, which form the bedrock of a healthy urban ecosystem.

However, as cities flourish, their footprints on the environment deepen. Urbanization's rapid pace often exacts a toll on ecosystems, causing deforestation, pollution, and habitat degradation. Balancing urban development with environmental preservation becomes an ethical imperative. A holistic perspective acknowledges that environmental degradation not only impacts physical health but can also trigger mental health concerns. Noise pollution and air pollution, common in urban settings, serve as stark reminders of the need for sustainable urban planning that prioritizes ecosystem vitality alongside human well-being.

As the three dimensions intersect, the interplay between them becomes more evident. The economy thrives when the social fabric is strong and the environment is healthy. A city's well-being depends on the vibrancy of its economic activities, the inclusivity of its social networks, and the harmony it maintains with the natural world. Urban planners, policymakers, businesses, and residents are the choreographers of this intricate dance, tasked with harmonizing these dimensions to create cities that resonate with joy and contentment.

The journey towards a happy city requires a multidimensional approach. Urban development should transcend a mere pursuit of economic growth and extend to fostering inclusive communities and preserving the environment. The vision of a sustainable, resilient urban environment necessitates collaboration between stakeholders. Green urban planning strategies, renewable energy initiatives, and sustainable mobility solutions emerge as the instruments through which urban centers can achieve harmony between human needs and environmental health.

In conclusion, urban living is a symphony that integrates the economy, social factors, and the environment to create a harmonious melody of well-being. The economy fuels the rhythm of daily life, while social interactions create a sense of belonging and community. The

environment forms the backdrop against which this symphony plays out, intertwining the health of the natural world with the well-being of urban inhabitants. As cities continue to evolve, striking a balance between these dimensions becomes paramount, ensuring that urban centers are not just economically prosperous but also socially inclusive and environmentally sustainable. Through deliberate urban planning, collective action, and a commitment to fostering a happy and resilient urban milieu, cities can transcend their roles as mere conglomerates of structures and instead become thriving havens where well-being flourishes in synergy with nature.

Acknowledgements

This work was supported by the Ministry of Higher Education (MOHE) Malaysia through the Fundamental Research Grant Scheme (FRGS) (Project Code: FRGS/1/2022/SSI02/UPM/02/1).

References

- Abdollahpour, S. S., Sharifi, E., & Ghazi, R. (2021). Evaluation of Happy City Indicators in Affordable Housing Projects, Case Study: Mehr Housing Projects, Aftab Town, The City of Parand, Tehran, Iran. *International Review for Spatial Planning and Sustainable Development*, 9(3), 103–127. https://doi.org/10.14246/irspsd.9.3_103
- Amorim, S. M., França, L. H. de F. P., & Valentini, F. (2017). Predictors of Happiness among Retired from Urban and Rural Areas in Brazil. *Psicologia: Reflexão e Crítica*, 30(1), 2. doi: <https://doi.org/10.1186/s41155-016-0055-3>
- Argyle, M., & Lu, L. (1990). Happiness and Social Skills. *Personality and Individual Differences*, 11(12), 1255-1261. doi: [https://doi.org/10.1016/0191-8869\(90\)90152-H](https://doi.org/10.1016/0191-8869(90)90152-H)
- Ballas, D., & Dorling, D. (2007). Measuring the Impact of Major Life Events upon Happiness. *International Journal of Epidemiology*, 36(6), 1244-1252. doi: <https://doi.org/10.1093/ije/dym182>.
- Balogun, A. (2014). Dispositional Factors, Perceived Social Support and Happiness among Prison Inmates in Nigeria: A New Look. *The Journal of Happiness & Well-Being*, 2(1), 16-33.
- Coles, N. A., Sims, V. K., & Chin, M. G. (2015). Lay Beliefs and Projections of Trait Happiness. *The Journal of Happiness & Well-Being*, 3(2), 116-125.
- Diener, E., & Seligman, M. E. P. (2004). Beyond Money: Toward an Economy of Well-Being. *Psychological Science in the Public Interest*, 5(1), 1-31. doi: <https://doi.org/10.1111/j.0963-7214.2004.00501001.x>.
- Ferrer-i-Carbonell, A., & Gowdy, J. M. (2007). Environmental Degradation and Happiness. *Ecological Economics*, 60(3), 509-516. doi: <https://doi.org/10.1016/j.ecolecon.2005.12.005>
- Ferreira, S., & Moro, M. (2010). On the Use of Subjective Well-Being Data for Environmental Valuation. *Environmental and Resource Economics*, 46(3), 249-273. doi: <https://doi.org/10.1007/s10640-009-9339-8>.
- Frey, B. S., & Stutzer, A. (2002). The Economics of Happiness. *World Economics*, 3(1), 1-17.
- Gu, L., Rosenberg, M. W., & Zeng, J. (2017). Competing Forces of Socioeconomic Development and Environmental Degradation on Health and Happiness for Different Income Groups in China. *International Journal of Health Services*, 47(4), 752-777. doi: <https://doi.org/10.1177/0020731417725470>.

- Huete-Alcocer, N., Ruiz, V. R. L., Navarro, J. L. A., & Peña, D. N. (2022). European Citizens' happiness: Key factors and the mediating effect of quality of life, a PLS approach. *Mathematics*, 10(3), 367. <https://doi.org/10.3390/math10030367>
- Kent, J. L., Ma, L., & Mulley, C. (2017). The Objective and Perceived Built Environment: What Matters for Happiness?. *Cities & Health*, 1(1), 59-71. doi: <https://doi.org/10.1080/23748834.2017.1371456>.
- King, K. A., Vidourek, R. A., Merianous, A., & Singh, M. (2014). A Study of Stress, Social Support, and Perceived Happiness among College Students. *The Journal of Happiness & Well-Being*, 2(2), 132-144.
- Lenzen, M., & Cummins, R. A. (2013). Happiness versus the Environment—A Case Study of Australian Lifestyles. *Challenges*, 4(1), 56-74.
- Loo, B. P. (2021). Walking towards a happy city. *Journal of Transport Geography*, 93, 103078. <https://doi.org/10.1016/j.jtrangeo.2021.103078>
- Majeed, M. T., & Mumtaz, S. (2017). Happiness and Environmental Degradation: A Global Analysis. *Pakistan Journal of Commerce and Social Sciences*, 11(3), 753-772.
- Morawetz, D., Atia, E., Bin-Nun, G., Felous, L., Gariplerden, Y., Harris, E., Soustiel, S., Tombros, G., & Zarfaty, Y. (1977). Income Distribution and Self-Rated Happiness: Some Empirical Evidence. *The Economic Journal*, 87(347), 511-522. doi: <https://doi.org/10.2307/2231556>.
- Okulicz-Kozaryn, A. (2017). Unhappy metropolis (when American city is too big). *Cities*, 61, 144–155. <https://doi.org/10.1016/j.cities.2016.04.011>
- Okulicz-Kozaryn, A., & Valente, R. R. (2021). Urban unhappiness is common. *Cities*, 118, 103368. <https://doi.org/10.1016/j.cities.2021.103368>
- Rehdanz, K., & Maddison, D. (2005). Climate and Happiness. *Ecological Economics*, 52(1), 111-125. doi: <https://doi.org/10.1016/j.ecolecon.2004.06.015>.
- Szołtysek, J. (2018). Meeting places in the urban strategy to build a happy city: a mixed research approach. *ResearchGate*. https://www.researchgate.net/publication/325678051_Meeting_places_in_the_urban_strategy_to_build_a_happy_city_a_mixed_research_approach
- Tiwari, A. K. (2011). Happiness and Environmental Degradation: What Determines Happiness?. *Economics Bulletin*, 31(4), 3192-3210.
- Welsch, H. (2006). Environment and Happiness: Valuation of Air Pollution Using Life Satisfaction Data. *Ecological Economics*, 58(4), 801-813. doi: <https://doi.org/10.1016/j.ecolecon.2005.09.006>.
- Welsch, H., & Kuhling, J. (2009). Using Happiness Data for Environmental Valuation: Issues and Applications. *Journal of Economic Surveys*, 23(2), 385-406.
- Welsch, H., & Kuhling, J. (2016). Affective States and the Notion of Happiness. *The Journal of Happiness & Well-Being*, 4(1), 101-114.
- Yin, C., Shao, C., Dong, C., & Wang, X. (2019). Happiness in urbanizing China: The role of commuting and multi-scale-built environment across urban regions. *Transportation Research Part D-transport and Environment*, 74, 306–317. <https://doi.org/10.1016/j.trd.2019.08.010>
- Zhu, H., Shen, L., & Ren, Y. (2022). How can smart city shape a happier life? The mechanism for developing a Happiness Driven Smart City. *Sustainable Cities and Society*, 80, 103791. <https://doi.org/10.1016/j.scs.2022.103791>